FACTORY CONTROLS
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www.factorycontrols.com.au
65 Douro Street, North Geelong Victoria 3215

Rittal – The System.

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System Catalogue 35



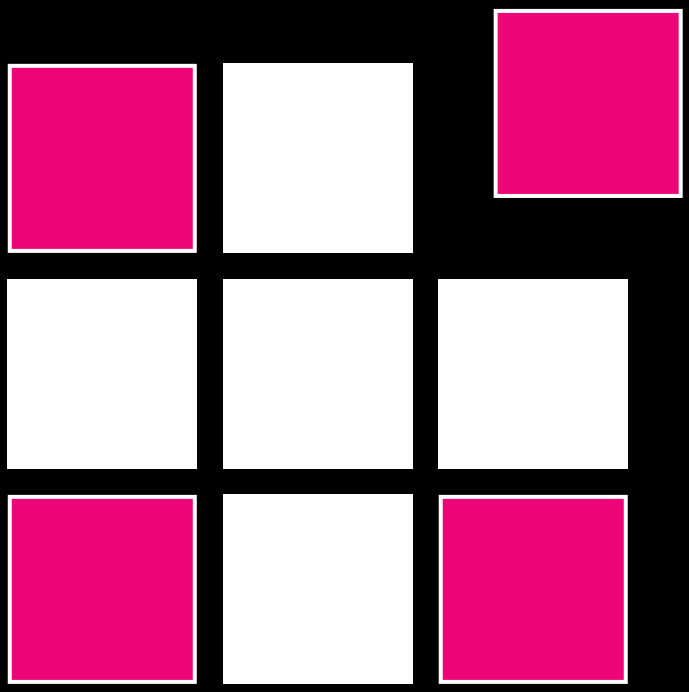
ENCLOSURES | POWER DISTRIBUTION | CLIMATE CONTROL | IT INFRASTRUCTURE | SOFTWARE & SERVICES

RITTAL

FRIEDHELM LOH GROUP

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Our Expertise.
Your Benefit.

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Dear Sir or Madam,

Our motto is, “Our expertise – Your benefit”. What exactly do we mean by this? Creative, innovative ideas will only be successful if they offer solutions to our customers’ requirements and provide long-term benefits.

As a world leader in innovations, Rittal is quite clearly focused on customer benefits. We continuously ask ourselves, how can we make our products, our services and our entire value chain even better? Every product and every process step is closely scrutinised, so that we can tap into hidden efficiency potential on your behalf.



Dr. Karl-Ulrich Köhler

Here are just a few examples:

- Maximum energy efficiency for long-term cost savings in ongoing operations
- Cleverly designed system solutions where everything fits together, and planning and assembly are simplified in a revolutionary way
- 24-/48-hour delivery service for maximum flexibility around the globe
- A seamless value chain, from planning through to production, aligned with the principles of Industry 4.0

Most importantly, we work tirelessly, channelling our exceptional innovative strength into developing new ideas and technologies which will benefit you, and secure a successful future for us both.

Yours

Dr. Karl-Ulrich Köhler
CEO of Rittal

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RITTAL FOR INDUSTRY.

Rittal sets the global standard when it comes to innovative, holistic system solutions in controlgear and plant manufacturing.
Rittal is a frontrunner in Industry 4.0, the Internet of Things and Digital Factory, and is instrumental in shaping the future of this field.

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RITTAL FOR IT.

Rittal provides a system platform for the modern IT infrastructure in which all system components are perfectly coordinated with one another. From racks, to efficient climate control concepts, through to system-tested protection from potential physical threats.

IT INFRASTRUCTURE | SOFTWARE & SERVICES

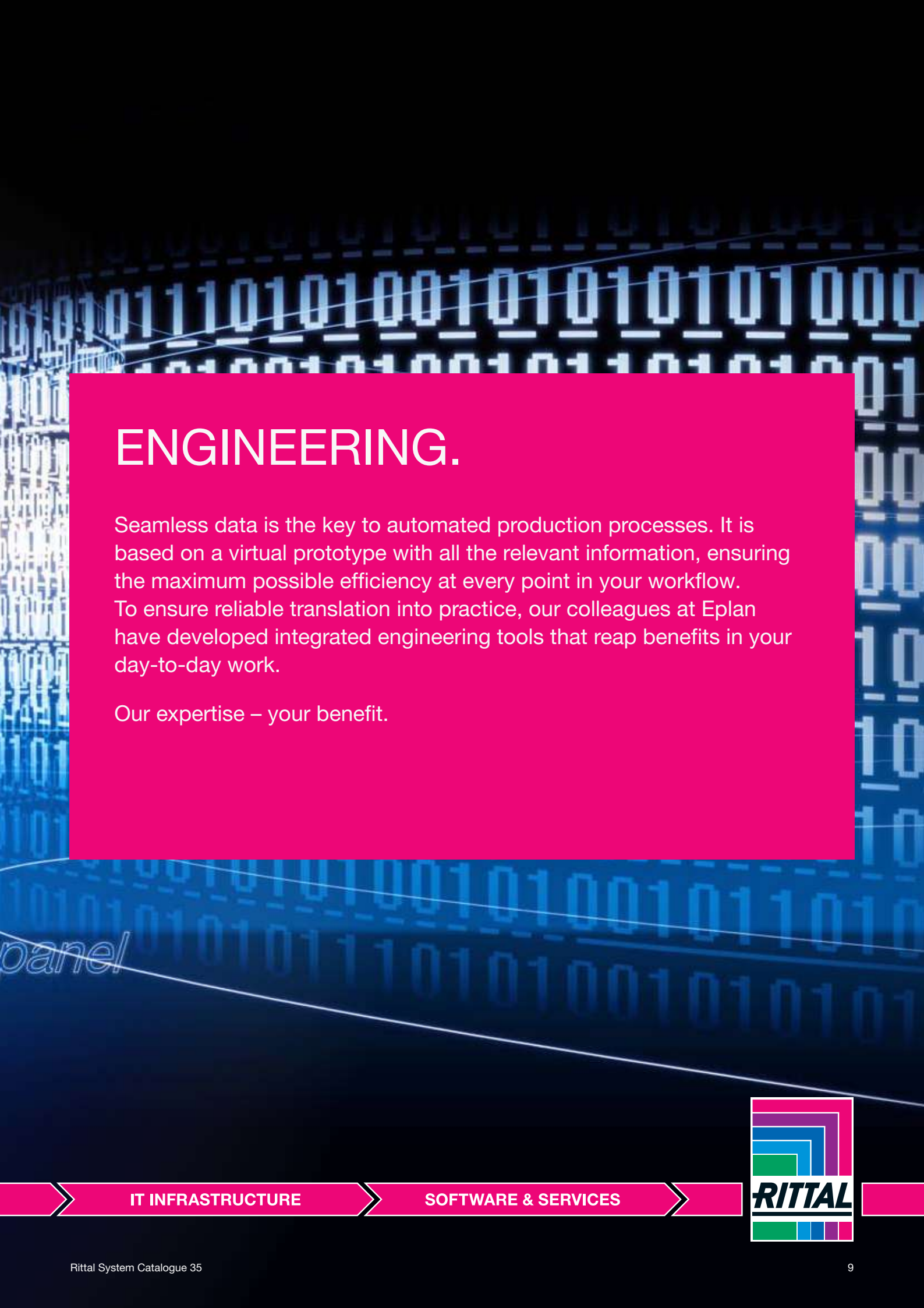
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ENGINEERING.

Seamless data is the key to automated production processes. It is based on a virtual prototype with all the relevant information, ensuring the maximum possible efficiency at every point in your workflow.
To ensure reliable translation into practice, our colleagues at Eplan have developed integrated engineering tools that reap benefits in your day-to-day work.

Our expertise – your benefit.

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THE SYSTEM.

The whole is more than the sum of its parts. It may sound simple, but this is actually an innovative process which constantly drives us to develop unique system solutions. These system solutions offer clear user benefits, boost efficiency, and help our customers to raise their game.

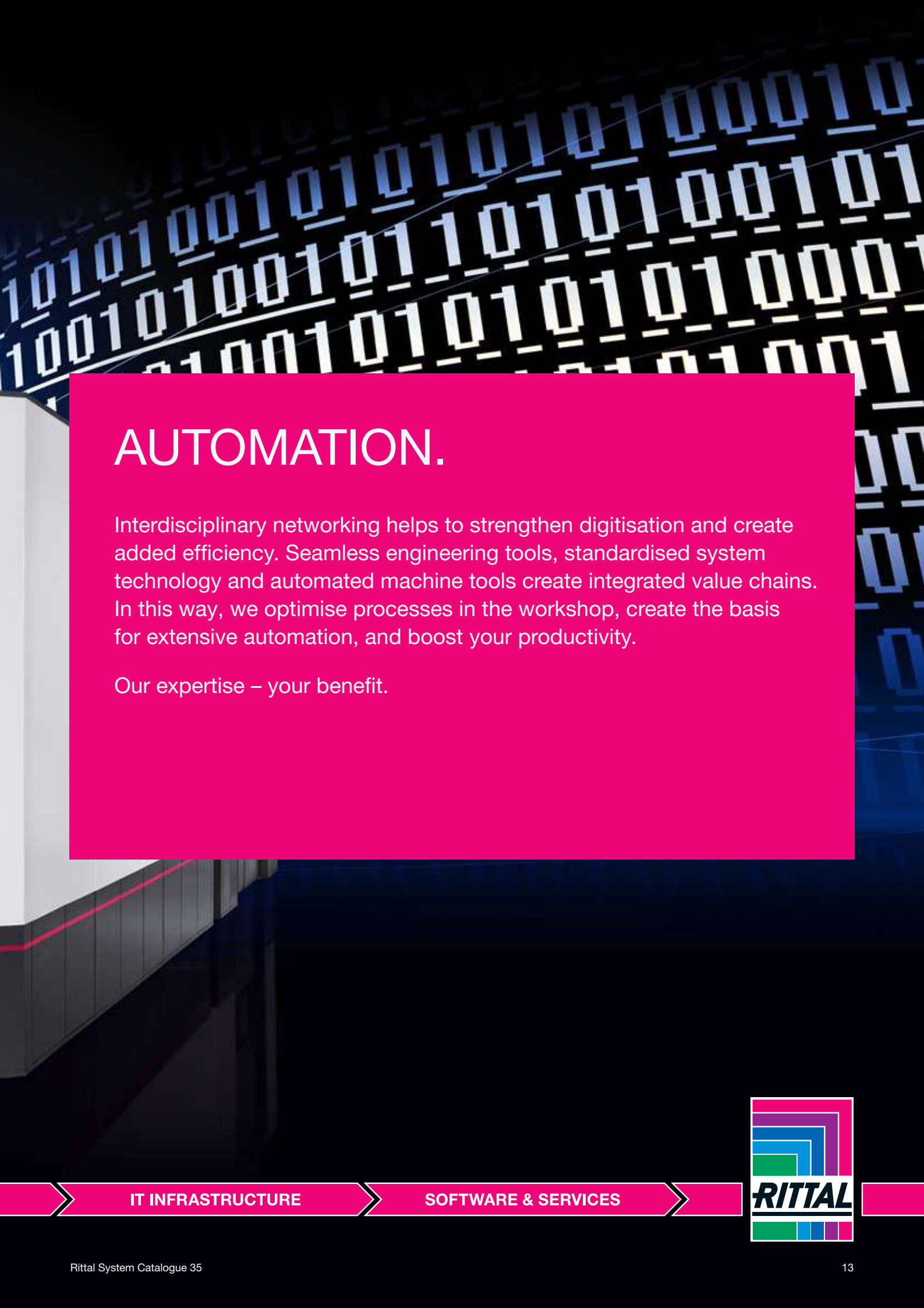
Our expertise – your benefit.

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AUTOMATION.

Interdisciplinary networking helps to strengthen digitisation and create added efficiency. Seamless engineering tools, standardised system technology and automated machine tools create integrated value chains. In this way, we optimise processes in the workshop, create the basis for extensive automation, and boost your productivity.

Our expertise – your benefit.

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AN IT INFRASTRUCTURE WITH A FUTURE.

Future-centric solutions for your IT infrastructure are efficient, secure and scalable. Rittal supplies customised complete solutions, from micro data centres for small companies, through to fully scalable container solutions with the RiMatrix Balanced Cloud Center. Working in close collaboration with Lefdal Mine Datacenter and IBM, Rittal creates unrivalled cost efficiency, security, flexibility and sustainability.

Our expertise – your benefit.

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ENGINEERING

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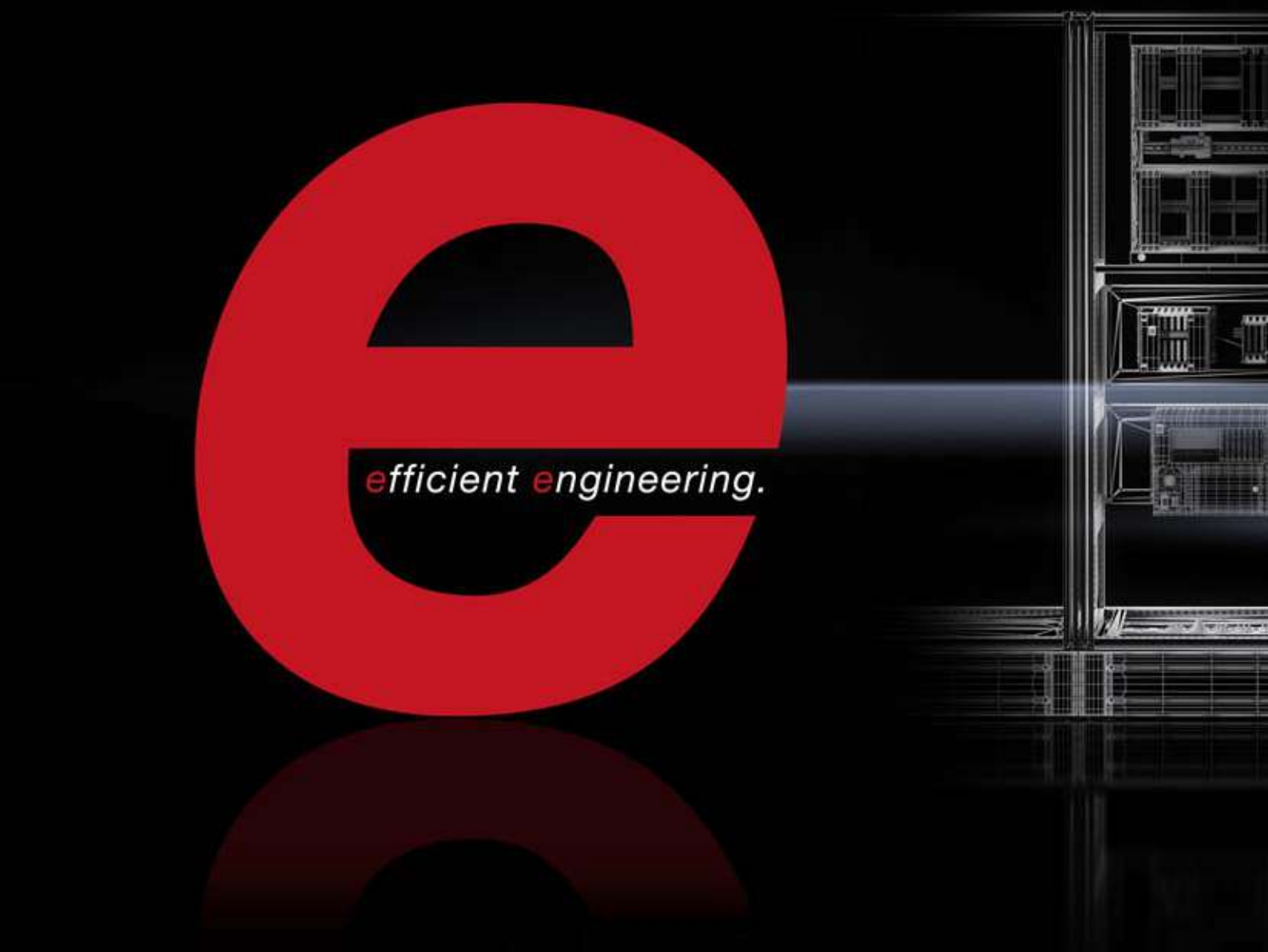
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EPLAN SOFTWARE & SERVICE

As a world leader in its field, EPLAN Software & Service develops CAx, configuration and mechatronic solutions, and advises companies on the optimisation of their engineering processes. Both standardised and individual interfaces to ERP and PLM/PDM systems ensure seamless data throughout the product creation, order processing and manufacturing process. A consistent customer focus coupled with innovative development and interface expertise are key success factors in engineering.

- Over 45,000 customers worldwide
- More than 120,000 installations
- Global support in more than 50 countries

Eplan and its sister company Cideon are committed to supporting customers and helping them to resolve all mechatronic engineering-related tasks. The two companies have pooled their engineering expertise in the disciplines of mechanics, electrical/control engineering and IT/software at the “House of Mechatronics”, enabling them to develop end-to-end solutions for mechatronic collaboration.

Eplan was founded in 1984 and is part of the family-owned Friedhelm Loh Group.

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EPLAN Experience achieves highly efficient solutions and optimisations on behalf of Eplan's customers. Based on feedback from 45,000 customers with 12,000 installations worldwide, the concept is dedicated to making every single operation in engineering more efficient. Its modular design makes the concept suitable for any company, whatever its size, location or industry. The eight action fields that make up EPLAN Experience are designed to maximise efficiency potential. Companies decide for themselves where to begin, and how quickly they would like to implement each action field. The concept therefore offers maximum flexibility and can be tailored to individual customer needs.



EPLAN EXPERIENCE – YOUR GATEWAY TO GREATER EFFICIENCY



IT Infrastructure

IT Infrastructure is dedicated to the complete integration of EPLAN software into your company's IT environment. You get a powerful IT infrastructure with a problem-free, clear and reliable installation and update process.



Platform Setup

Platform Setup allows you to create an application-specific program configuration for an ideal work environment. It also helps you achieve the optimum definition and implementation of your platform settings.



Codes & Standards

Codes & Standards provides guidelines on the optimum generation and use of device data and master data. It empowers you to comply with all the key global standards governing documentation and production, including IEC 81346 and ISO 1219, IEC 61355, NFPA/JIC, and many others.



Product Structure

Product Structure offers a clearly defined technique for structuring your machines and systems, based on a clear product and technology structure and straightforward terminology as the basis for engineering automation techniques and interdisciplinary collaboration.



Design Methods

Design Methods shows you how to correctly select and implement the most efficient design techniques for your tasks. By implementing your chosen design techniques in automation technology, you can significantly reduce project planning times and input.



Workflow

Workflow allows you to gradually evaluate and automate your design tasks with scripting, API or additional special developments. This will accelerate your engineering process, integrate data technology into your process, and ensure engineering consistency.



Process Integration

Process Integration allows you to incorporate engineering data and workflows into your company's processes. It maximises potential by linking the design process to neighbouring processes such as ERP and PDM.



Project Management

Project Management helps you to achieve maximum productivity in the shortest possible time. You will receive a comprehensive project plan based on standardised implementation processes.

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EPLAN SOLUTIONS

Eplan develops and sells software expert systems in 17 languages worldwide, all interlinked via the EPLAN platform with seamless data, functions and workflow, for the ongoing optimisation and acceleration of engineering processes.

Our solutions at a glance:

EPLAN Preplanning
Basic engineering in machine and plant manufacturing

EPLAN Fluid
Project planning and documentation of fluid systems (hydraulics, pneumatics, cooling, lubrication)

EPLAN Electric P8
Project planning, documentation and administration of electrical engineering automation projects

EPLAN Pro Panel
Project planning and verification of enclosures and switchgear in 3D, including production integration

EPLAN Smart Wiring
Wiring of enclosures

EPLAN Harness proD
Efficient design and documentation of cables and cable harnesses in 3D/2D

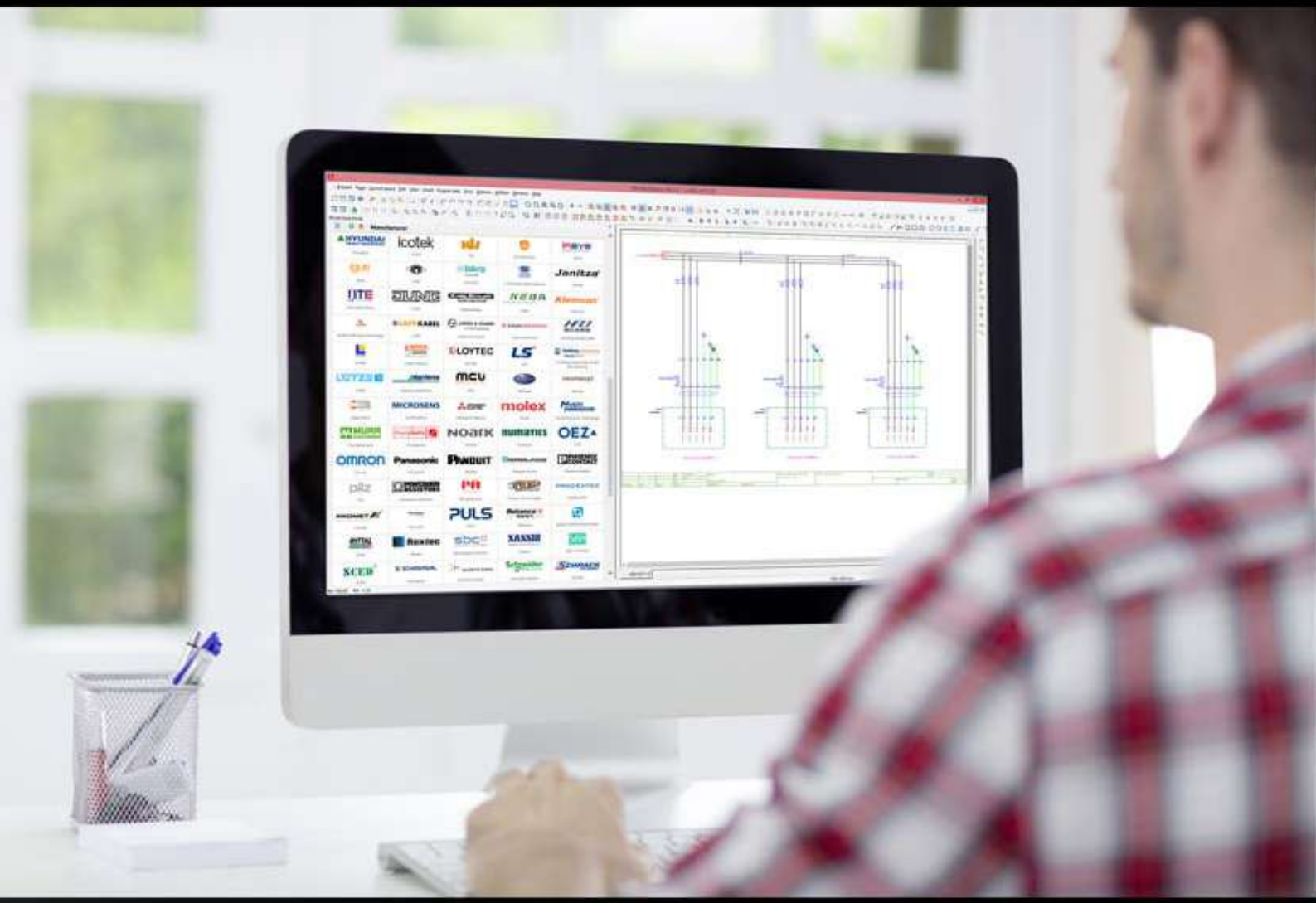
EPLAN Cogineer
Automatic generation of wiring schematics for electrical and fluid engineering

EPLAN Engineering Configuration
Mechatronic configuration and variant management in mechanical and plant engineering

EPLAN Data Portal
Web-based data platform for access to device data from the market's leading component manufacturers

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EPLAN DATA PORTAL

The EPLAN Data Portal is the global hub of engineering. Once saved, the components and device data are permanently available to Eplan users via the portal solution – worldwide, 24 hours a day, 7 days a week.

Integrating the portal solution into the EPLAN platform ensures that information from the EPLAN Data Portal is available directly to the engineering team. Eplan users around the globe can directly access the electronic product catalogues when designing a wiring plan. Components are easy to find, which translates into success: 88% of the components downloaded from the EPLAN Data Portal culminate in a purchase.

- Over 170 manufacturers
- Almost 700,000 data records
- Over 1.2 million variants per configuration

Since 2016, a large volume of data has also been made available in DXF format, making it accessible to non-EPLAN users. ERP, PDM and PLM users also have access to commercial data bundles, either as individual downloads or as valuable data packets.

Users benefit from fast project planning using standardised device data with no media discontinuity. Whether you are involved in engineering, procurement, assembly or commissioning, precision data and information is now available to everyone via the EPLAN Data Portal, for end-to-end workflow optimisation.

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ENCLOSURE MANUFACTURING 4.0

A seamless production process is an essential component of an integrated value chain. The interplay between the EPLAN Data Portal and the Rittal Configuration System is a good example, allowing users to benefit from the direct use of precision data, and integration of regulatory knowledge.

SUPPLY OF “SMART DATA”

Successful project planning begins with an accurate database. The Rittal Configuration System supports users with the individual compilation of an enclosure, by offering guided configuration backed up by knowledge of possible product combinations. In this way, accurate data becomes “smart data” – data that has been supplemented with standard knowledge, used intelligently and expediently. In this way, you can achieve the maximum possible efficiency for your engineering.

EPLAN SMART WIRING

EPLAN Smart Wiring visualises every work operation when wiring an enclosure, and makes all the relevant data available in a 100 percent digital format. Users benefit from greatly reduced error rates, and the process is accelerated significantly, by eliminating the need for use of a time-consuming wiring plan.

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EPLAN SERVICES

Eplan offers a full service package for all your engineering needs. The portfolio includes everything from individual consulting services, to training courses, through to global support available around the clock.

At its EPLAN Training Academy, Eplan offers a series of training courses and workshops on the introduction and implementation of efficient engineering processes. Users have the opportunity to train as a EPLAN Certified Engineer (ECE). Multi-day training courses, basic and advanced, help users to make optimum use of our solutions and produce high-quality CAE documentation in next to no time.
As of January 2016, the EPLAN Training Academy is certified to DIN ISO 29990:2010.

Our multinational Global Support team provides professional support for efficient engineering. Customers can choose their own individual level of service from three packages.
The EPLAN Solution Center provides software service customers with comprehensive support to help resolve their queries, worldwide and around the clock, seven days a week.

Useful links:
www.eplan.academy/en
www.eplan.de/esc_en

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ENCLOSURES

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Product group		Small enclosures	Compact enclosures	Enclosure systems	
		Tough enough to take it all – there are practically no limits to the scope of applications for these especially robust small and compact enclosures. Electrical, electronic and pneumatic components are securely encapsulated with a high IK impact resistance.		Ingeniously simple, fully symmetrical, and patented worldwide – this is the successful formula which has established the TS 8/ SE 8 as a global standard.	
Material	Plastic	■	■	–	
	Aluminium	■	–	–	
	Sheet steel	■	■	■	
	Stainless steel	■	■	■	
Dimension variants		More than 144 small enclosures and 89 compact enclosures in a range of individual materials and designs.		Free-standing and bayed enclosures in more than 96 variants for controlgear and plant manufacturing.	
Product characteristics		Exceptionally robust and with a high IP and IK protection class, Rittal small enclosures and compact enclosures meet all major international approvals and standards.		Infinite installation opportunities, simple assembly, uncompromising baying and tested quality are the distinguishing features of these enclosure systems.	
From page		35	53	67	



	Console systems	PC enclosure systems	Industrial Workstations	Command panels	Support arm systems	Stand systems	Hygienic Design
	Versatility through modularity – essential for meeting individual customer requirements for machine and plant operation perfectly and cost-effectively.			Always exactly the right position: Different viewing angles of the machine, tall or short operating staff – find your perfect ergonomic solution at the human/machine interface.			Hygienic Design (HD) enclosures are key elements when designing open processes in the food industry and clean rooms, due to their ease of cleaning.
	–	–	–	–	–	–	–
	–	–	–	■	–	–	–
	■	■	■	■	■	■	–
	■	■	–	■	■	–	■
	Choose from console systems in over 30 combination variants, 8 PC enclosure systems and 13 variants of Industrial Workstations.			35 command panels, 5 support arm systems with a wide range of combination options and 9 stand systems offer the right solution for any requirement.			14 different enclosure types and sizes.
	Robust and modular, especially designed for tough industrial environments where a high protection category and good accessibility are key.			Flexibility, stability, simple assembly and tremendous cross-product combination versatility mean that every requirement is catered for.			The range is based on common European standards, directives and regulations, and tested to DGUV.
	145			163			207

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Small enclosures

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E-Box EB
E-Box EB 46

Bus enclosures BG
Bus enclosures BG 48



Polycarbonate enclosures PK



PK accessories Page 39 **System accessories** Page 613 **Cable gland, polyamide** Page 776

Applications:
- Ambient temperature range: -35°C...+80°C
- The specified temperatures may be limited by the installed equipment

Material:
- Housing: Fibre-glass reinforced polycarbonate
- Cover grey: Fibreglass-reinforced polycarbonate, all-round foamed-in PU seal
- Cover transparent: Polycarbonate, all-round foamed-in PU seal
- Cover screws: Polyamide
- Insulating bungs: Polyethylene

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

Supply includes:
- Enclosure with cover
- Cover screws
- Insulating bungs for wall mounting screws

Approvals:
- UL
- cUL

without knockouts

Width mm			65	94	94	94	110	110	Page
Height mm			65	65	94	94	110	110	
Depth mm			57	57	57	81	66	90	
Model No.			**9500.000**	**9502.000**	**9504.000**	**9505.000**	**9506.000**	**9507.000**	
		Packs of	12 pc(s).	8 pc(s).	6 pc(s).	6 pc(s).	6 pc(s).	6 pc(s).	
Cover	grey		■	■	■	■	■	■	
Accessories									
Mounting plate			–	–	–	–	–	–	
Hinges			–	–	–	–	–	–	
Wall mounting brackets		40 pc(s).	9583.000	9583.000	9583.000	9583.000	9583.000	9583.000	39

without knockouts

Width mm			130	130	130	130	180	180	Page
Height mm			94	94	130	130	94	94	
Depth mm			57	81	75	99	57	81	
Model No.			**9508.000**	**9509.000**	**9510.000**	**9511.000**	**9512.000**	**9513.000**	
		Packs of	4 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	2 pc(s).	2 pc(s).	
Cover	grey		■	■	■	■	■	■	
Accessories									
Mounting plate			–	–	–	–	–	–	
Hinges			–	–	–	–	–	–	
Wall mounting brackets		40 pc(s).	9583.000	9583.000	9583.000	9583.000	9583.000	9583.000	39

without knockouts

Width mm		Packs of	180	180	180	180	180	180	Page
Height mm			110	110	110	110	110	110	
Depth mm			90	90	111	111	165	165	
Model No.		2 pc(s).	**9514.000**	**9514.100**	**9515.000**	**9515.100**	**9516.000**	**9516.100**	
Cover	grey		■	–	■	–	■	–	
	transparent		–	■	–	■	–	■	
Accessories									
Mounting plate			–	–	–	–	–	–	
Hinges		20 pc(s).	9581.000	9581.000	9581.000	9581.000	9581.000	9581.000	39
Wall mounting brackets		40 pc(s).	9583.000	9583.000	9583.000	9583.000	9583.000	9583.000	39

without knockouts

Width mm		Packs of	182	182	182	182	182	182	Page
Height mm			180	180	180	180	180	180	
Depth mm			90	90	111	111	165	165	
Model No.		1 pc(s).	**9517.000**	**9517.100**	**9518.000**	**9518.100**	**9519.000**	**9519.100**	
Cover	grey		■	–	■	–	■	–	
	transparent		–	■	–	■	–	■	
Accessories									
Mounting plate		10 pc(s).	9548.000	9548.000	9548.000	9548.000	9548.000	9548.000	39
Hinges		20 pc(s).	9581.000	9581.000	9581.000	9581.000	9581.000	9581.000	39
Wall mounting brackets		40 pc(s).	9583.000	9583.000	9583.000	9583.000	9583.000	9583.000	39

without knockouts

Width mm		Packs of	254	254	254	254	254	254	Page
Height mm			180	180	180	180	180	180	
Depth mm			90	90	111	111	165	165	
Model No.		1 pc(s).	**9520.000**	**9520.100**	**9521.000**	**9521.100**	**9522.000**	**9522.100**	
Cover	grey		■	–	■	–	■	–	
	transparent		–	■	–	■	–	■	
Accessories									
Mounting plate		8 pc(s).	9549.000	9549.000	9549.000	9549.000	9549.000	9549.000	39
Hinges		20 pc(s).	9581.000	9581.000	9581.000	9581.000	9581.000	9581.000	39
Wall mounting brackets		40 pc(s).	9583.000	9583.000	9583.000	9583.000	9583.000	9583.000	39

without knockouts

Width mm		Packs of	360	360	360	360	Page
Height mm			254	254	254	254	
Depth mm			111	111	165	165	
Model No.		1 pc(s).	**9523.000**	**9523.100**	**9524.000**	**9524.100**	
Cover	grey		■	–	■	–	
	transparent		–	■	–	■	
Accessories							
Mounting plate		4 pc(s).	9550.000	9550.000	9550.000	9550.000	39
Hinges		20 pc(s).	9581.000	9581.000	9581.000	9581.000	39
Wall mounting brackets		40 pc(s).	9583.000	9583.000	9583.000	9583.000	39

Polycarbonate enclosures PK



PK accessories Page 39 **System accessories** Page 613 **Cable gland, polyamide** Page 776

Applications:
- Ambient temperature range: -35°C...+80°C
- The specified temperatures may be limited by the installed equipment

Material:
- Housing: Fibre-glass reinforced polycarbonate
- Cover: Fibreglass-reinforced polycarbonate, all-round foamed-in PU seal
- Cover screws: Polyamide
- Insulating bungs: Polyethylene

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

Supply includes:
- Enclosure with cover
- Cover screws
- Insulating bungs for wall mounting screws

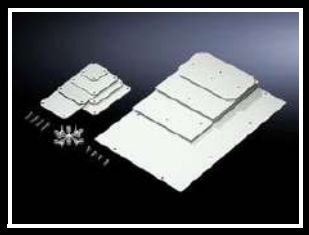
Approvals:
- UL
- cUL
- Bureau Veritas

with knockouts

Width mm			130	180	254	Page
Height mm			94	110	180	
Depth mm			57	90	111	
Model No.			**9508.050**	**9514.050**	**9521.050**	
		Packs of	4 pc(s).	2 pc(s).	1 pc(s).	
Cover	grey		■	■	■	
No. of metric knockouts			10 x M16/M20	16 x M20 2 x M20/M25 2 x M32/M40	24 x M20 4 x M25/M32 4 x M32/M40	
Accessories						
Mounting plate		8 pc(s).	–	–	9549.000	39
Wall mounting brackets		40 pc(s).	9583.000	9583.000	9583.000	39

Accessories

Mounting plate



for PK
For individual interior installation.

Material:
– 2.5 mm melamine phenol-coated laminated paper.

Colour:
– RAL 7035

Supply includes:
– Mounting plate
– Self-tapping assembly screws

Mounting plate width mm	Mounting plate height mm	For enclosure width mm	For enclosure height mm	Packs of	**Model No.**
150	150	182	180	10 pc(s).	**9548.000**
220	150	254	180	8 pc(s).	**9549.000**
331	220	360	254	4 pc(s).	**9550.000**

Hinges



for PK
For hinged attachment of covers. The supplied drilling template ensures problem-free assembly.

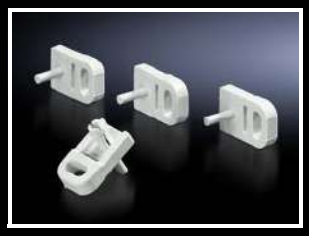
Material:
– Polystyrene

Colour:
– Similar to RAL 7035

Supply includes:
– 20 hinges
– Assembly parts

For enclosure height mm	For enclosure depth mm	Material	Packs of	**Model No.**
≥ 110	≥ 180	Poly-styrene	20 pc(s).	**9581.000**

Wall mounting brackets



for PK
The enclosure can be screwed to the wall using four wall mounting brackets. The bracket is securely attached to the enclosure by means of pins.

Applications:
– For all PK enclosures

Material:
– Polyamide, grey

Colour:
– Similar to RAL 7035

Packs of	**Model No.**
40 pc(s).	**9583.000**

Cast aluminium enclosures GA



GA accessories Page 41 **System accessories** Page 613

Material:
– Enclosure: Cast aluminium
– Cover: Cast aluminium, all-round CR cellular rubber cord seal

Surface finish:
– Textured paint

Colour:
– RAL 7001

Protection category IP to IEC 60 529:
– IP 66

Protection category NEMA:
– NEMA 4

Supply includes:
– Enclosure with cover
– Cover screws, captive
– Screws for attaching support rails
– Screw for connection of the PE conductor

Width mm		58	98	75	125	175	250	122	220	Page
Height mm		64	64	80	80	80	80	120	120	
Depth mm		34	35	57	57	57	57	80	91	
Model No.		**9101.210**	**9102.210**	**9104.210**	**9105.210**	**9106.210**	**9107.210**	**9108.210**	**9110.210**	
	Packs of	5 pc(s).	3 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	
Accessories										
Mounting plate		–	–	–	9105.700	–	–	9108.700	9110.700	41
	Packs of	–	–	–	10 pc(s).	–	–	2 pc(s).	2 pc(s).	
Wall mounting bracket	2 pc(s).	–	–	–	–	–	–	9121.122	9121.122	41
Support rails		see page	see page	see page	see page	see page	see page	see page	see page	725
Hinge, exterior	2 pc(s).	–	–	–	–	–	–	9123.000	9123.000	41
Earth straps		see page	see page	see page	see page	see page	see page	see page	see page	762
Cable gland, brass		see page	see page	see page	see page	see page	see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	see page	see page	see page	see page	see page	776

Width mm	Packs of	360	160	260	360	202	280	334	330	Page
Height mm		120	160	160	160	232	232	233	230	
Depth mm		82	91	91	91	111	111	111	181	
Model No.	1 pc(s).	**9111.210**	**9112.210**	**9113.210**	**9114.210**	**9116.210**	**9117.210**	**9118.210**	**9119.210**	
Accessories										
Mounting plate		–	9112.700	9113.700	9114.700	9116.700	9117.700	9118.700	9118.700	41
	Packs of	–	2 pc(s).	2 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	
Wall mounting bracket	2 pc(s).	9121.122	9121.160	9121.160	9121.160	9121.230	9121.230	9121.230	9121.230	41
Support rails		see page	see page	see page	see page	see page	see page	see page	see page	725
Hinge, exterior	2 pc(s).	9123.000	9123.000	9123.000	9123.000	9123.000	9123.000	9123.000	9123.000	41
Earth straps		see page	see page	see page	see page	see page	see page	see page	see page	762
Cable gland, brass		see page	see page	see page	see page	see page	see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	see page	see page	see page	see page	see page	776

Accessories

Mounting plate

for GA
For universal interior installation, with mounting holes.

Material:
– Sheet steel

Surface finish:
– Zinc-plated



Mounting plate width mm	Mounting plate height mm	For enclosure width mm	For enclosure height mm	Packs of	Model No.
114	69	125	80	10 pc(s).	**9105.700**
109	107	122	120	2 pc(s).	**9108.700**
207	107	220	120	2 pc(s).	**9110.700**
145	142	160	160	2 pc(s).	**9112.700**
245	142	260	160	2 pc(s).	**9113.700**
344	142	360	160	1 pc(s).	**9114.700**
183	214	202	232	1 pc(s).	**9116.700**
264	214	280	232	1 pc(s).	**9117.700**
314	214	334 330	233 230	1 pc(s).	**9118.700**

Wall mounting bracket

for GA
For external mounting on surfaces – no need to remove the cover if pre-assembled.

Material:
– Sheet steel

Surface finish:
– Zinc-plated



For enclosure height mm	Packs of	Model No.
120	2 pc(s).	**9121.122**
160	2 pc(s).	**9121.160**
≥ 230	2 pc(s).	**9121.230**

Hinge, exterior

for GA
For attaching the cover to the enclosure base.

Material:
– Die-cast aluminium

Colour:
– RAL 7001

Supply includes:
– 2 hinges
– 8 screws



For enclosure height mm	For enclosure depth mm	Packs of	Model No.
≥ 120	≥ 80	2 pc(s).	**9123.000**

Terminal boxes KL



System accessories Page 613 **KL stainless steel** Page 217 **KL for potentially explosive areas** Page 232 **KL Hygienic Design** Page 208

Material:
– Enclosure: Sheet steel
– Cover: Sheet steel, all-round foamed-in PU seal

Surface finish:
– Enclosure and cover: Dipcoat primed, powder-coated on the outside, textured paint

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 66

Protection category NEMA:
– NEMA 4

Supply includes:
– Enclosure with cover
– Quick-release fastener including plastic bushes

Approvals:
– UL
– cUL
– CSA
– TÜV
– Germanischer Lloyd
– Russian Maritime Register of Shipping
– Lloyds Register of Shipping
– Bureau Veritas

without gland plate

Width mm	Packs of	150	200	200	300	300	400	Page
Height mm		150	150	200	150	200	200	
Depth mm		80	80	80	80	80	80	
Material thickness - enclosure mm		1.25	1.25	1.25	1.25	1.25	1.25	
Material thickness - cover mm		1.25	1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1514.510**	**1528.510**	**1516.510**	**1515.510**	**1517.510**	**1518.510**	
Weight kg		1.4	1.6	1.9	2.1	2.6	3.2	
Accessories								
Mounting plates	1 pc(s).	1560.700	1575.700	1562.700	1561.700	1563.700	1564.700	702
Support rails TS 35/7.5	10 pc(s).	2314.000	2315.000	2315.000	2316.000	2316.000	2317.000	725
Support rails TS 35/15		–	–	–	–	–	–	
Cover retainer	6 pc(s).	1591.000	1591.000	1591.000	1591.000	1591.000	1591.000	684
Cover hinge	6 pc(s).	1592.000	1592.000	1592.000	1592.000	1592.000	1592.000	684
Earthing kit	5 pc(s).	2570.100	2570.100	2570.100	2570.100	2570.100	2570.100	764
Wall mounting bracket	4 pc(s).	1590.000	1590.000	1590.000	1590.000	1590.000	1590.000	698
Spare quick-release fastener	12 pc(s).	1593.000	1593.000	1593.000	1593.000	1593.000	1593.000	

without gland plate

Width mm	Packs of	600	150	200	200	300	300	Page
Height mm		200	150	150	200	150	200	
Depth mm		80	120	120	120	120	120	
Material thickness - enclosure mm		1.25	1.25	1.25	1.25	1.25	1.25	
Material thickness - cover mm		1.25	1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1519.510**	**1500.510**	**1529.510**	**1502.510**	**1501.510**	**1503.510**	
Weight kg		4.6	1.6	1.8	2.3	2.6	3.0	
Accessories								
Mounting plates	1 pc(s).	1566.700	1560.700	1575.700	1562.700	1561.700	1563.700	702
Support rails TS 35/7.5	10 pc(s).	–	2314.000	2315.000	2315.000	2316.000	2316.000	725
Support rails TS 35/15	10 pc(s).	2319.000	–	–	–	–	–	725
Cover retainer	6 pc(s).	1591.000	1591.000	1591.000	1591.000	1591.000	1591.000	684
Cover hinge	6 pc(s).	1592.000	1592.000	1592.000	1592.000	1592.000	1592.000	684
Earthing kit	5 pc(s).	2570.100	2570.100	2570.100	2570.100	2570.100	2570.100	764
Wall mounting bracket	4 pc(s).	1590.000	1590.000	1590.000	1590.000	1590.000	1590.000	698
Spare quick-release fastener	12 pc(s).	1593.000	1593.000	1593.000	1593.000	1593.000	1593.000	

without gland plate

Width mm	Packs of	300	400	400	400	400	500	Page
Height mm		300	150	200	300	400	200	
Depth mm		120	120	120	120	120	120	
Material thickness - enclosure mm		1.38	1.25	1.25	1.38	1.38	1.25	
Material thickness - cover mm		1.25	1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1507.510**	**1589.510**	**1504.510**	**1508.510**	**1511.510**	**1505.510**	
Weight kg		4.0	3.2	3.6	4.8	6.2	4.4	
Accessories								
Mounting plates	1 pc(s).	1567.700	1576.700	1564.700	1568.700	1571.700	1565.700	702
Support rails TS 35/7.5	10 pc(s).	2316.000	2317.000	2317.000	2317.000	2317.000	–	725
Support rails TS 35/15	10 pc(s).	–	–	–	–	–	2318.000	725
Cover retainer	6 pc(s).	1591.000	1591.000	1591.000	1591.000	1591.000	1591.000	684
Cover hinge	6 pc(s).	1592.000	1592.000	1592.000	1592.000	1592.000	1592.000	684
Earthing kit	5 pc(s).	2570.100	2570.100	2570.100	2570.100	2570.100	2570.100	764
Wall mounting bracket	4 pc(s).	1590.000	1590.000	1590.000	1590.000	1590.000	1590.000	698
Spare quick-release fastener	12 pc(s).	1593.000	1593.000	1593.000	1593.000	1593.000	1593.000	

without gland plate

Width mm	Packs of	500	600	600	600	800	800	Page
Height mm		300	200	300	400	200	400	
Depth mm		120	120	120	120	120	120	
Material thickness - enclosure mm		1.38	1.25	1.38	1.38	1.25	1.38	
Material thickness - cover mm		1.25	1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1509.510**	**1506.510**	**1510.510**	**1512.510**	**1527.510**	**1513.510**	
Weight kg		5.8	5.7	6.8	8.4	6.8	11.0	
Accessories								
Mounting plates	1 pc(s).	1569.700	1566.700	1570.700	1572.700	1574.700	1573.700	702
Support rails TS 35/7.5		–	–	–	–	–	–	
Support rails TS 35/15	10 pc(s).	2318.000	2319.000	2319.000	2319.000	–	–	725
Cover retainer	6 pc(s).	1591.000	1591.000	1591.000	1591.000	1591.000	1591.000	684
Cover hinge	6 pc(s).	1592.000	1592.000	1592.000	1592.000	1592.000	1592.000	684
Earthing kit	5 pc(s).	2570.100	2570.100	2570.100	2570.100	2570.100	2570.100	764
Wall mounting bracket	4 pc(s).	1590.000	1590.000	1590.000	1590.000	1590.000	1590.000	698
Spare quick-release fastener	12 pc(s).	1593.000	1593.000	1593.000	1593.000	1593.000	1593.000	

Terminal boxes KL



System accessories Page 613 **KL stainless steel** Page 217 **KL for potentially explosive areas** Page 232 **KL Hygienic Design** Page 208

Material:
– Enclosure: Sheet steel
– Cover: Sheet steel, all-round foamed-in PU seal

Surface finish:
– Enclosure and cover: Dipcoat primed, powder-coated on the outside, textured paint

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Protection category NEMA:
– NEMA 12

Supply includes:
– Enclosure with cover
– Quick-release fastener including plastic bushes
– Sheet steel gland plates with seals and assembly parts

Please observe the product-specific scope of supply.

Approvals:
– UL
– cUL
– CSA
– TÜV
– Germanischer Lloyd
– Russian Maritime Register of Shipping
– Lloyds Register of Shipping
– Bureau Veritas

with gland plate

Width mm	Packs of	300	300	300	400	400	400	500	Page
Height mm		150	200	300	200	300	400	200	
Depth mm		120	120	120	120	120	120	120	
Material thickness - enclosure mm		1.25	1.25	1.38	1.25	1.38	1.38	1.25	
Material thickness - cover mm		1.25	1.25	1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1530.510**	**1531.510**	**1535.510**	**1532.510**	**1536.510**	**1539.510**	**1533.510**	
Weight kg		2.7	3.3	4.5	4.0	5.2	6.7	4.9	
Product-specific scope of supply									
Gland plate (top + bottom), Size		2	2	2	2	2	2	2	
Gland plate (top + bottom), Qty.		1 + 1	1 + 1	1 + 1	1 + 1	1 + 1	1 + 1	2 + 2	
Gland plate (left + right), Size		–	–	2	–	2	2	–	
Gland plate (left + right), Qty.		–	–	1 + 1	–	1 + 1	1 + 1	–	
Accessories									
Mounting plates	1 pc(s).	1561.700	1563.700	1567.700	1564.700	1568.700	1571.700	1565.700	702
Plastic cable gland plates		see page	see page	see page	see page	see page	see page	see page	771
Metal gland plates	1 pc(s).	1581.100	1581.100	1581.100	1581.100	1581.100	1581.100	1581.100	773
Support rails TS 35/7.5	10 pc(s).	2316.000	2316.000	2316.000	2317.000	2317.000	2317.000	–	725
Support rails TS 35/15	10 pc(s).	–	–	–	–	–	–	2318.000	725
Cover retainer	6 pc(s).	1591.000	1591.000	1591.000	1591.000	1591.000	1591.000	1591.000	684
Cover hinge	6 pc(s).	1592.000	1592.000	1592.000	1592.000	1592.000	1592.000	1592.000	684
Earthing kit	5 pc(s).	2570.100	2570.100	2570.100	2570.100	2570.100	2570.100	2570.100	764
Wall mounting bracket	4 pc(s).	1590.000	1590.000	1590.000	1590.000	1590.000	1590.000	1590.000	698
Spare quick-release fastener	12 pc(s).	1593.000	1593.000	1593.000	1593.000	1593.000	1593.000	1593.000	

with gland plate

Width mm	Packs of	500	600	600	600	800	800	Page
Height mm		300	200	300	400	200	400	
Depth mm		120	120	120	120	120	120	
Material thickness - enclosure mm		1.38	1.25	1.38	1.38	1.25	1.38	
Material thickness - cover mm		1.25	1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1537.510**	**1534.510**	**1538.510**	**1540.510**	**1542.510**	**1541.510**	
Weight kg		5.2	5.9	7.7	9.0	7.2	12.0	
Product-specific scope of supply								
Gland plate (top + bottom), Size		2	2	2	2	2	2	
Gland plate (top + bottom), Qty.		2 + 2	2 + 2	2 + 2	2 + 2	3 + 3	3 + 3	
Gland plate (left + right), Size		2	–	2	2	–	2	
Gland plate (left + right), Qty.		1 + 1	–	1 + 1	1 + 1	–	1 + 1	
Accessories								
Mounting plates	1 pc(s).	1569.700	1566.700	1570.700	1572.700	1574.700	1573.700	702
Plastic cable gland plates		see page	see page	see page	see page	see page	see page	771
Metal gland plates	1 pc(s).	1581.100	1581.100	1581.100	1581.100	1581.100	1581.100	773
Support rails TS 35/7.5		–	–	–	–	–	–	
Support rails TS 35/15	10 pc(s).	2318.000	2319.000	2319.000	2319.000	–	–	725
Cover retainer	6 pc(s).	1591.000	1591.000	1591.000	1591.000	1591.000	1591.000	684
Cover hinge	6 pc(s).	1592.000	1592.000	1592.000	1592.000	1592.000	1592.000	684
Earthing kit	5 pc(s).	2570.100	2570.100	2570.100	2570.100	2570.100	2570.100	764
Wall mounting bracket	4 pc(s).	1590.000	1590.000	1590.000	1590.000	1590.000	1590.000	698
Spare quick-release fastener	12 pc(s).	1593.000	1593.000	1593.000	1593.000	1593.000	1593.000	





E-Box EB



System accessories Page 613

Material:
– Enclosure and door: Sheet steel, all-round foamed-in PU seal

Surface finish:
– Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
– Mounting plate: Zinc-plated

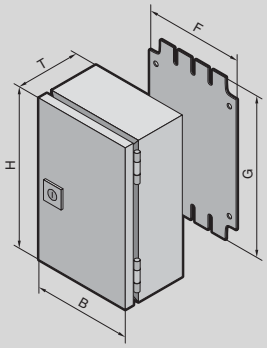
Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 66

Protection category NEMA:
– NEMA 4

Supply includes:
– Enclosure with hinged door
– 180° hinge
– Cam lock with 3 mm double-bit insert
– Mounting plate

Approvals:
– UL
– cUL
– CSA
– TÜV
– Russian Maritime Register of Shipping
– Lloyds Register of Shipping
– Bureau Veritas



Depth 80 mm

Width (B) mm	Packs of	150	150	200	200	200	Page
Height (H) mm		150	300	200	300	400	
Depth (T) mm		80	80	80	80	80	
Mounting plate width (F) mm		125	125	175	175	175	
Mounting plate height (G) mm		135	285	185	285	385	
Material thickness - enclosure mm		1.25	1.25	1.25	1.25	1.25	
Material thickness - door mm		1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1551.500**	**1545.500**	**1546.500**	**1552.500**	**1547.500**	
Weight kg		1.7	2.6	2.4	3.2	4.4	
Number of locks		1	1	1	1	1	
Accessories							
Wall mounting bracket	4 pc(s).	1590.000	1590.000	1590.000	1590.000	1590.000	698
Pole clamp	2 pc(s).	2584.000	2584.000	2584.000	2584.000	2584.000	700
Mounting clip	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	725
Support rails		see page	see page	see page	see page	see page	725
Earth straps		see page	see page	see page	see page	see page	762
Cable gland, brass		see page	see page	see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	see page	see page	776
Plastic handles		see page	see page	see page	see page	see page	679
T handles		see page	see page	see page	see page	see page	679
Lock inserts		see page	see page	see page	see page	see page	680
Lock cylinder inserts	1 pc(s).	2571.000	2571.000	2571.000	2571.000	2571.000	681
Lock cover	2 pc(s).	2476.000	2476.000	2476.000	2476.000	2476.000	681

Depth 120 mm

Width (B) mm	Packs of	150	150	200	200	200	200	300	300	Page
Height (H) mm		150	300	200	300	400	500	300	400	
Depth (T) mm		120	120	120	120	120	120	120	120	
Mounting plate width (F) mm		125	125	175	175	175	175	275	275	
Mounting plate height (G) mm		135	285	185	285	385	485	285	385	
Material thickness - enclosure mm		1.25	1.25	1.25	1.25	1.25	1.25	1.38	1.38	
Material thickness - door mm		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1553.500**	**1548.500**	**1549.500**	**1554.500**	**1550.500**	**1557.500**	**1555.500**	**1556.500**	
Weight kg		2.0	3.0	2.8	3.6	5.0	6.2	5.0	6.4	
Number of locks		1	1	1	1	1	2	1	1	
Accessories										
Wall mounting bracket	4 pc(s).	1590.000	1590.000	1590.000	1590.000	1590.000	1590.000	1590.000	1590.000	698
Pole clamp	2 pc(s).	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	700
Mounting clip	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	2309.000	2309.000	2309.000	725
Support rails		see page	see page	see page	see page	see page	see page	see page	see page	725
Earth straps		see page	see page	see page	see page	see page	see page	see page	see page	762
Cable gland, brass		see page	see page	see page	see page	see page	see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	see page	see page	see page	see page	see page	776
Plastic handles		see page	see page	see page	see page	see page	see page	see page	see page	679
T handles		see page	see page	see page	see page	see page	see page	see page	see page	679
Lock inserts		see page	see page	see page	see page	see page	see page	see page	see page	680
Lock cylinder inserts	1 pc(s).	2571.000	2571.000	2571.000	2571.000	2571.000	2571.000	2571.000	2571.000	681
Lock cover	2 pc(s).	2476.000	2476.000	2476.000	2476.000	2476.000	2476.000	2476.000	2476.000	681

Depth 155 mm

Width (B) mm	Packs of	300	300	300	Page
Height (H) mm		400	600	800	
Depth (T) mm		155	155	155	
Mounting plate width (F) mm		275	275	275	
Mounting plate height (G) mm		385	585	785	
Material thickness - enclosure mm		1.38	1.38	1.38	
Material thickness - door mm		1.25	1.25	1.25	
Model No.	1 pc(s).	**1577.500**	**1578.500**	**1579.500**	
Weight kg		7.1	11.0	13.2	
Number of locks		1	2	2	
Accessories					
Wall mounting bracket	4 pc(s).	1590.000	1590.000	1590.000	698
Pole clamp	2 pc(s).	2584.000	2584.000	2584.000	700
Mounting clip	30 pc(s).	2309.000	2309.000	2309.000	725
Support rails		see page	see page	see page	725
Earth straps		see page	see page	see page	762
Cable gland, brass		see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	776
Plastic handles		see page	see page	see page	679
T handles		see page	see page	see page	679
Lock inserts		see page	see page	see page	680
Lock cylinder inserts	1 pc(s).	2571.000	2571.000	2571.000	681
Lock cover	2 pc(s).	2476.000	2476.000	2476.000	681

Bus enclosures BG



System accessories Page 613 **BG stainless steel** Page 218

Material:
– Enclosure: Sheet steel
– Door: Sheet steel with polycarbonate viewing window, 4 mm

Surface finish:
– Enclosure and door: Dipcoat-primed, powder-coated, textured paint

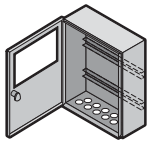
Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 65

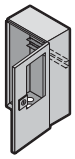
NEMA protection category:
– NEMA 12

Supply includes:
– Enclosure with door
– Viewing window in the door
Please note the product-specific scope of supply.

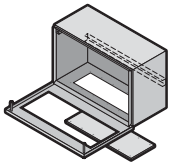
Approvals:
– UL
– cUL
– TÜV
– Lloyds Register of Shipping



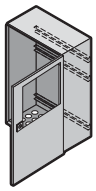
		P. of	200	300	400	500	Page
Width mm			300	300	300	300	
Height mm			80	80	80	80	
Depth mm			**1583.520**	**1584.520**	**1585.520**	**1586.520**	
Model No.		1 pc(s).	1.25	1.25	1.25	1.25	
Material thickness mm	Enclosure		1.25	1.25	1.25	1.25	
	Door						
Product-specific scope of supply							
Door hinge			left	left	left	left	
Cam lock with double-bit insert			1	1	1	1	
Support rail TS 35/7.5			2	2	2	2	
Number of metric holes	M12		2	2	2	3	
	M20		5	9	13	24	
	M25		2	2	3	–	
Accessories							
Lock cover		1 pc(s).	2476.000	2476.000	2476.000	2476.000	682
Wall mounting bracket		4 pc(s).	1590.000	1590.000	1590.000	1590.000	698
Pole clamp		1 pc(s).	2584.000	2584.000	2584.000	2584.000	700
Lock inserts, type A		see page 680					
Lock cylinder inserts, type B		see page 681					
Plastic handles, type B		see page 679					

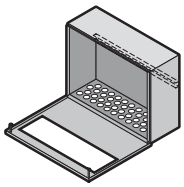


Width mm		P. of	200	400	Page
Height mm			300	300	
Depth mm			120	120	
Model No.		1 pc(s).	**1605.520**	**1606.520**	
Material thickness mm	Enclosure		1.25	1.38	
	Door		1.25	1.25	
Product-specific scope of supply					
Door hinge			right	right	
Cam lock with double-bit insert			1	1	
Support rail TS 35/7.5			1	1	
Number of metric holes	M12		2	–	
	M20		–	2	
	M32		5	9	
	M50		–	1	
Accessories					
Lock cover		1 pc(s).	2476.000	2476.000	682
Wall mounting bracket		4 pc(s).	1590.000	1590.000	698
Pole clamp		1 pc(s).	2584.000	2584.000	700
Lock inserts, type A		see page 680			
Lock cylinder inserts, type B		see page 681			
Plastic handles, type B		see page 679			



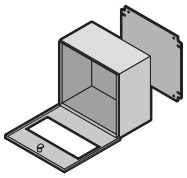
Width mm		P. of	400	600	Page
Height mm			200	200	
Depth mm			125	125	
Model No.		1 pc(s).	**1558.510**	**1559.510**	
Material thickness mm	Enclosure		1.25	1.25	
	Door		1.25	1.25	
Product-specific scope of supply					
Door hinge			bottom	bottom	
Quick-release fastener			2	3	
Support rail TS 35/7.5			1	1	
Gland plate in the base			1	1	
Accessories					
Wall mounting bracket		4 pc(s).	1590.000	1590.000	698
Pole clamp		1 pc(s).	2584.000	2584.000	700





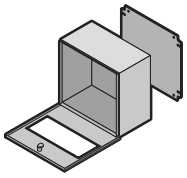
Width mm		P. of	400	500	Page
Height mm			500	300	
Depth mm			160	120	
Model No.		1 pc(s).	**1611.510**	**1609.510**	
Material thickness mm	Enclosure		1.38	1.38	
	Door		1.5	1.25	
Product-specific scope of supply					
Door hinge			right	bottom	
Cam lock with double-bit insert			1	–	
Quick-release fastener			–	2	
Support rail TS 35/7.5			3	1	
Number of drilled holes for PG 13.5 or M20			33	48	
Accessories					
Lock cover		1 pc(s).	2476.000	–	682
Wall mounting bracket		4 pc(s).	1590.000	1590.000	698
Pole clamp		1 pc(s).	2584.000	2584.000	700
Lock inserts, type A		see page 680			
Lock cylinder inserts, type B		see page 681			
Plastic handles, type B		see page 679			

Bus enclosures BG



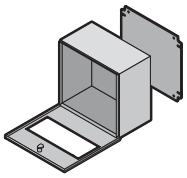
Width mm		P. of	400	400	400	Page
Height mm			300	300	300	
Depth mm			155	155	155	
Mounting plate width			385	385	385	
Mounting plate height			275	275	275	
Model No.		1 pc(s).	**1577.500**	**1577.530**	**1577.450**	
Material thickness mm	Enclosure		1.38	1.38	1.38	
	Door		1.25	1.25	1.25	
Product-specific scope of supply						
Door hinge			bottom	bottom	bottom	
Cam lock with double-bit insert			1	1	1	
Viewing window	Size mm		–	340 x 190	340 x 155	
	Position[1] mm		–	42	92	
Mounting plate			1	1	1	
Gland plate in the base			–	–	–	
Accessories						
Lock cover		1 pc(s).	2476.000	2476.000	2476.000	682
Wall mounting bracket		4 pc(s).	1590.000	1590.000	1590.000	698
Pole clamp		1 pc(s).	2584.000	2584.000	2584.000	700
Lock inserts, type A		see page 680				
Lock cylinder inserts, type B		see page 681				
Plastic handles, type B		see page 679				

[1] Bottom edge of window to bottom edge of door



Width mm		P. of	600	600	600	Page
Height mm			300	300	300	
Depth mm			155	155	155	
Mounting plate width			585	585	585	
Mounting plate height			275	275	275	
Model No.		1 pc(s).	**1578.500**	**1578.530**	**1578.450**	
Material thickness mm	Enclosure		1.38	1.38	1.38	
	Door		1.25	1.25	1.25	
Product-specific scope of supply						
Door hinge			bottom	bottom	bottom	
Cam lock with double-bit insert			2	2	2	
Viewing window	Size mm		–	540 x 190	540 x 155	
	Position[1] mm		–	42	92	
Mounting plate			1	1	1	
Gland plate in the base			–	–	–	
Accessories						
Lock cover		1 pc(s).	2476.000	2476.000	2476.000	682
Wall mounting bracket		4 pc(s).	1590.000	1590.000	1590.000	698
Pole clamp		1 pc(s).	2584.000	2584.000	2584.000	700
Lock inserts, type A		see page 680				
Lock cylinder inserts, type B		see page 681				
Plastic handles, type B		see page 679				

[1] Bottom edge of window to bottom edge of door



Width mm		P. of	800	800	800	Page
Height mm			300	300	300	
Depth mm			155	155	155	
Mounting plate width			785	785	785	
Mounting plate height			275	275	275	
Model No.		1 pc(s).	**1579.500**	**1579.530**	**1579.450**	
Material thickness mm	Enclosure		1.38	1.38	1.38	
	Door		1.25	1.25	1.25	
Product-specific scope of supply						
Door hinge			bottom	bottom	bottom	
Cam lock with double-bit insert			2	2	2	
Viewing window	Size mm		–	740 x 190	740 x 155	
	Position[1] mm		–	42	92	
Mounting plate			1	1	1	
Gland plate in the base			–	–	–	
Accessories						
Lock cover		1 pc(s).	2476.000	2476.000	2476.000	682
Wall mounting bracket		4 pc(s).	1590.000	1590.000	1590.000	698
Pole clamp		1 pc(s).	2584.000	2584.000	2584.000	700
Lock inserts, type A		see page 680				
Lock cylinder inserts, type B		see page 681				
Plastic handles, type B		see page 679				

[1] Bottom edge of window to bottom edge of door



Rittal – The System.

Faster – better – everywhere.



Compact enclosures

Compact enclosures AE

Compact enclosures AE 58

Compact system enclosures CM

Width 600 – 800 mm 62
Width 800 – 1200 mm 63

Plastic enclosures KS

Plastic enclosures KS 64

Compact enclosures AE





New type of interior installation rail

- Retrospective interior installation without the need for machining
- Allows time-saving mounting on the sides, base and roof areas
- Variable with two rows of TS 8 system punchings, creates additional mounting space
- TS 8 system punchings support the use of TS 8 accessories
- Automatic potential equalisation
- May still be fitted after the mounting plates have been installed
- Mounting option for door-operated switch and door stay



Conductive mounting plate

- Simple one-person assembly even with free-standing enclosures, by screwing a combination bolt and lock nut into position
- Zinc-plated surface finish for direct contact between assemblies and optimum EMC properties



Interchangeable gland plate

- Sheet steel for simple machining, supplied loose
- Integrated, automatic potential equalisation via earthing inserts
- Other gland plates with metal or plastic knock-outs for simple, fast cable entry are available as accessories



Compact enclosures AE



Optimum surface protection

Triple surface treatment provides optimum protection against corrosion. Maximum quality is achieved in three stages:

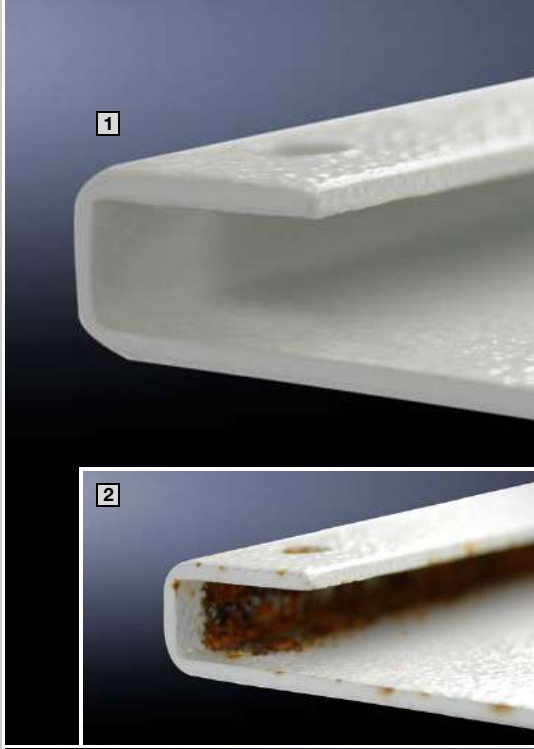
1st phase: Nanoceramic primer

2nd phase: Electrophoretic dipcoat priming

3rd phase: Textured powder coating

1 Metal with triple surface treatment (Rittal standard) after a 180-hour salt spray mist test

2 Metal powder-coated only after a 180-hour salt spray mist test



Integral perforated door strips

- For universal door installations
- For secure cable routing from the door to the enclosure



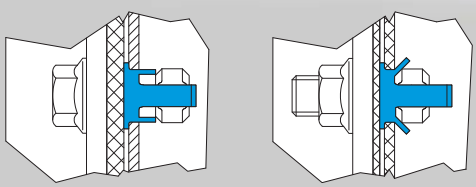
Interchangeable door hinge

- The door hinge is easily swapped to the opposite side in single-door enclosures
- No machining required, since the holes are pre-integrated and sealed with stoppers



Practical wall mounting bracket

- For fast, time-saving attachment to the enclosure from the outside
- Simply insert the expandable dowel into the housing hole from the outside, and screw-fasten the wall bracket from the outside. In this way, the pre-configured enclosure may be transported to the installation site and the wall bracket secured without opening the enclosure.





Compact enclosures AE



System accessories Page 613 **AE stainless steel** Page 219 **Hygienic Design** Page 208

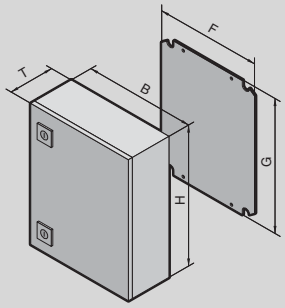
Material:
– Enclosure: Sheet steel
– Door: Sheet steel, all-round foamed-in PU seal

Surface finish:
– Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
– Mounting plate: Zinc-plated

Colour:
– RAL 7035

Supply includes:
– Enclosure with hinged door(s), of all-round solid construction
– Gland plate(s) in enclosure base
– Mounting plate
– Lock: 3 mm double-bit
Please observe the product-specific scope of supply.

Approvals:
– UL
– cUL
– CSA
– TÜV
– Germanischer Lloyd
– Russian Maritime Register of Shipping
– Lloyds Register of Shipping
– Bureau Veritas



Width (B) mm	Packs of	200	200	300	300	300	Page
Height (H) mm		300	300	300	300	400	
Depth (T) mm		120	155	155	210	210	
Mounting plate width (F) mm		162	162	254	254	254	
Mounting plate height (G) mm		275	275	275	275	375	
Material thickness - enclosure mm		1.25	1.25	1.38	1.38	1.38	
Material thickness - door mm		1.5	1.5	1.5	1.5	1.5	
Mounting plate thickness mm		2.0	2.0	2.0	2.0	2.0	
Model No.	1 pc(s).	**1032.500**	**1035.500**	**1036.500**	**1033.500**	**1034.500**	
Weight kg		4.0	4.5	6.1	7.0	8.8	
Protection category IP to IEC 60 529		IP 55	IP 55	IP 66	IP 66	IP 66	
Protection category NEMA		NEMA 12	NEMA 12	NEMA 4	NEMA 4	NEMA 4	
Product-specific scope of supply							
Door(s)		1	1	1	1	1	
Door hinged on the right, may be swapped to the left		–	–	■	■	■	
Cam lock		1	1	1	1	1	
Gland plate, size		1	1	–	–	–	
Gland plate, qty.		1	1	1	1	1	
Accessories							
Rails for interior installation	4 pc(s).	–	–	–	2383.210	2383.210	716
Wall mounting bracket	4 pc(s).	2508.100	2508.100	2508.100	2508.100	2508.100	698
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	658
180° hinges	2 pc(s).	2449.000	2449.000	2449.000	2449.000	2449.000	684
Door stay	5 pc(s).	–	–	2519.000	2519.000	2519.000	688
Eyebolts		–	–	–	–	–	
LED system light		–	–	–	–	–	
Dust guard trim	1 pc(s).	2426.500	2426.500	2426.500	2426.500	2426.500	691
Wiring plan pocket, plastic		see page	see page	see page	see page	see page	687
Cable gland, brass		see page	see page	see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	see page	see page	776
Mounting bars		–	–	–	–	–	
Earth straps		see page	see page	see page	see page	see page	762

Width (B) mm	Packs of	380	380	380	380	380	Page
Height (H) mm		300	300	380	600	600	
Depth (T) mm		155	210	210	210	350	
Mounting plate width (F) mm		334	334	334	334	334	
Mounting plate height (G) mm		275	275	355	570	570	
Material thickness - enclosure mm		1.38	1.38	1.38	1.38	1.5	
Material thickness - door mm		1.5	1.5	1.5	1.5	1.5	
Mounting plate thickness mm		2.0	2.0	2.0	2.5	2.5	
Model No.	1 pc(s).	**1030.500**	**1031.500**	**1380.500**	**1038.500**	**1338.500**	
Weight kg		7.4	7.5	9.8	15.6	19.4	
Protection category IP to IEC 60 529		IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA		NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	
Product-specific scope of supply							
Door(s)		1	1	1	1	1	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	
Cam lock		1	1	1	2	2	
Gland plate, size		3	3	3	3	4	
Gland plate, qty.		1	1	1	1	1	
Accessories							
Rails for interior installation	4 pc(s).	–	2383.210	2383.210	2383.210	2383.350	716
Wall mounting bracket	4 pc(s).	2508.100	2508.100	2508.100	2508.100	2508.100	698
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	658
180° hinges	2 pc(s).	2449.000	2449.000	2449.000	2449.000	2449.000	684
Door stay	5 pc(s).	2519.000	2519.000	2519.000	2519.000	2519.000	688
Eyebolts		–	–	–	–	–	
LED system light		–	–	–	–	–	
Dust guard trim	1 pc(s).	2426.500	2426.500	2426.500	2426.500	2426.500	691
Wiring plan pocket, plastic		see page	see page	see page	see page	see page	687
Cable gland, brass		see page	see page	see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	see page	see page	776
Mounting bars		–	–	–	–	–	
Earth straps		see page	see page	see page	see page	see page	762

Width (B) mm	Packs of	400	400	500	500	500	Page
Height (H) mm		500	800	500	500	700	
Depth (T) mm		210	300	210	300	250	
Mounting plate width (F) mm		354	349	449	449	449	
Mounting plate height (G) mm		475	770	470	470	670	
Material thickness - enclosure mm		1.38	1.5	1.38	1.5	1.5	
Material thickness - door mm		1.5	2.0	1.75	1.75	2.0	
Mounting plate thickness mm		2.0	3.0	2.5	2.5	2.5	
Model No.	1 pc(s).	**1045.500**	**1037.500**	**1050.500**	**1350.500**	**1057.500**	
Weight kg		13.0	26.2	16.8	19.6	31.2	
Protection category IP to IEC 60 529		IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA		NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	
Product-specific scope of supply							
Door(s)		1	1	1	1	1	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	
Cam lock		2	2	2	2	2	
Gland plate, size		4	4	4	4	4	
Gland plate, qty.		1	1	1	1	1	
Accessories							
Rails for interior installation	4 pc(s).	2383.210	2383.300	2383.210	2383.300	2383.250	716
Wall mounting bracket	4 pc(s).	2508.100	2508.100	2508.100	2508.100	2508.100	698
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	658
180° hinges	2 pc(s).	2449.000	2449.000	2449.000	2449.000	2449.000	684
Door stay	5 pc(s).	2519.000	2519.000	2519.000	2519.000	2519.000	688
Eyebolts		–	–	–	–	–	
LED system light	1 pc(s).	2500.100	2500.100	2500.100	2500.100	2500.100	750
Dust guard trim	1 pc(s).	2426.500	2426.500	2426.500	2426.500	2426.500	691
Wiring plan pocket, plastic		see page	see page	see page	see page	see page	687
Cable gland, brass		see page	see page	see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	see page	see page	776
Mounting bars	20 pc(s).	–	–	2325.000	2325.000	2325.000	685
Earth straps		see page	see page	see page	see page	see page	762

Compact enclosures AE

Width (B) mm	Packs of	600	600	600	600	600	Page
Height (H) mm		380	380	600	600	600	
Depth (T) mm		210	350	210	250	350	
Mounting plate width (F) mm		549	549	549	549	549	
Mounting plate height (G) mm		355	355	570	570	570	
Material thickness - enclosure mm		1.38	1.5	1.38	1.5	1.5	
Material thickness - door mm		1.5	1.5	1.75	1.75	1.75	
Mounting plate thickness mm		2.5	2.5	2.5	2.5	2.5	
Model No.	1 pc(s).	**1039.500**	**1339.500**	**1060.500**	**1054.500**	**1360.500**	
Weight kg		15.4	20.0	22.8	24.8	28.4	
Protection category IP to IEC 60 529		IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA		NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	
Product-specific scope of supply							
Door(s)		1	1	1	1	1	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	
Cam lock		1	1	2	2	2	
Gland plate, size		5	5	5	5	5	
Gland plate, qty.		1	1	1	1	1	
Accessories							
Rails for interior installation	4 pc(s).	2383.210	2383.350	2383.210	2383.250	2383.350	716
Wall mounting bracket	4 pc(s).	2508.100	2508.100	2508.100	2508.100	2508.100	698
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	658
180° hinges	2 pc(s).	2449.000	2449.000	2449.000	2449.000	2449.000	684
Door stay	5 pc(s).	2519.000	2519.000	2519.000	2519.000	2519.000	688
Eyebolts		–	–	–	–	–	
LED system light	1 pc(s).	2500.100	2500.100	2500.100	2500.100	2500.100	750
Dust guard trim	1 pc(s).	2426.500	2426.500	2426.500	2426.500	2426.500	691
Wiring plan pocket, plastic		see page	see page	see page	see page	see page	687
Cable gland, brass		see page	see page	see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	see page	see page	776
Mounting bars	20 pc(s).	2326.000	2326.000	2326.000	2326.000	2326.000	685
Earth straps		see page	see page	see page	see page	see page	762

Width (B) mm	Packs of	600	600	600	600	600	Page
Height (H) mm		760	760	800	1000	1200	
Depth (T) mm		210	350	250	250	300	
Mounting plate width (F) mm		549	549	549	539	540	
Mounting plate height (G) mm		730	730	770	955	1155	
Material thickness - enclosure mm		1.38	1.5	1.5	1.5	1.5	
Material thickness - door mm		2.0	2.0	2.0	2.0	2.0	
Mounting plate thickness mm		3.0	3.0	3.0	3.0	3.0	
Model No.	1 pc(s).	**1076.500**	**1376.500**	**1058.500**	**1090.500**	**1260.500**	
Weight kg		32.1	36.0	33.6	50.5	55.0	
Protection category IP to IEC 60 529		IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA		NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	
Product-specific scope of supply							
Door(s)		1	1	1	1	1	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	
Cam lock		2	2	2	2	–	
3-point lock system		–	–	–	–	■	
Gland plate, size		5	5	5	5	5	
Gland plate, qty.		1	1	1	1	1	
Accessories							
Rails for interior installation	4 pc(s).	2383.210	2383.350	2383.250	2383.250	2383.300	716
Wall mounting bracket	4 pc(s).	2508.100	2508.100	2508.100	2508.100	2508.100	698
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	658
180° hinges	2 pc(s).	2449.000	2449.000	2449.000	2449.000	2449.000	684
Door stay	5 pc(s).	2519.000	2519.000	2519.000	2519.000	2519.000	688
Eyebolts	4 pc(s).	–	–	–	–	2509.000	697
LED system light	1 pc(s).	2500.100	2500.100	2500.110	2500.110	2500.110	750
Dust guard trim	1 pc(s).	2426.500	2426.500	2426.500	2426.500	2426.500	691
Wiring plan pocket, plastic		see page	see page	see page	see page	see page	687
Cable gland, brass		see page	see page	see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	see page	see page	776
Mounting bars	20 pc(s).	2326.000	2326.000	2326.000	2326.000	2326.000	685
Earth straps		see page	see page	see page	see page	see page	762

Width (B) mm	Packs of	760	760	800	800	800	Page
Height (H) mm		760	760	600	1000	1200	
Depth (T) mm		210	300	300	300	300	
Mounting plate width (F) mm		704	704	749	739	740	
Mounting plate height (G) mm		730	730	570	955	1155	
Material thickness - enclosure mm		1.5	1.5	1.5	1.5	1.5	
Material thickness - door mm		2.0	2.0	2.0	2.0	2.0	
Mounting plate thickness mm		3.0	3.0	2.5	3.0	3.0	
Model No.	1 pc(s).	**1077.500**	**1073.500**	**1055.500**	**1180.500**	**1280.500**	
Weight kg		40.0	44.5	33.9	57.0	70.0	
Protection category IP to IEC 60 529		IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA		NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	
Product-specific scope of supply							
Door(s)		1	1	1	1	1	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	
Cam lock		2	2	2	2	–	
3-point lock system		–	–	–	–	■	
Gland plate, size		5	5	5	5	5	
Gland plate, qty.		1	1	1	1	1	
Accessories							
Rails for interior installation	4 pc(s).	2383.210	2383.300	2383.300	2383.300	2383.300	716
Wall mounting bracket	4 pc(s).	2508.100	2508.100	2508.100	2508.100	2508.100	698
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	658
180° hinges	2 pc(s).	2449.000	2449.000	2449.000	2449.000	2449.000	684
Door stay	5 pc(s).	2519.000	2519.000	2519.000	2519.000	2519.000	688
Eyebolts	4 pc(s).	–	–	–	2509.000	2509.000	697
LED system light	1 pc(s).	2500.110	2500.110	2500.110	2500.110	2500.110	750
Dust guard trim	1 pc(s).	2426.500	2426.500	2426.500	2426.500	2426.500	691
Wiring plan pocket, plastic		see page	see page	see page	see page	see page	687
Cable gland, brass		see page	see page	see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	see page	see page	776
Mounting bars	20 pc(s).	2327.000	2327.000	2328.000	2328.000	2328.000	685
Earth straps		see page	see page	see page	see page	see page	762

Width (B) mm	Packs of	1000	1000	1000	1000	1000	Page
Height (H) mm		760	760	1000	1200	1400	
Depth (T) mm		210	300	300	300	300	
Mounting plate width (F) mm		944	944	939	940	940	
Mounting plate height (G) mm		730	730	955	1155	1355	
Material thickness - enclosure mm		1.5	1.5	1.5	1.5	1.5	
Material thickness - door mm		2.0	2.0	2.0	2.0	2.0	
Mounting plate thickness mm		3.0	3.0	3.0	3.0	3.0	
Model No.	1 pc(s).	**1100.500**	**1130.500**	**1110.500**	**1213.500**	**1114.500**	
Weight kg		52.0	56.0	71.0	85.0	97.0	
Protection category IP to IEC 60 529		IP 55	IP 55	IP 55	IP 55	IP 55	
Protection category NEMA		NEMA 12	NEMA 12	NEMA 12	NEMA 12	NEMA 12	
Product-specific scope of supply							
Door(s)		2	2	2	2	2	
Door hinged on the right, may be swapped to the left		–	–	–	–	–	
Cam lock		2	2	2	–	–	
3-point lock system		–	–	–	■	■	
Gland plate, size		4	4	4	4	4	
Gland plate, qty.		2	2	2	2	2	
Accessories							
Rails for interior installation	4 pc(s).	2383.210	2383.300	2383.300	2383.300	2383.300	716
Wall mounting bracket	4 pc(s).	2508.100	2508.100	2508.100	2508.100	2508.100	698
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	658
180° hinges	2 pc(s).	2449.000	2449.000	2449.000	2449.000	2449.000	684
Door stay	5 pc(s).	2519.000	2519.000	2519.000	2519.000	2519.000	688
Eyebolts	4 pc(s).	–	–	–	2509.000	2509.000	697
LED system light	1 pc(s).	2500.110	2500.110	2500.110	2500.110	2500.110	750
Dust guard trim	1 pc(s).	2426.500	2426.500	2426.500	2426.500	2426.500	691
Wiring plan pocket, plastic		see page	see page	see page	see page	see page	687
Cable gland, brass		see page	see page	see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	see page	see page	776
Mounting bars	20 pc(s).	2325.000	2325.000	2325.000	2325.000	2325.000	685
Earth straps		see page	see page	see page	see page	see page	762

Compact system enclosures CM



System accessories Page 613 **System lights** Page 750 **Cable duct** Page 781 **Climate control** Page 389

Material:
- Enclosure: Sheet steel 1.5 mm
- Door: Sheet steel, 2.0 mm, all-round foamed-in PU seal
- Mounting plate: Sheet steel 3.0 mm

Surface finish:
- Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
- Mounting plate: Zinc-plated

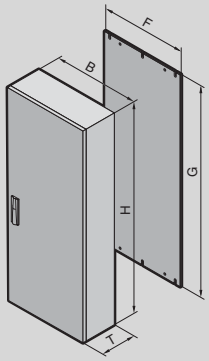
Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 55 with selection of the appropriate gland plates or trim panel

Protection category NEMA:
- NEMA 12 with selection of the appropriate gland plates or trim panel

Supply includes:
- Enclosure with hinged door(s)
- 3-point locking system with double-bit insert
- Mounting plate
- Open base for individual cable entry

Approvals:
- UL
- cUL
- CSA
- TÜV
- Lloyds Register of Shipping



Width 600 – 800 mm

Width (B) mm	Packs of	600	600	600	600	800	800	800	Page
Height (H) mm		800	1000	1200	1200	1000	1000	1200	
Depth (T) mm		400	400	300	400	300	400	300	
Mounting plate width (F) mm		540	540	540	540	740	740	740	
Mounting plate height (G) mm		755	955	1155	1155	955	955	1155	
Model No.	1 pc(s).	**5110.500**	**5111.500**	**5112.500**	**5113.500**	**5114.500**	**5115.500**	**5116.500**	
Weight kg		39.0	49.0	52.0	56.0	57.0	61.0	65.0	
Door(s)		1	1	1	1	1	1	1	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	■	■	
Accessories									
Gland plates		see page	see page	see page	see page	see page	see page	see page	632
Cable entry plates	1 pc(s).	5001.226	5001.226	5001.226	5001.226	5001.227	5001.227	5001.227	768
Cable clamp rails	1 pc(s).	5001.080	5001.080	5001.080	5001.080	5001.081	5001.081	5001.081	783
Rails for interior installation		see page	see page	see page	see page	see page	see page	see page	716
Rain canopies, sheet steel	1 pc(s).	5001.310	5001.310	–	5001.310	–	5001.330	–	690
Base configuration rail	2 pc(s).	5001.370	5001.370	5001.371	5001.370	5001.371	5001.370	5001.371	719
Trim panel	1 pc(s).	5001.130	5001.130	–	5001.130	–	5001.140	–	631
Section for cable entry, centre	2 pc(s).	8802.060	8802.060	8802.060	8802.060	8802.080	8802.080	8802.080	769
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	see page	see page	see page	see page	717
Mounting bars	20 pc(s).	4596.000	4596.000	4596.000	4596.000	4598.000	4598.000	4598.000	685
Wiring plan pockets of sheet steel	1 pc(s).	4116.500	4116.500	4116.500	4116.500	4118.500	4118.500	4118.500	688
Folding lever handle		see page	see page	see page	see page	see page	see page	see page	675
Lock inserts		see page	see page	see page	see page	see page	see page	see page	675
LED system light		see page	see page	see page	see page	see page	see page	see page	750

Width 800 – 1200 mm

Width (B) mm	Packs of	800	1000	1000	1000	1000	1000	1200	Page
Height (H) mm		1200	1000	1200	1200	1400	1400	1200	
Depth (T) mm		400	300	300	400	300	400	400	
Mounting plate width (F) mm		740	940	940	940	940	940	1140	
Mounting plate height (G) mm		1155	955	1155	1155	1355	1355	1155	
Model No.	1 pc(s).	**5117.500**	**5118.500**	**5119.500**	**5120.500**	**5121.500**	**5122.500**	**5123.500**	
Weight kg		71.0	70.0	82.0	86.0	95.0	100.0	102.0	
Door(s)		1	2	2	2	2	2	2	
Door hinged on the right, may be swapped to the left		■	–	–	–	–	–	–	
Accessories									
Gland plates		see page	see page	see page	see page	see page	see page	see page	632
Cable entry plates	1 pc(s).	5001.227	5001.228	5001.228	5001.228	5001.228	5001.228	5001.229	768
Cable clamp rails	1 pc(s).	5001.081	5001.082	5001.082	5001.082	5001.082	5001.082	5001.083	783
Rails for interior installation	4 pc(s).	see page	5001.052	see page	see page	see page	see page	5001.053	716
Rain canopies, sheet steel	1 pc(s).	5001.330	–	–	5001.350	–	5001.350	5001.360	690
Base configuration rail	2 pc(s).	5001.370	5001.371	5001.371	5001.370	5001.371	5001.370	5001.370	719
Trim panel	1 pc(s).	5001.140	–	–	5001.150	–	5001.150	5001.160	631
Section for cable entry, centre		8802.080	8802.100	8802.100	8802.100	8802.100	8802.100	8802.120	769
	Packs of	2 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	see page	see page	see page	see page	717
Mounting bars	20 pc(s).	4598.000	4309.000	4309.000	4309.000	4309.000	4309.000	4596.000	685
Wiring plan pockets of sheet steel	1 pc(s).	4118.500	4115.500	4115.500	4115.500	4115.500	4115.500	4116.500	688
Folding lever handle		see page	see page	see page	see page	see page	see page	see page	675
Lock inserts		see page	see page	see page	see page	see page	see page	see page	675
LED system light		see page	see page	see page	see page	see page	see page	see page	750



Plastic enclosures KS



System accessories Page 613 **KS for potentially explosive areas** Page 234

Material:
- Enclosure and door: Fibre-glass-reinforced unsaturated polyester
- Door: All-round foamed-in PU seal
- Mounting plate: Sheet steel
- Viewing window: Glazed acrylic, 3.0 mm with all-round rubber cable clamp strip

Surface finish:
- Enclosure and door: Dyed plastic with no after-treatment
- Mounting plate: Zinc-plated

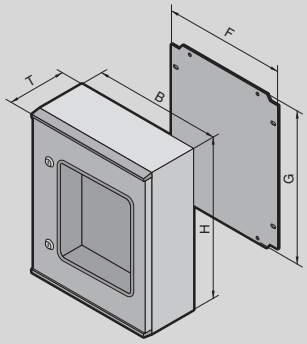
Colour:
- Similar to RAL 7035

Supply includes:
- Enclosure with hinged door, of all-round solid construction, 3 mm double-bit lock
- Mounting plate
- Twin seal on the top and bottom edges of the door as integral rain protection strip
- Press-fitted C sections at the sides for infinitely variable mounting plate depth adjustment

Please observe the product-specific scope of supply.

Note:
- Under the influence of long-term UV radiation (sunlight) in conjunction with wind and rain, the surface finish may become visually impaired. This does not affect the protection of the installed electrical components in any way. If the enclosures cannot be protected from UV radiation, we recommend that they should be painted with a PUR paint. Ambient temperature -30°C...+75°C.

Approvals:
- TÜV
- Germanischer Lloyd
- Russian Maritime Register of Shipping
- Lloyds Register of Shipping
- Bureau Veritas



Width (B) mm	Packs of	200	250	300	400	400	400	400	500	Page
Height (H) mm		300	350	400	400	400	600	600	500	
Depth (T) mm		150	150	200	200	200	200	200	300	
Mounting plate width (F) mm		145	195	245	345	345	345	345	417	
Mounting plate height (G) mm		250	300	350	350	350	550	550	450	
Mounting plate thickness mm		2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5	
Model No.	1 pc(s).	**1423.500**	**1432.500**	**1434.500**	**1444.500**	**1448.500**	**1446.500**	**1449.500**	**1453.500**	
Weight kg		3.4	4.3	5.9	7.9	8.0	11.5	11.2	13.5	
Protection category IP to IEC 60 529		IP 66	IP 66	IP 66	IP 66	IP 56	IP 66	IP 56	IP 66	
Protection category NEMA		NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 12	NEMA 4X	NEMA 12	NEMA 4X	
Product-specific scope of supply										
Door(s)		1	1	1	1	1	1	1	1	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	■	■	■	
Removable centre bar, lockable door on right		–	–	–	–	–	–	–	–	
Cam lock		1	1	2	2	2	2	2	2	
3-point lock system		–	–	–	–	–	–	–	–	
Viewing window		–	–	–	–	■	–	■	–	
Accessories										
Wall mounting bracket	4 pc(s).	1483.010	1483.010	1483.010	1483.010	1483.010	1483.010	1483.010	1483.010	699
Pole clamp	2 pc(s).	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	700
Threaded inserts M6	20 pc(s).	1482.000	1482.000	1482.000	1482.000	1482.000	1482.000	1482.000	1482.000	737
Mounting plate adjustment bracket	4 pc(s).	1481.000	1481.000	1481.000	1481.000	1481.000	1481.000	1481.000	1491.000	705

Width (B) mm	Packs of	500	600	600	600	600	800	800	1000	Page
Height (H) mm		500	600	600	800	800	1000	1000	1000	
Depth (T) mm		300	200	200	300	300	300	300	300	
Mounting plate width (F) mm		417	545	545	517	517	717	717	917	
Mounting plate height (G) mm		450	550	550	750	750	950	950	950	
Mounting plate thickness mm		2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.0	
Model No.	1 pc(s).	**1454.500**	**1466.500**	**1467.500**	**1468.500**	**1469.500**	**1479.500**	**1480.500**	**1400.500**	
Weight kg		13.4	15.9	15.6	26.5	26.0	39.9	41.7	51.6	
Protection category IP to IEC 60 529		IP 56	IP 66	IP 56	IP 66	IP 56	IP 56	IP 66	IP 56	
Protection category NEMA		NEMA 12	NEMA 4X	NEMA 12	NEMA 4X	NEMA 12	NEMA 12	NEMA 4X	NEMA 12	
Product-specific scope of supply										
Door(s)		1	1	1	1	1	1	1	2	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	■	■	–	
Removable centre bar, lockable door on right		–	–	–	–	–	–	–	■	
Cam lock		2	2	2	–	–	–	–	–	
3-point lock system		–	–	–	■	■	■	■	■	
Viewing window		■	–	■	–	■	■	–	–	
Accessories										
Wall mounting bracket	4 pc(s).	1483.010	1483.010	1483.010	1483.010	1483.010	1483.010	1483.010	1483.010	699
Pole clamp	2 pc(s).	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	700
Threaded inserts M6	20 pc(s).	1482.000	1482.000	1482.000	1482.000	1482.000	1482.000	1482.000	1482.000	737
Mounting plate adjustment bracket	4 pc(s).	1491.000	1481.000	1481.000	1491.000	1491.000	1491.000	1491.000	1491.000	705





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Enclosure systems

TS 8 baying systems

Height 1200 mm, depth 500 mm....75
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TS 8 baying systems
System enclosures SE 8

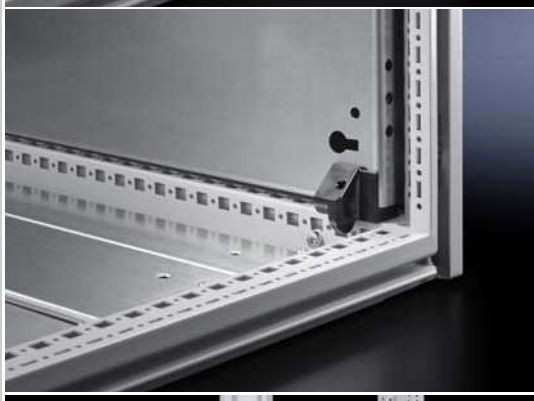




Improved mounting plate

- Simple one-person assembly
- The mounting plate slides easily on slide rails with plastic skids; slide rails may also be used for interior installation
- Precise positioning of the mounting plate on a 25 mm pitch pattern





New type of Flex-Block base/plinth system

- Fast assembly by simply clipping together the base/plinth components
- The enclosure is easily transported, both when empty and fully configured, by removing the base/plinth trim panel
- Space-saving cable management in the base/plinth means more space for enclosure configuration



Comprehensive potential equalisation

- In standard enclosures, all panels and gland plates may be conductively connected to one another via assembly components





TS 8 baying systems





Versatile baying options

- Around corners, forwards, backwards, to the left or right or even upwards – the baying options are unlimited
- Baying connection technology for fast assembly and stable, permanent baying
- The transportation of bayed TS 8 enclosures is supported



Symmetrical frame

- Symmetrical layout supports access from all sides
- Identical system accessories in the width and depth for interior installation
- Accessible from all sides, thanks to the possibility of hinged side panels



Universal interior installation

- Two symmetrical levels with identical pitch patterns in the width and depth
- Interior installation with two mounting levels
- Up to 15% better space utilisation, thanks to consistent use of the outer mounting level
- Extensive system accessories tailored to the frame section for individual interior installation



System enclosures SE 8



Smart construction

- High stability thanks to a self-supporting, integral construction technique, with roof and sides from a single piece with roll-formed “frame”
- High protection category
- Sheet steel and stainless steel versions for almost every application area



Time-saving interior installation

- Identical mounting plate and compatibility with the TS 8 baying system for uniform engineering
- Minimal assembly work thanks to the roll-formed sides



Unlimited installation options

- Automatic potential equalisation
- Optimum cable entry
- Wide range of accessories with the TS 8 system platform
- Different base/plinth variants: Flex-Block, cable chamber or standard base/plinth in sheet steel or stainless steel



Baying systems TS 8



System accessories Page 613 **TS 8 stainless steel** Page 222 **TS 8 EMC-shielded** Page 93 **TS 8 IP 66/NEMA 4X** Page 87

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Roof: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plates: Sheet steel, 1.5 mm, zinc-plated
- Mounting plate: Sheet steel, 3 mm, zinc-plated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 55

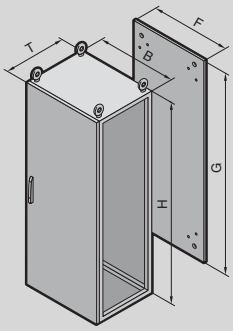
Protection category NEMA:
- NEMA 12

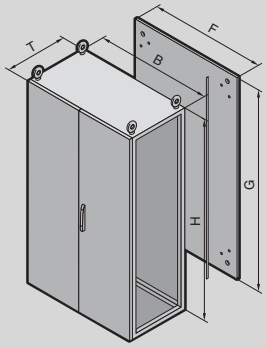
Supply includes:
- Enclosure frame
- Door(s)
- R/h door hinge with single-door enclosures, may be swapped to opposite side
- Roof plate
- Rear panel
- Gland plates
- Mounting plate
- 2 TS punched rails 18 x 38 mm
- 4 eyebolts
- Lock: 3 mm double-bit

Please observe the product-specific scope of supply.

Note:
- Enclosure width 400 mm: Without tubular door frame, mounting plate, TS punched rails 18 x 38 mm and gland plates. Protection category IP 55 and NEMA 12 are not met.

Approvals:
- UL
- cUL
- CSA
- TÜV
- Norske Veritas
- Russian Maritime Register of Shipping
- Lloyds Register of Shipping
- Bureau Veritas





Height 1200 mm, depth 500 mm

Width (B) mm	Packs of	600	800	1200	Page
Height (H) mm		1200	1200	1200	
Depth (T) mm		500	500	500	
Mounting plate width (F) mm		499	699	1099	
Mounting plate height (G) mm		1096	1096	1096	
Model No.	1 pc(s).	**8615.500**	**8815.500**	**8215.500**	
Weight kg		74.5	92.1	140.0	
Product-specific scope of supply					
Door(s)		1	1	2	
Accessories					
Side panels, screw-fastened, sheet steel	2 pc(s).	8115.235	8115.235	8115.235	643
Divider panel		–	–	–	
Divider panel for module plates		–	–	–	
Glazed door		–	–	–	
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid		see page	see page	see page	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid		see page	see page	see page	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.600	8601.800	8601.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.050	8601.050	8601.050	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.600	8602.800	8602.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.050	8602.050	8602.050	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	628
Cable clamp rails	2 pc(s).	4191.000	4192.000	4196.000	783
C rails 30/15		see page	see page	see page	723
Section for cable entry, rear		8802.065	8802.085	8802.125	770
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry plates		8800.060	8800.080	8800.120	768
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Snap-on nut TS		see page	see page	see page	729
Mounting bars		see page	see page	see page	685
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	717
TS punched section with mounting flange, 23 x 73 mm		see page	see page	see page	718
Wiring plan pockets of sheet steel		see page	see page	see page	688
180° hinges		see page	see page	see page	684
Door stay for escape routes	1 pc(s).	4583.500	4583.500	4583.500	688
Ride-up roller	10 pc(s).	4538.000	4538.000	4538.000	689
Cable duct for vertical TS section		see page	see page	see page	781
Cable duct for mounting plate		see page	see page	see page	782
Earth straps		see page	see page	see page	762
Mounting plate		–	–	–	
LED system light		see page	see page	see page	750
Comfort handle		see page	see page	see page	674

Baying systems TS 8

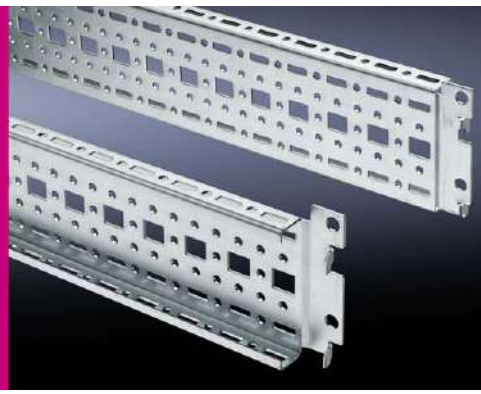
Height 1400 mm, depth 500 mm

Width (B) mm	Packs of	600	800	1200	Page
Height (H) mm		1400	1400	1400	
Depth (T) mm		500	500	500	
Mounting plate width (F) mm		499	699	1099	
Mounting plate height (G) mm		1296	1296	1296	
Model No.	1 pc(s).	**8645.500**	**8845.500**	**8245.500**	
Weight kg		86.0	107.5	163.5	
Product-specific scope of supply					
Door(s)		1	1	2	
Accessories					
Side panels, screw-fastened, sheet steel	2 pc(s).	8145.235	8145.235	8145.235	643
Divider panel		–	–	–	
Divider panel for module plates		–	–	–	
Glazed door		–	–	–	
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid		see page	see page	see page	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid		see page	see page	see page	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.600	8601.800	8601.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.050	8601.050	8601.050	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.600	8602.800	8602.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.050	8602.050	8602.050	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	628
Cable clamp rails	2 pc(s).	4191.000	4192.000	4196.000	783
C rails 30/15		see page	see page	see page	723
Section for cable entry, rear		8802.065	8802.085	8802.125	770
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry plates		8800.060	8800.080	8800.120	768
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Snap-on nut TS		see page	see page	see page	729
Mounting bars		see page	see page	see page	685
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	717
TS punched section with mounting flange, 23 x 73 mm		see page	see page	see page	718
Wiring plan pockets of sheet steel		see page	see page	see page	688
180° hinges		see page	see page	see page	684
Door stay for escape routes	1 pc(s).	4583.500	4583.500	4583.500	688
Ride-up roller	10 pc(s).	4538.000	4538.000	4538.000	689
Cable duct for vertical TS section		see page	see page	see page	781
Cable duct for mounting plate		see page	see page	see page	782
Earth straps		see page	see page	see page	762
Mounting plate		–	–	–	
LED system light		see page	see page	see page	750
Comfort handle		see page	see page	see page	674

Height 1600 mm, depth 500 mm

Width (B) mm	Packs of	600	800	1200	Page
Height (H) mm		1600	1600	1600	
Depth (T) mm		500	500	500	
Mounting plate width (F) mm		499	699	1099	
Mounting plate height (G) mm		1496	1496	1496	
Model No.	1 pc(s).	**8665.500**	**8865.500**	**8265.500**	
Weight kg		100.0	103.0	159.3	
Product-specific scope of supply					
Door(s)		1	1	2	
Accessories					
Side panels, screw-fastened, sheet steel	2 pc(s).	8165.235	8165.235	8165.235	643
Divider panel		–	–	–	
Divider panel for module plates		–	–	–	
Glazed door		–	–	–	
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid		see page	see page	see page	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid		see page	see page	see page	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.600	8601.800	8601.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.050	8601.050	8601.050	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.600	8602.800	8602.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.050	8602.050	8602.050	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	628
Cable clamp rails	2 pc(s).	4191.000	4192.000	4196.000	783
C rails 30/15		see page	see page	see page	723
Section for cable entry, rear		8802.065	8802.085	8802.125	770
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry plates		8800.060	8800.080	8800.120	768
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Snap-on nut TS		see page	see page	see page	729
Mounting bars		see page	see page	see page	685
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	717
TS punched section with mounting flange, 23 x 73 mm		see page	see page	see page	718
Wiring plan pockets of sheet steel		see page	see page	see page	688
180° hinges		see page	see page	see page	684
Door stay for escape routes	1 pc(s).	4583.500	4583.500	4583.500	688
Ride-up roller	10 pc(s).	4538.000	4538.000	4538.000	689
Cable duct for vertical TS section		see page	see page	see page	781
Cable duct for mounting plate		see page	see page	see page	782
Earth straps		see page	see page	see page	762
Mounting plate		–	–	–	
LED system light		see page	see page	see page	750
Comfort handle		see page	see page	see page	674

Accessories



TS punched section with mounting flange

see page 717

Baying systems TS 8

Height 1800 mm, depth 400 mm

Width (B) mm	Packs of	600	800	1000	1000	1200	Page
Height (H) mm		1800	1800	1800	1800	1800	
Depth (T) mm		400	400	400	400	400	
Mounting plate width (F) mm		499	699	899	899	1099	
Mounting plate height (G) mm		1696	1696	1696	1696	1696	
Model No.	1 pc(s).	**8684.500**	**8884.500**	**8080.500**	**8084.500**	**8284.500**	
Weight kg		91.3	113.5	140.0	136.4	170.6	
Product-specific scope of supply							
Door(s)		1	1	2	1	2	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s).	8184.235	8184.235	8184.235	8184.235	8184.235	643
Divider panel	1 pc(s).	8609.840	8609.840	8609.840	8609.840	8609.840	647
Divider panel for module plates		–	–	–	–	–	
Glazed door	1 pc(s).	8610.685	8610.885	–	–	–	659
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid		see page	see page	see page	see page	see page	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid		see page	see page	see page	see page	see page	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.600	8601.800	8601.000	8601.000	8601.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.040	8601.040	8601.040	8601.040	8601.040	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.600	8602.800	8602.000	8602.000	8602.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.040	8602.040	8602.040	8602.040	8602.040	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	628
Cable clamp rails	2 pc(s).	4191.000	4192.000	4336.000	4336.000	4196.000	783
C rails 30/15	6 pc(s).	4944.000	4945.000	4946.000	4946.000	4947.000	723
Section for cable entry, rear		8802.065	8802.085	8802.105	8802.105	8802.125	770
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	
Cable entry plates		8800.060	8800.080	8800.100	8800.100	8800.120	768
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	
Snap-on nut TS		see page	see page	see page	see page	see page	729
Mounting bars	20 pc(s).	4596.000	see page	see page	see page	see page	685
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	see page	see page	717
TS punched section with mounting flange, 23 x 73 mm	4 pc(s).	8612.560	8612.580	8612.500	8612.500	8612.520	718
Wiring plan pockets of sheet steel	1 pc(s).	see page	see page	see page	4124.000	see page	688
180° hinges		see page	see page	see page	see page	see page	684
Door stay for escape routes	1 pc(s).	4583.500	4583.500	4583.500	4583.500	4583.500	688
Ride-up roller	10 pc(s).	4538.000	4538.000	4538.000	4538.000	4538.000	689
Cable duct for vertical TS section		see page	see page	see page	see page	see page	781
Cable duct for mounting plate		see page	see page	see page	see page	see page	782
Earth straps		see page	see page	see page	see page	see page	762
Mounting plate		–	–	–	–	–	
LED system light		see page	see page	see page	see page	see page	750
Comfort handle		see page	see page	see page	see page	see page	674

Height 1800 mm, depth 500 mm

Width (B) mm	Packs of	400	600	800	800	1200	Page
Height (H) mm		1800	1800	1800	1800	1800	
Depth (T) mm		500	500	500	500	500	
Mounting plate width (F) mm		–	499	699	699	1099	
Mounting plate height (G) mm		–	1696	1696	1696	1696	
Model No.	1 pc(s).	**8485.510**	**8685.500**	**8880.500**	**8885.500**	**8285.500**	
Weight kg		49.2	93.8	122.5	115.8	173.3	
Product-specific scope of supply							
Door(s)		1	1	2	1	2	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s).	8185.235	8185.235	8185.235	8185.235	8185.235	643
Divider panel	1 pc(s).	8609.850	8609.850	8609.850	8609.850	8609.850	647
Divider panel for module plates	1 pc(s).	8609.100	8609.100	8609.100	8609.100	8609.100	648
Glazed door	1 pc(s).	–	8610.685	–	8610.885	–	659
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid		see page	see page	see page	see page	see page	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid		see page	see page	see page	see page	see page	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.400	8601.600	8601.800	8601.800	8601.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.050	8601.050	8601.050	8601.050	8601.050	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.400	8602.600	8602.800	8602.800	8602.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.050	8602.050	8602.050	8602.050	8602.050	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	628
Cable clamp rails	2 pc(s).	4193.000	4191.000	4192.000	4192.000	4196.000	783
C rails 30/15	6 pc(s).	4943.000	see page	see page	see page	see page	723
Section for cable entry, rear		–	8802.065	8802.085	8802.085	8802.125	770
	Packs of	–	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry plates		–	8800.060	8800.080	8800.080	8800.120	768
	Packs of	–	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	
Snap-on nut TS		see page	see page	see page	see page	see page	729
Mounting bars		–	see page	see page	see page	see page	685
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	see page	see page	717
TS punched section with mounting flange, 23 x 73 mm	4 pc(s).	8612.550	see page	see page	see page	see page	718
Wiring plan pockets of sheet steel	1 pc(s).	–	see page	4114.000	see page	see page	688
180° hinges		see page	see page	see page	see page	see page	684
Door stay for escape routes	1 pc(s).	–	4583.500	4583.500	4583.500	4583.500	688
Ride-up roller	10 pc(s).	4538.000	4538.000	4538.000	4538.000	4538.000	689
Cable duct for vertical TS section		see page	see page	see page	see page	see page	781
Cable duct for mounting plate		see page	see page	see page	see page	see page	782
Earth straps		see page	see page	see page	see page	see page	762
Mounting plate	1 pc(s).	8614.180	–	–	–	–	702
LED system light		see page	see page	see page	see page	see page	750
Comfort handle		see page	see page	see page	see page	see page	674



Baying systems TS 8

Height 1800 mm, depth 600 mm

Width (B) mm	Packs of	400	600	800	800	1200	Page
Height (H) mm		1800	1800	1800	1800	1800	
Depth (T) mm		600	600	600	600	600	
Mounting plate width (F) mm		–	499	699	699	1099	
Mounting plate height (G) mm		–	1696	1696	1696	1696	
Model No.	1 pc(s).	**8486.510**	**8686.500**	**8881.500**	**8886.500**	**8286.500**	
Weight kg		51.7	96.8	125.8	120.3	179.9	
Product-specific scope of supply							
2 support strips fitted in the enclosure depth		■	■	■	■	■	
Door(s)		1	1	2	1	2	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s).	8186.235	8186.235	8186.235	8186.235	8186.235	643
Divider panel	1 pc(s).	8609.860	8609.860	8609.860	8609.860	8609.860	647
Divider panel for module plates	1 pc(s).	8609.110	8609.110	8609.110	8609.110	8609.110	648
Glazed door	1 pc(s).	–	8610.685	–	8610.885	–	659
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	8100.600	see page	see page	see page	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid	2 pc(s).	see page	8200.600	see page	see page	see page	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.400	8601.600	8601.800	8601.800	8601.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.060	8601.060	8601.060	8601.060	8601.060	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.400	8602.600	8602.800	8602.800	8602.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.060	8602.060	8602.060	8602.060	8602.060	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	628
Cable clamp rails	2 pc(s).	4193.000	4191.000	4192.000	4192.000	4196.000	783
C rails 30/15	6 pc(s).	4944.000	4944.000	see page	see page	see page	723
Section for cable entry, rear		–	8802.065	8802.085	8802.085	8802.125	770
	Packs of	–	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry plates		–	8800.060	8800.080	8800.080	8800.120	768
	Packs of	–	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	
Snap-on nut TS		see page	see page	see page	see page	see page	729
Mounting bars		–	see page	see page	see page	see page	685
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	see page	see page	717
TS punched section with mounting flange, 23 x 73 mm	4 pc(s).	8612.560	8612.560	see page	see page	see page	718
Wiring plan pockets of sheet steel	1 pc(s).	–	see page	4114.000	see page	see page	688
180° hinges		see page	see page	see page	see page	see page	684
Door stay for escape routes	1 pc(s).	–	4583.500	4583.500	4583.500	4583.500	688
Ride-up roller	10 pc(s).	4538.000	4538.000	4538.000	4538.000	4538.000	689
Cable duct for vertical TS section		see page	see page	see page	see page	see page	781
Cable duct for mounting plate		see page	see page	see page	see page	see page	782
Earth straps		see page	see page	see page	see page	see page	762
Mounting plate	1 pc(s).	8614.180	–	–	–	–	702
LED system light		see page	see page	see page	see page	see page	750
Comfort handle		see page	see page	see page	see page	see page	674

Height 2000 mm, depth 400 mm

Width (B) mm	Packs of	600	800	1000	1200	Page
Height (H) mm		2000	2000	2000	2000	
Depth (T) mm		400	400	400	400	
Mounting plate width (F) mm		499	699	899	1099	
Mounting plate height (G) mm		1896	1896	1896	1896	
Model No.	1 pc(s).	**8604.500**	**8804.500**	**8004.500**	**8204.500**	
Weight kg		99.0	124.0	152.8	184.5	
Product-specific scope of supply						
Door(s)		1	1	2	2	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s).	8104.235	8104.235	8104.235	8104.235	643
Divider panel	1 pc(s).	8609.040	8609.040	8609.040	8609.040	647
Divider panel for module plates		–	–	–	–	
Glazed door	1 pc(s).	8610.605	8610.805	–	–	659
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid		see page	see page	see page	see page	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid		see page	see page	see page	see page	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.600	8601.800	8601.000	8601.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.040	8601.040	8601.040	8601.040	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.600	8602.800	8602.000	8602.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.040	8602.040	8602.040	8602.040	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	628
Cable clamp rails	2 pc(s).	4191.000	4192.000	4336.000	4196.000	783
C rails 30/15	6 pc(s).	4944.000	4945.000	4946.000	4947.000	723
Section for cable entry, rear		8802.065	8802.085	8802.105	8802.125	770
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Cable entry plates		8800.060	8800.080	8800.100	8800.120	768
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Snap-on nut TS		see page	see page	see page	see page	729
Mounting bars		see page	see page	see page	see page	685
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	see page	717
TS punched section with mounting flange, 23 x 73 mm	4 pc(s).	8612.520	8612.580	8612.500	8612.520	718
Wiring plan pockets of sheet steel		see page	see page	see page	see page	688
180° hinges		see page	see page	see page	see page	684
Door stay for escape routes	1 pc(s).	4583.500	4583.500	4583.500	4583.500	688
Ride-up roller	10 pc(s).	4538.000	4538.000	4538.000	4538.000	689
Cable duct for vertical TS section		see page	see page	see page	see page	781
Cable duct for mounting plate		see page	see page	see page	see page	782
Earth straps		see page	see page	see page	see page	762
Mounting plate		–	–	–	–	
LED system light		see page	see page	see page	see page	750
Comfort handle		see page	see page	see page	see page	674

Accessories



Lock systems

see from page 674

Baying systems TS 8

Height 2000 mm, depth 500 mm

Width (B) mm	Packs of	400	600	800	1000	1200	Page
Height (H) mm		2000	2000	2000	2000	2000	
Depth (T) mm		500	500	500	500	500	
Mounting plate width (F) mm		–	499	699	899	1099	
Mounting plate height (G) mm		–	1896	1896	1896	1896	
Model No.	1 pc(s).	**8405.510**	**8605.500**	**8805.500**	**8005.500**	**8205.500**	
Weight kg		60.7	101.3	126.3	157.1	190.6	
Product-specific scope of supply							
Door(s)		1	1	1	2	2	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s).	8105.235	8105.235	8105.235	8105.235	8105.235	643
Divider panel	1 pc(s).	8609.050	8609.050	8609.050	8609.050	8609.050	647
Divider panel for module plates	1 pc(s).	8609.120	8609.120	8609.120	8609.120	8609.120	648
Glazed door	1 pc(s).	–	8610.605	8610.805	–	–	659
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid		see page	see page	see page	see page	see page	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid		see page	see page	see page	see page	see page	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.400	8601.600	8601.800	8601.000	8601.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.050	8601.050	8601.050	8601.050	8601.050	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.400	8602.600	8602.800	8602.000	8602.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.050	8602.050	8602.050	8602.050	8602.050	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	628
Cable clamp rails	2 pc(s).	4193.000	4191.000	4192.000	4336.000	4196.000	783
C rails 30/15	6 pc(s).	4943.000	see page	see page	see page	see page	723
Section for cable entry, rear		–	8802.065	8802.085	8802.105	8802.125	770
	Packs of	–	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Cable entry plates		–	8800.060	8800.080	8800.100	8800.120	768
	Packs of	–	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Snap-on nut TS		see page	see page	see page	see page	see page	729
Mounting bars		–	see page	see page	see page	see page	685
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	see page	see page	717
TS punched section with mounting flange, 23 x 73 mm	4 pc(s).	8612.550	see page	see page	see page	see page	718
Wiring plan pockets of sheet steel		–	see page	see page	see page	see page	688
180° hinges		see page	see page	see page	see page	see page	684
Door stay for escape routes	1 pc(s).	–	4583.500	4583.500	4583.500	4583.500	688
Ride-up roller	10 pc(s).	4538.000	4538.000	4538.000	4538.000	4538.000	689
Cable duct for vertical TS section		see page	see page	see page	see page	see page	781
Cable duct for mounting plate		see page	see page	see page	see page	see page	782
Earth straps		see page	see page	see page	see page	see page	762
Mounting plate	1 pc(s).	8614.200	–	–	–	–	702
LED system light		see page	see page	see page	see page	see page	750
Comfort handle		see page	see page	see page	see page	see page	674

Height 2000 mm, depth 600 mm

Width (B) mm	Packs of	400	600	800	1000	1200	Page
Height (H) mm		2000	2000	2000	2000	2000	
Depth (T) mm		600	600	600	600	600	
Mounting plate width (F) mm		–	499	699	899	1099	
Mounting plate height (G) mm		–	1896	1896	1896	1896	
Model No.	1 pc(s).	**8406.510**	**8606.500**	**8806.500**	**8006.500**	**8206.500**	
Weight kg		55.7	104.0	130.5	161.2	194.6	
Product-specific scope of supply							
2 support strips fitted in the enclosure depth		■	■	■	■	■	
Door(s)		1	1	1	2	2	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s).	8106.235	8106.235	8106.235	8106.235	8106.235	643
Divider panel	1 pc(s).	8609.060	8609.060	8609.060	8609.060	8609.060	647
Divider panel for module plates	1 pc(s).	8609.130	8609.130	8609.130	8609.130	8609.130	648
Glazed door	1 pc(s).	–	8610.605	8610.805	–	–	659
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	8100.600	see page	see page	see page	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid	2 pc(s).	see page	8200.600	see page	see page	see page	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.400	8601.600	see page	8601.000	8601.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.060	8601.060	see page	8601.060	8601.060	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.400	8602.600	8602.800	8602.000	8602.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.060	8602.060	see page	8602.060	8602.060	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	628
Cable clamp rails	2 pc(s).	4193.000	4191.000	4192.000	4336.000	4196.000	783
C rails 30/15	6 pc(s).	4944.000	4944.000	see page	see page	see page	723
Section for cable entry, rear		–	8802.065	8802.085	8802.105	8802.125	770
	Packs of	–	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Cable entry plates		–	8800.060	8800.080	8800.100	8800.120	768
	Packs of	–	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Snap-on nut TS		see page	see page	see page	see page	see page	729
Mounting bars		–	see page	see page	see page	see page	685
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	see page	see page	717
TS punched section with mounting flange, 23 x 73 mm	4 pc(s).	8612.560	8612.560	see page	see page	see page	718
Wiring plan pockets of sheet steel		–	see page	see page	see page	see page	688
180° hinges		see page	see page	see page	see page	see page	684
Door stay for escape routes	1 pc(s).	–	4583.500	4583.500	4583.500	4583.500	688
Ride-up roller	10 pc(s).	4538.000	4538.000	4538.000	4538.000	4538.000	689
Cable duct for vertical TS section		see page	see page	see page	see page	see page	781
Cable duct for mounting plate		see page	see page	see page	see page	see page	782
Earth straps		see page	see page	see page	see page	see page	762
Mounting plate	1 pc(s).	8614.200	–	–	–	–	702
LED system light		see page	see page	see page	see page	see page	750
Comfort handle		see page	see page	see page	see page	see page	674



Baying systems TS 8

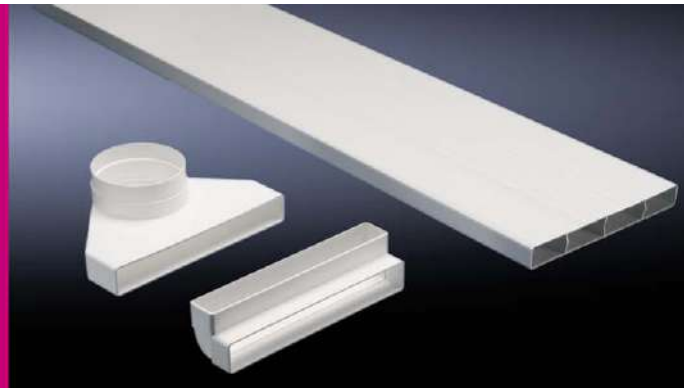
Height 2000 mm, depth 800 mm

Width (B) mm	Packs of	600	800	1200	Page
Height (H) mm		2000	2000	2000	
Depth (T) mm		800	800	800	
Mounting plate width (F) mm		499	699	1099	
Mounting plate height (G) mm		1896	1896	1896	
Model No.	1 pc(s).	**8608.500**	**8808.500**	**8208.500**	
Weight kg		111.3	137.0	203.0	
Product-specific scope of supply					
2 support strips fitted in the enclosure depth		■	■	■	
Door(s)		1	1	2	
Accessories					
Side panels, screw-fastened, sheet steel	2 pc(s).	8108.235	8108.235	8108.235	643
Divider panel	1 pc(s).	8609.080	8609.080	8609.080	647
Divider panel for module plates		–	–	–	
Glazed door	1 pc(s).	8610.605	8610.805	–	659
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	8100.800	see page	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid	2 pc(s).	see page	8200.800	see page	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.600	8601.800	8601.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.080	8601.080	8601.080	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.600	8602.800	8602.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.080	8602.080	8602.080	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	628
Cable clamp rails	2 pc(s).	4191.000	4192.000	4196.000	783
C rails 30/15	6 pc(s).	see page	4945.000	see page	723
Section for cable entry, rear		8802.065	8802.085	8802.125	770
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry plates		8800.060	8800.080	8800.120	768
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Snap-on nut TS		see page	see page	see page	729
Mounting bars		see page	see page	see page	685
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	717
TS punched section with mounting flange, 23 x 73 mm	4 pc(s).	see page	8612.580	see page	718
Wiring plan pockets of sheet steel		see page	see page	see page	688
180° hinges		see page	see page	see page	684
Door stay for escape routes	1 pc(s).	4583.500	4583.500	4583.500	688
Ride-up roller	10 pc(s).	4538.000	4538.000	4538.000	689
Cable duct for vertical TS section		see page	see page	see page	781
Cable duct for mounting plate		see page	see page	see page	782
Earth straps		see page	see page	see page	762
Mounting plate		–	–	–	
LED system light		see page	see page	see page	750
Comfort handle		see page	see page	see page	674

Height 2200 mm, depth 600 mm

Width (B) mm	Packs of	600	800	1200	Page
Height (H) mm		2200	2200	2200	
Depth (T) mm		600	600	600	
Mounting plate width (F) mm		499	699	1099	
Mounting plate height (G) mm		2096	2096	2096	
Model No.	1 pc(s).	**8626.500**	**8826.500**	**8226.500**	
Weight kg		113.1	139.3	208.0	
Product-specific scope of supply					
2 support strips fitted in the enclosure depth		■	■	■	
Door(s)		1	1	2	
Accessories					
Side panels, screw-fastened, sheet steel	2 pc(s).	8126.235	8126.235	8126.235	643
Divider panel	1 pc(s).	8609.260	8609.260	8609.260	647
Divider panel for module plates		–	–	–	
Glazed door	1 pc(s).	8610.625	8610.825	–	659
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.600	see page	see page	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid	2 pc(s).	8200.600	see page	see page	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.600	8601.800	8601.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.060	8601.060	8601.060	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.600	8602.800	8602.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.060	8602.060	8602.060	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	628
Cable clamp rails	2 pc(s).	4191.000	4192.000	4196.000	783
C rails 30/15	6 pc(s).	4944.000	see page	see page	723
Section for cable entry, rear		8802.065	8802.085	8802.125	770
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry plates		8800.060	8800.080	8800.120	768
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Snap-on nut TS		see page	see page	see page	729
Mounting bars		see page	see page	see page	685
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	717
TS punched section with mounting flange, 23 x 73 mm	4 pc(s).	8612.560	see page	see page	718
Wiring plan pockets of sheet steel		see page	see page	see page	688
180° hinges		see page	see page	see page	684
Door stay for escape routes	1 pc(s).	4583.500	4583.500	4583.500	688
Ride-up roller	10 pc(s).	4538.000	4538.000	4538.000	689
Cable duct for vertical TS section		see page	see page	see page	781
Cable duct for mounting plate		see page	see page	see page	782
Earth straps		see page	see page	see page	762
Mounting plate		–	–	–	
LED system light		see page	see page	see page	750
Comfort handle		see page	see page	see page	674

Accessories



Air duct system

see page 461

Baying systems TS 8



System accessories Page 613 **482.6 mm (19") installation accessories** Page 796 **482.6 mm (19") climate control** Page 404

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Roof: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Front frame: Extruded aluminium section with die-cast corner pieces, powder-coated
- Rear door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plates: Sheet steel, 1.5 mm, zinc-plated
- Adaptor sections: Aluminium

Colour:
- RAL 7035

Supply includes:
- Enclosure frame
- Front frame (r/h hinge, opening angle 130°, held on the left via mechanical snap fasteners)
- Rear door (r/h hinge, may be swapped to opposite side)
- Roof plate
- Adaptor sections, 482.6 mm (19") attachment level
- Gland plates
- 2 support strips fitted in the enclosure depth

Approvals:
- UL
- cUL

Electronic enclosures

Units U	Packs of	33	33	42	42	Page
Width mm		600	600	600	600	
Height mm		1600	1600	2000	2000	
Depth mm		600	800	600	800	
Model No.	1 pc(s).	**8410.510**	**8418.510**	**8430.510**	**8438.510**	
Weight kg		61.5	67.5	69.4	75.4	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s).	8166.235	8168.235	8106.235	8108.235	643
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.600	see page	8100.600	see page	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid	2 pc(s).	8200.600	see page	8200.600	see page	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.600	8601.600	8601.600	8601.600	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.060	8601.080	8601.060	8601.080	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.600	8602.600	8602.600	8602.600	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.060	8602.080	8602.060	8602.080	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	628
Cable clamp rails	2 pc(s).	4191.000	4191.000	4191.000	4191.000	783
C rails 30/15	6 pc(s).	4944.000	4944.000	4944.000	4944.000	723
Section for cable entry, rear	2 pc(s).	8802.065	8802.065	8802.065	8802.065	770
Adaptor sections, 482.6 mm (19")	2 pc(s).	8613.360	8613.360	8613.300	8613.300	802
LED system light		see page	see page	see page	see page	750
Comfort handle		see page	see page	see page	see page	674



System accessories Page 613 **Cable entry** Page 768

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed and powder-coated, textured paint
- Roof: Sheet steel, 1.5 mm, dipcoat-primed and powder-coated, textured paint
- Door: Sheet steel, 2 mm, dipcoat-primed and powder-coated, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed and powder-coated, textured paint
- Base: Sheet steel, 1.5 mm, dipcoat-primed and powder-coated, textured paint
- Mounting plate: Sheet steel, 3 mm, zinc-plated

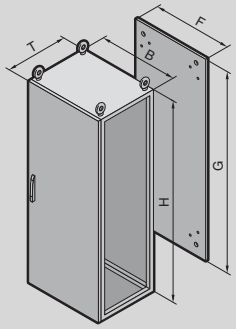
Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4

Supply includes:
- Enclosure frame
- Door
- Door hinged on the right, may be swapped to the left
- Roof plate
- Base, solid
- Rear panel
- Mounting plate
- 4 eyebolts
- Lock: 3 mm double-bit
- 2 TS punched rails 18 x 38 mm
- 2 support strips fitted in the enclosure depth
- Accessory kit for side panels for upgrading to IP 66

Approvals:
- UL
- cUL



IP 66/NEMA 4

Width (B) mm	Packs of	800	Page
Height (H) mm		2000	
Depth (T) mm		600	
Mounting plate width (F) mm		699	
Mounting plate height (G) mm		1896	
Model No.	1 pc(s).	**8806.580**	
Accessories			
Side panels, screw-fastened, sheet steel	2 pc(s).	8106.235	643
Quick-fit baying clamp, one-piece	6 pc(s).	8800.500	653
Baying clamp, horizontal	4 pc(s).	8800.400	653
Baying frame IP 66/NEMA 4, NEMA 4X	1 pc(s).	8700.010	644
Angular baying bracket	4 pc(s).	8800.430	655
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.800	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	617
Flex-Block trim panels, 200 mm, solid	2 pc(s).	8200.800	617
Cable clamp rails	2 pc(s).	4192.000	783
Wiring plan pockets of sheet steel	1 pc(s).	4118.000	688
Cable duct for vertical TS section		see page	781
Cable duct for mounting plate		see page	782
LED system light		see page	750
Comfort handle		see page	674

Baying systems TS 8



System accessories Page 613 **ISV assembly modules** Page 381 **TS enclosure (WxD 600 x 400/600 mm)** Page 74

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Roof: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plates: Sheet steel, 1.5 mm, zinc-plated

Colour:
- RAL 7035

Basis of test:
- IEC 61 439-1/-2

Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure frame with door(s)
- Three-piece gland plates
- Rear panel
- Roof plate
- 4 eyebolts
- Lock: 3 mm double-bit

Distribution enclosures

Width mm	Packs of	850	850	1100	1100	Page
Height mm		2000	2000	2000	2000	
Depth mm		400	600	400	600	
Model No.	1 pc(s).	**9666.955**	**9666.915**	**9666.965**	**9666.925**	
Weight kg		111.0	117.0	146.0	156.0	
Door(s)		1	1	2	2	
Also required						
Installation kit	1 pc(s).	9666.911	9666.911	9666.921	9666.921	380
Mounting angle	2 pc(s).	9666.712	9666.712	9666.712	9666.712	387
Depth stay	2 pc(s).	–	–	9666.731	9666.731	387
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s).	8104.235	8106.235	8104.235	8106.235	643
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.850	8601.850	8601.300	8601.300	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.040	8601.060	8601.040	8601.060	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.850	8602.850	8602.100	8602.100	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.040	8602.060	8602.040	8602.060	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	628
Roof plates for cable entry gland	1 pc(s).	9665.953	9665.913	9665.963	9665.923	693
Cable entry glands		see page	see page	see page	see page	694
Angular baying bracket	4 pc(s).	8800.430	8800.430	8800.430	8800.430	655
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	654



System accessories Page 613 **Installation accessories for TS modular front design** Page 662 **Compartment configuration** Page 367

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plates: Sheet steel, 1.5 mm, zinc-plated

Colour:
- RAL 7035

Basis of test:
- IEC 61 439-1/-2
- IEC 61 641

Protection category IP to IEC 60 529:
- Up to IP 54, depending on the panels

Supply includes:
- Enclosure frame
- Rear panel
- Three-piece gland plates
- 4 eyebolts

Height 2000 mm, modular enclosures

Width mm	Packs of	400	400	600	600	800	800	Page
Height mm		2000	2000	2000	2000	2000	2000	
Depth mm		600	800	600	800	600	800	
Model No.	1 pc(s).	**9670.406**	**9670.408**	**9670.606**	**9670.608**	**9670.806**	**9670.808**	
Weight kg		43.8	46.0	51.0	53.7	61.0	64.2	
Accessories								
Side panels, screw-fastened, sheet steel	2 pc(s).	8106.235	8108.235	8106.235	8108.235	8106.235	8108.235	643
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	see page	8100.600	see page	see page	8100.800	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid	2 pc(s).	see page	see page	8200.600	see page	see page	8200.800	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.400	8601.400	8601.600	8601.600	8601.800	8601.800	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.060	8601.080	8601.060	8601.080	8601.060	8601.080	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.400	8602.400	8602.600	8602.600	8602.800	8602.800	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.060	8602.080	8602.060	8602.080	8602.060	8602.080	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	4612.000	628
Angular baying bracket	4 pc(s).	8800.430	8800.430	8800.430	8800.430	8800.430	8800.430	655
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	8800.490	654
Roof plates IP 55, solid	1 pc(s).	9671.646	9671.648	9671.666	9671.668	9671.686	9671.688	693
Roof plates IP 4X	1 pc(s).	9671.364	9671.384	9671.366	9671.386	9671.368	9671.388	693
Roof plates IP 2X with ventilation hole	1 pc(s).	9671.846	9671.848	9660.235	9659.525	9660.245	9659.535	693
Roof plates for cable entry gland	1 pc(s).	9671.546	9671.548	9665.903	9671.568	9671.586	9671.588	693
Partial doors		see page	see page	see page	see page	see page	see page	662
Front trim panels, top		see page	see page	see page	see page	see page	see page	663
Front trim panels IP 54, bottom		see page	see page	see page	see page	see page	see page	663
Front trim panels IP 2X, bottom	1 pc(s).	9672.354	9672.354	9672.356	9672.356	9672.358	9672.358	663

Baying systems TS 8

Height 2200 mm, modular enclosures

Width mm	Packs of	400	400	600	600	800	800	Page
Height mm		2200	2200	2200	2200	2200	2200	
Depth mm		600	800	600	800	600	800	
Model No.	1 pc(s).	**9670.426**	**9670.428**	**9670.626**	**9670.628**	**9670.826**	**9670.828**	
Weight kg		43.2	46.1	54.0	55.8	59.4	66.0	
Accessories								
Side panels, screw-fastened, sheet steel	2 pc(s).	8126.235	8128.235	8126.235	8128.235	8126.235	8128.235	643
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	see page	8100.600	see page	see page	8100.800	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	8200.000	8200.000	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid	2 pc(s).	see page	see page	8200.600	see page	see page	8200.800	617
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.400	8601.400	8601.600	8601.600	8601.800	8601.800	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.060	8601.080	8601.060	8601.080	8601.060	8601.080	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.400	8602.400	8602.600	8602.600	8602.800	8602.800	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.060	8602.080	8602.060	8602.080	8602.060	8602.080	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	4612.000	628
Angular baying bracket	4 pc(s).	8800.430	8800.430	8800.430	8800.430	8800.430	8800.430	655
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	8800.490	654
Roof plates IP 55, solid	1 pc(s).	9671.646	9671.648	9671.666	9671.668	9671.686	9671.688	693
Roof plates IP 4X	1 pc(s).	9671.364	9671.384	9671.366	9671.386	9671.368	9671.388	693
Roof plates IP 2X with ventilation hole	1 pc(s).	9671.846	9671.848	9660.235	9659.525	9660.245	9659.535	693
Roof plates for cable entry gland	1 pc(s).	9671.546	9671.548	9665.903	9671.568	9671.586	9671.588	693
Partial doors		see page	see page	see page	see page	see page	see page	662
Front trim panels, top		see page	see page	see page	see page	see page	see page	663
Front trim panels IP 54, bottom		see page	see page	see page	see page	see page	see page	663
Front trim panels IP 2X, bottom	1 pc(s).	9672.354	9672.354	9672.356	9672.356	9672.358	9672.358	663





System accessories Page 613 **Compartment configuration** Page 367

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Roof: Sheet steel, 1.5 mm, zinc-plated
- Door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plates: Sheet steel, 1.5 mm, zinc-plated
- Punched section without mounting flange: Sheet steel, zinc-plated

Colour:
- RAL 7035

Basis of test:
- IEC 61 439-1/-2
- IEC 61 641

Protection category IP to IEC 60 529:
- Up to IP 3X, depending on the panels

Supply includes:
- Enclosure frame with r/h door hinge, left side open
- Roof
- Rear panel
- Three-piece gland plates
- Lock: 3 mm double-bit
- 4 eyebolts
- Locating frame for disconnectors with fuses (brands ABB SlimLine/Jean Müller SASIL)

Fuse-switch-disconnector enclosures

Width mm	Packs of	1000	1200	1000	1200	Page
Height mm		2000	2000	2200	2200	
Depth mm		600	800	600	800	
Model No.	1 pc(s).	**9670.005**	**9670.107**	**9670.025**	**9670.127**	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s).	8106.235	8108.235	8126.235	8128.235	643
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.000	8601.200	8601.000	8601.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.060	8601.080	8601.060	8601.080	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.000	8602.200	8602.000	8602.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.060	8602.080	8602.060	8602.080	620
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	628
Angular baying bracket	4 pc(s).	8800.430	8800.430	8800.430	8800.430	655
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	654
Roof plates IP 2X with ventilation hole	1 pc(s).	9660.255	9659.555	9660.255	9659.555	693

Baying systems TS 8



System accessories Page 613 **Base/plinth** Page 616 **Compartment configuration** Page 367

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Roof: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Front trim panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plate: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint

Colour:
- RAL 7035

Basis of test:
- IEC 61 439-1/-2
- IEC 61 641

Protection category IP to IEC 60 529:
- IP 55

Supply includes:
- Enclosure frame
- Front trim panel
- Roof
- Rear panel
- Gland plate

Note:
- The busbar enclosure is on one base/plinth together with the main enclosure, i.e. please select a base/plinth for the main enclosure which is 200 mm wider.

Busbar enclosures

Width mm	Packs of	200	200	200	Page
Height mm		2000	2200	2000	
Depth mm		600	600	800	
Model No.	1 pc(s).	**9670.206**	**9670.226**	**9670.208**	
Weight kg		34.0	36.6	37.5	
Accessories					
Side panels, screw-fastened, sheet steel	2 pc(s).	8106.235	8126.235	8108.235	643
Angular baying bracket	4 pc(s).	8800.430	8800.430	8800.430	655
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	654
Coupling set mounting kit	1 pc(s).	9674.196	9674.196	9674.198	373



System accessories Page 613 **Baying systems TS 8** Page 74 **Baying system TS 8, stainless steel** Page 222

The large enclosures in the TS 8 series offer a good level of shielding across a broad frequency range, even in the standard version. For increased EMC requirements, Rittal offers the TS 8 enclosure in a version certified by the VDE with high RF attenuation.

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, with aluminium zinc coating
- Roof: Sheet steel, 1.5 mm, with aluminium zinc coating, spray-finished on the outside and paint-free on the inside
- Door: Sheet steel, 2 mm, with aluminium zinc coating, spray-finished on the outside and paint-free on the inside
- Rear panel: Sheet steel, 1.5 mm, with aluminium zinc coating, spray-finished on the outside and paint-free on the inside
- Gland plates: Sheet steel, 1.5 mm, zinc-plated
- Mounting plate: Sheet steel, 3 mm, zinc-plated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 54

Supply includes:
- Enclosure frame
- Door(s)
- Door hinged on the right, may be swapped to the left
- Rear panel
- Roof plate
- Gland plates
- Mounting plate
- 4 eyebolts
- Lock: 3 mm double-bit
- 2 TS punched rails 18 x 38 mm
- 2 support strips fitted in the enclosure depth

VDE EMV

Note:
- For bayed enclosures, the EMC baying seal is required

Approvals:
- UL
- cUL
- VDE

EMC enclosures

Width mm	Packs of	800	800	Page
Height mm		2000	2000	
Depth mm		600	800	
Model No.	1 pc(s).	**8806.750**	**8808.750**	
Weight kg		126.8	137.0	
Accessories				
EMC side panels	2 pc(s).	8106.750	8108.750	758
EMC baying seal	3 pc(s).	8800.690	8800.690	758
Divider panel	1 pc(s).	8609.060	8609.080	647
EMC divider panel seal	1 pc(s).	4348.000	4348.000	758
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	8100.800	617
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	8200.000	617
Flex-Block trim panels, 200 mm, solid	2 pc(s).	see page	8200.800	617
Rail	1 pc(s).	2388.850	2388.850	759
EMC shielding bracket		see page	see page	759
EMC shield bus		see page	see page	760
EMC gland plates	1 pc(s).	8800.680	8800.680	759
EMC earth clamps		see page	see page	760
EMC cable glands		see page	see page	760
Cable duct		see page	see page	781
LED system light		see page	see page	750
Earth straps		see page	see page	762
Earthing strap		see page	see page	762
Comfort handle		see page	see page	674

System enclosures SE 8



System accessories Page 613 **SE 8 stainless steel** Page 224 **Base/plinth** Page 624

The system enclosure is based on the TS 8 platform. System accessories for interior installation in the TS 8 design can be used without restrictions.

Material and surface finish:
- Enclosure: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Mounting plate: Sheet steel, 3 mm, zinc-plated
- Gland plates: Sheet steel, 1.5 mm, zinc-plated

Colour:
- RAL 7035

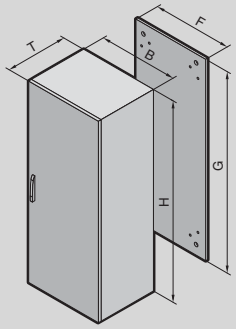
Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure, solid top and sides
- Door(s)
- R/h door hinge with single-door enclosures, may be swapped to opposite side
- Mounting plate
- Gland plates
- Rear panel, detachable
- Lock: 3 mm double-bit
- 2 TS punched rails 18 x 38 mm

Please observe the product-specific scope of supply.

Approvals:
- UL
- cUL



Width 600 – 800 mm

Width (B) mm	Packs of	600	800	800	800	800	Page
Height (H) mm		1800	1800	2000	2000	2000	
Depth (T) mm		400	400	400	500	600	
Mounting plate width (F) mm		499	699	699	699	699	
Mounting plate height (G) mm		1696	1696	1896	1896	1896	
Model No.	1 pc(s).	**5830.500**	**5831.500**	**5832.500**	**5833.500**	**5834.500**	
Weight kg		99.0	118.0	131.0	134.0	142.0	
Product-specific scope of supply							
Rear panel, one-piece		■	■	■	■	■	
Door(s)		1	1	1	1	1	
Accessories							
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	628
Eyebolts	4 pc(s).	4568.000	4568.000	4568.000	4568.000	4568.000	697
Cable entry plates	2 pc(s).	8800.060	8800.080	8800.080	8800.080	8800.080	768
Section for cable entry, rear	2 pc(s).	8802.065	8802.085	8802.085	8802.085	8802.085	770
Cable clamp rails	2 pc(s).	4191.000	4192.000	4192.000	4192.000	4192.000	783
C rails 30/15	6 pc(s).	4944.000	4945.000	4945.000	4945.000	4945.000	723
Wiring plan pockets of sheet steel		see page	see page	see page	see page	see page	688
180° hinges		see page	see page	see page	see page	see page	684
Earth straps		see page	see page	see page	see page	see page	762
TS punched rail 18 x 38 mm		see page	see page	see page	see page	see page	720
TS punched section with mounting flange, 23 x 73 mm	4 pc(s).	8612.560	8612.580	8612.580	8612.550	8612.560	718
Door stay for escape routes	1 pc(s).	4583.500	4583.500	4583.500	4583.500	4583.500	688
Adaptor bracket TS	6 pc(s).	8800.360	8800.360	8800.360	8800.360	8800.360	729
LED system light		see page	see page	see page	see page	see page	750
Comfort handle		see page	see page	see page	see page	see page	674

Width 1000 – 1800 mm

Width (B) mm	Packs of	1000	1200	1200	1200	1200	1600	1800	Page
Height (H) mm		1800	1800	2000	2000	2000	1800	2000	
Depth (T) mm		400	400	400	500	600	400	500	
Mounting plate width (F) mm		899	1099	1099	1099	1099	1499	1699	
Mounting plate height (G) mm		1696	1696	1896	1896	1896	1696	1896	
Model No.	1 pc(s).	**5840.500**	**5841.500**	**5843.500**	**5844.500**	**5845.500**	**5842.500**	**5846.500**	
Weight kg		145.0	175.0	193.0	195.0	210.0	222.0	273.0	
Product-specific scope of supply									
Rear panel, one-piece		■	■	■	■	■	–	–	
Rear panel, two-piece		–	–	–	–	–	■	■	
Door(s)		2	2	2	2	2	2	2	
Accessories									
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	4612.000	4612.000	628
Eyebolts	4 pc(s).	4568.000	4568.000	4568.000	4568.000	4568.000	4568.000	4568.000	697
Cable entry plates	4 pc(s).	8800.100	8800.120	8800.120	8800.120	8800.120	–	–	768
Section for cable entry, rear	4 pc(s).	8802.105	8802.125	8802.125	8802.125	8802.125	8802.165	–	770
Cable clamp rails	2 pc(s).	4336.000	4196.000	4196.000	4196.000	4196.000	4338.000	4339.000	783
C rails 30/15	6 pc(s).	4946.000	4947.000	4947.000	4947.000	4947.000	–	–	723
Wiring plan pockets of sheet steel	1 pc(s).	see page	see page	see page	see page	see page	see page	4123.000	688
180° hinges		see page	see page	see page	see page	see page	see page	see page	684
Earth straps		see page	see page	see page	see page	see page	see page	see page	762
TS punched rail 18 x 38 mm	4 pc(s).	8612.240	8612.240	8612.240	8612.250	8612.260	8612.240	8612.250	720
TS punched section with mounting flange, 23 x 73 mm	4 pc(s).	8612.500	8612.520	8612.520	see page	see page	–	8612.550	718
Door stay for escape routes	1 pc(s).	4583.500	4583.500	4583.500	4583.500	4583.500	4583.500	4583.500	688
Adaptor bracket TS	6 pc(s).	8800.360	8800.360	8800.360	8800.360	8800.360	8800.360	8800.360	729
LED system light		see page	see page	see page	see page	see page	see page	see page	750
Comfort handle		see page	see page	see page	see page	see page	see page	see page	674



System enclosures SE 8



System accessories Page 613 **SE 8 stainless steel** Page 224 **Base/plinth** Page 624

The system enclosure is based on the TS 8 platform. System accessories for interior installation in the TS 8 design can be used without restrictions.

Material and surface finish:
- Enclosure: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Mounting plate: Sheet steel, 3 mm, zinc-plated
- Base: Sheet steel, 1.5 mm, dipcoat-primed and powder-coated, textured paint

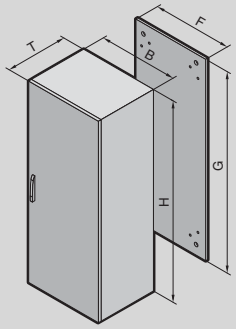
Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4

Supply includes:
- Enclosure, solid top and sides
- Door(s)
- Door hinged on the right, may be swapped to the left
- Mounting plate
- Base, solid
- Rear panel, detachable
- Lock: 3 mm double-bit
- 2 TS punched rails 18 x 38 mm

Approvals:
- UL
- cUL



IP 66/NEMA 4

Width (B) mm	Packs of	600	800	800	Page
Height (H) mm		1800	1800	2000	
Depth (T) mm		400	400	600	
Mounting plate width (F) mm		499	699	699	
Mounting plate height (G) mm		1696	1696	1896	
Model No.	1 pc(s).	**5830.580**	**5831.580**	**5834.580**	
Weight kg		97.5	119.8	143.3	
Door(s)		1	1	1	
Accessories					
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.600	8601.800	8601.800	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.040	8601.040	8601.060	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.600	8602.800	8602.800	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.040	8602.040	8602.060	620
Eyebolts	4 pc(s).	4568.000	4568.000	4568.000	697
Cable clamp rails	2 pc(s).	4191.000	4192.000	4192.000	783
C rails 30/15	6 pc(s).	4944.000	4945.000	4945.000	723
Wiring plan pockets of sheet steel		see page	see page	see page	688
180° hinges		see page	see page	see page	684
Earth straps		see page	see page	see page	762
TS punched sections without mounting flanges, 45 x 88 mm	2 pc(s).	8612.660	8612.680	see page	719
TS punched rail 25 x 38 mm	2 pc(s).	8612.760	8612.780	see page	719
TS punched rail 18 x 38 mm		see page	see page	see page	720
TS punched section with mounting flange, 23 x 73 mm	4 pc(s).	8612.560	8612.580	see page	718
Door stay for escape routes	1 pc(s).	4583.500	4583.500	4583.500	688
Adaptor bracket TS	6 pc(s).	8800.360	8800.360	8800.360	729
LED system light		see page	see page	see page	750
Comfort handle		see page	see page	see page	674

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Network/server enclosures TS IT



Door variant, front		Glazed door	Vented door	Glazed door	Vented door	
482.6 mm (19") configuration		With 482.6 mm (19") mounting angles		With 482.6 mm (19") mounting frame		
Variants		55XX.120	55XX.110	55XX.141	55XX.181	
Product-specific scope of supply						
Base	Open	■	■	■	■	
	Solid	–	–	–	–	
Rear door	One-piece, solid	■	–	■	–	
	Two-piece from H ≥ 1800 mm, solid	■	–	■	–	
	One-piece, vented	–	■	–	■	
	Two-piece from H ≥ 1800 mm, vented	–	■	–	■	
	Rear panel, screw-fastened	–	–	–	–	
Roof	With cable entry	■	■	■	■	
	Solid	–	–	–	–	
Pre-configured						
Base/plinth	Flex-Block, vented	–	–	–	–	
Base	Solid front, one base module	–	–	–	–	
	One-piece, vented	–	–	–	–	
Walls	One-piece, lockable	–	–	–	–	
Page		104	110	107	113	



	Glazed door	Vented door	Glazed door	Glazed door	Glazed door
					
	With 482.6 mm (19") mounting frame, pre-configured		**With 482.6 mm (19") swing frame, pre-configured**	**With 482.6 mm (19") mounting frame, protection category IP 55**	**Without interior installation, protection category IP 55**
	55XX.151	55XX.161	55XX.170	55XX.131	55XX.790
	–	–	–	–	–
	–	–	–	■	■
	■	–	–	■	■
	■	–	–	–	–
	–	–	–	–	–
	–	■	–	–	–
	–	–	■	–	–
	■	■	■	–	–
	–	–	–	■	■
	■	■	■	–	–
	■	–	–	–	–
	–	■	■	–	–
	■	■	■	–	–
	116	118	119	120	122

Network/server enclosures TS IT



Multi-functional roof

- Brush strips for cable entry across the entire enclosure depth
- Cable clamping directly beneath the cable entry
- Fan mounting plate or spacer for active and passive climate control



Convincing door concept

- Glazed door for network and high-performance server applications with LCP climate control or vented doors for climate controlled rooms
- Divided rear door for space-optimised positioning
- Doors with 180° hinges and comfort handle, prepared for individual locks
- High air throughput, open surface area 85% perforated



Secure and flexible

- Load capacity up to 15,000 N
- Two 482.6 mm (19") systems:
  – 482.6 mm (19") mounting angles: Tool-free attachment to support strips Asymmetrical interior installation and alternative installation dimensions (21", 23", 24") are supported
  – 482.6 mm (19") mounting frame: Welded, torsionally stiff and infinitely adjustable
- Labelling of the height units and pitch pattern in the depth for simple positioning



Tool-free installation

- Tool-free installation of slide rails, component shelves, cable route, PDU and much more
- Simply locate and secure



Network/server enclosures TS IT



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Material:
- Sheet steel
- Aluminium
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Dipcoat-primed
- Doors and roof: Dipcoat-primed, powder-coated

Colour:
- Enclosure frame and panels: RAL 7035
- Interior installation: RAL 9005

Max. load capacity (static) per enclosure:
- 15000 N

Supply includes:
- TS 8 enclosure frame with doors and roof plate
- Glazed aluminium door at the front, 180° hinges
- Lock front and rear: Comfort handle for semi-cylinders and security lock 3524 E
- Two 482.6 mm (19") mounting sections front and rear, variably mounted on support strips with quick-release fasteners
- Spacers to raise the fan cover plate, for passive cooling (supplied loose)
- Connection accessories for potential equalisation with earthing point (supplied loose)
- 50 multi-tooth screws M5, cage nuts M5, conductive (supplied loose)
- IPPC pallet

Please observe the product-specific scope of supply.

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

With glazed door, with 482.6 mm (19") mounting angles

Units U	Packs of	15	24	24	24	38	Page
Width mm		600	600	800	800	600	
Height mm		800	1200	1200	1200	1800	
Depth mm		600	600	800	1000	600	
Distance between prefitted 482.6 mm (19") levels mm		345	345	545	745	345	
Free mounting space to the 482.6 mm (19") level, front/rear mm		84 / 168	84 / 168	147 / 105	87 / 165	84 / 168	
Model No.	1 pc(s).	**5525.120**	**5526.120**	**5503.120**	**5504.120**	**5527.120**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	■	■	–	–	■	
Sheet steel door at the rear, 180° hinges	1 pc(s).	■	■	■	■	–	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	–	–	■	■	–	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s).	–	–	–	–	■	
Accessories							
Side panel, lockable	2 pc(s).	7824.086	7824.126	7824.128	7824.120	7824.186	645
Side panels, divided		–	–	–	–	–	
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.010	5502.010	5502.020	5502.020	5502.010	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.600	8100.600	8100.800	see page	8100.600	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.602	8100.802	8100.802	8100.602	617
Base mount	2 pc(s).	5501.300	5501.300	5501.310	5501.320	5501.300	639
Gland plates	1 pc(s).	–	–	5502.530	5502.550	–	635
Air baffle plates for TS IT 482.6 mm (19") mounting angles		–	–	–	–	–	

With glazed door, with 482.6 mm (19") mounting angles

Units U	Packs of	38	38	42	42	Page
Width mm		600	800	600	600	
Height mm		1800	1800	2000	2000	
Depth mm		800	800	600	800	
Distance between prefitted 482.6 mm (19") levels mm		545	545	345	545	
Free mounting space to the 482.6 mm (19") level, front/rear mm		84 / 168	147 / 105	84 / 168	84 / 168	
Model No.	1 pc(s).	**5528.120**	**5505.120**	**5529.120**	**5530.120**	
Product-specific scope of supply						
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	■	■	–	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	–	–	■	–	
Accessories						
Side panel, lockable	2 pc(s).	7824.188	7824.188	7824.206	7824.208	645
Side panels, divided	1 pc(s).	5501.000	5501.000	5501.010	5501.020	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.010	5502.020	5502.010	5502.010	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	8100.800	8100.600	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	see page	8100.802	8100.602	see page	617
Base mount	2 pc(s).	5501.310	5501.310	5501.300	5501.310	639
Gland plates	1 pc(s).	–	5502.530	–	–	635
Air baffle plates for TS IT 482.6 mm (19") mounting angles	1 pc(s).	–	–	5501.805	5501.805	812

With glazed door, with 482.6 mm (19") mounting angles

Units U	Packs of	42	42	42	42	Page
Width mm		600	600	800	800	
Height mm		2000	2000	2000	2000	
Depth mm		1000	1200	600	800	
Distance between prefitted 482.6 mm (19") levels mm		745	745	445	545	
Free mounting space to the 482.6 mm (19") level, front/rear mm		84 / 168	144 / 308	87 / 65	147 / 105	
Model No.	1 pc(s).	**5508.120**	**5510.120**	**5506.120**	**5507.120**	
Product-specific scope of supply						
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	■	■	–	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	–	–	■	–	
Accessories						
Side panel, lockable	2 pc(s).	7824.200	–	7824.206	7824.208	645
Side panels, divided	1 pc(s).	5501.030	5501.040	5501.010	5501.020	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.010	5502.010	5502.010	5502.020	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	see page	see page	8100.800	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.602	see page	8100.802	617
Base mount	2 pc(s).	5501.320	5501.350	5501.300	5501.310	639
Gland plates	1 pc(s).	5502.540	5502.560	5502.510	5502.530	635
Air baffle plates for TS IT 482.6 mm (19") mounting angles	1 pc(s).	5501.805	5501.805	5501.815	5501.815	812

Network/server enclosures TS IT

With glazed door, with 482.6 mm (19") mounting angles

Units U	Packs of	42	42	47	47	Page
Width mm		800	800	600	600	
Height mm		2000	2000	2200	2200	
Depth mm		1000	1200	800	1000	
Distance between prefitted 482.6 mm (19") levels mm		745	745	545	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 165	147 / 305	84 / 168	84 / 168	
Model No.	1 pc(s).	**5509.120**	**5511.120**	**5531.120**	**5513.120**	
Product-specific scope of supply						
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	■	■	■	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	
Accessories						
Side panel, lockable	2 pc(s).	7824.200	–	7824.228	7824.220	645
Side panels, divided	1 pc(s).	5501.030	5501.040	5501.050	5501.060	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.020	5502.020	5502.010	5502.010	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid		see page	see page	see page	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.802	8100.802	see page	8100.602	617
Base mount	2 pc(s).	5501.320	5501.350	5501.310	5501.320	639
Gland plates	1 pc(s).	5502.550	5502.570	–	5502.540	635
Air baffle plates for TS IT 482.6 mm (19") mounting angles	1 pc(s).	5501.815	5501.815	5501.825	5501.825	812

With glazed door, with 482.6 mm (19") mounting angles

Units U	Packs of	47	47	47	47	Page
Width mm		600	800	800	800	
Height mm		2200	2200	2200	2200	
Depth mm		1200	800	1000	1200	
Distance between prefitted 482.6 mm (19") levels mm		745	545	745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		144 / 308	147 / 105	87 / 165	147 / 305	
Model No.	1 pc(s).	**5515.120**	**5512.120**	**5514.120**	**5516.120**	
Product-specific scope of supply						
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	■	■	■	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	
Accessories						
Side panel, lockable	2 pc(s).	–	7824.228	7824.220	–	645
Side panels, divided	1 pc(s).	5501.070	5501.050	5501.060	5501.070	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.010	5502.020	5502.020	5502.020	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	8100.800	see page	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.802	8100.802	8100.802	617
Base mount	2 pc(s).	5501.350	5501.310	5501.320	5501.350	639
Gland plates	1 pc(s).	5502.560	5502.530	5502.550	5502.570	635
Air baffle plates for TS IT 482.6 mm (19") mounting angles	1 pc(s).	5501.825	5501.835	5501.835	5501.835	812



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Material:
- Sheet steel
- Aluminium
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Dipcoat-primed
- Doors and roof: Dipcoat-primed, powder-coated

Colour:
- Enclosure frame and panels: RAL 7035
- Interior installation: RAL 9005

Max. load capacity (static) per enclosure:
- 10000 N

Supply includes:
- TS 8 enclosure frame with doors and roof plate
- Glazed aluminium door at the front, 180° hinges
- Lock front and rear: Comfort handle for semi-cylinders and security lock 3524 E
- Two 482.6 mm (19") mounting frames, front and rear, depth-variable
- Spacers to raise the fan cover plate, for passive cooling (supplied loose)
- Connection accessories for potential equalisation with earthing point (supplied loose)
- 50 multi-tooth screws M5, cage nuts M5, conductive (supplied loose)
- IPPC pallet

Please observe the product-specific scope of supply.

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

With glazed door, with 482.6 mm (19") mounting frame

Units U	Packs of	24	24	24	38	38	Page
Width mm		600	800	800	600	600	
Height mm		1200	1200	1200	1800	1800	
Depth mm		600	800	1000	600	800	
Distance between prefitted 482.6 mm (19") levels mm		345	545	745	345	545	
Free mounting space to the 482.6 mm (19") level, front/rear mm		84 / 168	147 / 105	87 / 165	84 / 168	84 / 168	
Model No.	1 pc(s).	**5526.141**	**5503.141**	**5504.141**	**5527.141**	**5528.141**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	■	–	–	■	–	
Sheet steel door at the rear, 180° hinges	1 pc(s).	■	■	■	–	–	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	–	■	■	–	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s).	–	–	–	■	■	
Accessories							
Side panel, lockable	2 pc(s).	7824.126	7824.128	7824.120	7824.186	7824.188	645
Side panels, divided	1 pc(s).	–	–	–	–	5501.000	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.010	5502.020	5502.020	5502.010	5502.010	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.600	8100.800	see page	8100.600	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.802	8100.802	8100.602	see page	617
Base mount	2 pc(s).	5501.300	5501.310	5501.320	5501.300	5501.310	639
Gland plates	1 pc(s).	–	5502.530	5502.550	–	–	635
Air baffle plates for TS IT 482.6 mm (19") mounting frames	1 pc(s).	5501.855	5501.865	5501.865	5501.875	5501.875	812

Network/server enclosures TS IT

With glazed door, with 482.6 mm (19") mounting frame

Units U	Packs of	38	42	42	42	42	Page
Width mm		800	600	600	600	600	
Height mm		1800	2000	2000	2000	2000	
Depth mm		800	600	800	1000	1200	
Distance between prefitted 482.6 mm (19") levels mm		545	345	545	745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		147 / 105	84 / 168	84 / 168	84 / 168	144 / 308	
Model No.	1 pc(s).	**5505.141**	**5529.141**	**5530.141**	**5508.141**	**5510.141**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	■	–	■	■	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	■	
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	–	■	–	–	–	
Accessories							
Side panel, lockable	2 pc(s).	7824.188	7824.206	7824.208	7824.200	–	645
Side panels, divided	1 pc(s).	5501.000	5501.010	5501.020	5501.030	5501.040	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.020	5502.010	5502.010	5502.010	5502.010	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.800	8100.600	see page	see page	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.802	8100.602	see page	8100.602	8100.602	617
Base mount	2 pc(s).	5501.310	5501.300	5501.310	5501.320	5501.350	639
Gland plates	1 pc(s).	5502.530	–	–	5502.540	5502.560	635
Air baffle plates for TS IT 482.6 mm (19") mounting frames	1 pc(s).	5501.885	5501.905	5501.905	5501.905	5501.905	812

With glazed door, with 482.6 mm (19") mounting frame

Units U	Packs of	42	42	42	42	47	Page
Width mm		800	800	800	800	600	
Height mm		2000	2000	2000	2000	2200	
Depth mm		600	800	1000	1200	800	
Distance between prefitted 482.6 mm (19") levels mm		445	545	745	745	545	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 65	147 / 105	87 / 165	147 / 305	84 / 168	
Model No.	1 pc(s).	**5506.141**	**5507.141**	**5509.141**	**5511.141**	**5531.141**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	■	–	–	–	–	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	■	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	–	■	■	■	■	
Accessories							
Side panel, lockable	2 pc(s).	7824.206	7824.208	7824.200	–	7824.228	645
Side panels, divided	1 pc(s).	5501.010	5501.020	5501.030	5501.040	5501.050	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.010	5502.020	5502.020	5502.020	5502.010	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	8100.800	see page	see page	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	see page	8100.802	8100.802	8100.802	see page	617
Base mount	2 pc(s).	5501.300	5501.310	5501.320	5501.350	5501.310	639
Gland plates	1 pc(s).	5502.510	5502.530	5502.550	5502.570	–	635
Air baffle plates for TS IT 482.6 mm (19") mounting frames	1 pc(s).	5501.915	5501.915	5501.915	5501.915	5501.925	812

With glazed door, with 482.6 mm (19") mounting frame

Units U	Packs of	47	47	47	47	47	Page
Width mm		600	600	800	800	800	
Height mm		2200	2200	2200	2200	2200	
Depth mm		1000	1200	800	1000	1200	
Distance between prefitted 482.6 mm (19") levels mm		745	745	545	745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		84 / 168	144 / 308	147 / 105	87 / 165	147 / 305	
Model No.	1 pc(s).	**5513.141**	**5515.141**	**5512.141**	**5514.141**	**5516.141**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	■	■	■	■	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	■	
Accessories							
Side panel, lockable	2 pc(s).	7824.220	–	7824.228	7824.220	–	645
Side panels, divided	1 pc(s).	5501.060	5501.070	5501.050	5501.060	5501.070	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.010	5502.010	5502.020	5502.020	5502.020	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	see page	8100.800	see page	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.602	8100.802	8100.802	8100.802	617
Base mount	2 pc(s).	5501.320	5501.350	5501.310	5501.320	5501.350	639
Gland plates	1 pc(s).	5502.540	5502.560	5502.530	5502.550	5502.570	635
Air baffle plates for TS IT 482.6 mm (19") mounting frames	1 pc(s).	5501.925	5501.925	5501.935	5501.935	5501.935	812



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Material:
- Sheet steel
- Aluminium

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Dipcoat-primed
- Doors and roof: Dipcoat-primed, powder-coated

Colour:
- Enclosure frame and panels: RAL 7035
- Interior installation, vent grille at the front: RAL 9005

Max. load capacity (static) per enclosure:
- 15000 N

Supply includes:
- TS 8 enclosure frame with doors and roof plate
- Aluminium/sheet steel door at the front, vented (vented surface area approx. 85% perforated), 180° hinges
- Lock front and rear: Comfort handle for semi-cylinders and security lock 3524 E
- Two 482.6 mm (19") mounting sections front and rear, variably mounted on support strips with quick-release fasteners
- Spacers to raise the fan cover plate, for passive cooling (supplied loose)
- Connection accessories for potential equalisation with earthing point (supplied loose)
- 50 multi-tooth screws M5, cage nuts M5, conductive (supplied loose)
- IPPC pallet

Please observe the product-specific scope of supply.

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

With vented door, with 482.6 mm (19") mounting angles

Units U	Packs of	24	24	24	38	38	Page
Width mm		600	800	800	600	600	
Height mm		1200	1200	1200	1800	1800	
Depth mm		600	800	1000	600	800	
Distance between prefitted 482.6 mm (19") levels mm		345	545	745	345	545	
Free mounting space to the 482.6 mm (19") level, front/rear mm		84 / 168	147 / 105	87 / 165	84 / 168	84 / 168	
Model No.	1 pc(s).	**5526.110**	**5503.110**	**5504.110**	**5527.110**	**5528.110**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	■	–	–	■	–	
Sheet steel door at the rear, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s).	■	■	■	–	–	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	–	■	■	–	■	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s).	–	–	–	■	■	
Accessories							
Side panel, lockable	2 pc(s).	7824.126	7824.128	7824.120	7824.186	7824.188	645
Side panels, divided	1 pc(s).	–	–	–	–	5501.000	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.010	5502.020	5502.020	5502.010	5502.010	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.600	8100.800	see page	8100.600	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.802	8100.802	8100.602	see page	617
Base mount	2 pc(s).	5501.300	5501.310	5501.320	5501.300	5501.310	639
Gland plates	1 pc(s).	–	5502.530	5502.550	–	–	635

With vented door, with 482.6 mm (19") mounting angles

Units U	Packs of	38	42	42	42	42	Page
Width mm		800	600	600	600	600	
Height mm		1800	2000	2000	2000	2000	
Depth mm		800	600	800	1000	1200	
Distance between prefitted 482.6 mm (19") levels mm		545	345	545	745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		147 / 105	84 / 168	84 / 168	84 / 168	144 / 308	
Model No.	1 pc(s).	**5505.110**	**5529.110**	**5530.110**	**5508.110**	**5510.110**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	■	–	■	■	■	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s).	■	■	■	■	■	
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	–	■	–	–	–	
Accessories							
Side panel, lockable	2 pc(s).	7824.188	7824.206	7824.208	7824.200	–	645
Side panels, divided	1 pc(s).	5501.000	5501.010	5501.020	5501.030	5501.040	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.020	5502.010	5502.010	5502.010	5502.010	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.800	8100.600	see page	see page	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.802	8100.602	see page	8100.602	8100.602	617
Base mount	2 pc(s).	5501.310	5501.300	5501.310	5501.320	5501.350	639
Gland plates	1 pc(s).	5502.530	–	–	5502.540	5502.560	635

With vented door, with 482.6 mm (19") mounting angles

Units U	Packs of	42	42	42	42	47	Page
Width mm		800	800	800	800	600	
Height mm		2000	2000	2000	2000	2200	
Depth mm		600	800	1000	1200	800	
Distance between prefitted 482.6 mm (19") levels mm		445	545	745	745	545	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 65	147 / 105	87 / 165	147 / 305	84 / 168	
Model No.	1 pc(s).	**5506.110**	**5507.110**	**5509.110**	**5511.110**	**5531.110**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	■	–	–	–	–	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s).	■	■	■	■	■	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	–	■	■	■	■	
Accessories							
Side panel, lockable	2 pc(s).	7824.206	7824.208	7824.200	–	7824.228	645
Side panels, divided	1 pc(s).	5501.010	5501.020	5501.030	5501.040	5501.050	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.010	5502.020	5502.020	5502.020	5502.010	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	8100.800	see page	see page	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	see page	8100.802	8100.802	8100.802	see page	617
Base mount	2 pc(s).	5501.300	5501.310	5501.320	5501.350	5501.310	639
Gland plates	1 pc(s).	5502.510	5502.530	5502.550	5502.570	–	635

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With vented door, with 482.6 mm (19") mounting angles

Units U	Packs of	47	47	47	47	47	Page
Width mm		600	600	800	800	800	
Height mm		2200	2200	2200	2200	2200	
Depth mm		1000	1200	800	1000	1200	
Distance between prefitted 482.6 mm (19") levels mm		745	745	545	745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		84 / 168	144 / 308	147 / 105	87 / 165	147 / 305	
Model No.	1 pc(s).	**5513.110**	**5515.110**	**5512.110**	**5514.110**	**5516.110**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	■	■	■	■	■	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s).	■	■	■	■	■	
Accessories							
Side panel, lockable	2 pc(s).	7824.220	–	7824.228	7824.220	–	645
Side panels, divided	1 pc(s).	5501.060	5501.070	5501.050	5501.060	5501.070	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.010	5502.010	5502.020	5502.020	5502.020	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	see page	8100.800	see page	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.602	8100.802	8100.802	8100.802	617
Base mount	2 pc(s).	5501.320	5501.350	5501.310	5501.320	5501.350	639
Gland plates	1 pc(s).	5502.540	5502.560	5502.530	5502.550	5502.570	635





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Material:
– Sheet steel
– Aluminium

Surface finish:
– Enclosure frame: Dipcoat-primed
– Interior installation: Dipcoat-primed
– Doors and roof: Dipcoat-primed, powder-coated

Colour:
– Enclosure frame and panels: RAL 7035
– Interior installation, vent grille at the front: RAL 9005

Max. load capacity (static) per enclosure:
– 10000 N

Supply includes:
– TS 8 enclosure frame with doors and roof plate
– Aluminium/sheet steel door at the front, vented (vented surface area approx. 85% perforated), 180° hinges
– Lock front and rear: Comfort handle for semi-cylinders and security lock 3524 E
– Two 482.6 mm (19") mounting frames, front and rear, depth-variable
– Spacers to raise the fan cover plate, for passive cooling (supplied loose)
– Connection accessories for potential equalisation with earthing point (supplied loose)
– 50 multi-tooth screws M5, cage nuts M5, conductive (supplied loose)
– IPPC pallet

Please observe the product-specific scope of supply.

Note:
– Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
– UL
– cUL

With vented door, with 482.6 mm (19") mounting frame

Units U	Packs of	24	24	24	38	38	Page
Width mm		600	800	800	600	600	
Height mm		1200	1200	1200	1800	1800	
Depth mm		600	800	1000	600	800	
Distance between prefitted 482.6 mm (19") levels mm		345	545	745	345	545	
Free mounting space to the 482.6 mm (19") level, front/rear mm		84 / 168	147 / 105	87 / 165	84 / 168	84 / 168	
Model No.	1 pc(s).	**5526.181**	**5503.181**	**5504.181**	**5527.181**	**5528.181**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	■	–	–	■	–	
Sheet steel door at the rear, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s).	■	■	■	–	–	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	–	■	■	–	■	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s).	–	–	–	■	■	
Accessories							
Side panel, lockable	2 pc(s).	7824.126	7824.128	7824.120	7824.186	7824.188	645
Side panels, divided	1 pc(s).	–	–	–	–	5501.000	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.010	5502.020	5502.020	5502.010	5502.010	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.600	8100.800	see page	8100.600	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.802	8100.802	8100.602	see page	617
Base mount	2 pc(s).	5501.300	5501.310	5501.320	5501.300	5501.310	639
Gland plates	1 pc(s).	–	5502.530	5502.550	–	–	635

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With vented door, with 482.6 mm (19") mounting frame

Units U	Packs of	38	42	42	42	42	Page
Width mm		800	600	600	600	600	
Height mm		1800	2000	2000	2000	2000	
Depth mm		800	600	800	1000	1200	
Distance between prefitted 482.6 mm (19") levels mm		545	345	545	745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		147 / 105	84 / 168	84 / 168	84 / 168	144 / 308	
Model No.	1 pc(s).	**5505.181**	**5529.181**	**5530.181**	**5508.181**	**5510.181**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	■	–	■	■	■	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s).	■	■	■	■	■	
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	–	■	–	–	–	
Accessories							
Side panel, lockable	2 pc(s).	7824.188	7824.206	7824.208	7824.200	–	645
Side panels, divided	1 pc(s).	5501.000	5501.010	5501.020	5501.030	5501.040	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.020	5502.010	5502.010	5502.010	5502.010	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.800	8100.600	see page	see page	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.802	8100.602	see page	8100.602	8100.602	617
Base mount	2 pc(s).	5501.310	5501.300	5501.310	5501.320	5501.350	639
Gland plates	1 pc(s).	5502.530	–	–	5502.540	5502.560	635

With vented door, with 482.6 mm (19") mounting frame

Units U	Packs of	42	42	42	42	47	Page
Width mm		800	800	800	800	600	
Height mm		2000	2000	2000	2000	2200	
Depth mm		600	800	1000	1200	800	
Distance between prefitted 482.6 mm (19") levels mm		445	545	745	745	545	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 65	147 / 105	87 / 165	147 / 305	84 / 168	
Model No.	1 pc(s).	**5506.181**	**5507.181**	**5509.181**	**5511.181**	**5531.181**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	■	–	–	–	–	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s).	■	■	■	■	■	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	–	■	■	■	■	
Accessories							
Side panel, lockable	2 pc(s).	7824.206	7824.208	7824.200	–	7824.228	645
Side panels, divided	1 pc(s).	5501.010	5501.020	5501.030	5501.040	5501.050	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.010	5502.020	5502.020	5502.020	5502.010	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	8100.800	see page	see page	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.802	8100.802	8100.802	8100.802	see page	617
Base mount	2 pc(s).	5501.300	5501.310	5501.320	5501.350	5501.310	639
Gland plates	1 pc(s).	5502.510	5502.530	5502.550	5502.570	–	635

With vented door, with 482.6 mm (19") mounting frame

Units U	Packs of	47	47	47	47	47	Page
Width mm		600	600	800	800	800	
Height mm		2200	2200	2200	2200	2200	
Depth mm		1000	1200	800	1000	1200	
Distance between prefitted 482.6 mm (19") levels mm		745	745	545	745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		84 / 168	144 / 308	147 / 105	87 / 165	147 / 305	
Model No.	1 pc(s).	**5513.181**	**5515.181**	**5512.181**	**5514.181**	**5516.181**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	■	■	■	■	■	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s).	■	■	■	■	■	
Accessories							
Side panel, lockable	2 pc(s).	7824.220	–	7824.228	7824.220	–	645
Side panels, divided	1 pc(s).	5501.060	5501.070	5501.050	5501.060	5501.070	645
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Fan mounting plate	1 pc(s).	5502.010	5502.010	5502.020	5502.020	5502.020	532
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	see page	8100.800	see page	see page	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.602	8100.802	8100.802	8100.802	617
Base mount	2 pc(s).	5501.320	5501.350	5501.310	5501.320	5501.350	639
Gland plates	1 pc(s).	5502.540	5502.560	5502.530	5502.550	5502.570	635



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Material:
- Sheet steel
- Aluminium
- Base/plinth: Fibreglass-reinforced plastic
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Dipcoat-primed
- Doors, roof and side panels: Dipcoat-primed and powder-coated

Colour:
- Enclosure frame and panels: RAL 7035
- Interior installation, base/plinth: RAL 9005

Max. load capacity (static) per enclosure:
- 10000 N

Supply includes:
- Enclosure frame TS 8 with doors, roof plate, base/plinth and side panels
- Glazed aluminium door at the front, 180° hinges
- Lock front and rear: Comfort handle for semi-cylinders and security lock 3524 E
- Two 482.6 mm (19") mounting frames, front and rear, depth-variable
- Spacers to raise the fan cover plate, for passive cooling (supplied loose)
- Connection accessories for potential equalisation incl. central earthing point, pre-configured
- 50 multi-tooth screws M5, cage nuts M5, conductive (supplied loose)
- Base mount
- Base module mounted at front as infill panel
- Flex-Block base/plinth 100 mm, vented, fitted base/plinth corner pieces, base/plinth trim panels (supplied loose)
- Side panels, one-piece, lockable
- 4 levelling feet, M12, including base/plinth adaptor sleeve (supplied loose)
- 4 cable clamp rails (T-head) for outer mounting level, to fit enclosure depth (supplied loose)
- 10 cable shunting rings (metal version), 125 x 65 mm (supplied loose)
- IPPC pallet

Please observe the product-specific scope of supply.

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

With glazed door, pre-configured, with 482.6 mm (19") mounting frame

Units U	Packs of	24	24	24	38	38	Page
Width mm		600	800	800	600	600	
Height mm		1200	1200	1200	1800	1800	
Height including base/plinth mm		1300	1300	1300	1900	1900	
Depth mm		600	800	1000	600	800	
Distance between prefitted 482.6 mm (19") levels mm		345	545	745	345	545	
Free mounting space to the 482.6 mm (19") level, front/rear mm		84 / 168	147 / 105	87 / 165	84 / 168	84 / 168	
Model No.	1 pc(s).	**5526.151**	**5503.151**	**5504.151**	**5527.151**	**5528.151**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	■	–	–	■	–	
Sheet steel door at the rear, 180° hinges	1 pc(s).	■	■	■	–	–	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	–	■	■	–	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s).	–	–	–	■	■	
Accessories							
Fan mounting plate	1 pc(s).	5502.010	5502.020	5502.020	5502.010	5502.010	532
Gland plates	1 pc(s).	–	5502.530	5502.550	–	–	635
Air baffle plates for TS IT 482.6 mm (19") mounting frames	1 pc(s).	5501.855	5501.865	5501.865	5501.875	5501.875	812

With glazed door, pre-configured, with 482.6 mm (19") mounting frame

Units U	Packs of	38	42	42	42	42	Page
Width mm		800	600	600	600	600	
Height mm		1800	2000	2000	2000	2000	
Height including base/plinth mm		1900	2100	2100	2100	2100	
Depth mm		800	600	800	1000	1200	
Distance between prefitted 482.6 mm (19") levels mm		545	345	545	745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		147 / 105	84 / 168	84 / 168	84 / 168	144 / 308	
Model No.	1 pc(s).	**5505.151**	**5529.151**	**5530.151**	**5508.151**	**5510.151**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	■	–	■	■	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	■	
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	–	■	–	–	–	
Accessories							
Fan mounting plate	1 pc(s).	5502.020	5502.010	5502.010	5502.010	5502.010	532
Gland plates	1 pc(s).	5502.530	–	–	5502.540	5502.560	635
Air baffle plates for TS IT 482.6 mm (19") mounting frames	1 pc(s).	5501.885	5501.905	5501.905	5501.905	5501.905	812

With glazed door, pre-configured, with 482.6 mm (19") mounting frame

Units U	Packs of	42	42	42	42	47	Page
Width mm		800	800	800	800	600	
Height mm		2000	2000	2000	2000	2200	
Height including base/plinth mm		2100	2100	2100	2100	2300	
Depth mm		600	800	1000	1200	800	
Distance between prefitted 482.6 mm (19") levels mm		445	545	745	745	545	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 65	147 / 105	87 / 165	147 / 305	84 / 168	
Model No.	1 pc(s).	**5506.151**	**5507.151**	**5509.151**	**5511.151**	**5531.151**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s).	■	–	–	–	–	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	■	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	–	■	■	■	■	
Accessories							
Fan mounting plate	1 pc(s).	5502.010	5502.020	5502.020	5502.020	5502.010	532
Gland plates	1 pc(s).	5502.510	5502.530	5502.550	5502.570	–	635
Air baffle plates for TS IT 482.6 mm (19") mounting frames	1 pc(s).	5501.915	5501.915	5501.915	5501.915	5501.925	812

With glazed door, pre-configured, with 482.6 mm (19") mounting frame

Units U	Packs of	47	47	47	47	47	Page
Width mm		600	600	800	800	800	
Height mm		2200	2200	2200	2200	2200	
Height including base/plinth mm		2300	2300	2300	2300	2300	
Depth mm		1000	1200	800	1000	1200	
Distance between prefitted 482.6 mm (19") levels mm		745	745	545	745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		84 / 168	144 / 308	147 / 105	87 / 165	147 / 305	
Model No.	1 pc(s).	**5513.151**	**5515.151**	**5512.151**	**5514.151**	**5516.151**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s).	■	■	■	■	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	■	
Accessories							
Fan mounting plate	1 pc(s).	5502.010	5502.010	5502.020	5502.020	5502.020	532
Gland plates	1 pc(s).	5502.540	5502.560	5502.530	5502.550	5502.570	635
Air baffle plates for TS IT 482.6 mm (19") mounting frames	1 pc(s).	5501.925	5501.925	5501.935	5501.935	5501.935	812

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Material:
- Sheet steel
- Aluminium
- Base/plinth: Fibreglass-reinforced plastic

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Dipcoat-primed
- Doors, roof and side panels: Dipcoat-primed and powder-coated

Colour:
- Enclosure frame and panels: RAL 7035
- Interior installation, vent grille at the front, base/plinth: RAL 9005

Max. load capacity (static) per enclosure:
- 10000 N

Supply includes:
- TS 8 enclosure frame with doors and roof plate
- Aluminium/sheet steel door at the front, vented (vented surface area approx. 85% perforated), 180° hinges
- Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated), 180° hinges
- Lock front and rear: Comfort handle for semi-cylinders and security lock 3524 E
- Two 482.6 mm (19") mounting frames, front and rear, depth-variable
- Side panels, one-piece, lockable
- Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate
- Base mount
- Gland plate, one-piece, vented, with cable entry at the rear
- Flex-Block base/plinth 100 mm, vented, fitted base/plinth corner pieces, base/plinth trim panels (supplied loose)
- 4 levelling feet, M12, including base/plinth adaptor sleeve (supplied loose)
- Spacers to raise the fan cover plate, for passive cooling (supplied loose)
- 50 multi-tooth screws M5, cage nuts M5, conductive (supplied loose)
- 4 cable clamp rails (T-head) for outer mounting level, to fit enclosure depth (supplied loose)
- Connection accessories for potential equalisation incl. central earthing point, pre-configured
- 10 cable shunting rings (metal version), 125 x 65 mm (supplied loose)
- IPPC pallet

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

With vented door, pre-configured, with 482.6 mm (19") mounting frame

Units U	Packs of	42	Page
Width mm		800	
Height mm		2000	
Height including base/plinth mm		2100	
Depth mm		1000	
Distance between prefitted 482.6 mm (19") levels mm		745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 165	
Model No.	1 pc(s).	**5509.161**	
Accessories			
Fan mounting plate	1 pc(s).	5502.020	532
Air baffle plates for TS IT 482.6 mm (19") mounting frames	1 pc(s).	5501.915	812
Cable route	1 pc(s).	5502.120	790
C rails		see page	724
Cable clamp rails		see page	787



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Material:
- Sheet steel
- Aluminium
- Glazed door: Single-pane safety glass, 3 mm
- Base/plinth: Fibreglass-reinforced plastic

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Dipcoat-primed
- Door, rear panel and roof: Dipcoat-primed, powder-coated

Colour:
- Enclosure frame, panels and interior installation: RAL 7035
- Base/plinth: RAL 9005

Max. load capacity (static) per enclosure:
- 1500 N

Supply includes:
- TS 8 enclosure frame with door and roof plate
- Glazed aluminium door at the front (180°), with comfort handle for semi-cylinder and security lock 3524 E
- Sheet steel rear panel
- Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate
- Base mount
- Gland plate, one-piece, vented, with cable entry at the rear
- Swing frame, large, with side trim panel for the installation of 482.6 mm (19") mounting components whilst utilising the full enclosure height, 130°
- Side panels, one-piece, lockable
- Flex-Block base/plinth 100 mm, vented, fitted base/plinth corner pieces, base/plinth trim panels (supplied loose)
- 4 levelling feet, M12, including base/plinth adaptor sleeve (supplied loose)
- Spacers to raise the fan cover plate, for passive cooling (supplied loose)
- 50 multi-tooth screws M5, cage nuts M5, conductive (supplied loose)
- 4 cable clamp rails (T-head) for outer mounting level, to fit enclosure depth (supplied loose)
- 10 cable shunting rings (metal version), 125 x 65 mm (supplied loose)
- Connection accessories for potential equalisation incl. central earthing point, pre-configured
- IPPC pallet

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

With glazed door, pre-configured, with 482.6 mm (19") swing frame

Units U	Packs of	40	Page
Width mm		800	
Height mm		2000	
Height including base/plinth mm		2100	
Depth mm		800	
Free mounting space from the 482.6 mm (19") level, front mm		147	
Model No.	1 pc(s).	**5507.170**	
Accessories			
Fan mounting plate	1 pc(s).	5502.020	532
Cable route	1 pc(s).	5502.120	790
C rails	4 pc(s).	7828.080	724
Cable clamp rails	4 pc(s).	7828.082	787
Swing frame stay	5 pc(s).	1979.200	799
Ergoform-S lock system	1 pc(s).	2435.000	678

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Material:
- Sheet steel
- Aluminium
- Glazed aluminium door with 3 mm single-pane safety glass

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Dipcoat-primed
- Doors and roof: Dipcoat-primed, powder-coated

Colour:
- Enclosure frame and panels: RAL 7035
- Interior installation: RAL 9005

Protection category IP to IEC 60 529:
- IP 55 only in conjunction with baying seal or screw-fastened side panels

Max. load capacity (static) per enclosure:
- 10000 N

Supply includes:
- TS 8 enclosure frame with doors and roof plate
- Glazed aluminium door at the front, 180° hinges
- Sheet steel door at the rear, 180° hinges
- Lock front and rear: Comfort handle for semi-cylinders and security lock 3524 E
- Roof plate, one-piece, solid
- Base tray and gland plate, multi-piece, solid
- Two 482.6 mm (19") mounting frames, front and rear, depth-variable
- Baying seal and sealing kit for gland plates (supplied loose)
- Connection accessories for potential equalisation with earthing point (supplied loose)
- 50 multi-tooth screws M5, cage nuts M5, conductive (supplied loose)
- IPPC pallet

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications
- For enclosures with height and depth 2000 x 1200 mm / 2200 x 1000 mm / 2200 x 1200 mm, the matching side panels are optionally available and are supplied fitted to the enclosure

Approvals:
- UL
- cUL

With glazed door, IP 55, with 482.6 mm (19") mounting frame

Units U	Packs of	24	24	24	38	38	Page
Width mm		600	800	800	600	600	
Height mm		1200	1200	1200	1800	1800	
Depth mm		600	800	1000	600	800	
Distance between prefitted 482.6 mm (19") levels mm		345	545	745	345	545	
Free mounting space to the 482.6 mm (19") level, front/rear mm		84 / 168	147 / 105	87 / 165	84 / 168	84 / 168	
Model No.	1 pc(s).	**5526.131**	**5503.131**	**5504.131**	**5527.131**	**5528.131**	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s).	8170.235	8175.235	8176.235	8186.235	8188.235	643
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.600	8100.800	see page	8100.600	see page	617
Air baffle plates for TS IT 482.6 mm (19") mounting frames	1 pc(s).	5501.855	5501.865	5501.865	5501.875	5501.875	812
Cable route		–	–	–	–	–	
C rails	4 pc(s).	7828.060	7828.080	see page	7828.060	see page	724
Cable clamp rails	4 pc(s).	7828.062	7828.082	see page	7828.062	see page	787

With glazed door, IP 55, with 482.6 mm (19") mounting frame

Units U	Packs of	38	42	42	42	42	Page
Width mm		800	600	600	600	600	
Height mm		1800	2000	2000	2000	2000	
Depth mm		800	600	800	1000	1200	
Distance between prefitted 482.6 mm (19") levels mm		545	345	545	745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		147 / 105	84 / 168	84 / 168	84 / 168	144 / 308	
Model No.	1 pc(s).	**5505.131**	**5529.131**	**5530.131**	**5508.131**	**5510.131**	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s).	8188.235	8106.235	8108.235	8100.235	–	643
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.800	8100.600	see page	see page	see page	617
Air baffle plates for TS IT 482.6 mm (19") mounting frames	1 pc(s).	5501.885	5501.905	5501.905	5501.905	5501.905	812
Cable route	1 pc(s).	–	5502.120	5502.120	5502.120	5502.120	790
C rails	4 pc(s).	7828.080	7828.060	see page	see page	see page	724
Cable clamp rails	4 pc(s).	7828.082	7828.062	see page	see page	see page	787

With glazed door, IP 55, with 482.6 mm (19") mounting frame

Units U	Packs of	42	42	42	42	47	Page
Width mm		800	800	800	800	600	
Height mm		2000	2000	2000	2000	2200	
Depth mm		600	800	1000	1200	800	
Distance between prefitted 482.6 mm (19") levels mm		445	545	745	745	545	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 65	147 / 105	87 / 165	147 / 305	84 / 168	
Model No.	1 pc(s).	**5506.131**	**5507.131**	**5509.131**	**5511.131**	**5531.131**	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s).	8106.235	8108.235	8100.235	–	8128.235	643
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	8100.800	see page	see page	see page	617
Air baffle plates for TS IT 482.6 mm (19") mounting frames	1 pc(s).	5501.915	5501.915	5501.915	5501.915	5501.925	812
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	5502.120	790
C rails	4 pc(s).	see page	7828.080	see page	see page	see page	724
Cable clamp rails	4 pc(s).	see page	7828.082	see page	see page	see page	787

With glazed door, IP 55, with 482.6 mm (19") mounting frame

Units U	Packs of	47	47	47	47	47	Page
Width mm		600	600	800	800	800	
Height mm		2200	2200	2200	2200	2200	
Depth mm		1000	1200	800	1000	1200	
Distance between prefitted 482.6 mm (19") levels mm		745	745	545	745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		84 / 168	144 / 308	147 / 105	87 / 165	147 / 305	
Model No.	1 pc(s).	**5513.131**	**5515.131**	**5512.131**	**5514.131**	**5516.131**	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s).	–	–	8128.235	–	–	643
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	654
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	see page	8100.800	see page	see page	617
Air baffle plates for TS IT 482.6 mm (19") mounting frames	1 pc(s).	5501.925	5501.925	5501.935	5501.935	5501.935	812
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	5502.120	790
C rails	4 pc(s).	see page	see page	7828.080	see page	see page	724
Cable clamp rails	4 pc(s).	see page	see page	7828.082	see page	see page	787

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Material:
- Sheet steel
- Aluminium

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Dipcoat-primed
- Doors and roof: Dipcoat-primed, powder-coated

Colour:
- Enclosure frame and panels: RAL 7035

Protection category IP to IEC 60 529:
- IP 55 only in conjunction with baying seal or screw-fastened side panels

Supply includes:
- TS 8 enclosure frame with doors and roof plate
- Glazed aluminium door at the front (180°)
- Sheet steel door at the rear, 180° hinges
- Lock front and rear: Comfort handle for semi-cylinders and security lock 3524 E
- Roof plate, one-piece, solid
- Base tray and gland plate, multi-piece, solid
- Baying seal and sealing kit for gland plates (supplied loose)
- Connection accessories for potential equalisation with earthing point (supplied loose)
- IPPC pallet

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications
- For enclosures with height and depth 2000 x 1200 mm / 2200 x 1000 mm / 2200 x 1200 mm, the matching side panels are optionally available and are supplied fitted to the enclosure

Approvals:
- UL
- cUL

With glazed door, IP 55, empty enclosure

Width mm	Packs of	600	600	800	800	Page
Height mm		800	1200	1200	1200	
Depth mm		600	600	800	1000	
Model No.	1 pc(s).	**5525.790**	**5526.790**	**5503.790**	**5504.790**	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s).	8173.235	8170.235	8175.235	8176.235	643
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	654
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.600	8100.600	8100.800	see page	617
Cable route		–	–	–	–	
C rails	4 pc(s).	7828.060	7828.060	7828.080	see page	724
Cable clamp rails	4 pc(s).	7828.062	7828.062	7828.082	see page	787
Component shelf for frame attachment	1 pc(s).	7165.035	7165.035	7186.735	7186.735	739

With glazed door, IP 55, empty enclosure

Width mm	Packs of	600	600	800	Page
Height mm		1800	1800	1800	
Depth mm		600	800	800	
Model No.	1 pc(s).	**5527.790**	**5528.790**	**5505.790**	
Accessories					
Side panels, screw-fastened, sheet steel	2 pc(s).	8186.235	8188.235	8188.235	643
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	654
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.600	see page	8100.800	617
Cable route		–	–	–	
C rails	4 pc(s).	7828.060	see page	7828.080	724
Cable clamp rails	4 pc(s).	7828.062	see page	7828.082	787
Component shelf for frame attachment	1 pc(s).	7165.035	7166.735	7186.735	739

With glazed door, IP 55, empty enclosure

Width mm	Packs of	600	600	600	600	Page
Height mm		2000	2000	2000	2000	
Depth mm		600	800	1000	1200	
Model No.	1 pc(s).	**5529.790**	**5530.790**	**5508.790**	**5510.790**	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s).	8106.235	8108.235	8100.235	–	643
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	654
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.600	see page	see page	see page	617
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	790
C rails	4 pc(s).	7828.060	see page	see page	see page	724
Cable clamp rails	4 pc(s).	7828.062	see page	see page	see page	787
Component shelf for frame attachment	1 pc(s).	7165.035	7166.735	7166.735	7166.735	739

With glazed door, IP 55, empty enclosure

Width mm	Packs of	800	800	800	800	Page
Height mm		2000	2000	2000	2000	
Depth mm		600	800	1000	1200	
Model No.	1 pc(s).	**5506.790**	**5507.790**	**5509.790**	**5511.790**	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s).	8106.235	8108.235	8100.235	–	643
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	654
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	8100.800	see page	see page	617
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	790
C rails	4 pc(s).	see page	7828.080	see page	see page	724
Cable clamp rails	4 pc(s).	see page	7828.082	see page	see page	787
Component shelf for frame attachment	1 pc(s).	7185.035	7186.735	7186.735	7186.735	739

With glazed door, IP 55, empty enclosure

Width mm	Packs of	600	600	600	800	800	800	Page
Height mm		2200	2200	2200	2200	2200	2200	
Depth mm		800	1000	1200	800	1000	1200	
Model No.	1 pc(s).	**5531.790**	**5513.790**	**5515.790**	**5512.790**	**5514.790**	**5516.790**	
Accessories								
Side panels, screw-fastened, sheet steel	2 pc(s).	8128.235	–	–	8128.235	–	–	643
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	8800.490	654
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	see page	see page	see page	8100.800	see page	see page	617
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	5502.120	5502.120	790
C rails	4 pc(s).	see page	see page	see page	7828.080	see page	see page	724
Cable clamp rails	4 pc(s).	see page	see page	see page	7828.082	see page	see page	787
Component shelf for frame attachment	1 pc(s).	7166.735	7166.735	7166.735	7186.735	7186.735	7186.735	739

Cable management enclosures – More space for flexibility



The cable management enclosure is the ideal solution when you need to manage large quantities of cables, especially surplus cables. Because it is fitted as standard with six punched sections with mounting flanges, the enclosure is perfectly equipped to accommodate a wide range of cable management systems. The cable management enclosure can also be used for the symmetrical balancing of cold/hot aisle containment.

The benefit to you:

- Optimum integration into TS IT rack suites, 2000 mm high and 1000 / 1200 mm deep
- Doors at the front and rear for easy access
- Fast cable entry in the base and roof section, thanks to integral brush strips



Cable management enclosure



Cable management Page 768 **System accessories** Page 613 **IT monitoring** Page 543 **IT cooling** Page 513

For laying, securing and storing cables or as an empty enclosure with uneven Liquid Cooling Package (LCP) installations.

Applications:
- As a cable management enclosure between fully configured network and server racks
- As an empty enclosure for symmetrical balancing in cold/hot aisle containment with an uneven number of LCPs in two enclosure suites
- As a placeholder for easy retrofitting of LCP installations

Benefits:
- Optimum accommodation of surplus cables and structured cable management

Material:
- Sheet steel
- Aluminium

Surface finish:
- Enclosure frame: Dipcoat-primed
- Doors and roof: Dipcoat-primed, powder-coated

Colour:
- Enclosure: RAL 7035
- Front: RAL 9005

Supply includes:
- Enclosure frame with front and rear door
- Lock front and rear: Comfort handle for semi-cylinders and security lock 3524 E
- 2 roof/base plates, with cut-outs for cable entry via brush strips
- 3 TS punched sections with mounting flanges mounted on the left and right
- Baying seal

Note:
- For positioning at the start/end of an enclosure suite, a side panel will be required

For TS IT

Width mm	Packs of	300	300	Page
Height mm		2000	2000	
Depth mm		1000	1200	
Model No.	1 pc(s).	**3313.100**	**3313.120**	
Accessories				
Side panels, divided	1 pc(s).	5501.030	5501.040	645
Baying connector, external	6 pc(s).	8800.490	8800.490	654
Nylon tape supports	10 pc(s).	5502.155	5502.155	786
Cable manager	20 pc(s).	5502.405	5502.405	788
Cable shunting ring		see page	see page	788
Surplus cable holder	1 pc(s).	7220.500	7220.500	790
Support	1 pc(s).	7246.500	7246.500	815
C rails	4 pc(s).	7828.100	7828.120	724
Cable clamp rails	4 pc(s).	7828.102	7828.122	787
Cable clamps		see page	see page	784

Network enclosures TE 8000 – Efficient and cost-effective



Rack with no interfering enclosure frame

- Optimum accessibility from all sides
- Maximum utilisation of internal space
- Lightning-quick assembly



Simple assembly

- Quick removal and fitting of doors and side panels
- System roof for cable entry and active ventilation
- System accessories for quick, direct installation



Variable at all levels

- Universal interior installation with depth-variable attachment
- Direct installation on the 482.6 mm (19") mounting frame
- Can be dismantled for transporting to confined locations



Network enclosures TE 8000



System accessories Page 613 **IT monitoring** Page 543 **IT cooling** Page 513 **IT power** Page 483

Benefits:
- No frame structure
- Optimum accessibility
- Readily dismantled and therefore easily installed

Material:
- Sheet steel
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Mounting frame: Dipcoat-primed
- Enclosure panels: Powder-coated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Max. load capacity (static) per enclosure:
- 4000 N

Supply includes:
- Self-supporting 482.6 mm (19") mounting frames, front and rear, depth-variable
- Glazed door at the front, including 130° hinge, designer handle and security lock 3524 E
- Sheet steel door at the rear, including 130° hinge, security lock 3524 E
- Base frame with maximum cut-out (for optional population with module plates)
- Roof plate including concealed cut-out for cable entry and optional fan
- 4 levelling feet, M10 (supplied loose)
- 4 spacers, 20 mm (supplied loose) to raise the roof plate

Please observe the product-specific scope of supply.

Width 600 mm

Units U	Packs of	11	11	24	24	42	42	Page
Width mm		600	600	600	600	600	600	
Height mm		600	600	1200	1200	2000	2000	
Depth mm		600	800	600	800	600	800	
Distance between prefitted 482.6 mm (19") levels mm		495	495	495	495	495	495	
Free mounting space to the 482.6 mm (19") level, front/rear mm		30 / 30	130 / 130	30 / 30	130 / 130	30 / 30	130 / 130	
Model No.	1 pc(s).	**7888.390**	**7888.410**	**7888.430**	**7888.440**	**7888.500**	**7888.510**	
Product-specific scope of supply								
Side panels, lockable, including security lock 3524 E	2 pc(s).	■	■	■	■	■	■	
Accessories								
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	2090.000	2090.000	815
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	see page	8100.602	see page	8100.602	see page	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.600	see page	8100.600	see page	8100.600	see page	617
Side panels		–	–	–	–	–	–	
Baying kit	4 pc(s).	7888.640	7888.640	7888.640	7888.640	7888.640	7888.640	658
Brush kit	2 pc(s).	7888.610	7888.610	7888.610	7888.610	7888.610	7888.610	695
Fan mounting plate	1 pc(s).	5502.020	5502.020	5502.020	5502.020	5502.020	5502.020	532
Fan expansion kit	1 pc(s).	7980.000	7980.000	7980.000	7980.000	7980.000	7980.000	533
Complete earthing kit	1 pc(s).	7000.675	7000.675	7000.675	7000.675	7000.675	7000.675	764
Component shelf, static installation	1 pc(s).	7000.620	7000.620	7000.620	7000.620	7000.620	7000.620	742
Component shelf, pull-out	1 pc(s).	7000.625	7000.625	7000.625	7000.625	7000.625	7000.625	743
Slide rails	2 pc(s).	7963.410	7963.410	7963.410	7963.410	7963.410	7963.410	807
Socket strips in plastic enclosure	1 pc(s).	7000.630	7000.630	7000.630	7000.630	7000.630	7000.630	509

Width 800 mm

Units U	Packs of	24	42	42	42	Page
Width mm		800	800	800	800	
Height mm		1200	2000	2000	2000	
Depth mm		800	600	800	800	
Distance between prefitted 482.6 mm (19") levels mm		495	495	495	495	
Free mounting space to the 482.6 mm (19") level, front/rear mm		130 / 130	30 / 30	130 / 130	130 / 130	
Model No.	1 pc(s).	**7888.460**	**7888.520**	**7888.530**	**7888.532**	
Product-specific scope of supply						
Side panels, lockable, including security lock 3524 E	2 pc(s).	■	■	■	–	
Baying kit	4 pc(s).	–	–	–	■	
Accessories						
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	815
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.802	see page	8100.802	8100.802	617
Flex-Block trim panels, 100 mm, solid	2 pc(s).	8100.800	see page	8100.800	8100.800	617
Side panels	2 pc(s).	–	–	–	7888.652	646
Baying kit	4 pc(s).	7888.640	7888.640	7888.640	–	658
Brush kit	2 pc(s).	7888.612	7888.612	7888.612	7888.612	695
Fan mounting plate	1 pc(s).	5502.020	5502.020	5502.020	5502.020	532
Fan expansion kit	1 pc(s).	7980.000	7980.000	7980.000	7980.000	533
Complete earthing kit	1 pc(s).	7000.675	7000.675	7000.675	7000.675	764
Component shelf, static installation	1 pc(s).	7000.620	7000.620	7000.620	7000.620	742
Component shelf, pull-out	1 pc(s).	7000.625	7000.625	7000.625	7000.625	743
Slide rails	2 pc(s).	7963.410	7963.410	7963.410	7963.410	807
Socket strips in plastic enclosure	1 pc(s).	7000.630	7000.630	7000.630	7000.630	509



Network enclosures TE 8000



System accessories Page 613 **IT monitoring** Page 543 **IT cooling** Page 513 **IT power** Page 483

Benefits:
- No frame structure
- Optimum accessibility
- Readily dismantled and therefore easily installed

Material:
- Enclosure: Sheet steel
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Mounting frame: Dipcoat-primed
- Enclosure panels: Powder-coated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Max. load capacity (static) per enclosure:
- 4000 N

Supply includes:
- Self-supporting 482.6 mm (19") mounting frames, front and rear, depth-variable
- Glazed door at the front, including 130° hinge, designer handle and security lock 3524 E
- Sheet steel door at the rear, including 130° hinge, security lock 3524 E
- Side panels, lockable, including security lock 3524 E
- Base frame with maximum cut-out (for optional population with module plates)
- Roof plate including concealed cut-out for cable entry and optional fan
- 4 levelling feet, M12, including base/plinth adaptor sleeve (supplied loose)
- 4 spacers, 20 mm (supplied loose) to raise the roof plate
- Flex-Block base/plinth 100 mm, vented
- Tested frame earthing to IEC 60 950, fitted
- 4 C rails, for cable clamping in the enclosure depth via cable clamps (supplied loose)
- 10 cable shunting rings (metal version), 125 x 65 mm (supplied loose)
- 50 multi-tooth screws M5, cage nuts M5, conductive (supplied loose)
- Brush kit for cable entry in the roof (supplied loose)

Pre-configured

Units U	Packs of	24	42	Page
Width mm		800	800	
Height mm		1200	2000	
Height including base/plinth mm		1300	2100	
Depth mm		800	800	
Distance between prefitted 482.6 mm (19") levels mm		495	495	
Free mounting space to the 482.6 mm (19") level, front/rear mm		130 / 130	130 / 130	
Model No.	1 pc(s).	**7888.840**	**7888.850**	
Accessories				
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	815
Baying kit	4 pc(s).	7888.640	7888.640	658
Fan mounting plate	1 pc(s).	5502.020	5502.020	532
Fan expansion kit	1 pc(s).	7980.000	7980.000	533
Component shelf, static installation	1 pc(s).	7000.620	7000.620	742
Component shelf, pull-out	1 pc(s).	7000.625	7000.625	743
Slide rails	2 pc(s).	7963.410	7963.410	807
Socket strips in plastic enclosure	1 pc(s).	7000.630	7000.630	509



System accessories Page 613 **Power System Module** Page 488 **IT monitoring** Page 543 **Climate control** Page 389

Benefits:
- No frame structure
- Optimum accessibility
- Readily dismantled and therefore easily installed

Material:
- Sheet steel

Surface finish:
- Mounting frame: Dipcoat-primed
- Enclosure panels: Powder-coated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Max. load capacity (static) per enclosure:
- 7000 N

Supply includes:
- Self-supporting 482.6 mm (19") mounting frames, front and rear, depth-variable
- Sheet steel door vented (vented surface area > 67%), front with designer handle, 130° hinge, security lock 3524 E
- Sheet steel door vented (vented surface area > 67%), rear with 130° hinge, security lock 3524 E
- Base frame with maximum cut-out (for optional population with module plates)
- Roof plate including concealed cut-out for cable entry and optional fan
- 4 levelling feet, M10 (supplied loose)
- 4 spacers, 20 mm (supplied loose) to raise the roof plate

Please observe the product-specific scope of supply.

Vented

Units U	Packs of	24	42	42	Page
Width mm		600	600	800	
Height mm		1200	2000	2000	
Depth mm		1000	1000	1000	
Distance between prefitted 482.6 mm (19") levels mm		745	745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		80 / 130	80 / 130	80 / 130	
Model No.	1 pc(s).	**7888.875**	**7888.882**	**7888.892**	
Product-specific scope of supply					
Side panels, lockable, including security lock 3524 E	2 pc(s).	■	–	–	
Baying kit	4 pc(s).	–	■	■	
Accessories					
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	815
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	617
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.602	8100.802	617
Flex-Block trim panels, 100 mm, solid		see page	see page	see page	617
Baying kit	4 pc(s).	7888.640	–	–	658
Side panels	2 pc(s).	–	7888.653	7888.653	646
Brush kit	2 pc(s).	7888.610	7888.610	7888.612	695
Complete earthing kit	1 pc(s).	7000.675	7000.675	7000.675	764
Component shelf, static installation	1 pc(s).	5501.665	5501.665	5501.665	742
Component shelf, pull-out	1 pc(s).	5501.685	5501.685	5501.685	743
Slide rails, heavy-duty	2 pc(s).	7063.740	7063.740	7063.740	806
Slide rails, depth-variable	2 pc(s).	5501.480	5501.480	5501.480	807
Cable clamp rails, depth-variable	4 pc(s).	7858.162	7858.162	7858.162	787
Cable clamp rails	4 pc(s).	7828.062	7828.062	7828.062	787

Distributor racks



19" installation Page 796 **System accessories** Page 613 **TE 8000** Page 128

Benefits:
- Optimum accessibility from all sides during assembly and installation
- Unrestricted airflow, due to the open design
- The distance between attachment levels is infinitely variable

Material:
- Sheet steel

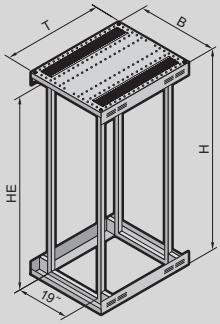
Surface finish:
- Powder-coated

Colour:
- RAL 7035

Max. load capacity (static) per enclosure:
- 7000 N

Supply includes:
- Self-supporting mounting frame, with 482.6 mm (19") mounting level front and rear
- Roof-plate, prepared for accommodating cable organisers
- Open base frame with 2 punched sections with mounting flanges for individual configuration fitted in the width
- 4 levelling feet, M10 (supplied loose)

Please observe the product-specific scope of supply.



TE 8000 open

Units U	Packs of	42	42	Page
Width mm		600	800	
Height mm		2000	2000	
Depth mm		1000	1000	
Distance between prefitted 482.6 mm (19") levels mm		745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		80 / 130	80 / 130	
Model No.	1 pc(s).	**7888.940**	**7888.944**	
Product-specific scope of supply				
Roof plate with brush strip, rear horizontal		■	–	
Roof plate with brush strip on both sides		–	■	
Accessories				
Cable organiser	4 pc(s).	7888.950	7888.950	696
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	815
Component shelf, static installation	1 pc(s).	5501.665	5501.665	742
Component shelf, pull-out	1 pc(s).	5501.685	5501.685	743
Slide rails, heavy-duty	2 pc(s).	7063.740	7063.740	806
Slide rails, depth-variable	2 pc(s).	5501.480	5501.480	807
Cable clamp rails, depth-variable	4 pc(s).	7858.162	7858.162	787
Cable clamp rails	4 pc(s).	7828.062	7828.062	787
C rails	4 pc(s).	7828.060	7828.060	724
Cable route	1 pc(s).	7000.685	7000.685	790
Cable duct	1 pc(s).	–	5502.105	791
Cable routing bars, 482.6 mm (19") attachment	4 pc(s).	7111.224	7111.224	791
Shunting ring	4 pc(s).	–	7220.600	788
Cable management panel		see page	see page	792



19" installation Page 796 **IT monitoring** Page 543 **Power System Module** Page 488 **Accessories for Data Rack** Page 800

Material:
- Profile frame, base/plinth: Sheet steel
- Feet: Die-cast zinc

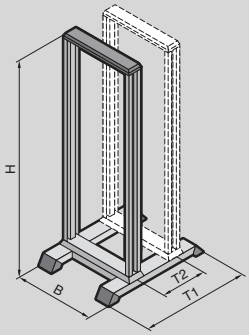
Colour:
- Profile frame, base/plinth: RAL 7035
- Trim panel, feet: RAL 5018

Max. load capacity (static) per 482.6 mm (19") level:
- 1500 N

Supply includes:
- Torsionally stiff profile frame with 482.6 mm (19") punchings
- Stable base/plinth with integral feet, with the option of floor anchoring without base trim panels
- Mounting accessories

Note:
- Order second mounting level separately

Photo shows a configuration example with equipment not included in the scope of supply



Data Rack

Units U	Packs of	31	36	40	45	Page
Width (B) mm		550	550	550	550	
Height (H) mm		1499.5	1721.8	1899.5	2121.8	
Depth (T1) mm		750	750	750	750	
Distance from the second mounting level, 50 mm pitch pattern (T2) mm		150 - 350	150 - 350	150 - 350	150 - 350	
Model No.	1 pc(s).	**7391.000**	**7396.000**	**7400.000**	**7445.000**	
Accessories						
Second pair of mounting angles	1 pc(s).	7296.000	7297.000	7298.000	7299.000	800
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	628
Twin castors	4 pc(s).	7495.000	7495.000	7495.000	7495.000	628
Baying clamp	3 pc(s).	7494.000	7494.000	7494.000	7494.000	800
Support strips	2 pc(s).	7401.000	7401.000	7401.000	7401.000	800
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	5501.635	745
Component shelf 2 U, static installation		see page	see page	see page	see page	744
Component shelf, 482.6 mm (19") configuration		see page	see page	see page	see page	741
Continuous slide rail	2 pc(s).	7402.000	7402.000	7402.000	7402.000	800
Slide rails		see page	see page	see page	see page	806
Cable duct	1 pc(s).	–	5502.105	5502.105	5502.145	791
Cable routing across the 482.6 mm (19") mounting level		see page	see page	see page	see page	795
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	815
Keyboard drawer 2 U	1 pc(s).	7281.035	7281.035	7281.035	7281.035	833

VerticalBox



System accessories Page 613

Compact 482.6 mm (19") enclosure for small networks.

Benefits:
- May be used as wall-mounted, under-desk or desktop enclosure
- Free access from three sides for interior installation
- Passive ventilation with vent slots
- Rear panel prepared to accommodate a fan
- Freely selectable door hinging

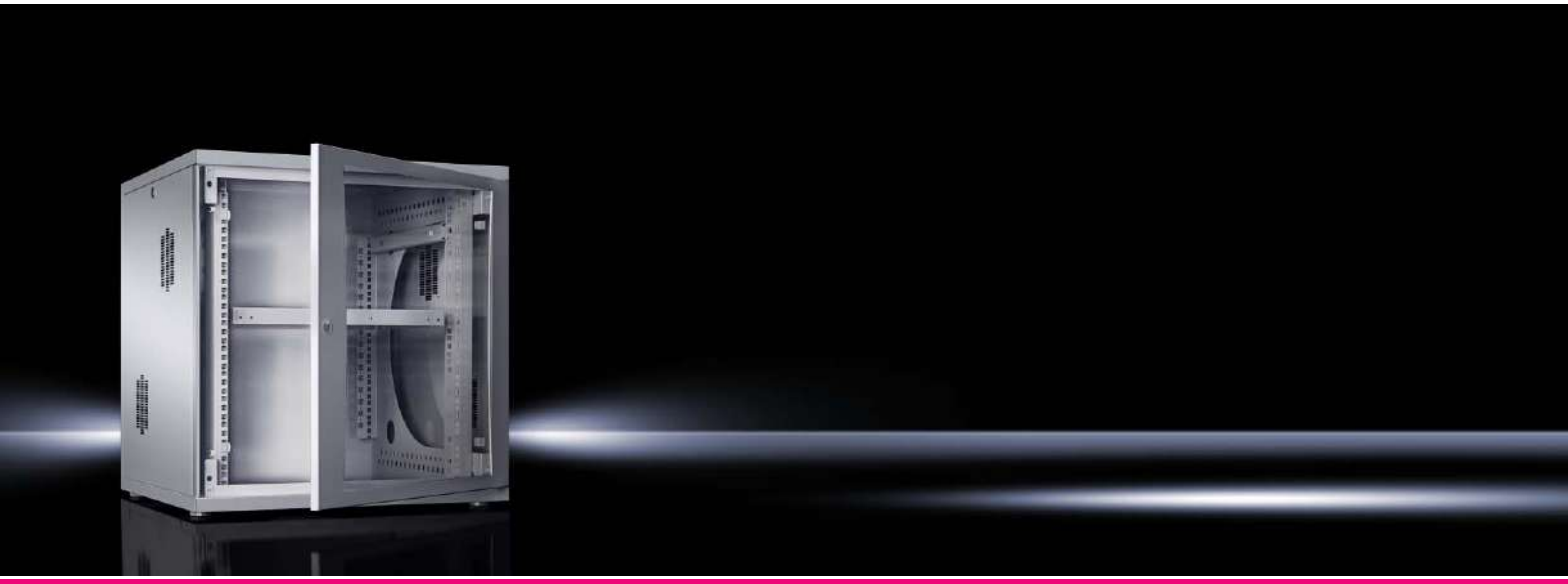
Material:
- Sheet steel
- Viewing window: Single-pane safety glass, 3 mm

Surface finish:
- Powder-coated

Colour:
- RAL 7035

Supply includes:
- Enclosure with glazed door
- Side panels (1 x fixed, 1 x slot-in) with vent slots
- Knockouts for cable entry via roof or base
- Slot-in rear panel with knockouts for cable entry and fan accommodation
- 482.6 mm (19") mounting level, 5 U, horizontal front and rear, depth-variable, distance between levels 434 – 489 mm
- Security lock 12321 on the door, side and rear panel
- 4 plastic feet, self-adhesive

Units U	Packs of	5	Page
Width mm		300	
Height mm		540	
Depth mm		600	
Model No.	1 pc(s).	**7501.000**	
Accessories			
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	815
Captive nuts	50 pc(s).	2094.500	815
Assembly screws	50 pc(s).	7094.130	816
Brush strip	1 pc(s).	7072.200	775
Fan expansion kit	1 pc(s).	7980.100	533
Socket strips in plastic enclosure	1 pc(s).	7000.630	509
Socket strips for IEC 320 connectors	1 pc(s).	7240.200	508
Socket strips in an aluminium duct		see page	508
Blanking panel, 482.6 mm (19")		see page	817
Cable management panel		see page	792
Cable management panel with brush strip		see page	795



System accessories Page 613

For flexible use as a wall-mounted or floor-standing enclosure.

Benefits:
- Tool-free quick assembly
- System assembly on the open 482.6 mm (19") frame

Material:
- Sheet steel
- Viewing window: Single-pane safety glass, 3 mm

Surface finish:
- Powder-coated

Colour:
- RAL 7035

Supply includes:
- Flat-packed enclosure
- 1 wall section
- 2 basic supports
- 2 roof/base plates, with cut-outs for cable entry via brush strips
- 2 side panels, lockable
- 1 glazed door, lockable, security lock 3524 E, door hinge point selectable
- Connection components for tool-free, fast assembly
- Earthing kit for system-compatible earthing of all enclosure parts

Please observe the product-specific scope of supply.

Note:
- Max. installation depth: Depth - 58 mm to rear panel
- Max. distance between two 482.6 mm (19") levels: Depth - 104 mm

Photo shows a configuration example with equipment not included in the scope of supply

Design with 482.6 mm (19") mounting frame

Units U	Packs of	6	6	9	9	Page
Width mm		600	600	600	600	
Height mm		358	358	492	492	
Depth mm		400	600	400	600	
Model No.	1 pc(s).	**7507.000**	**7507.100**	**7507.010**	**7507.110**	
Product-specific scope of supply						
482.6 mm (19") mounting frame	1 pc(s).	■	■	■	■	
Accessories						
Base/plinth	1 pc(s).	–	7507.750	–	7507.750	627
Transport castors	4 pc(s).	7000.672	7000.672	7000.672	7000.672	629
Levelling feet	4 pc(s).	7507.740	7507.740	7507.740	7507.740	628
Mounting angles, 482.6 mm (19")	2 pc(s).	7507.706	7507.706	7507.709	7507.709	805
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	815
Component shelf 2 U, static installation		see page	see page	see page	see page	744
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	5501.635	745
Component shelf, pull-out	1 pc(s).	–	5501.675	–	5501.675	743
Cover plates for fan panels	6 pc(s).	7507.760	7507.760	7507.760	7507.760	535
Fan expansion kit		see page	see page	see page	see page	533
Cable clamp, variable		see page	see page	see page	see page	787
Cable management panel	1 pc(s).	5502.205	5502.205	5502.205	5502.205	792
Cable management panel with brush strip		see page	see page	see page	see page	795
Earth rail, horizontal	1 pc(s).	7113.000	7113.000	7113.000	7113.000	764
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	467

FlatBox

Design with 482.6 mm (19") mounting angles

Units U	Packs of	12	12	15	15	18	21	Page
Width mm		600	600	600	700	700	700	
Height mm		625	625	758	758	892	1025	
Depth mm		400	600	400	700	700	700	
Model No.	1 pc(s).	**7507.020**	**7507.120**	**7507.030**	**7507.200**	**7507.210**	**7507.220**	
Product-specific scope of supply								
482.6 mm (19") mounting angles	2 pc(s).	■	■	■	■	■	■	
Accessories								
Base/plinth	1 pc(s).	–	7507.750	–	7507.755	7507.755	7507.755	627
Transport castors	4 pc(s).	7000.672	7000.672	7000.672	7000.672	7000.672	7000.672	629
Levelling feet	4 pc(s).	7507.740	7507.740	7507.740	7507.740	7507.740	7507.740	628
Mounting angles, 482.6 mm (19")	2 pc(s).	7507.712	7507.712	7507.715	7507.715	7507.718	7507.721	805
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	2090.000	2090.000	815
Component shelf 2 U, static installation		see page	see page	see page	see page	see page	see page	744
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	5501.635	5501.635	5501.635	745
Component shelf, pull-out	1 pc(s).	–	5501.675	–	5501.675	5501.675	5501.675	743
Cover plates for fan panels	6 pc(s).	7507.760	7507.760	7507.760	7507.760	7507.760	7507.760	535
Fan expansion kit		see page	see page	see page	see page	see page	see page	533
Cable clamp, variable		see page	see page	see page	see page	see page	see page	787
Cable management panel	1 pc(s).	5502.205	5502.205	5502.205	5502.205	5502.205	5502.205	792
Cable management panel with brush strip		see page	see page	see page	see page	see page	see page	795
Earth rail, horizontal	1 pc(s).	7113.000	7113.000	7113.000	7113.000	7113.000	7113.000	764
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	467



Wall-mounted enclosures EL, 3-part



System accessories Page 613 **Socket strips** Page 508 **Wall mounting bracket** Page 698 **Cable clamps** Page 784

Wall-mounted enclosure with optimum accessibility due to hinged part.

Material:
– Wall and hinged part: Sheet steel, 1.5 mm
– Viewing window: Single-pane safety glass, 3 mm

Surface finish:
– Powder-coated

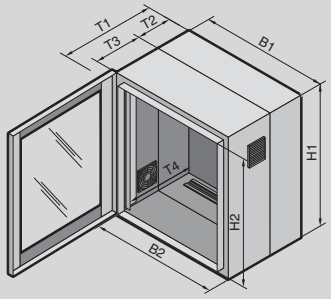
Colour:
– Wall and hinged part: RAL 7035
– Glazed door: RAL 7035/7015 (slate grey)

Protection category IP to IEC 60 529:
– IP 54 in conjunction with solid gland plate, top and bottom

Supply includes:
– Wall section with solid gland plate at the top and brush strip at the bottom, two vertical mounting rails and C rail, horizontal, for cable clamping
– Hinged part with 25 mm pitch pattern of holes in the front and rear frame, two 482.6 mm (19") mounting angles at the front, infinitely depth-variable, and side outlet filters on the left and right
– Earth rail with star earthing
– Designer glazed door

Please observe the product-specific scope of supply.

Approvals:
– UL
– cUL



Pre-configured with mounting angles, depth-variable

Units U	Packs of	9	9	15	15	21	21	Page
Width (B1) mm		600	600	600	600	600	600	
Height (H1) mm		478	478	746	746	1012	1012	
Depth (T1) mm		573	673	573	673	573	673	
Clearance width (B2) mm		502	502	502	502	502	502	
Clearance height (H2) mm		415	415	683	683	949	949	
Depth of wall section (T2) mm		135	135	135	135	135	135	
Depth of hinged part (T3) mm		416	516	416	516	416	516	
Max. installation depth (T4) mm		520	620	520	620	520	620	
Load capacity of hinged part (static) N		450	450	750	750	750	750	
Model No.	1 pc(s).	**7709.735**	**7709.535**	**7715.735**	**7715.535**	**7721.735**	**7721.535**	
Product-specific scope of supply								
Wall mounting bracket, 10 mm	4 pc(s).	■	–	■	–	■	–	
Mini-comfort handle	1 pc(s).	■	■	■	■	–	–	
Security lock 3524 E	1 pc(s).	■	■	■	■	■	■	
Wall mounting bracket, 10 mm, reinforced	4 pc(s).	–	■	–	■	–	■	
Comfort handle and 2-point locking	1 pc(s).	–	–	–	–	■	■	
Accessories								
Gland plate for metric cable glands	1 pc(s).	7705.235	7705.235	7705.235	7705.235	7705.235	7705.235	774
Fan expansion kit	1 pc(s).	7980.100	7980.100	7980.100	7980.100	7980.100	7980.100	533
Spare filter mats	5 pc(s).	3322.700	3322.700	3322.700	3322.700	3322.700	3322.700	456
Wall mounting bracket		see page	–	see page	–	see page	–	698
Component shelf 2 U, static installation		see page	see page	see page	see page	see page	see page	744
Cable management panel	1 pc(s).	7257.200	7257.200	7257.200	7257.200	7257.200	7257.200	792
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	2090.000	2090.000	815

Wall-mounted enclosures EL, 3-part



System accessories Page 613 **Socket strips** Page 508 **Wall mounting bracket** Page 698 **Earthing** Page 762

Wall-mounted enclosure with optimum accessibility due to hinged part.

Material:
– Wall and hinged part: Sheet steel, 1.5 mm
– Viewing window: Single-pane safety glass, 3 mm

Surface finish:
– Powder-coated

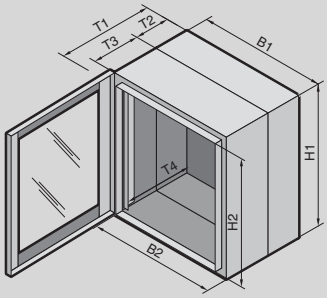
Colour:
– Wall and hinged part: RAL 7035
– Glazed door: RAL 7035/7015 (slate grey)

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Wall section with solid gland plate, top and bottom, two vertical mounting rails and C rail, horizontal, for cable clamping
– Hinged part with 25 mm pitch pattern of holes in the front and rear frame, and two 482.6 mm (19") mounting angles at the front, infinitely depth-variable
– 4 wall mounting brackets 10 mm
– Designer glazed door

Please observe the product-specific scope of supply.

Approvals:
– UL
– cUL



With punched rails and mounting angles, depth-variable

Units U	Packs of	6	9	12	15	21	Page
Width (B1) mm		600	600	600	600	600	
Height (H1) mm		345	478	612	746	1012	
Depth (T1) mm		473	473	473	473	473	
Clearance width (B2) mm		502	502	502	502	502	
Clearance height (H2) mm		282	415	549	683	949	
Depth of wall section (T2) mm		135	135	135	135	135	
Depth of hinged part (T3) mm		316	316	316	316	316	
Max. installation depth (T4) mm		420	420	420	420	420	
Load capacity of hinged part (static) N		300	450	600	750	750	
Model No.	1 pc(s).	**7706.135**	**7709.135**	**7712.135**	**7715.135**	**7721.135**	
Product-specific scope of supply							
Mini-comfort handle	1 pc(s).	■	■	■	■	–	
Security lock 3524 E	1 pc(s).	■	■	■	■	■	
Comfort handle and 2-point locking	1 pc(s).	–	–	–	–	■	
Accessories							
Gland plate with brush insert	1 pc(s).	7705.035	7705.035	7705.035	7705.035	7705.035	775
Gland plate for metric cable glands	1 pc(s).	7705.235	7705.235	7705.235	7705.235	7705.235	774
Wall mounting bracket		see page	see page	see page	see page	see page	698
Earth rail, horizontal	1 pc(s).	7113.000	7113.000	7113.000	7113.000	7113.000	764
Component shelf 2 U, static installation		see page	see page	see page	see page	see page	744
Cable management panel	1 pc(s).	7257.200	7257.200	7257.200	7257.200	7257.200	792
Lock inserts		see page	see page	see page	see page	see page	675
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	2090.000	815
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	5501.635	5501.635	745

Wall-mounted enclosures EL, 3-part



System accessories Page 613 **Socket strips** Page 508 **Wall mounting bracket** Page 698 **Cable clamps** Page 784

Wall-mounted enclosure with optimum accessibility due to hinged part.

Material:
– Wall and hinged part: Sheet steel, 1.5 mm
– Viewing window: Single-pane safety glass, 3 mm

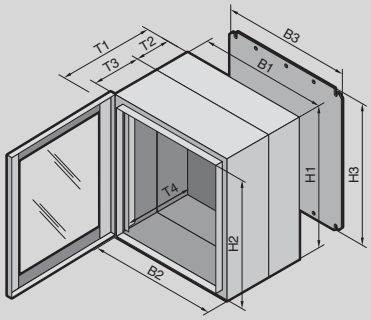
Surface finish:
– Powder-coated

Colour:
– Wall and hinged part: RAL 7035
– Glazed door: RAL 7035/7015 (slate grey)

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Wall section with solid gland plate, top and bottom and mounting plate (supplied loose).
– Designer glazed door
Please observe the product-specific scope of supply.

Approvals:
– UL
– cUL



With mounting plate and mounting angles, static installation

Units U	Packs of	3	3	6	6	9	9	Page
Width (B1) mm		600	600	600	600	600	600	
Height (H1) mm		212	212	345	345	478	478	
Depth (T1) mm		373	473	373	473	373	473	
Clearance width (B2) mm		502	502	502	502	502	502	
Clearance height (H2) mm		149	149	282	282	415	415	
Depth of wall section (T2) mm		135	135	135	135	135	135	
Depth of hinged part (T3) mm		216	316	216	316	216	316	
Max. installation depth (T4) mm		320	420	320	420	320	420	
Mounting plate width (B3) mm		485	485	485	485	485	485	
Mounting plate height (H3) mm		165	165	299	299	432	432	
Load capacity of hinged part (static) N		150	150	300	300	450	450	
Model No.	1 pc(s).	**2243.605**	**2253.605**	**2246.605**	**2256.605**	**2249.605**	**2259.605**	
Product-specific scope of supply								
Mini-comfort handle	1 pc(s).	■	■	■	■	■	■	
Security lock 3524 E	1 pc(s).	■	■	■	■	■	■	
Accessories								
Gland plate with brush insert	1 pc(s).	7705.035	7705.035	7705.035	7705.035	7705.035	7705.035	764
Gland plate for metric cable glands	1 pc(s).	7705.235	7705.235	7705.235	7705.235	7705.235	7705.235	774
Wall mounting bracket		see page	see page	see page	see page	see page	see page	698
Cable gland, brass		see page	see page	see page	see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	see page	see page	see page	776
Component shelf 2 U, static installation		–	see page	–	see page	–	see page	744
Blanking plates, 482.6 mm (19")		see page	see page	see page	see page	see page	see page	811
Lock inserts		see page	see page	see page	see page	see page	see page	675
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	2090.000	2090.000	815
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	5501.635	5501.635	5501.635	745

Wall-mounted enclosures EL, 3-part

With mounting plate and mounting angles, static installation

Units U	Packs of	12	12	15	15	21	21	Page
Width (B1) mm		600	600	600	600	600	600	
Height (H1) mm		612	612	746	746	1012	1012	
Depth (T1) mm		373	473	373	473	373	473	
Clearance width (B2) mm		502	502	502	502	502	502	
Clearance height (H2) mm		549	549	683	683	949	949	
Depth of wall section (T2) mm		135	135	135	135	135	135	
Depth of hinged part (T3) mm		216	316	216	316	216	316	
Max. installation depth (T4) mm		320	420	320	420	320	420	
Mounting plate width (B3) mm		485	485	485	485	485	485	
Mounting plate height (H3) mm		565	565	699	699	965	965	
Load capacity of hinged part (static) N		600	600	750	750	750	750	
Model No.	1 pc(s).	**2252.605**	**2262.605**	**2255.605**	**2265.605**	**2261.605**	**2271.605**	
Product-specific scope of supply								
Mini-comfort handle	1 pc(s).	■	■	■	■	–	–	
Security lock 3524 E	1 pc(s).	■	■	■	■	■	■	
Comfort handle and 2-point locking	1 pc(s).	–	–	–	–	■	■	
Accessories								
Gland plate with brush insert	1 pc(s).	7705.035	7705.035	7705.035	7705.035	7705.035	7705.035	764
Gland plate for metric cable glands	1 pc(s).	7705.235	7705.235	7705.235	7705.235	7705.235	7705.235	774
Wall mounting bracket		see page	see page	see page	see page	see page	see page	698
Cable gland, brass		see page	see page	see page	see page	see page	see page	776
Cable gland, polyamide		see page	see page	see page	see page	see page	see page	776
Component shelf 2 U, static installation		–	see page	–	see page	–	see page	744
Blanking plates, 482.6 mm (19")		see page	see page	see page	see page	see page	see page	811
Lock inserts		see page	see page	see page	see page	see page	see page	675
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	2090.000	2090.000	815
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	5501.635	5501.635	5501.635	745

Accessories



Wall mounting bracket

see from page 698

Wall-mounted enclosures AE



System accessories Page 613 **Socket strips** Page 508 **Captive nuts** Page 815 **Glazed doors** Page 666

Wall-mounted enclosure for small networks with a high protection category.

Material:
– Enclosure: Sheet steel

Surface finish:
– Enclosure: Powder-coated
– Mounting angles: Zinc-plated

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– Up to IP 66 (depending on the selected gland pate)

Supply includes:
– Enclosure with hinged door
– Door hinged on the right, may be swapped to the left
– Cam lock with 3 mm double-bit insert
– Gland plate with brush strip for cable entry in the enclosure base
– Mounting angles, 482.6 mm (19"), fully depth adjustable
– C rail, for cable clamping on the rear panel
– Metal bracket for optional accommodation of an earth rail or 482.6 mm (19") socket strip

Approvals:
– UL
– CSA
– TÜV
– Germanischer Lloyd
– Lloyds Register of Shipping

With 482.6 mm (19") mounting angles, depth-variable

Units U	Packs of	8	13	16	Page
Width mm		600	600	600	
Height mm		380	600	760	
Depth mm		350	350	350	
Max. installation depth mm		310	310	310	
Cam locks		1	2	2	
Model No.	1 pc(s).	**7641.000**	**7643.000**	**7645.000**	
Gland plate, size		5	5	5	
Gland plate, qty.		1	1	1	
Accessories					
Wall mounting bracket	4 pc(s).	2508.100	2508.100	2508.100	698
Viewing window		see page	see page	see page	666
Component shelf 2 U, static installation	1 pc(s).	7119.250	7119.250	7119.250	744
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	745
Earth rail, horizontal	1 pc(s).	7113.000	7113.000	7113.000	764
Lock inserts		see page	see page	see page	675
Lock cover	1 pc(s).	2493.000	2493.000	2493.000	681
Lock cylinder inserts	1 pc(s).	2571.000	2571.000	2571.000	681
Semi-cylinder lock		see page	see page	see page	681
Plastic handles		see page	see page	see page	679
T handles		see page	see page	see page	679
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	815
Cable management panel		see page	see page	see page	792
Cable management panel with brush strip		see page	see page	see page	795

Small fibre-optic distributor



System accessories Page 613

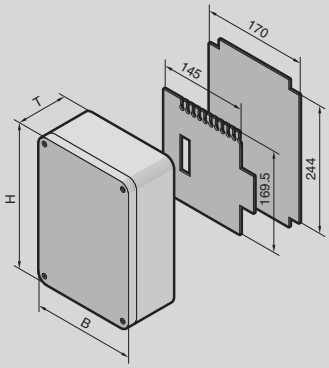
Benefits:
- Mounting plate with variable accommodation for up to two splicing cassettes (cassette width variable from 92 to 120 mm) and integral anti-twist guard
- Dividing plate with comb strip for cable clamping, to cover the splicing cassette, and to accommodate 2 patch panels
- Cable entry via prepunched knockouts using cable glands (2 x 22.5 mm and 12 x 12.5 mm)

Material:
- Enclosure with cover: Fibre-glass-reinforced polycarbonate
- Cover screws: Polyamide
- Insulating bungs: Polyamide
- Foamed-in PU seal

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 66

Supply includes:
- Enclosure with knockouts for cable glands
- Hinged cover with seal
- 2 cover screws, prepared for a lead seal
- Insulating bungs for wall mounting
- Mounting plate
- Dividing plate
- 12 cable glands PG 7
- 1 cable gland PG 16



With mounting plate and splicing cassette accommodation

Width (B) mm	Packs of	180	Page
Height (H) mm		254	
Depth (T) mm		90	
Maximum number of fibres (when using patch panels)		24	
Model No.	1 pc(s).	**7451.000**	
Accessories			
Patch panels for small fibre-optic distributors		see page	817
Wall mounting brackets	40 pc(s).	9583.000	39

1 U fastener – Quick and easy installation of 482.6 mm (19") components







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Console systems/ PC enclosure systems/ Industrial Workstations

TopConsole system TP

Overview of installation components 147
Combination options 148
600 mm wide 149
800 mm wide 150
1200 mm wide 151
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One-piece consoles TP

One-piece consoles TP 153

Universal consoles TP

Universal consoles TP 154

PC enclosure systems

PC enclosure systems 156
Enclosure for tower PC 158

Industrial Workstations

Combination options 159
IW enclosures and worktops 160



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TopConsole system TP

Overview of installation components

1 TS punched section with mounting flange, 17 x 73 mm
2 Support strips
3 Partial mounting plates
4 Rail for interior installation
5 Gland plates
6 Cable entry grommets





TopConsole system TP



System accessories Page 613 **Monitors, keyboards** Page 827/828 **Climate control** Page 389

Material:
- Enclosure: Sheet steel, 1.5 mm
- Door and console cover: Sheet steel, 2.0 mm, all-round foamed-in PU seal
- Mounting plate: Sheet steel 2.5 mm (depth 500 m), 3.0 mm (depth 400 mm)

Surface finish:
- Enclosure, cover and door: Dipcoat-primed, powder-coated on the outside, textured paint
- Mounting plate: Zinc-plated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 55 provided sutiable gland plates are selected

NEMA protection category:
- NEMA 12 provided suitable gland plates are selected

Supply includes:
Console
- Enclosure
- Cover hinged at bottom, including cover retainer
- Open base for individual cable entry

Desk section
- Enclosure
- Hinged cover, 2 stays with automatic latching, automatic unlatching on the left and manual unlatching on the right
- Opening for cable entry into the enclosure base

Pedestal
- Enclosure open at top
- Door or double door with locking rod (with depth 400 mm at the front, with depth 500 mm at the front and rear)
- Depth-adjustable mounting plate (with depth 500 mm)
- Open base for individual cable entry

Also required:

Gland plates, see page 632

Approvals:
- UL
- cUL

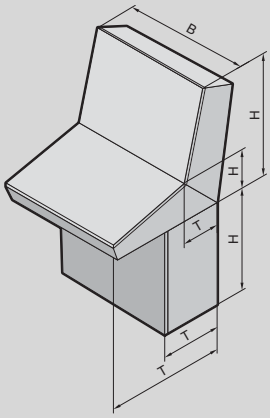
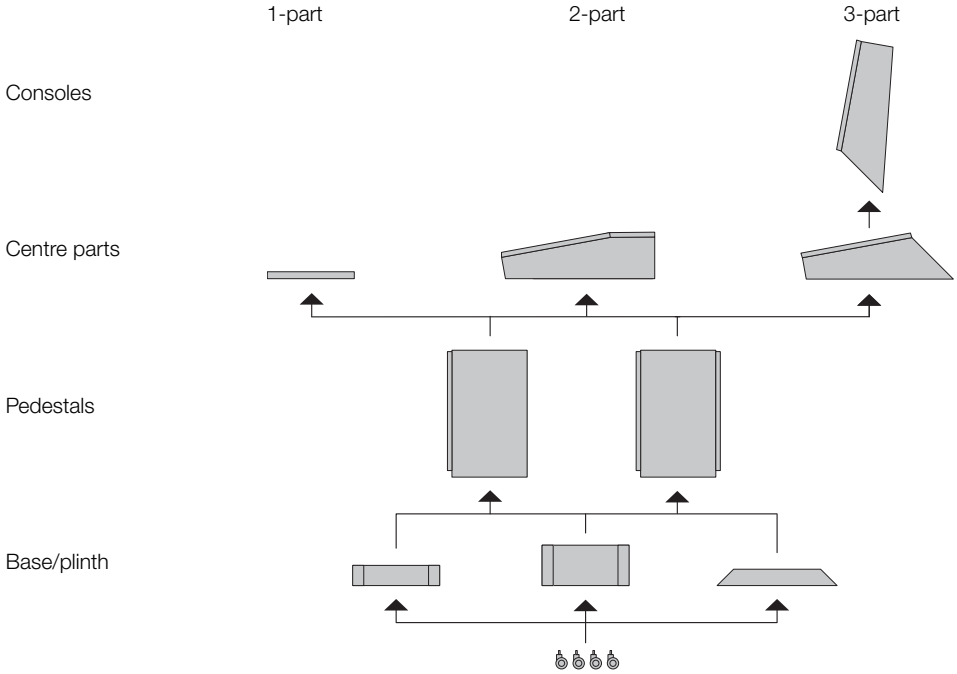
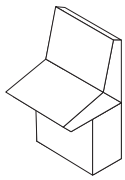
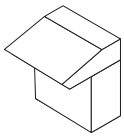
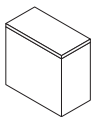


Photo shows a configuration example with equipment not included in the scope of supply

Combination options



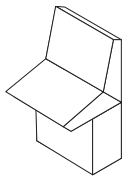
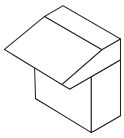
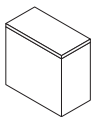
600 mm wide

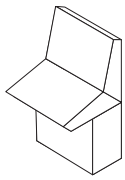
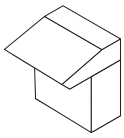
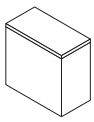
Configuration			3-part		2-part		1-part		
Depth of pedestal in mm			400	500	400	500	400	500	
Consoles									
Height (H) mm		P. of	720		–		–		Page
Depth (T) mm			240		–		–		
Model No.		1 pc(s).	**6720.500**		**–**		**–**		
Accessories									
Partial mounting plates, locatable into rails	Width 200 mm	1 pc(s).	6730.310		–		–		708
	Width 500 mm	1 pc(s).	6730.330		–		–		708
Rails for interior installation	For width	4 pc(s).	5001.050		–		–		716
Centre parts									
Height (H) mm		P. of	235		235		–		Page
Depth (T) mm			730		755		–		
Model No.		1 pc(s).	**6714.500**		**6710.500**		**–**		
Accessories									
Rails for interior installation	For width	4 pc(s).	5001.050		5001.050		–		716
Trim panel		1 pc(s).	–		–		5001.130	–	631
Pedestals									
Height (H) mm		P. of	675	675	675	675	675	675	Page
Depth (T) mm			400	500	400	500	400	500	
Model No.		1 pc(s).	**6700.500**	**6704.500**	**6700.500**	**6704.500**	**6700.500**	**6704.500**	
Accessories									
Base/plinth components front and rear	Height 100 mm	2 pc(s).	8601.600	8601.600	8601.600	8601.600	8601.600	8601.600	619
	Height 200 mm	2 pc(s).	8602.600	8602.600	8602.600	8602.600	8602.600	8602.600	619
Base/plinth trim panels, sides	Height 100 mm	2 pc(s).	8601.040	8601.050	8601.040	8601.050	8601.040	8601.050	620
	Height 200 mm	2 pc(s).	8602.040	8602.050	8602.040	8602.050	8602.040	8602.050	620
Cross member		2 pc(s).	8601.450	8601.450	8601.450	8601.450	8601.450	8601.450	626
Gland plates	1-part	1 pc(s).	5001.222	–	5001.222	–	5001.222	–	632
	2-part	1 pc(s). + 1 pc(s).	5001.214 + 5001.218	5001.214 + 5001.222	5001.214 + 5001.218	5001.214 + 5001.222	5001.214 + 5001.218	5001.214 + 5001.222	632 / 632
	Individual	For more gland plate variants, see page							639
Rails for interior installation	For height	4 pc(s).	5001.050	5001.050	5001.050	5001.050	5001.050	5001.050	716
Punched section with mounting flange, 17 x 73 mm	In the depth	4 pc(s).	8612.140	8612.150	8612.140	8612.150	8612.140	8612.150	717
Punched rail 18 x 38 mm	In the depth	4 pc(s).	8612.240	8612.250	8612.240	8612.250	8612.240	8612.250	720
Support strips	In the depth	20 pc(s).	4694.000	4695.000	4694.000	4695.000	4694.000	4695.000	720
Punched section with mounting flange, 17 x 73 mm	For door	4 pc(s).	8612.050	8612.050	8612.050	8612.050	8612.050	8612.050	717
Support strips	For door	20 pc(s).	4596.000	4596.000	4596.000	4596.000	4596.000	4596.000	720
Cable clamp rail		1 pc(s).	5001.080	5001.080	5001.080	5001.080	5001.080	5001.080	783
Sheet steel wiring plan pockets		1 pc(s).	4116.500	4116.500	4116.500	4116.500	4116.500	4116.500	688
TP aluminium strip		1 pc(s).	6731.120	6731.120	6731.120	6731.120	–	–	155
Lock systems			from page	from page	from page	from page	from page	from page	672
LED system light			see page	see page	see page	see page	see page	see page	750

TopConsole system TP

800 mm wide

									
Configuration			3-part		2-part		1-part		
Depth of pedestal in mm			400	500	400	500	400	500	
Consoles									
Height (H) mm		P. of	720		–		–		Page
Depth (T) mm			240		–		–		
Model No.		1 pc(s).	**6721.500**		**–**		**–**		
Accessories									
Partial mounting plates, locatable into rails	Width 200 mm	1 pc(s).	6730.310		–		–		708
	Width 500 mm	1 pc(s).	6730.330		–		–		708
	Width 700 mm	1 pc(s).	6730.340		–		–		708
Rails for interior installation	For width	4 pc(s).	5001.051		–		–		716
Centre parts									
Height (H) mm		P. of	235		235		–		Page
Depth (T) mm			730		755		–		
Model No.		1 pc(s).	**6715.500**		**6711.500**		**–**		
Accessories									
Rails for interior installation	For width	4 pc(s).	5001.051		5001.051		–		716
Trim panel		1 pc(s).	–		–		5001.140	6730.110	631
Pedestals									
Height (H) mm		P. of	675	675	675	675	675	675	Page
Depth (T) mm			400	500	400	500	400	500	
Model No.		1 pc(s).	**6701.500**	**6705.500**	**6701.500**	**6705.500**	**6701.500**	**6705.500**	
Accessories									
Base/plinth components front and rear	Height 100 mm	2 pc(s).	8601.800	8601.800	8601.800	8601.800	8601.800	8601.800	619
	Height 200 mm	2 pc(s).	8602.800	8602.800	8602.800	8602.800	8602.800	8602.800	619
Base/plinth trim panels, sides	Height 100 mm	2 pc(s).	8601.040	8601.050	8601.040	8601.050	8601.040	8601.050	620
	Height 200 mm	2 pc(s).	8602.040	8602.050	8602.040	8602.050	8602.040	8602.050	620
Cross member		2 pc(s).	8601.450	8601.450	8601.450	8601.450	8601.450	8601.450	626
Gland plates	1-part	1 pc(s).	5001.223	–	5001.223	–	5001.223	–	632
	2-part	1 pc(s). + 1 pc(s).	5001.215 + 5001.219	5001.215 + 5001.223	5001.215 + 5001.219	5001.215 + 5001.223	5001.215 + 5001.219	5001.215 + 5001.223	632 632
	Individual	For more gland plate variants, see page							639
Rails for interior installation	For height	4 pc(s).	5001.050	5001.050	5001.050	5001.050	5001.050	5001.050	716
Punched section with mounting flange, 17 x 73 mm	In the depth	4 pc(s).	8612.140	8612.150	8612.140	8612.150	8612.140	8612.150	717
Punched rail 18 x 38 mm	In the depth	4 pc(s).	8612.240	8612.250	8612.240	8612.250	8612.240	8612.250	720
Support strips	In the depth	20 pc(s).	4694.000	4695.000	4694.000	4695.000	4694.000	4695.000	720
Support strips	For door	20 pc(s).	4598.000	4598.000	4598.000	4598.000	4598.000	4598.000	720
Cable clamp rail		1 pc(s).	5001.081	5001.081	5001.081	5001.081	5001.081	5001.081	783
Sheet steel wiring plan pockets		1 pc(s).	4118.500	4118.500	4118.500	4118.500	4118.500	4118.500	688
TP aluminium strip		1 pc(s).	6731.120	6731.120	6731.120	6731.120	–	–	155
Lock systems			from page	from page	from page	from page	from page	from page	672
LED system light			see page	see page	see page	see page	see page	see page	750

1200 mm wide

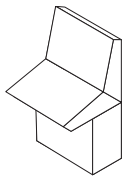
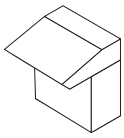
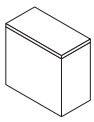




Configuration			3-part		2-part		1-part		
Depth of pedestal in mm			400	500	400	500	400	500	
Consoles									
Height (H) mm		P. of	720		–		–		Page
Depth (T) mm			240		–		–		
Model No.		1 pc(s).	**6722.500**		**–**		**–**		
Accessories									
Partial mounting plates, locatable into rails	Width 200 mm	1 pc(s).	6730.310		–		–		708
	Width 500 mm	1 pc(s).	6730.330		–		–		708
	Width 700 mm	1 pc(s).	6730.340		–		–		708
Rails for interior installation	For width	4 pc(s).	5001.053		–		–		716
Centre parts									
Height (H) mm		P. of	235		235		–		Page
Depth (T) mm			730		755		–		
Model No.		1 pc(s).	**6716.500**		**6712.500**		**–**		
Accessories									
Rails for interior installation	For width	4 pc(s).	5001.053		5001.053		–		716
Trim panel		1 pc(s).	–		–		5001.160	6730.120	631
Pedestals									
Height (H) mm		P. of	675	675	675	675	675	675	Page
Depth (T) mm			400	500	400	500	400	500	
Model No.		1 pc(s).	**6702.500**	**6706.500**	**6702.500**	**6706.500**	**6702.500**	**6706.500**	
Accessories									
Base/plinth components front and rear	Height 100 mm	2 pc(s).	8601.200	8601.200	8601.200	8601.200	8601.200	8601.200	619
	Height 200 mm	2 pc(s).	8602.200	8602.200	8602.200	8602.200	8602.200	8602.200	619
Base/plinth trim panels, sides	Height 100 mm	2 pc(s).	8601.040	8601.050	8601.040	8601.050	8601.040	8601.050	620
	Height 200 mm	2 pc(s).	8602.040	8602.050	8602.040	8602.050	8602.040	8602.050	620
Cross member		2 pc(s).	8601.450	8601.450	8601.450	8601.450	8601.450	8601.450	626
Gland plates[1)]	1-part	1 pc(s).	5001.225	–	5001.225	–	5001.225	–	632
	2-part	1 pc(s). + 1 pc(s).	5001.217 + 5001.221	5001.217 + 5001.225	5001.217 + 5001.221	5001.217 + 5001.225	5001.217 + 5001.221	5001.217 + 5001.225	632 / 632
	Individual	For more gland plate variants, see page							639
Rails for interior installation	For height	4 pc(s).	5001.050	5001.050	5001.050	5001.050	5001.050	5001.050	716
Punched section with mounting flange, 17 x 73 mm	In the depth	4 pc(s).	8612.140	8612.150	8612.140	8612.150	8612.140	8612.150	717
Punched rail 18 x 38 mm	In the depth	4 pc(s).	8612.240	8612.250	8612.240	8612.250	8612.240	8612.250	720
Support strips	In the depth	20 pc(s).	4694.000	4695.000	4694.000	4695.000	4694.000	4695.000	720
Punched section with mounting flange, 17 x 73 mm	For door	4 pc(s).	8612.050	8612.050	8612.050	8612.050	8612.050	8612.050	717
Support strips	For door	20 pc(s).	4596.000	4596.000	4596.000	4596.000	4596.000	4596.000	720
Cable clamp rail		1 pc(s).	5001.083	5001.083	5001.083	5001.083	5001.083	5001.083	783
Sheet steel wiring plan pockets		1 pc(s).	4116.500	4116.500	4116.500	4116.500	4116.500	4116.500	688
TP aluminium strip		1 pc(s).	6731.120	6731.120	6731.120	6731.120	–	–	155
Lock systems			from page	from page	from page	from page	from page	from page	672
LED system light			see page	see page	see page	see page	see page	see page	750

[1)] With the two-door pedestal, the base opening is divided in two, and two packs of gland plates are required

TopConsole system TP

1600 mm wide

Configuration			3-part		2-part		1-part		
Depth of pedestal in mm			400	500	400	500	400	500	
Consoles									
Height (H) mm		P. of	720		–		–		Page
Depth (T) mm			240		–		–		
Model No.		1 pc(s).	**6723.500**		**–**		**–**		
Accessories									
Partial mounting plates, locatable into rails	Width 200 mm	1 pc(s).	6730.310		–		–		708
	Width 500 mm	1 pc(s).	6730.330		–		–		708
	Width 700 mm	1 pc(s).	6730.340		–		–		708
Rails for interior installation	For width	4 pc(s).	5001.054		–		–		716
Centre parts									
Height (H) mm		P. of	235		235		–		Page
Depth (T) mm			730		755		–		
Model No.		1 pc(s).	**6717.500**		**6713.500**		**–**		
Accessories									
Rails for interior installation	For width	4 pc(s).	5001.054		5001.054		–		716
Trim panel		1 pc(s).	–		–		6730.030	6730.130	631
Pedestals									
Height (H) mm		P. of	675	675	675	675	675	675	Page
Depth (T) mm			400	500	400	500	400	500	
Model No.		1 pc(s).	**6703.500**	**6707.500**	**6703.500**	**6707.500**	**6703.500**	**6707.500**	
Accessories									
Base/plinth components front and rear	Height 100 mm	2 pc(s).	8601.920	8601.920	8601.920	8601.920	8601.920	8601.920	619
	Height 200 mm	2 pc(s).	8602.920	8602.920	8602.920	8602.920	8602.920	8602.920	619
Base/plinth trim panels, sides	Height 100 mm	2 pc(s).	8601.040	8601.050	8601.040	8601.050	8601.040	8601.050	620
	Height 200 mm	2 pc(s).	8602.040	8602.050	8602.040	8602.050	8602.040	8602.050	620
Cross member		2 pc(s).	8601.450	8601.450	8601.450	8601.450	8601.450	8601.450	626
Gland plates[1)]	1-part	1 pc(s).	5001.236	–	5001.236	–	5001.236	–	632
	2-part	1 pc(s). + 1 pc(s).	5001.234 + 5001.235	5001.234 + 5001.236	5001.234 + 5001.235	5001.234 + 5001.236	5001.234 + 5001.235	5001.234 + 5001.236	632 / 632
	Individual	For more gland plate variants, see page							639
Rails for interior installation	For height	4 pc(s).	5001.050	5001.050	5001.050	5001.050	5001.050	5001.050	716
Punched section with mounting flange, 17 x 73 mm	In the depth	4 pc(s).	8612.140	8612.150	8612.140	8612.150	8612.140	8612.150	717
Punched rail 18 x 38 mm	In the depth	4 pc(s).	8612.240	8612.250	8612.240	8612.250	8612.240	8612.250	720
Support strips	In the depth	20 pc(s).	4694.000	4695.000	4694.000	4695.000	4694.000	4695.000	720
Support strips	For door	20 pc(s).	4598.000	4598.000	4598.000	4598.000	4598.000	4598.000	720
Cable clamp rail	Width 800 mm	1 pc(s).	5001.081	5001.081	5001.081	5001.081	5001.081	5001.081	783
Sheet steel wiring plan pockets		1 pc(s).	4118.500	4118.500	4118.500	4118.500	4118.500	4118.500	688
TP aluminium strip		1 pc(s).	6731.120	6731.120	6731.120	6731.120	–	–	155
Lock systems			from page	from page	from page	from page	from page	from page	672
LED system light			see page	see page	see page	see page	see page	see page	750

[1)] With the two-door pedestal, the base opening is divided in two, and two packs of gland plates are required

One-piece consoles TP



System accessories Page 613 **Monitors, keyboards** Page 827/828 **Climate control** Page 389 **One-piece consoles, stainless steel** Page 226

Material:
- Enclosure: Sheet steel 1.5 mm
- Door and console cover: Sheet steel, 2.0 mm, all-round foamed-in PU seal
- Mounting plate: Sheet steel 3.0 mm

Surface finish:
- Enclosure, cover and door: Dipcoat-primed, powder-coated on the outside, textured paint
- Mounting plate: Zinc-plated

Colour:
- RAL 7035

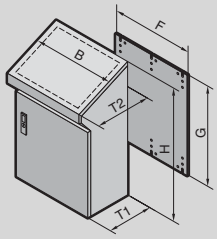
Protection category IP to IEC 60 529:
- IP 55 with selection of the appropriate gland plates

Protection category NEMA:
- NEMA 12 with selection of the appropriate gland plates

Supply includes:
- Enclosure, solid back and sides
- Door or double door at front, with locking rod
- Mounting plate
- Cover hinged at rear, 2 stays with automatic locking. Automatic unlocking on the left, manual unlocking on the right
- Open base for individual cable entry

Note:
- With the two-door variant, the base opening is divided in two, and two packs of gland plates are required.

Approvals:
- UL
- cUL



Width (B) mm	Packs of	600	800	1000	1200	Page
Height (H) mm		960	960	960	960	
Depth, bottom (T1) mm		400	400	400	400	
Depth, top (T2) mm		520	520	520	520	
Mounting plate width (F) mm		530	730	930	1130	
Mounting plate height (G) mm		900	900	900	900	
Model No.	1 pc(s).	**6746.500**	**6748.500**	**6740.500**	**6742.500**	
Door(s)		1	1	2	2	
Accessories						
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.600	8601.800	8601.000	8601.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.040	8601.040	8601.040	8601.040	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.600	8602.800	8602.000	8602.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.040	8602.040	8602.040	8602.040	620
Cross member	2 pc(s).	8601.450	8601.450	8601.450	8601.450	626
Gland plates		see page	see page	see page	see page	632
TP aluminium strip	1 pc(s).	6731.120	6731.120	6731.120	6731.120	822
Rails for interior installation	4 pc(s).	see page	5001.051	see page	see page	716
TS punched section with mounting flange, 17 x 73 mm		see page	see page	see page	see page	717
TS punched rail 18 x 38 mm	4 pc(s).	8612.240	8612.240	8612.240	8612.240	720
Cable clamp rails	1 pc(s).	5001.080	5001.081	5001.082	5001.083	783
Wiring plan pockets of sheet steel	1 pc(s).	4116.500	4118.500	4115.500	4116.500	688
LED system light		see page	see page	see page	see page	750

Universal consoles TP



System accessories Page 613 **Monitors, keyboards** Page 827/828 **Climate control** Page 389

Material:
– Enclosure, gland plates: Sheet steel 1.5 mm
– Door: Sheet steel, 2.0 mm
– Mounting plate: Sheet steel 3.0 mm

Surface finish:
– Enclosure and door: Dipcoat-primed, powder-coated on the outside, textured paint
– Mounting plate and gland plates: Zinc-plated

Colour:
– RAL 7035

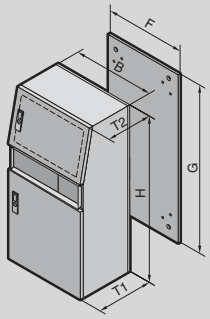
Protection category IP to IEC 60 529:
– IP 55

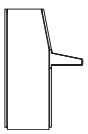
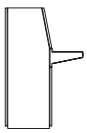
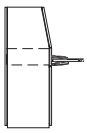
NEMA protection category:
– NEMA 12

Supply includes:
– Enclosure with door(s)
– Mounting plate
– Gland plates

Note:
For universal console with short front door: The drawer or desk section should be fitted in order to maintain the protection category. The keyboard drawer may be installed without a mounting plate.

Approvals:
– UL
– CSA
– TÜV
– Russian Maritime Register of Shipping



						
Version	Packs of	with short front door			with tall front door	Page
Width (B) mm		600			600	
Height (H) mm		1300			1300	
Depth, bottom (T1) mm		500			500	
Depth, top (T2) mm		417.5			417.5	
Mounting plate width (F) mm		499			499	
Mounting plate height (G) mm		1196			1196	
Model No.	1 pc(s).	**2694.500**			**2695.500**	
Weight kg		77.0			80.0	
Also required						
Drawer	1 pc(s).	–	–	4757.500	–	155
Desk section	1 pc(s).	2696.500	2696.500	–	–	155
Accessories						
Base/plinth, complete		see page			see page	625
Cross member	2 pc(s).	8601.450			8601.450	626
Support strips	20 pc(s).	2325.000			2325.000	685
Cable clamp rails	2 pc(s).	4191.000			4191.000	783
Lock systems		from page			from page	674

TP aluminium strip

For retrospective external mounting on TP desk units, consoles and one-piece consoles.

Applications:
– TP three-part/two-part
– One-piece consoles TP
– May be mounted on all enclosures/covers with 20 mm fold height (max. metal thickness 2 mm)

Installation options:
– Easily cut to length for other sizes
– 3 x width 600 mm
– 2 x width 800 mm
– 1 x width 1000 mm + 1 x width 600 mm
– 1 x width 1200 mm
– 1 x width 1600 mm

Material:
– Extruded aluminium section
– Cover caps: Plastic

Surface finish:
– Aluminium extruded section: natural anodised

Colour:
– Cover caps: RAL 7035

Length mm	**Model No.**
1750	**6731.120**

Supply includes:
– 1 aluminium section
– 6 plastic cover caps
– Drilling template
– Assembly parts



Drawer

for universal console TP
For mouse and keyboard with a maximum width of 500 mm. A high level of protection is retained, even with the flap open.

Material:
– Sheet steel

Surface finish:
– Textured paint

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Protection category NEMA:
– NEMA 12

Supply includes:
– Double-bit lock insert
– Assembly parts

Height mm	**Model No.**
200	**4757.500**

Assembly instruction:
– Only suitable for installation without a mounting plate.

Accessories:
– Lock inserts, see page 675
– Plastic handles, see page 679





Desk section

for universal console TP
For installing display and control components and a keyboard. Closed at the side and front. Trim panels for top and bottom.

Material:
– Sheet steel

Surface finish:
– dipcoat-primed, powder-coated on the outside, textured paint

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Protection category NEMA:
– NEMA 12

Supply includes:
– Assembly parts

Height mm	**Model No.**
200	**2696.500**





PC enclosure systems



Lock systems Page 671 **Climate control** Page 389 **PC enclosure system, stainless steel** Page 227 **System accessories** Page 613

Secure accommodation of all PC components, from monitors, to PCs, to keyboards. For ultimate ease of operation in a modern design. Perfect protection from humidity and dirt, temperature fluctuations and unauthorised access.

Material:
- Enclosure, door, rear door, mounting compartment, supports: Sheet steel
- Handles, decorative trim panels: Plastic
- Door trim panels: Aluminium
- Viewing window: Single-pane safety glass

Surface finish:
- Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
- Mounting compartment, support: powder-coated

Colour:
- Enclosure, door, decorative trim panels, supports: RAL 7035
- Handle: Similar to RAL 9006
- Monitor panel, door centre part: RAL 7015

Protection category IP to IEC 60 529:
- IP 55

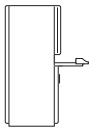
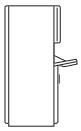
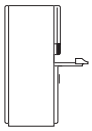
Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure, door, rear door

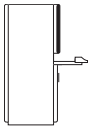
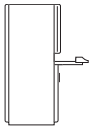
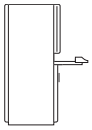
Please observe the product-specific scope of supply.

Approvals:
- UL
- cUL

Width 600 mm

						
Width mm	Packs of	600	600	600	600	Page
Height mm		1600	1600	1600	1600	
Depth mm		636	636	636	636	
Product-specific scope of supply						
Glazed door, top		■	■	■	■	
Keyboard drawer		■	–	–	■	
Component shelf		■	■	■	■	
Folding keyboard		–	■	–	–	
Desk section		–	–	■	–	
Mounting compartment, small		–	–	–	■	
Model No.	1 pc(s).	**5366.000**	**5366.100**	**5366.200**	**5366.300**	
Max. keyboard dimensions (WxHxD) mm		480 x 70 x 260	497 x 50 x 250 497 x 60 x 200	540 x 40 x 175	480 x 70 x 260	
Weight kg		101.4	98.0	95.5	95.5	
Accessories						
Base/plinth, stationary	1 pc(s).	8800.920	8800.920	8800.920	8800.920	623
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.600	8601.600	8601.600	8601.600	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.060	8601.060	8601.060	8601.060	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.600	8602.600	8602.600	8602.600	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.060	8602.060	8602.060	8602.060	620
Partial mounting plates	1 pc(s).	8614.675	8614.675	8614.675	8614.675	707
Component shelf, pull-out	1 pc(s).	6902.960	6902.960	6902.960	6902.960	740
Drawer tray	1 pc(s).	6902.700	6902.700	6902.700	6902.700	740
Paper removal flap	1 pc(s).	6903.200	6903.200	6903.200	6903.200	834
LED system light		see page	see page	see page	see page	750

Width 600 – 800 mm

					
Width mm	Packs of	600	600	800	Page
Height mm		1600	1600	1600	
Depth mm		636	836	636	
Product-specific scope of supply					
Keyboard drawer		■	■	■	
Mounting compartment, large		■	–	–	
Glazed door, top		–	■	■	
Component shelf		–	■	■	
Model No.	1 pc(s).	**5366.400**	**5368.000**	**5386.000**	
Max. keyboard dimensions (WxHxD) mm		480 x 70 x 260	480 x 70 x 260	480 x 70 x 260	
Weight kg		97.5	111.0	117.6	
Accessories					
Base/plinth, stationary	1 pc(s).	8800.920	–	–	623
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.600	8601.600	8601.800	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.060	8601.080	8601.060	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.600	8602.600	8602.800	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.060	8602.080	8602.060	620
Partial mounting plates	1 pc(s).	8614.675	8614.675	8614.880	707
Component shelf, pull-out	1 pc(s).	6902.960	6902.980	–	740
Drawer tray	1 pc(s).	6902.700	6902.700	–	740
Paper removal flap	1 pc(s).	6903.200	6903.200	6903.200	834
LED system light		see page	see page	see page	750

Accessories



Lock systems

see from page 674

PC enclosure systems



Lock systems Page 672 **Comfort Panel** Page 164 **Optipanel** Page 166 **TFT monitor** Page 827

Compact enclosure, ready to connect. Standard commercially available tower PCs, up to W/H/D: 250 x 530 x 600 mm (max. 20 kg) may be attached securely to the base screw-fastened to the door using the retaining strap supplied loose. The rear interfaces of the PC are readily accessible with the door open. Because the socket strip and fan-and-filter unit are already pre-installed, the enclosure is ready for immediate use.

Design:
- Roof prepared for mounting worktop or for mounting below surfaces
- Base prepared for mounting cast feet or for mounting on surfaces

Material:
- Enclosure: Sheet steel
- Door: Sheet steel
- Design strips: Aluminium

Surface finish:
- Enclosure: Powder-coated, textured paint
- Door: Powder-coated

Colour:
- Enclosure: RAL 7035
- Door: RAL 7015
- Design strips: RAL 7035

Protection category IP to IEC 60 529:
- IP 54 in conjunction with connector gland supplied loose

Protection category NEMA:
- NEMA 12 in conjunction with connector gland supplied loose

Supply includes:
- Enclosure of all-round solid construction
- R/h door hinge
- Door with base screw-fastened on the inside
- Side cam lock
- Double-bit lock insert
- Rear panel with two cut-outs for use of the connector gland supplied loose
- Cable gland M20, brass, nickel-plated
- Outlet filter fitted in left side panel
- Fan-and-filter unit fitted in right side panel, 55 m^3/h, 230 V, 50/60 Hz
- Door-operated switch, supply socket for 230 V power supply, socket strip with 3 sockets and overvoltage protection

Enclosure for tower PC

Width mm	Packs of	760	Page
Height mm		760	
Depth mm		300	
Model No.	1 pc(s).	**6900.300**	
Weight kg		36.0	
Also required			
Connection cable	5 pc(s).	4315.100	
Accessories			
Cast feet	2 pc(s).	6902.920	626
Twin castors	4 pc(s).	7495.000	628
Worktop	1 pc(s).	6902.310	203
Optipanel	1 pc(s).	6380.040	166
TFT monitor	1 pc(s).	6450.020	827
TopTherm fan-and-filter units		see page	394
Lock inserts	1 pc(s).	2484.000	675



System accessories Page 613 **Comfort Panel** Page 164 **Optipanel** Page 166 **TFT monitor** Page 827

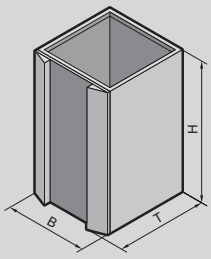
Material:
- Enclosure, roof, drawer tray, designer door, rear wall and rear door: Sheet steel
- Worktop: Chipboard, plastic-laminated on both sides (edging)
- Handle: Aluminium, powder-coated

Surface finish:
- Enclosure: Dipcoat-primed, powder-coated on the outside, textured paint

Colour:
- Enclosure, worktop: RAL 7035
- Worktop edge strip: RAL 7015
- Worktop handle: RAL 9006

Protection category:
- See table

Supply includes:
Available on the Internet



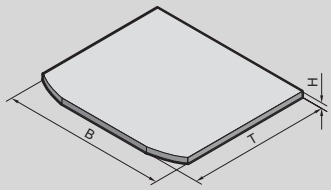
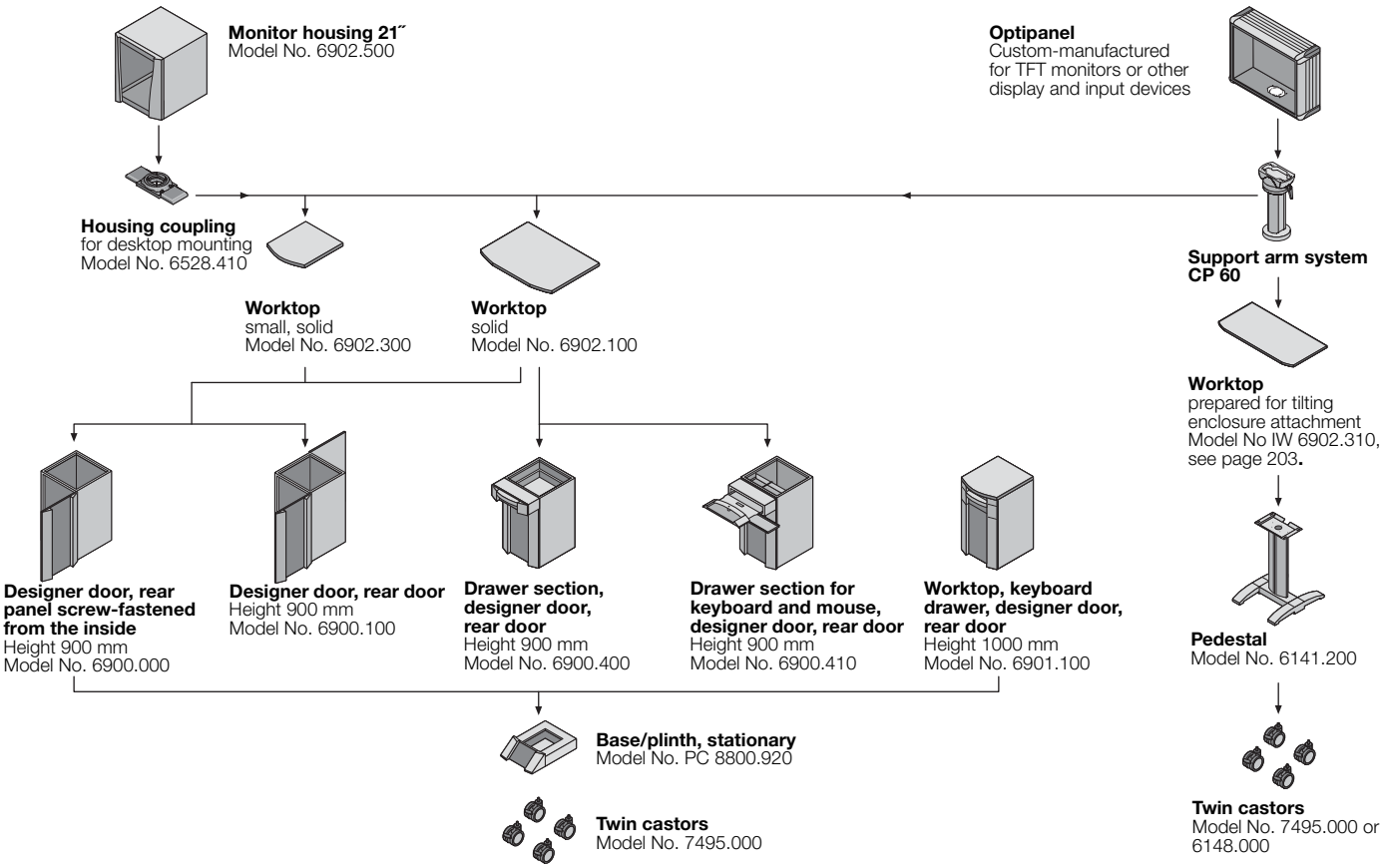


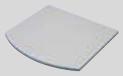
Photo shows a configuration example with equipment not included in the scope of supply

Combination options



Industrial Workstations

IW enclosures and worktops

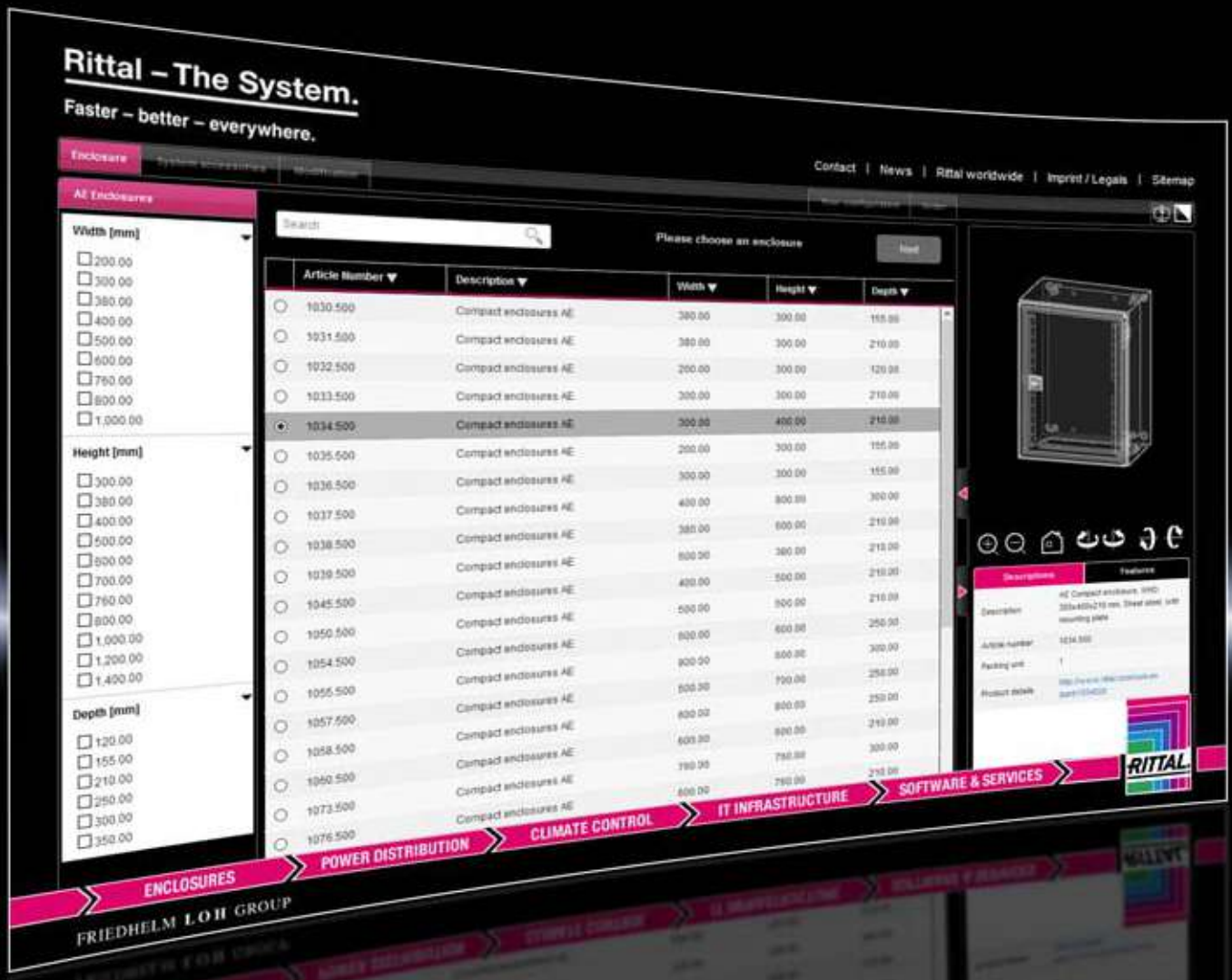
Enclosure										Page
Version					Designer door, rear panel screw-fastened from the inside	Designer door, rear door	Drawer section, designer door, rear door	Drawer section for keyboard and mouse, designer door, rear door	Worktop, keyboard drawer, designer door, rear door	
Width (B) mm					600	600	600	600	600	
Height (H) mm					900	900	900	900	1000	
Depth (T) mm					600	600	600 (890)	600 (890)	645	
Weight (kg)					54.9	59.9	73	73	91	
Model No.					**6900.000**	**6900.100**	**6900.400**	**6900.410**	**6901.100**	
Protection category IP to IEC 60 529					IP 55		IP 54			
NEMA protection category					NEMA 12		NEMA 12			
	Width (B) mm	**Height** (H) mm	**Depth** (T) mm	Weight kg	**Model No.**					
Worktops 	610	38	645	11.6	**6902.300**	**6902.300**	–	–	■	
	1000	38	895	24	**6902.100**	**6902.100**	**6902.100**	**6902.100**	–	
Monitor housing 	600	600	600	42.5	**6902.500**	**6902.500**	**6902.500**	**6902.500**	–	

Accessories	Packs of						
Base/plinth, stationary	1 pc(s).	8800.920	8800.920	8800.920	8800.920	8800.920	623
Cross member, adjustable	2 pc(s)	8601.680	8601.680	8601.680	8601.680	–	626
Twin castors	4 pc(s).	7495.000	7495.000	7495.000	7495.000	7495.000	628
Handle adaptor for comfort handle	1 pc(s).	8611.300	8611.300	–	–	–	659
Cable gland	1 pc(s).	6902.770	6902.770	6902.770	6902.770	6902.770	778
Mounting plate for enclosure width 600 mm	1 pc(s).	8614.675	8614.675	8614.675	8614.675	8614.680	707
Component shelf, static installation	1 pc(s).	8800.900	8800.900	8800.900	8800.900	8800.900	740
Component shelf, pull-out	1 pc(s).	6902.960	6902.960	6902.960	6902.960	6902.960	740
Drawer tray	1 pc(s).	6902.700	6902.700	6902.700	6902.700	6902.700	740
Paper removal flap	1 pc(s).	6903.200	6903.200	6903.200	6903.200	6903.200	834
Support arm systems		see page	see page	see page	see page	see page	175
Command panels		see page	see page	see page	see page	see page	163

Rittal – The System.

Faster – better – everywhere.

Rittal Configuration System – Simple, error-free enclosure configuration







Operating housings/support arm systems/stand systems

Comfort Panel

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Optipanel

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Command panels

Command panels with handle strips 170
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Support arm systems

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Support arm system CP 60 185
Support arm system CP 120 189
Support arm system CP 180 193
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Stand systems

Pedestal, modular....202
Pedestal, complete....203
Pedestal, open/pillar, small 204
Accessories 205

Comfort Panel



System accessories Page 613 **Support arm systems** Page 175 **Stand systems** Page 202 **Industrial Workstations** Page 159

Material:
– Enclosure:
Extruded aluminium section
– Corner pieces: Die-cast zinc
– Corner protectors: Plastic

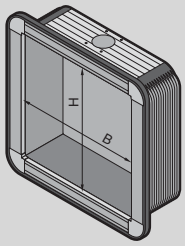
Colour:
– Enclosure: Natural anodised.
– Corner pieces: RAL 7035
– Corner protectors: similar to RAL 7024

Protection category IP to IEC 60 529:
– IP 65

Supply includes:
– Seals and assembly parts for front panels

Note:
– The support arm connection may be swapped over by rotating the enclosure

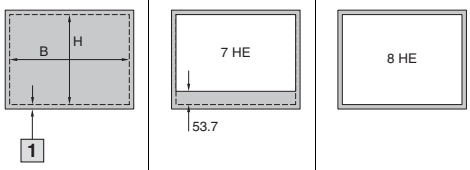
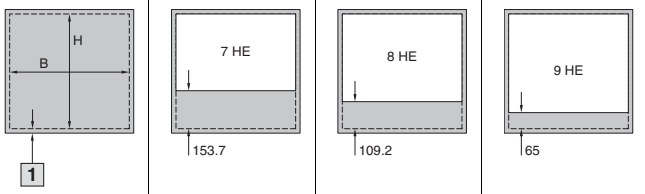
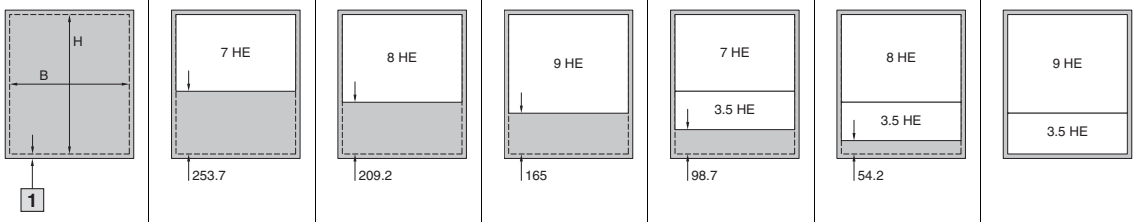
Approvals:
– UL



For front panel width (B) mm	Packs of	520			520			520		Page
For front panel height (H) mm		400			500			600		
Installation depth mm		74	152	191	74	152	191	152	191	
Model No.	1 pc(s).	**6372.541**	**6372.542**	**6372.543**	**6372.551**	**6372.552**	**6372.553**	**6372.562**	**6372.563**	
Weight kg		7.8	11.7	13.8	8.8	12.3	15.2	13.5	16.7	
Design										
Support arm connection □ 120 x 65 mm		■	–	–	■	–	–	–	–	
Support arm connection Ø 130 mm		–	■	■	–	■	■	■	■	
Hinged rear panel on the long side, with screw lock		■	–	–	■	–	–	–	–	
Hinged rear panel on the hinged long side, with cam[1]		–	■	–	–	■	–	■	–	
Screw-fastened rear panel[2]		–	–	■	–	–	■	–	■	
Accessories										
Front panel	1 pc(s).	6028.014	6028.014	6028.014	6028.015	6028.015	6028.015	6028.016	6028.016	825
Cover plate for support arm connection	1 pc(s).	6505.100	6505.500	6505.500	6505.100	6505.500	6505.500	6505.500	6505.500	825
Mounting bracket for interior installation	4 pc(s).	6205.100	6205.100	6205.100	6205.100	6205.100	6205.100	6205.100	6205.100	728
Spring nut M5	50 pc(s).	6108.000	6108.000	6108.000	6108.000	6108.000	6108.000	6108.000	6108.000	736
Earthing plate	1 pc(s).	2570.500	2570.500	2570.500	2570.500	2570.500	2570.500	2570.500	2570.500	763

[1] With 3 mm double-bit lock insert, may be exchanged for 41 mm lock inserts, version C, see page 680, plastic handles and T handles, version C, see page 679.
[2] Enclosure hinged at the front with side double-bit lock insert, may be exchanged for 41 mm lock inserts, version C, see page 680, plastic handles and T handles, version C, see page 679.

Configuration examples

Front panel height mm	Cut-out dimensions
400	
	B = 484 mm H = 364 mm 1 = 18 mm all-round for attaching the adaptor plate
500	
	B = 484 mm H = 464 mm 1 = 18 mm all-round for attaching the adaptor plate
600	
	B = 484 mm H = 564 mm 1 = 18 mm all-round for attaching the adaptor plate

Free space, available for individual installed equipment such as rows of switches etc.

HE = U

Optipanel



System accessories Page 613 **Support arm systems** Page 175 **Stand systems** Page 202 **Industrial Workstations** Page 159

Material:
– Enclosure: Extruded aluminium section
– Corner pieces: Die-cast zinc
– Corner protectors: Plastic

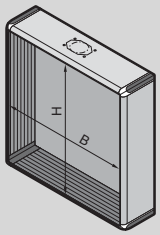
Colour:
– Enclosure: Natural anodised.
– Corner pieces: RAL 7035
– Corner protectors: similar to RAL 7024

Protection category IP to IEC 60 529:
– IP 65

Supply includes:
– Seals

Note:
– The support arm connection may be swapped over by rotating the enclosure

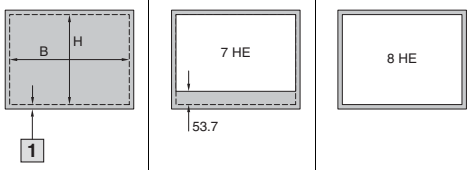
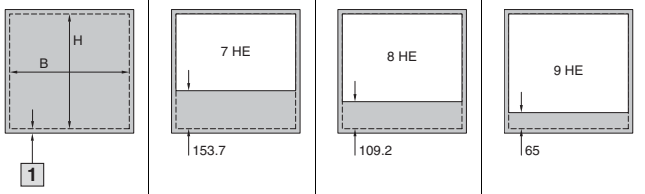
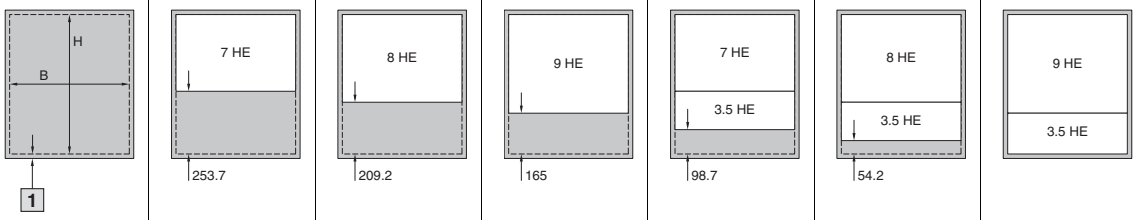
Approvals:
– UL



For front panel width (B) mm	Packs of	430	482.6	482.6	520		520	520	Page
For front panel height (H) mm		343	310.3	354.8	400		500	600	
Installation depth mm		100	100	100	100	150	150	150	
Model No.	1 pc(s).	**6380.020**[1]	**6380.000**	**6380.040**[1]	**6380.400**	**6380.410**	**6380.510**	**6380.610**	
Weight kg		5.3	6.2	6.6	5.8	7.3	8.3	9.2	
Design									
Support arm connection ▭ 120 x 65 mm		■	■	■	■	–	–	–	
Support arm connection Ø 130 mm		–	–	–	–	■	■	■	
Hinged rear panel on the hinged long side[2]		■	■	■	■	■	■	■	
Including seals and assembly parts for front panels		–	–	–	■	■	■	■	
Accessories									
Front panel	1 pc(s).	–	6028.010	–	6028.014	6028.014	6028.015	6028.016	825
Cover plate for support arm connection	1 pc(s).	6505.100	6505.100	6505.100	6505.100	6505.500	6505.500	6505.500	825
Handle set, horizontal	1 pc(s).	–	6385.010	6385.010	–	–	–	–	821
Mounting bracket for interior installation	4 pc(s).	6205.100	6205.100	6205.100	6205.100	6205.100	6205.100	6205.100	728
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	4597.000	4597.000	728
Earthing plate	1 pc(s).	2570.500	2570.500	2570.500	2570.500	2570.500	2570.500	2570.500	763
Spring nut M5	50 pc(s).	6108.000	6108.000	6108.000	6108.000	6108.000	6108.000	6108.000	736

[1] To fit TFT monitors, see page 827.
[2] With 3 mm double-bit lock insert, may be exchanged for 41 mm lock inserts, version C, see page 680, plastic handles and T handles, version C, see page 679.

Configuration examples

Front panel height mm	Cut-out dimensions
400	
	B = 484 mm H = 364 mm 1 = 18 mm all-round for attaching the adaptor plate
500	
	B = 484 mm H = 464 mm 1 = 18 mm all-round for attaching the adaptor plate
600	
	B = 484 mm H = 564 mm 1 = 18 mm all-round for attaching the adaptor plate

Free space, available for individual installed equipment such as rows of switches etc.

HE = U

Command panels with handle strips



Uniform system in design and function

Modern design, adapted to support arm system CP 60/120/180

Convenience in perfection

- Integral interior installation bracket with TS system punchings, to match TS system accessories
- Fast, safe, simple servicing access from the front or rear
- Lock with integral door runners for easy locking

Built-in added value

- Support arm connection for one-person assembly
- Support arm connection Ø 130 mm, pre-formed off-centre in the reinforcement plate, easily drilled out

Ergonomic design

- Design strip including handle function
- Aluminium front panel, easily dismantled for machining











Command panels with handle strips



System accessories P. 613 **Support arm systems** P. 175 **Stand systems** P. 202 **Command panel housings with door, stainless steel** P. 229

Material:
- Enclosure and door: Sheet steel
- Handle strips: Aluminium
- Front panel: Aluminium
- Cover caps: Plastic

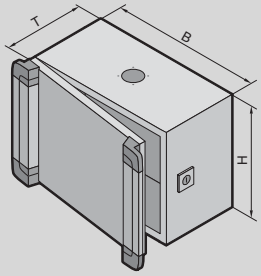
Surface finish:
- Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
- Handle strip: Natural anodised
- Front panel: Natural anodised

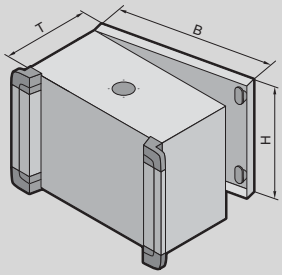
Colour:
- Enclosure and door: RAL 7035
- Handle strip: Natural anodised
- Front panel: Natural anodised
- Cover caps: similar to RAL 7024

Protection category IP to IEC 60 529:
- IP 55

Supply includes:
- Enclosure with cut-out and reinforcement for support arm connection Ø 130 mm
- Front with maximum cut-out, covered with easily machinable 3 mm aluminium front panel
- Side handle strips and cover caps
- Cam lock with 3 mm double-bit insert
- Integral interior installation bracket with TS system punchings

Note:
- The support arm connection and door hinge may be swapped over by rotating the enclosure
- Optional: Support arm connection Ø 130 mm, preformed off-centre in the reinforcement plate, easily drilled out





- Lock systems for servicing access from the front: 41 mm lock inserts, type C, lock cylinder, plastic handles and T handles, type C
- Lock systems for servicing access from the rear: 27 mm lock inserts, type A, lock cylinder, plastic handles and T handles, type B

Approvals:
- CSA
- TÜV

Width (B) mm		Packs of	300	300	380	380	380	Page
Height (H) mm			200	300	300	380	380	
Depth (T) mm			155	210	210	210	210	
Model No.		1 pc(s).	**6320.000**	**6315.100**	**6315.200**	**6315.300**	**6320.300**	
Weight kg			4.5	7.0	7.5	9.8	9.8	
Servicing access	from the front		–	■	■	■	–	
	from the rear		■	–	–	–	■	
Accessories								
TS punched section with mounting flange, 17 x 73 mm		4 pc(s).	–	8612.130	8612.130	8612.030	8612.030	717
TS punched rail 18 x 38 mm			–	–	–	–	–	
Mounting bars		20 pc(s).	–	–	–	4594.000	4594.000	720
Mounting bracket		4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	728
Mounting bracket for interior installation		4 pc(s).	6205.100	6205.100	6205.100	6205.100	6205.100	728
Mini-comfort handle			–	–	–	–	see page	677
Plastic handles			see page	see page	see page	see page	see page	679
T handles			see page	see page	see page	see page	see page	679
Lock inserts			see page	see page	see page	see page	see page	680
Lock cylinder inserts		1 pc(s).	2571.000	2525.000	2525.000	2525.000	2571.000	681

Command panels with handle strips

Width (B) mm		Packs of	500	500	600	600	600	Page
Height (H) mm			500	500	380	600	600	
Depth (T) mm			210	210	210	210	210	
Model No.		1 pc(s).	**6315.400**	**6320.400**	**6320.500**	**6320.600**	**6315.600**	
Weight kg			16.8	16.8	15.4	18.8	22.8	
Servicing access	from the front		■	–	–	–	■	
	from the rear		–	■	■	■	–	
Accessories								
TS punched section with mounting flange, 17 x 73 mm		4 pc(s).	8612.150	8612.150	8612.030	8612.160	8612.160	717
TS punched rail 18 x 38 mm		4 pc(s).	8612.250	8612.250	–	8612.260	8612.260	720
Mounting bars		20 pc(s).	4695.000	4695.000	4594.000	4696.000	4696.000	720
Mounting bracket		4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	728
Mounting bracket for interior installation		4 pc(s).	6205.100	6205.100	6205.100	6205.100	6205.100	728
Mini-comfort handle			–	see page	see page	see page	–	677
Plastic handles			see page	see page	see page	see page	see page	679
T handles			see page	see page	see page	see page	see page	679
Lock inserts			see page	see page	see page	see page	see page	680
Lock cylinder inserts		1 pc(s).	2525.000	2571.000	2571.000	2571.000	2525.000	681

Accessories



Thermoelectric coolers

see page 412

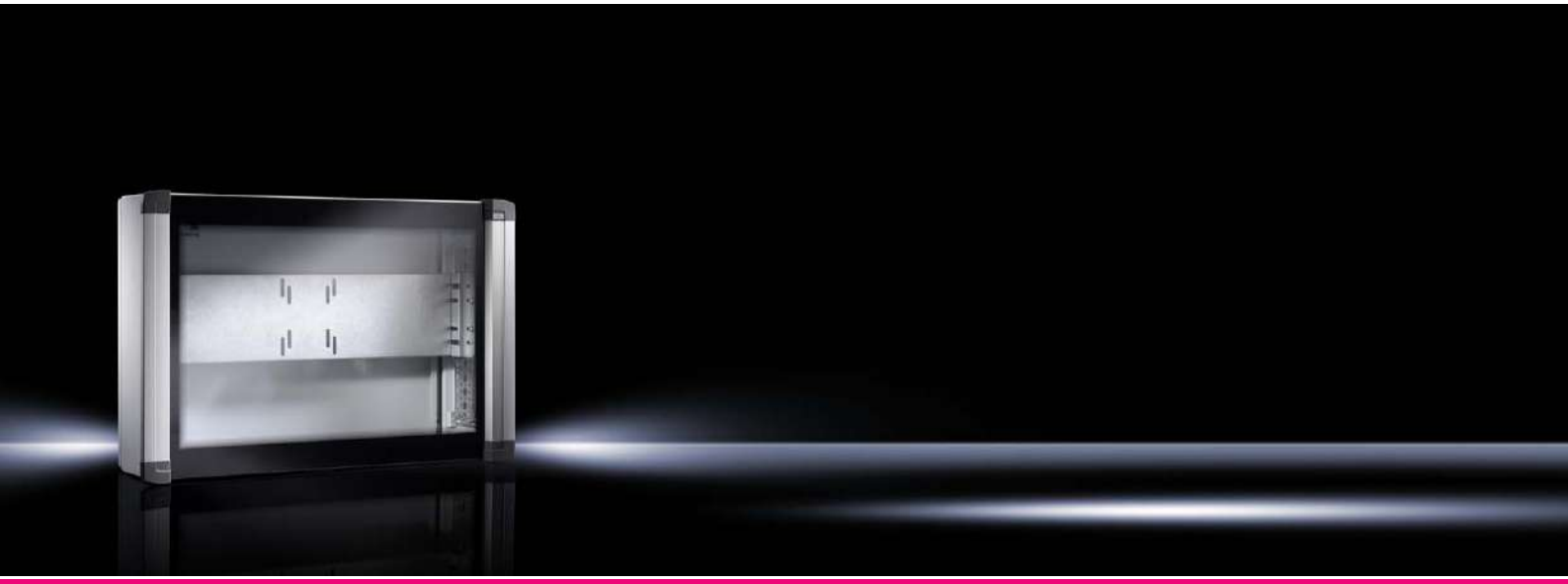
New



Support arm system CP 60/120/180

see page 183

Operating housing for desktop TFT up to 24"



System accessories Page 613 **Support arm systems** Page 175 **Stand systems** Page 202

For the installation of commercially available desktop TFTs with a screen diagonal of up to 24" in the formats 16:9/16:10.

Design:
– Viewing window with single-pane safety glass

Material:
– Enclosure and door: Sheet steel
– Handle strips: Aluminium
– Cover caps: Plastic
– Viewing window: Single-pane safety glass
– TFT holder: Sheet steel

Surface finish:
– Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
– Handle strip: Natural anodised

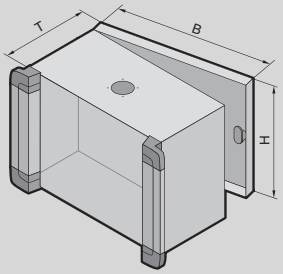
Colour:
– Enclosure and door: RAL 7035
– Handle strip: Natural anodised
– Cover caps: similar to RAL 7024

Protection category IP to IEC 60 529:
– IP 65

Supply includes:
– Enclosure with cut-out and reinforcement for support arm connection Ø 130 mm
– Viewing window
– Holder for desktop TFT with VESA 75/100 locator
– Side handle strips and cover caps
– Rear door with r/h hinge
– Cam lock with 3 mm double-bit insert

Note:
– The support arm connection and door hinge may be swapped over by rotating the enclosure
– Optional: Support arm connection Ø 130 mm, preformed off-centre in the reinforcement plate, easily drilled out
– Lock insert may be exchanged for 27 mm lock inserts, type A, lock cylinder, plastic handles and T handles, type B

Approvals:
– CSA
– TÜV



Width (B) mm	Packs of	650	Page
Height (H) mm		450	
Depth (T) mm		155	
Model No.	1 pc(s).	**6321.000**	
Weight kg		18.0	
Cam lock		1	
Accessories			
Mini-comfort handle		see page	677
Plastic handles		see page	679
T handles		see page	679
Lock inserts		see page	675
Lock cylinder inserts	1 pc(s).	2571.000	681

Compact Panel



System accessories Page 613 **Support arm systems** Page 175 **Stand systems** Page 202

For small operating units built into front panels. The front panel is inserted from the rear and secured with screw clamps. Special front panels with a material thickness of between 2 and 6 mm are possible. Rear panel optionally hinged on the left or right. Roof tray with cut-out and reinforcement for support arm system CP 40 steel.

Design:
- with support arm connection 90 x 71 mm for CP 40, steel

Material:
- Roof tray, base tray: Die-cast zinc
- Rear panel: Aluminium
- Side parts: Extruded aluminium section
- Screw cover: Plastic

Surface finish:
- Roof tray, base tray, side parts: Powder-coated
- Rear panel: natural anodised

Colour:
- RAL 7024

Protection category IP to IEC 60 529:
- IP 65

Supply includes:
- Roof tray
- Base tray
- Rear panel
- Side parts
- Screw cover
- Seal and screw clamp

Width mm	Packs of	241	241	315	315	Page
Height mm		238	388	238	388	
Depth mm		87	87	87	87	
To fit front panel width mm		178	178	252	252	
To fit front panel height mm		200	350	200	350	
Model No.	1 pc(s).	**6340.000**	**6340.100**	**6340.300**	**6340.400**	
Weight kg		2.8	3.8	3.4	4.5	
Accessories						
Front panels	1 pc(s).	6028.500	6028.510	6028.530	6028.540	825
Wall mounting bracket	2 pc(s).	6341.000	6341.000	6341.000	6341.000	701
Spring nut M5	50 pc(s).	6108.000	6108.000	6108.000	6108.000	736
Cover plate	1 pc(s).	6505.200	6505.200	6505.200	6505.200	825

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Support arm systems

Support arm system CP 40

Component overview, steel....177
Support section CP 40, steel....178
Components CP 40, steel....179

Component overview, stainless steel....180
Support section CP 40, stainless steel....180
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Support arm system CP 60

Overview of components....185
Support section CP 60....186
Components CP 60....187

Support arm system CP 120

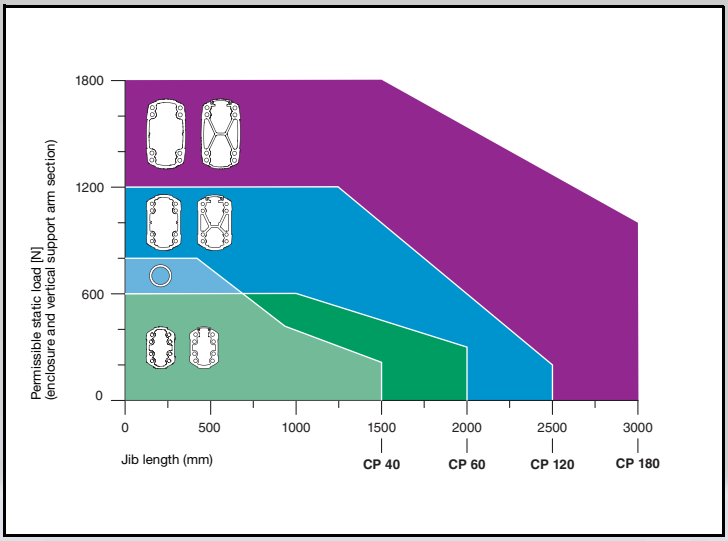
Overview of components....189
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Support arm system CP 180

Overview of components....193
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Load information

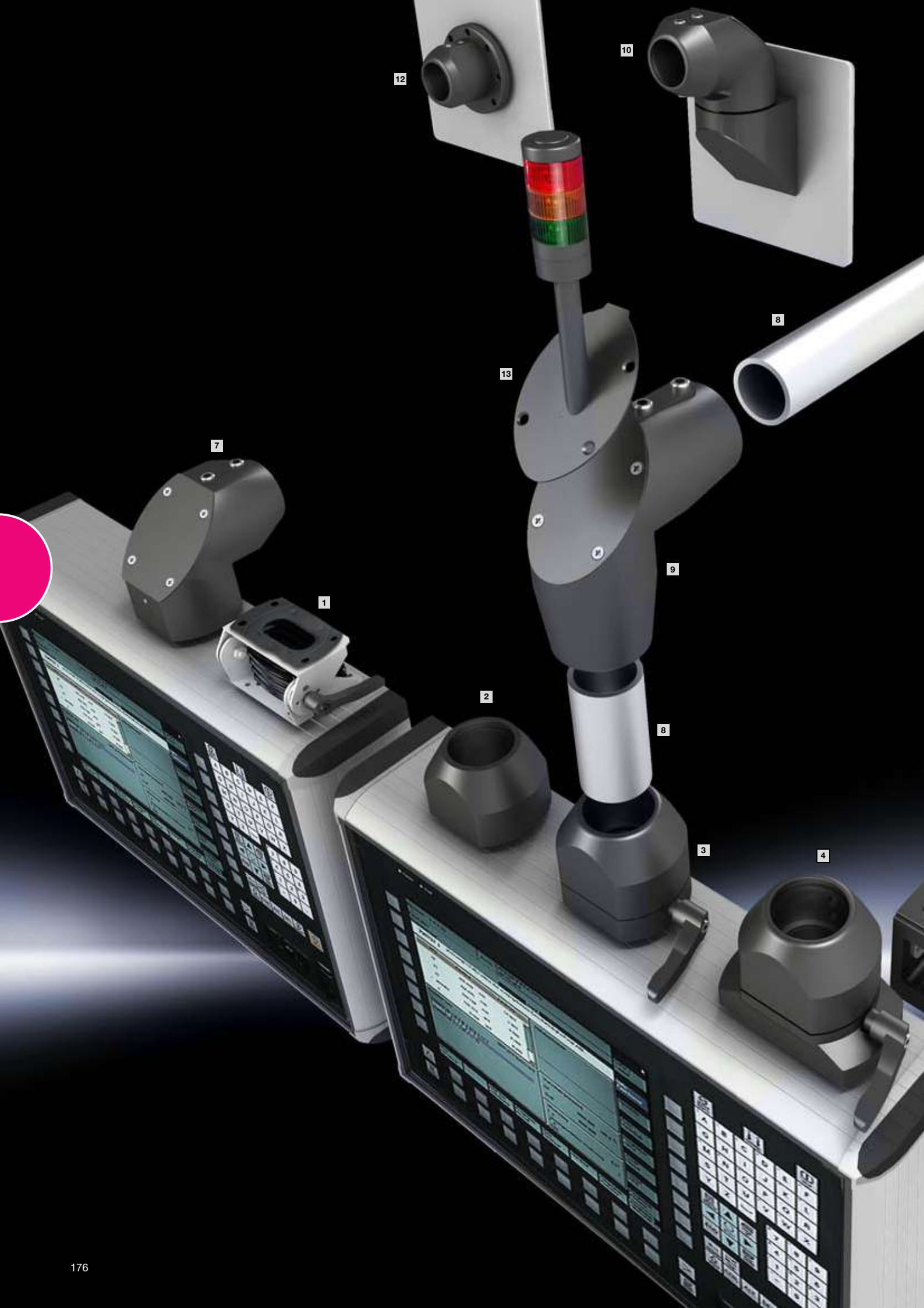
Comparison of support arm systems



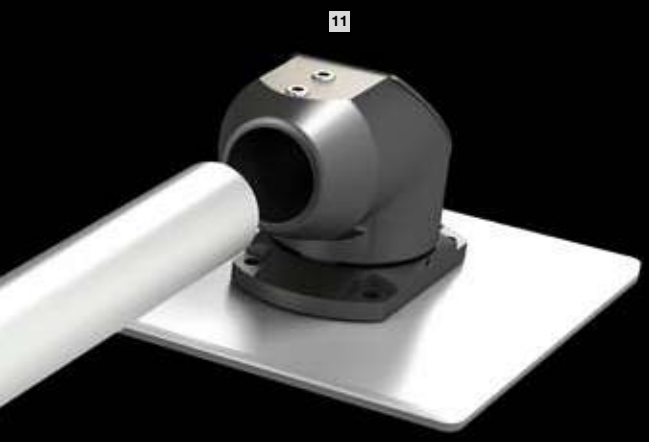
Support arm configurator

The support arm configurator determines the correct support arm system according to user-specific parameters.

More detailed information can be found at: www.rittal.com


12
10
8
13
7
9
1
2
8
3
4

Support arm system CP 40, steel



Overview of components

1 Tilting adaptor +100/-60° for support arm connection ▭ 120 x 65 mm/ ▭ 90 x 71 mm (6206.460)

2 Attachment CP 40, steel, for support arm connection ▭ 90 x 71 mm (6501.070)

3 Coupling CP 40, steel, for support arm connection ▭ 90 x 71 mm (6501.050)

4 Coupling CP 40, steel, for support arm connection ▭ 120 x 65 mm (6501.130)

5 Connection console Vesa 75/100 for support arm connection ▭ 120 x 65 mm (6206.480)

6 Connection console for support arm connection ▭ 120 x 65 mm (6206.490)

7 Angle coupling 90° CP 40, steel (6501.120)

8 Support section CP 40, steel (6501.000, 6501.020)

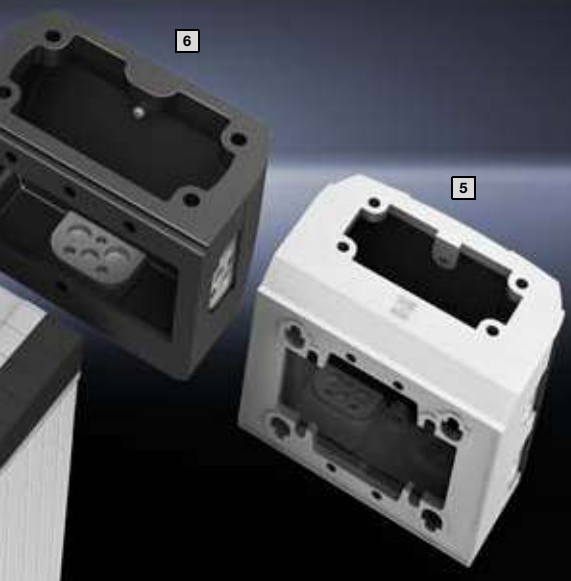
9 Angle piece 90° CP 40, steel (6501.140)

10 Wall-mounted hinge CP 40, steel (6501.150)

11 Wall-mounted hinge CP 40, steel (6501.160)

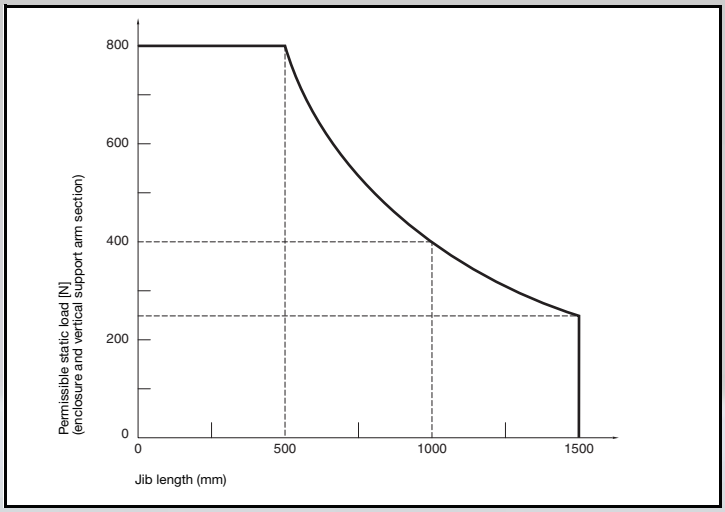
12 Wall/base mounting bracket CP 40, steel (6501.110)

13 Mounting components CP 40, steel, for signal pillar (2375.030)



Load information

When using support arm system CP 40, steel in conjunction with support arm system CP 60 (in the horizontal run of the system), the load diagram for support arm system CP 60 applies.



Support arm system CP 40, steel



Comfort Panel Page 164 **Optipanel** Page 166 **Compact Panel** Page 173 **Command panels with handle strips** Page 170

Support section CP 40, steel
Attached to the connection components via 2 clamping screws.

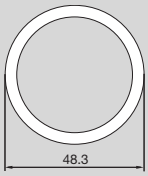
Size:
– External diameter: 48.3 mm
– Wall thickness: 4.0 mm

Material:
– Steel conduit, powder-coated

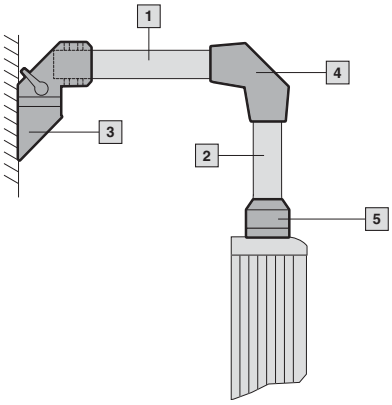
Colour:
– RAL 7035

Supply includes:
– Support section, steel

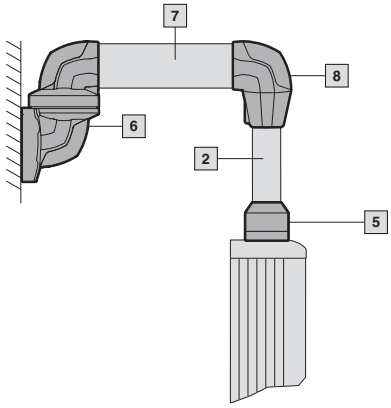
Note:
– Stainless steel, see page 180



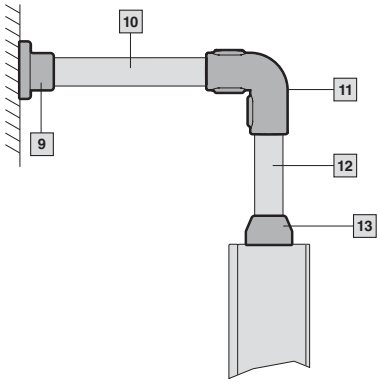
Integral adjustment facility



Combination with support arm system CP 60

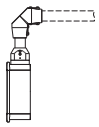
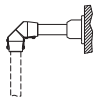
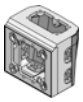
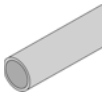
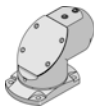
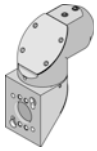


Also available in stainless steel version, see page 180



1 Support section CP 40, steel, 1000 mm (6501.020)
2 Support section CP 40, steel, 500 mm (6501.000)
3 Wall-mounted hinge CP 40, steel (6501.150)
4 Angle piece 90° CP 40, steel (6501.140)
5 Coupling CP 40, steel (6501.050)
6 Wall-mounted hinge CP 60 (6206.740)
7 Support section CP 60, 1000 mm (6206.100)
8 Angle adaptor 90° for support arm combination CP 60/40 (6206.640)
9 Wall/base mounting bracket, rigid, CP 40, stainless steel (6663.000)
10 Support section CP 40, stainless steel, 1000 mm (6660.010)
11 Angle piece 90° CP 40, stainless steel (6664.300)
12 Support section CP 40, stainless steel, 500 mm (6660.050)
13 Housing coupling CP 40, stainless steel (6664.000)

Support arm system CP 40, steel

		Rotating/tilting	Rigid	Length mm	Weight kg	Colour RAL	Enclosure section	Desk section	Wall section
									
							Model No.		
	**Tilting adaptor +100/-60° for support arm connection ☐ 120 x 65 mm/☐ 90 x 71 mm**								
	see page 200	■	–	–	0.8	7035/ 7024	**6206.460**	**–**	**–**
	**Attachment CP 40, steel, for support arm connection ☐ 90 x 71 mm**								
		–	■	–	1.0	7024	**6501.070**	**–**	**–**
	**Coupling CP 40, steel, for support arm connection ☐ 90 x 71 mm**								
		■	–	–	1.1	7024	**6501.050**	**–**	**–**
	**Coupling CP 40, steel, for support arm connection ☐ 120 x 65 mm**								
		■	–	–	1.5	7024	**6501.130**	**–**	**–**
	**Connection console VESA 75/100 for support arm connection ☐ 120 x 65 mm**								
	see page 196	–	■	–	1.1	7035/ 7024	**6206.480**	**–**	**–**
	**Connection console for support arm connection ☐ 120 x 65 mm**								
	see page 196	–	■	–	0.7	7035/ 7024	**6206.490**	**–**	**–**
	**Angle coupling 90° CP 40, steel, for support arm connection ☐ 90 x 71 mm**								
		■	–	–	1.6	7024	**6501.120**	**–**	**–**
	**Support section CP 40, steel**								
		–	–	500 1000	2.1 4.2	7035 7035		**6501.000** **6501.020**	
	**Angle piece 90° CP 40, steel**								
		–	■	–	1.1	7024	**6501.140**	**–**	**6501.140**
	**Top-mounted joint CP 40, steel**								
		■	–	–	1.8	7024	**–**	**–**	**6501.160**
	**Wall-mounted hinge CP 40, steel**								
		■	–	–	2.2	7024	**–**	**–**	**6501.150**
	**Wall/base mounting bracket CP 40, steel**								
		–	■	–	0.7	7024	**–**	**–**	**6501.110**
	**Mounting component CP 40, steel, for signal pillar**								
	see page 841	–	■	–	0.3	7024	**2375.030**	**–**	**–**
	Accessories								
	Angle adaptor 90° for support arm combination CP 60/40 6206.640								see page 187

Support arm system CP 40, stainless steel



Command panel housing with door, stainless steel P. 229 **Premium Panel, stainless steel** P. 228 **Support section CP 40, steel** P. 178

Support section CP 40, stainless steel
Attached to the connection components via 2 clamping screws.

Size:
– External diameter: 48.3 mm
– Wall thickness: 3.6 mm

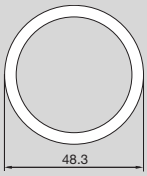
Material:
– Stainless steel

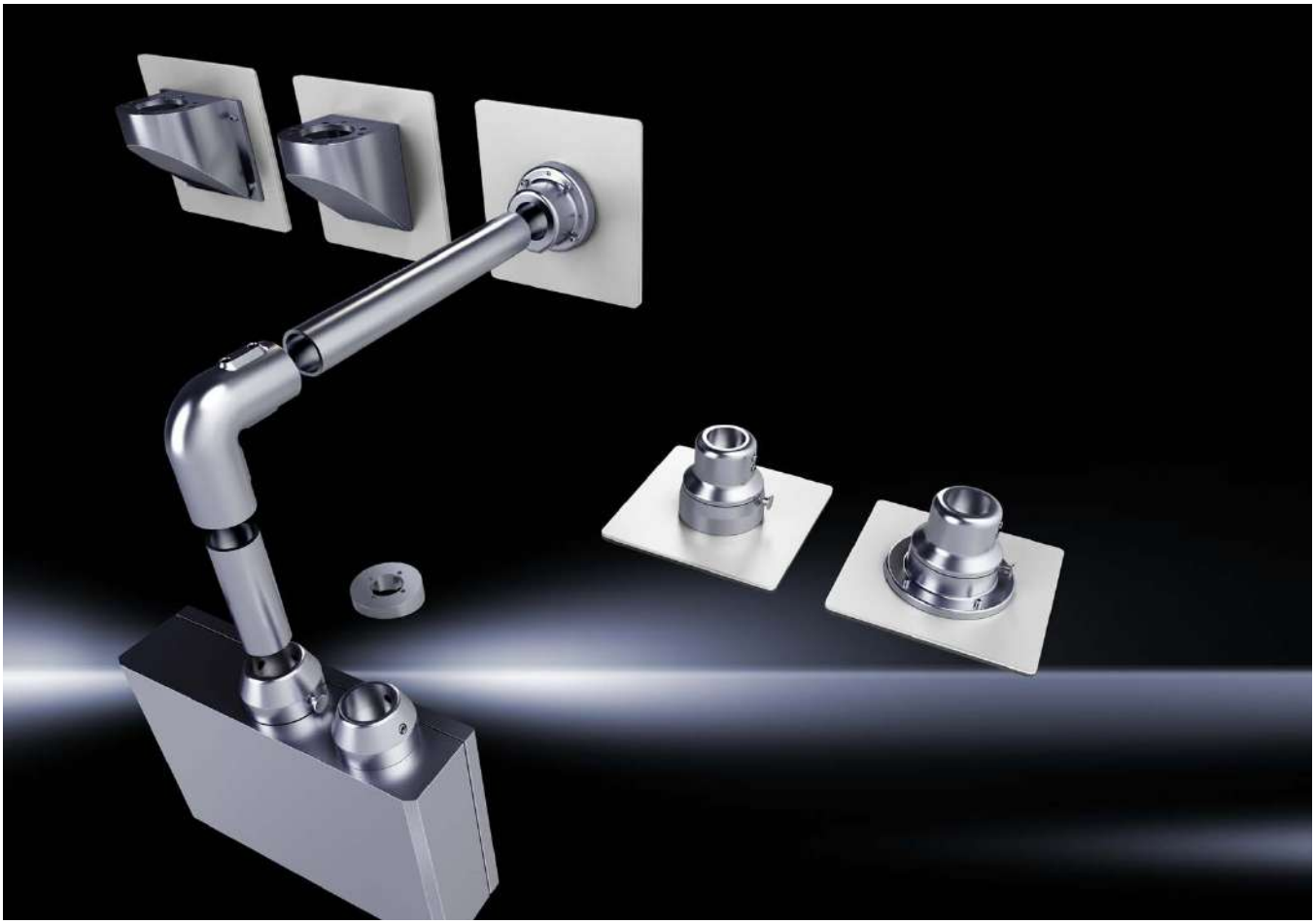
Surface finish:
– Brushed, grain size 240 (support section and wall console only)

Protection category IP to IEC 60 529:
– IP 66

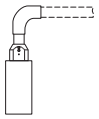
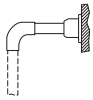
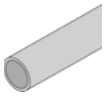
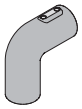
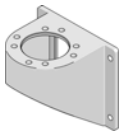
Protection category IP to DIN 40 050-9:
– IP 69K (resistant to high-pressure cleaning)

Supply includes:
– Support section, stainless steel



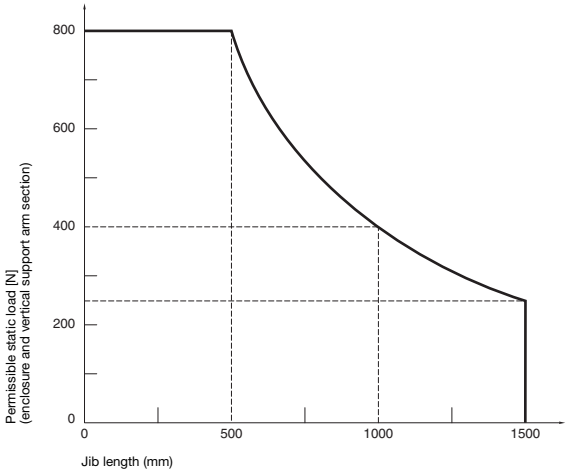


Support arm system CP 40, stainless steel

		Rotating/tilting	Rigid	Length mm	Weight kg	Material	Enclosure section	Desk section	Wall section
									
							Model No.		
	**Tilting adaptor 10° CP 40, stainless steel**	–	■	–	0.7	1.4305 (AISI 303)	**6664.100**	–	–
	**Attachment CP 40, stainless steel**	–	■	–	1.3	1.4305 (AISI 303)	**6664.500**	–	–
	**Coupling CP 40, stainless steel**	■	–	–	1.1	1.4305 (AISI 303)	**6664.000**	–	–
	**Support section CP 40, stainless steel**	–	■	500 1000	2.0 3.9	1.4301 (AISI 304)	**6660.050** **6660.010**		
	**Angle piece 90° CP 40, stainless steel**	–	■	–	1.3	1.4305 (AISI 303)	**6664.300**	–	**6664.300**
	**Wall/base mounting bracket, rigid, CP 40, stainless steel**	–	■	–	1.7	1.4305 (AISI 303)	–	–	**6663.000**
	**Wall/base mounting bracket, rotating, CP 40, stainless steel**								
	Rear, thread M8 Front, hole Ø 9 mm	■	–	–	3.9 4.5	1.4305 (AISI 303)	–	–	**6663.500** **6663.400**
	**Wall console CP 40, stainless steel**								
	Rear, thread M8 Front, hole Ø 9 mm	–	■	–	1.5 1.8	1.4301 (AISI 304)	–	–	**6665.000** **6665.500**

Load information

Permissible load depending on system configuration



Support arm system CP 60/120/180



Uniform engineering

- All load levels up to 1800 N
- One system
- Simple system replacement in the vertical axis to cut costs and weight
- Consistent combination options

Multi-functional assembly

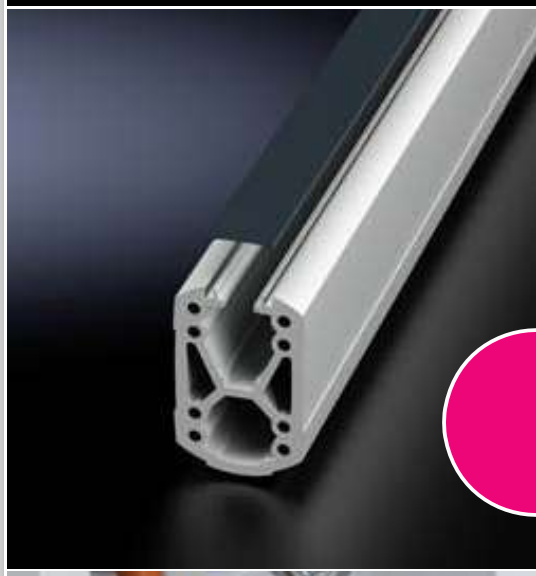
- Uniform adjustment principle, even retrospectively without dismantling
- Perfect limitation of rotation ranges
- Simple one-person assembly
- Sections are easily cut to the required length



Efficient cable management

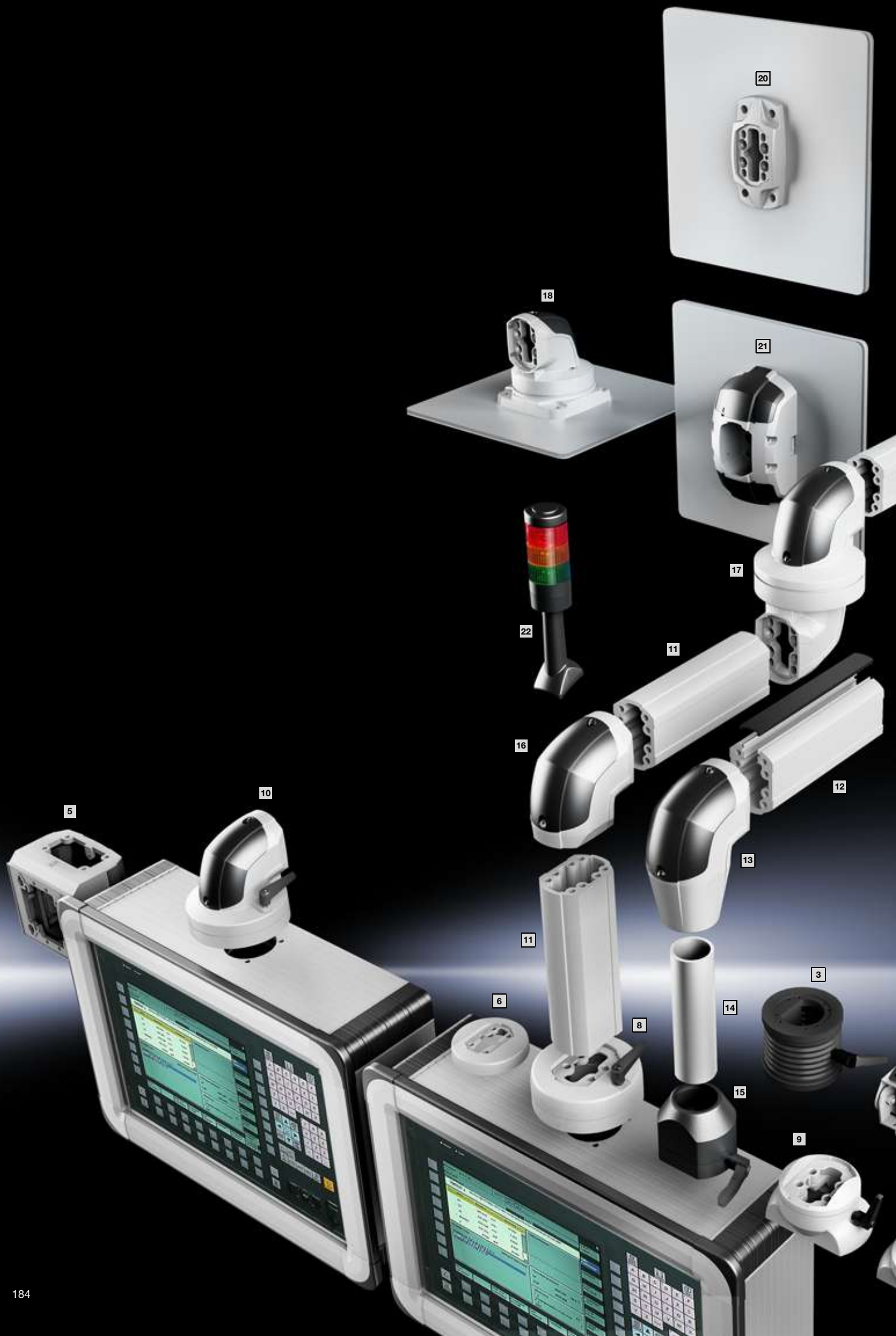
- Cross-section sufficient for large connectors
- Supports simple separation between data and power cables
- Flexible cable entry and routing options
- Automatic, consistent potential equalisation of all support arm components
- Open support section for easy upgrade and servicing access









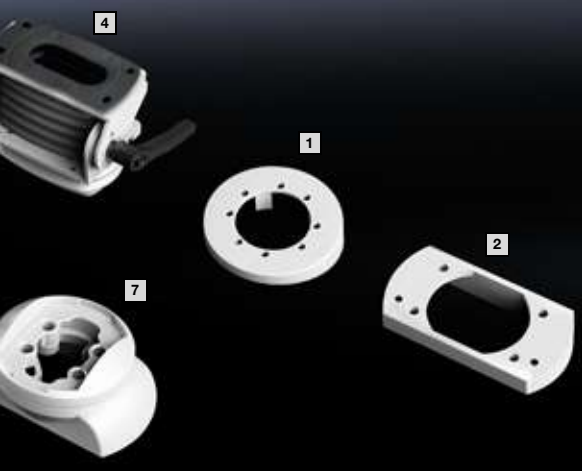

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Support arm system CP 60



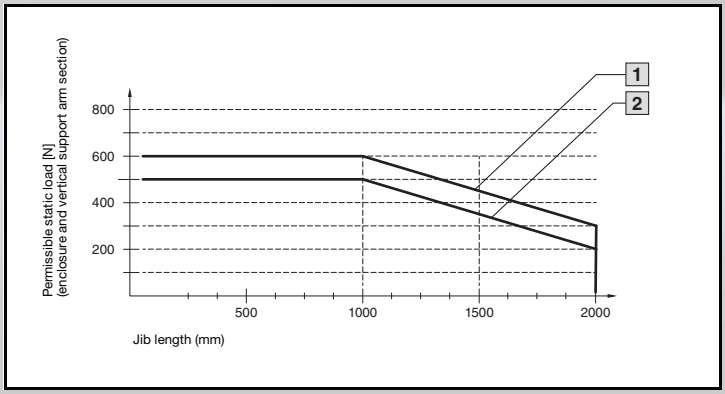
Overview of components

1 Tilting adaptor 10° for support arm connection Ø 130 mm (6206.400)
2 Tilting adaptor 10° for support arm connection ▭ 120 x 65 mm (6206.440)
3 Tilting adaptor +/-45° for support arm connection Ø 130 mm (6206.420)
4 Tilting adaptor +100°/-60° for support arm connection ▭ 120 x 65 mm (6206.460)
5 Connection console VESA 75/100 for support arm connection ▭ 120 x 65 mm (6206.480)
6 Coupling CP 60 for support arm connection Ø 130 mm (6206.320)
7 Attachment CP 60 for support arm connection ▭ 120 x 65 mm (6206.360)
8 Coupling CP 60 for support arm connection Ø 130 mm (6206.300)
9 Coupling CP 60 for support arm connection ▭ 120 x 65 mm (6206.340)
10 Angle coupling 90° CP 60 for support arm connection Ø 130 mm (6206.380)
11 Support section CPS 60, closed (6206.110, 6206.050, 6206.100, 6206.200)
12 Support section CP 60, open (6206.110)
13 Angle adaptor 90° for support arm combination CP 60/40 (6206.640)
14 Support section CP 40, steel (6501.000)
15 Coupling CP 40, steel, for support arm connection ▭ 90 x 71 mm (6501.050)
16 Angle piece 90° CP 60 (6206.600)
17 Intermediate hinge CP 60 (6206.620)
18 Top-mounted joint CP 60, horizontal outlet (6206.700)
19 Wall-mounted hinge CP 60, horizontal outlet (6206.740)
20 Wall/base mounting bracket CP 60, small (6206.820)
21 Wall/base mounting bracket CP 60, large (6206.800)
22 Mounting component CP 60 for signal pillar (6206.900)



Load information

Permissible load depending on system configuration



1 System configuration without intermediate hinge 6206.620
2 System configuration with intermediate hinge 6206.620

Note:
– Wall/base mounting bracket, small 6206.820 must not be used in conjunction with intermediate hinge 6206.620!
– Intermediate hinge 6206.620 should only be used once per system!

Support arm system CP 60



Comfort Panel Page 164 **Optipanel** Page 166 **Compact Panel** Page 173 **Command panels with handle strips** Page 170

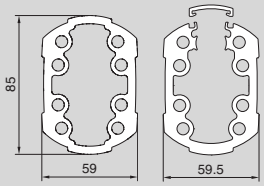
Support section CP 60
Attachment to the connection components with 4 self-tapping screws in the screw channel.
May be cut to any required length, no thread-tapping required.
Closed cable duct with a large cross-section.

Size:
– External dimensions: 59 x 85 mm

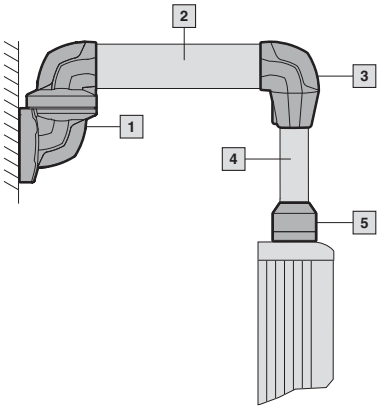
Material:
– Support section: Extruded aluminium section

Colour:
– Support section: RAL 7035

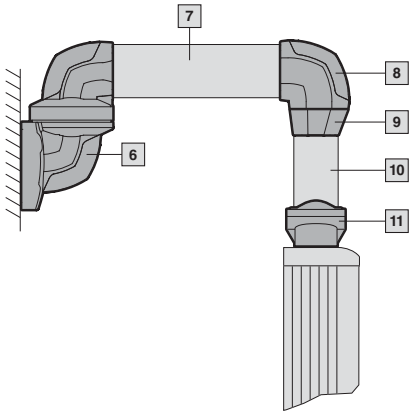
Supply includes:
– Support section



Combination with support arm system CP 40

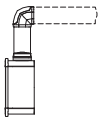
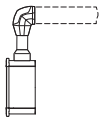
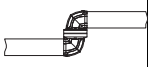
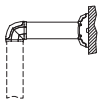
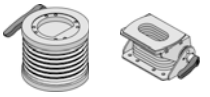
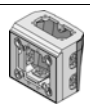
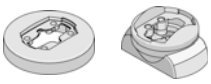
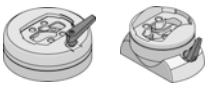
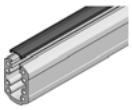
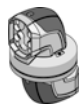
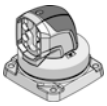
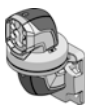


Combination with support arm system CP 120



1 Wall-mounted hinge CP 60, horizontal outlet (6206.740)
2 Support section CP 60, 1000 mm (6206.100)
3 Angle adaptor 90° for support arm combination CP 60/40 (6206.640)
4 Support section CP 40, steel, 500 mm (6501.000)
5 Coupling CP 40, steel, for support arm connection ▭ 120 x 65 mm (6501.130)
6 Wall-mounted hinge CP 120, horizontal outlet (6212.740)
7 Support section CP 120, 1000 mm (6212.100)
8 Angle piece 90° CP 120 (6212.600)
9 Adaptor for support arm combination CP 120/60 (6212.640)
10 Support section CP 60, 500 mm (6206.050)
11 Coupling CP 60 for support arm connection ▭ 120 x 65 mm (6206.340)

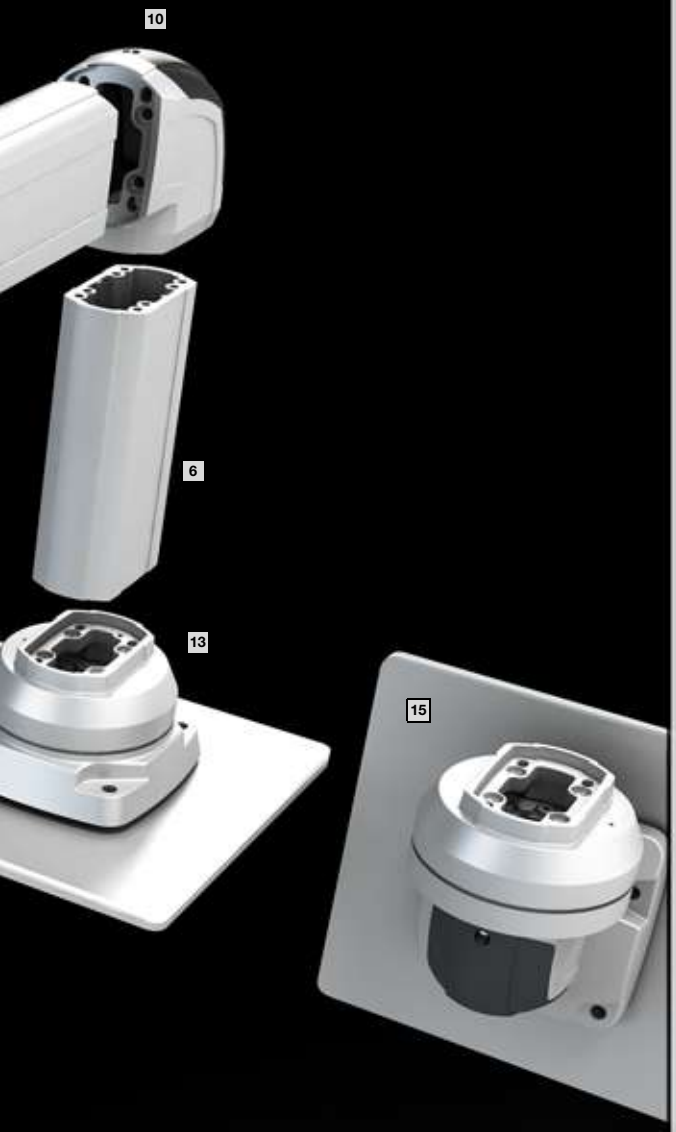
Support arm system CP 60

	Rotating/tilting	Rigid	Length mm	Weight kg	Colour RAL	Enclosure section CP 60	Enclosure section CP 60/40	Centre section CP 60	Wall section CP 60
									
						Model No.			
	**Tilting adaptor 10° for support arm connection**								
	Ø 130 mm	–	■	–	0.6	7035	**6206.400**	–	–	–
	▭ 120 x 65 mm				0.4		**6206.440**	–	–	–
	**Tilting adaptor +/-45°, tilting adaptor +100°/-60° for support arm connection**									see page 199/200
	Ø 130 mm				1.2	7024	**6206.420**	–	–	–
	▭ 120 x 65 mm	■	–	–	0.8	7035/ 7024	**6206.460**	**6206.460**	–	–
	▭ 90 x 71 mm				0.8		–	**6206.460**	–	–
	**Connection console VESA 75/100 for support arm connection**									see page 196
	▭ 120 x 65 mm	–	■	–	1.1	7035/ 7024	**6206.480**	–	–	–
	**Attachment CP 60/40 for support arm connection**									
	Ø 130 mm				0.7	7035	**6206.320**	–	–	–
	▭ 120 x 65 mm	–	■	–	1.0	7035	**6206.360**	–	–	–
	▭ 90 x 71 mm				1.0	7024	–	**6501.070**	–	–
	**Coupling CP 60/40 for support arm connection**									
	Ø 130 mm				2.1	7035	**6206.300**	–	–	–
	▭ 120 x 65 mm	■	–	–	1.2	7035	**6206.340**	**6501.130**	–	–
	▭ 90 x 71 mm				1.1	7024	–	**6501.050**	–	–
	**Angle coupling 90° CP 60/40 for support arm connection**									
	Ø 130 mm	■	–	–	1.8	7035/ 7024	**6206.380**	–	–	–
	**Support section CP 60/40**						CP 60	CP 40[1)]	CP 60	CP 60
	closed	–	–	250 500 1000 2000	1.25 2.5 5.0 10.0	7035	**6206.025** **6206.050** **6206.100** **6206.200**	– **6501.000** **6501.020** –	**6206.025** **6206.050** **6206.100** **6206.200**	**6206.025** **6206.050** **6206.100** **6206.200**
	open	–	–	1000	5.6	7035/ 7024	**6206.110**	–	–	–
	**Angle adaptor 90° for support arm combination CP 60/40**									
		–	■	–	1.0	7035/ 7024	–	**6206.640**	–	–
	**Angle piece 90° CP 60**									
		–	■	–	0.5	7035/ 7024	**6206.600**	–	–	**6206.600**
	**Intermediate hinge CP 60**									
		■	–	–	2.2	7035/ 7024	–	–	**6206.620**	–
	**Top-mounted joint CP 60**									
	Horizontal outlet	■	–	–	2.2	7035/ 7024	–	–	–	**6206.700**
	**Wall-mounted hinge CP 60**									
	Horizontal outlet	■	–	–	2.85	7035/ 7024	–	–	–	**6206.740**
	**Wall/base mounting bracket CP 60, small**									
		–	■	–	0.35	7035	–	–	–	**6206.820**
	**Wall/base mounting bracket CP 60, large**									
		–	■	–	1.4	7035/ 7024	–	–	–	**6206.800**
	Accessories									
	Mounting component for signal pillar, see page 841/Adaptor CP 120/60 Ø 130 mm to ▭ 120 x 65 mm 6212.500, see page 191									

[1)] Weight information and diagrams for CP 40, see page 179


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Support arm system CP 120



Overview of components

1 Adaptor CP 120 from support arm connection Ø 130 mm to ▭ 120 x 65 mm (6212.500)

2 Attachment CP 120 for support arm connection Ø 130 mm (6212.320)

3 Coupling CP 120 for support arm connection Ø 130 mm (6212.300)

4 Coupling CP 60 for support arm connection ▭ 120 x 65 mm (6206.340)

5 Angle coupling 90° CP 120 for support arm connection Ø 130 mm (6212.380)

6 Support section CP 120, closed (6212.025, 6212.050, 6212.100, 6212.200)

7 Support section CP 120, open (6212.150, 6212.110, 6212.210)

8 Support section CP 60, closed (6206.025, 6206.050, 6206.100, 6206.200)

9 Adaptor for support arm combination CP 120/60 (6212.640)

10 Angle piece 90° CP 120 (6212.600)

11 Intermediate hinge CP 120, without height offset (6212.680)

12 Intermediate hinge CP 120, with height offset (6212.620)

13 Top-mounted joint CP 120, vertical outlet (6212.720)

14 Top-mounted joint CP 120, horizontal outlet (6212.700)

15 Wall-mounted hinge CP 120, vertical outlet (6212.760)

16 Wall-mounted hinge CP 120, horizontal outlet, without height offset (6212.780)

17 Wall-mounted hinge CP 120, horizontal outlet, with height offset (6212.740)

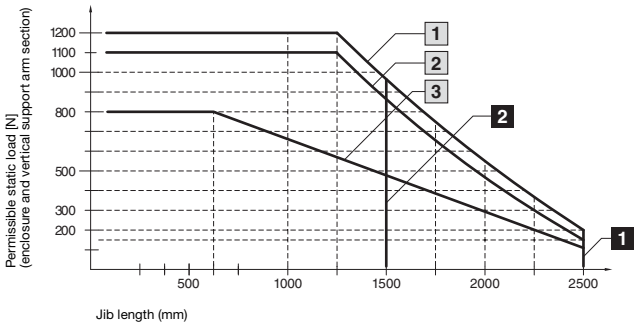
18 Wall/base mounting bracket CP 120, small (6212.820)

19 Wall/base mounting bracket CP 120, large (6212.800)

20 Mounting component CP 120/180 for signal pillar (6212.900)

Load information

Permissible load depending on system configuration



1 System configuration without intermediate hinge 6212.620, with closed or open support section

2 System configuration with intermediate hinge CP6212.620 and closed support section

3 System configuration with intermediate hinge CP6212.620 and open support section

1 Maximum system length 2500 mm for systems with horizontal outlet at the system start

2 Maximum system length 1500 mm for systems with vertical outlet at the system start. The overall height at the vertical system start must not exceed 500 mm.

Note:
- Wall/base mounting bracket, small 6212.820 must not be used in conjunction with intermediate hinge 6212.620!
- Intermediate hinge 6212.620 should only be used once per system!

Support arm system CP 120



Comfort Panel P. 164 **Optipanel** P. 166 **Command panels with handle strips** P. 170 **Command panels for desktop TFT** P. 172

Support section CP 120
Attachment to the connection components with 4 self-tapping screws in the screw channel. May be cut to any required length, no thread-tapping required. Closed cable duct with a large cross-section. Open cable duct for easy servicing access and for pre-assembled cables with connectors; lockable via cover section.

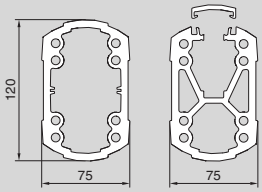
X-shaped profiling for greater load capacity, large cable routing channels. Upper channel adequate for cables with large connectors (e.g. DVI or VGA) and available/usable throughout the entire system.

Size:
– External dimensions: 75 x 120 mm

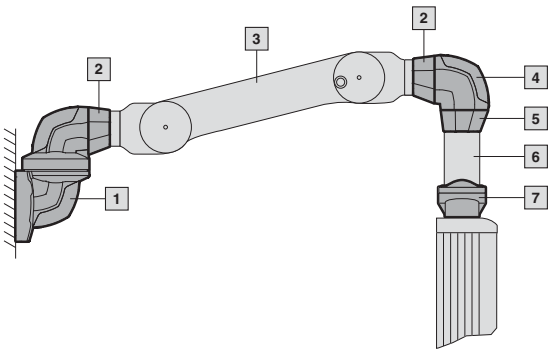
Material:
– Support section: Extruded aluminium section

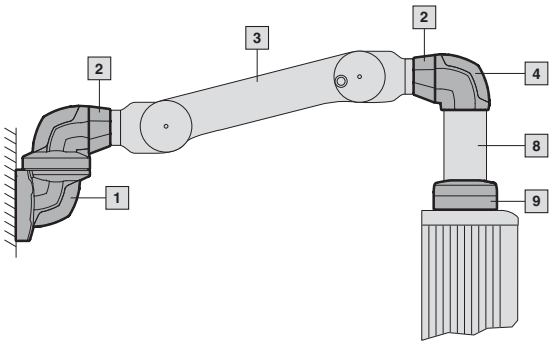
Colour:
– Support section: RAL 7035

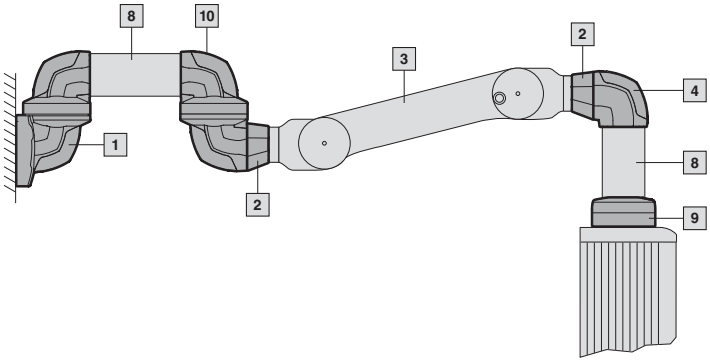
Supply includes:
– Support section



Combination with support arm, height adjustable

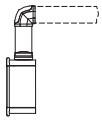
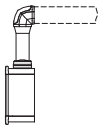
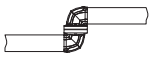
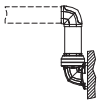
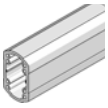
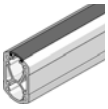
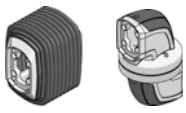
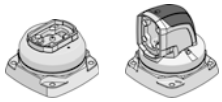
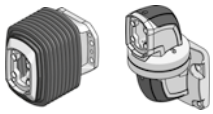




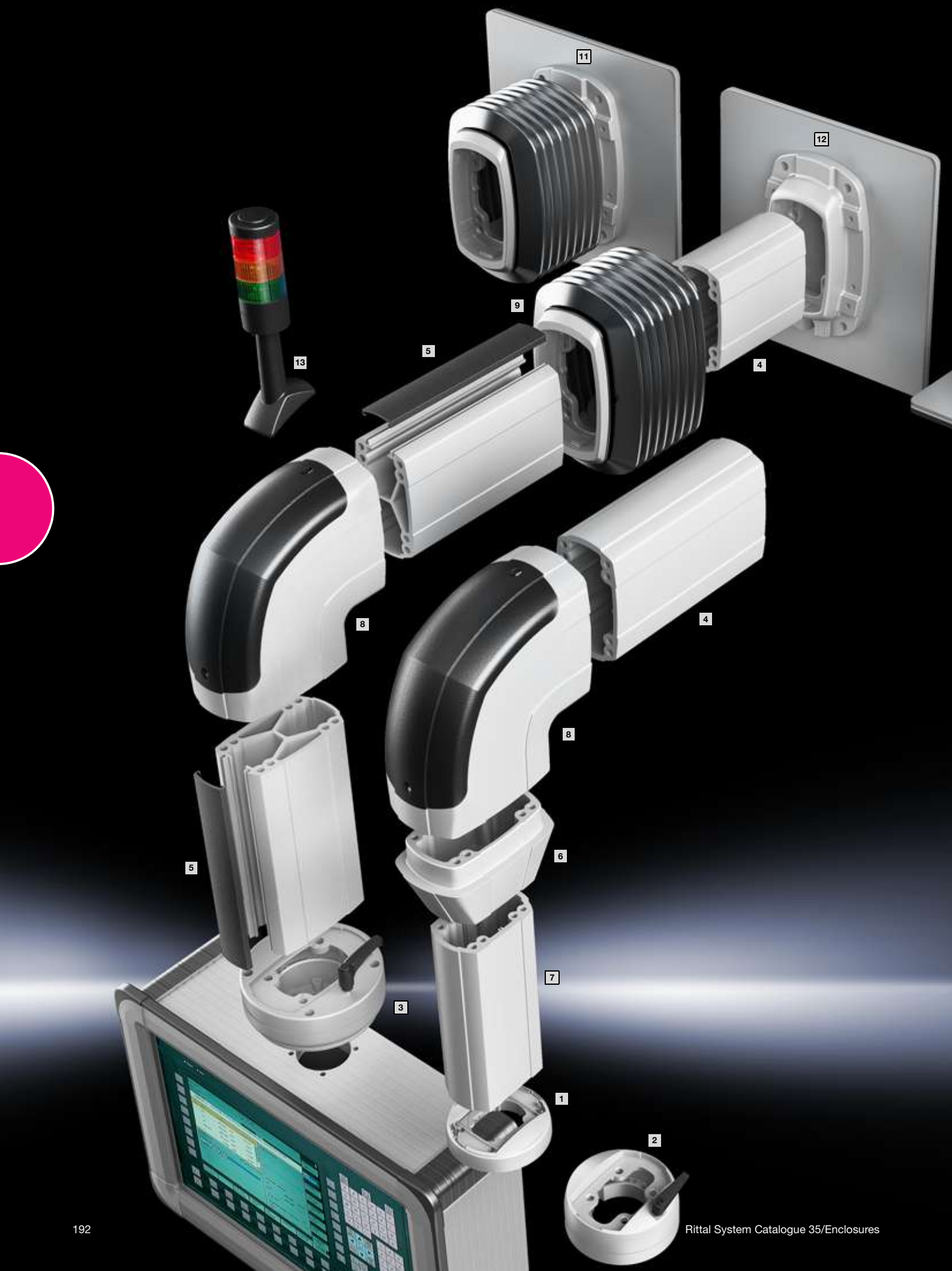


1 Wall-mounted hinge CP 120, horizontal outlet (6212.740)
2 Adaptor CP 120 to support arm, height-adjustable (6071.600)
3 Support arm, height-adjustable, see page 198
4 Angle piece 90° CP 120 (6212.600)
5 Adaptor for support arm combination CP 120/60 (6212.640)
6 Support section CP 60, L = 500 mm (6206.050)
7 Coupling CP 60 for support arm connection ▭ 120 x 65 mm (6206.340)
8 Support section CP 120, closed, L = 500 mm (6212.050)
9 Coupling CP 120 for support arm connection Ø 130 mm (6212.300)
10 Intermediate hinge CP 120 (6212.620)

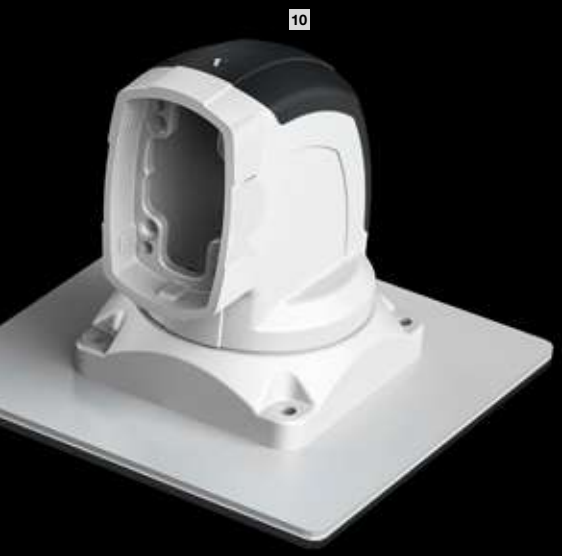
Support arm system CP 120

		Rotating/tilting	Rigid	Length mm	Weight kg	Colour RAL	Enclosure section CP 120	Enclosure section CP 120/60	Centre section CP 120	Wall section CP 120
										
							Model No.			
	**Adaptor CP 120/60 from support arm connection Ø 130 mm to ▭ 120 x 65 mm**									
		–	■	–	0.5	7035	**6212.500**	**6212.500**	**–**	**–**
	**Attachment CP 120/60 for support arm connection**									
	Ø 130 mm	–	■	–	0.7	7035	**6212.320**	**6206.320**	**–**	**–**
	▭ 120 x 65 mm	–	■	–	0.7	7035	**–**	**6206.360**	**–**	**–**
	**Coupling CP 120/60 for support arm connection**									
	Ø 130 mm	■	–	–	2.0	7035	**6212.300**	**6206.300**	**–**	**–**
	▭ 120 x 65 mm						**–**	**6206.340**	**–**	**–**
	**Angle coupling 90° CP 120 for support arm connection**									
	Ø 130 mm	■	–	–	2.1	7035/ 7024	**6212.380**	**–**	**–**	**–**
	**Support section CP 120/60**						CP 120	CP 60[1)]	CP 120	CP 120
	closed	–	–	250	2.0	7035	**6212.025**	**6206.025**	**6212.025**	**6212.025**
		–	–	500	3.9		**6212.050**	**6206.050**	**6212.050**	**6212.050**
		–	–	1000	7.8		**6212.100**	**6206.100**	**6212.100**	**6212.100**
		–	–	2000	15.6		**6212.200**	**6206.200**	**6212.200**	**6212.200**
	open	–	–	500	4.6	7035/ 7024	**6212.150**	**–**	**6212.150**	**6212.150**
		–	–	1000	9.2		**6212.110**	**–**	**6212.110**	**6212.110**
		–	–	2000	18.4		**6212.210**	**–**	**6212.210**	**6212.210**
	**Adaptor for support arm combination CP 120/60**									
		–	■	–	0.7	7035	**–**	**6212.640**	**–**	**–**
	**Angle piece 90° CP 120**									
		–	■	–	1.1	7035/ 7024	**6212.600**	**–**	**–**	**6212.600**
	**Intermediate hinge CP 120**									
	without height offset	■	–	–	4.0	7035/ 7024	**–**	**–**	**6212.680**	**–**
	With height offset	■	–	–	4.4	7035/ 7024	**–**	**–**	**6212.620**	**–**
	**Top-mounted joint CP 120**									
	Vertical outlet	■	–	–	3.8	7035	**–**	**–**	**–**	**6212.720**
	Horizontal outlet	■	–	–	4.3	7035/ 7024	**–**	**–**	**–**	**6212.700**
	**Wall-mounted hinge CP 120, vertical outlet**									
		■	–	–	5.5	7035/ 7024	**–**	**–**	**–**	**6212.760**
	**Wall-mounted hinge CP 120, horizontal outlet**									
	Without height offset	■	–	–	8.3	7035/ 7024	**–**	**–**	**–**	**6212.780**
	With height offset	■	–	–	6.1	7035/ 7024	**–**	**–**	**–**	**6212.740**
	**Wall/base mounting bracket CP 120, small**									
		–	■	–	0.5	7035	**–**	**–**	**–**	**6212.820**
	**Wall/base mounting bracket CP 120, large**									
		–	■	–	2.5	7035/ 7024	**–**	**–**	**–**	**6212.800**
	Accessories									
	Mounting component for signal pillar, see page 841/Tilting adaptor for support arm connection Ø 130 mm and ▭ 120 x 65 mm, see page 200/Adaptor CP 120 to support arm, height adjustable 6071.600, see page 198									

[1)] Weight information and diagrams for CP 60, see page 187


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Support arm system CP 180

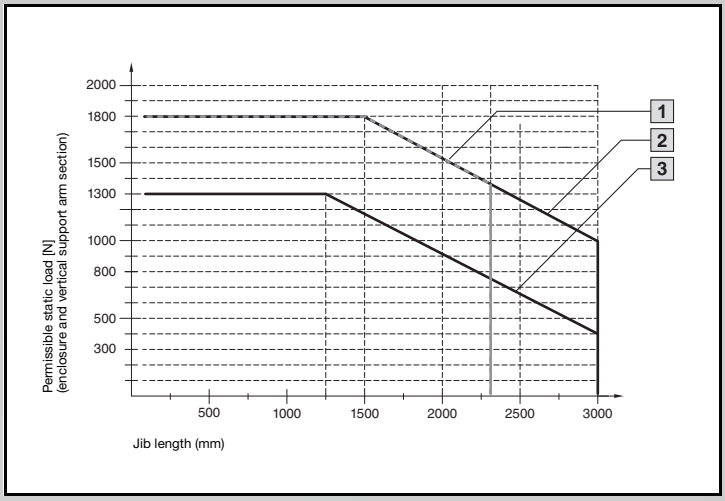


Overview of components

1 Attachment CP 120 for support arm connection Ø 130 mm (6212.320)
2 Coupling CP 120 for support arm connection Ø 130 mm (6212.300)
3 Coupling CP 180 for support arm connection Ø 130 mm (6218.300)
4 Support section CPS 180, closed (6218.050, 6218.100, 6218.200)
5 Support section CP 180, open (6218.150, 6218.110, 6218.210)
6 Adaptor for support arm combination, CP 180/120 (6218.640)
7 Support section CP 120, closed (6212.025, 6212.050, 6212.100, 6212.200)
8 Angle piece 90° CP 180 (6218.600)
9 Intermediate hinge CP 120 (6218.620)
10 Top-mounted joint CP 180, horizontal outlet (6218.700)
11 Wall-mounted hinge CP 180, horizontal outlet (6218.740)
12 Wall/base mounting bracket CP 180, small (6218.820)
13 Mounting component CP 120/180 for signal pillar (6212.900)

Load information

Permissible load depending on system configuration



1 System configuration without intermediate hinge 6218.620, with closed or open support section
2 System configuration with intermediate hinge 6218.620 and closed support section
3 System configuration with intermediate hinge 6218.620 and open support section

Note:
– Intermediate hinge 6218.620 should only be used once per system!
– Where possible, Rittal recommends that the support section between components 6218.700, 6218.740, 6218.820 and intermediate hinge 6218.620 should be of a closed design

Support arm system CP 180



Comfort Panel P. 164 **Optipanel** P. 166 **Command panels with handle strips** P. 170 **Command panels for desktop TFT** P. 172

Support section CP 180
Attachment to the connection components with 4 self-tapping screws in the screw channel. May be cut to any required length, no thread-tapping required. Closed cable duct with a large cross-section. Open cable duct for easy servicing access and for pre-assembled cables with connectors; lockable via cover section.

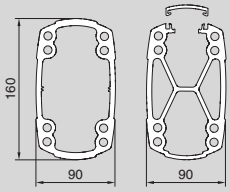
X-shaped profiling for greater load capacity, large cable routing channels. Upper channel adequate for cables with large connectors (e.g. DVI or VGA) and available/usable throughout the entire system.

Size:
– External dimensions: 90 x 160 mm

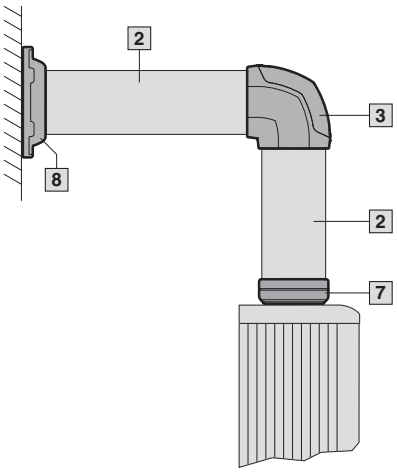
Material:
– Support section: Extruded aluminium section

Colour:
– Support section: RAL 7035

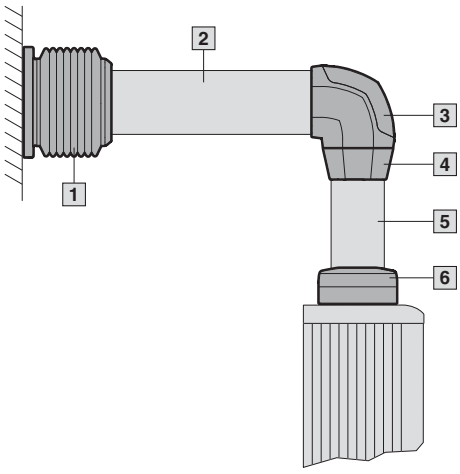
Supply includes:
– Support section



Support arm system CP 180

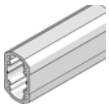


Combination with support arm system CP 120



1 Wall-mounted hinge CP 180, horizontal outlet (6218.740)
2 Support section CP 180, closed, 1000 mm (6218.100)
3 Angle piece 90° CP 180 (6218.600)
4 Adaptor for support arm combination CP 180/120 (6218.640)
5 Support section CP 120, closed, L = 500 mm (6212.050)
6 Coupling CP 120 for support arm connection Ø 130 mm (6212.300)
7 Coupling CP 180 for support arm connection Ø 130 mm (6218.300)
8 Wall/base mounting bracket CP 180, small (6218.820)

Support arm system CP 180

		Rotating/tilting	Rigid	Length mm	Weight kg	Colour RAL	Enclosure section CP 180/120	Centre section CP 180	Wall section CP 180
							Model No.		
	**Adaptor from support arm connection Ø 180 mm to Ø 130 mm**								
		–	■	–	0.6	7035	**6212.520**	**–**	**–**
	**Attachment CP 120 for support arm connection Ø 130 mm**								
		–	■	–	0.7	7035	**6212.320**	**–**	**–**
	**Coupling CP 180/120 for support arm connection Ø 130 mm**								
		■	–	–	5.3	7035	**6218.300**	**–**	**–**
		■	–	–	2.0		**6212.300**	**–**	**–**
	**Support section CP 180/120**						CP 120[1)]	CP 180	CP 180
	closed	– – – –	– – – –	250 500 1000 2000	2.6 5.2 10.5 21	7035	**6212.025** **6212.050** **6212.100** **6212.200**	**–** **6218.050** **6218.100** **6218.200**	**–** **6218.050** **6218.100** **6218.200**
	open	– – –	– – –	500 1000 2000	5.8 11.6 23.2	7035/ 7024	**6212.150** **6212.110** **6212.210**	**6218.150** **6218.110** **6218.210**	**6218.150** **6218.110** **6218.210**
	**Adaptor for support arm combination CP 180/120**								
		–	■	–	1.5	7035	**6218.640**	**–**	**–**
	**Angle piece 90° CP 180**								
		–	■	–	3.6	7035/ 7024	**6218.600**	**–**	**6218.600**
	**Intermediate hinge CP 180**								
		■	–	–	10.3	7035/ 7024	**–**	**6218.620**	**–**
	**Top-mounted joint CP 180**								
	Horizontal outlet	■	–	–	18.0	7035/ 7024	**–**	**–**	**6218.700**
	**Wall-mounted hinge CP 180**								
	Horizontal outlet	■	–	–	13.0	7035/ 7024	**–**	**–**	**6218.740**
	**Wall/base mounting bracket CP 180, small**								
		–	■	–	5.0	7035	**–**	**–**	**6218.820**
	**Mounting component CP 120/180 for signal pillar**								
	Only for 6218.600, 6218.700, see page 841	–	■	–	0.1	7024	**6212.900**	**–**	**6212.900**
	Accessories								
	Tilting adaptor for support arm connection Ø 130 mm and ▭ 120 x 65 mm, see page 200								

[1)] Weight information and diagrams for CP 120, see page 191







Connection console VESA 75/100

For rear connection of
- Slimline command panels
- Commercially available TFTs
- Industrial PCs

with VESA 75/100 connection

Connection to Rittal support arm systems
- CP 40
- CP 60
- CP 120 via adaptor from support arm connection Ø 130 mm to ▭ 120 x 65 mm

Benefits:
- Fast, simple one-person assembly using machined keyholes
- More space for installation and servicing
- Cables may be routed to devices outside and inside the console
- Removable cover for simple cable routing and access to interior device connections
- Integral cable clamping facilities
- Cover with captive screws

Material:
– Die-cast zinc

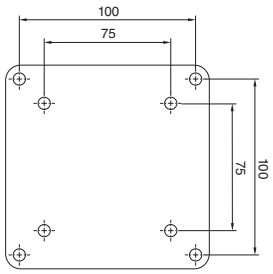
Colour:
– Connection console: RAL 7035
– Cover: RAL 7024

Supply includes:
– Seals and assembly parts
– Cable ties for cable clamping

Weight kg	**Model No.**
1.1	**6206.480**

Also required:
– Attachment CP 60 for support arm connection ▭ 120 x 65 mm, 6206.360
– Coupling CP 60 for support arm connection ▭ 120 x 65 mm, 6206.340
– Tilting adaptor 10° for support arm connection ▭ 120 x 65 mm, 6206.440
– Coupling CP 40 for support arm connection ▭ 120 x 65 mm, 6501.130
– Tilting adaptor +/-45° for support arm connection ▭ 120 x 65 mm, 6206.460
– Adaptor from support arm connection Ø 130 mm to ▭ 120 x 65 mm, 6212 500

VESA connection hole pattern





Connection console

- For rear connection of slimline command panels
- Removable cover for simple cable entry

Connection to Rittal support arm systems
- CP 40
- CP 60
- CP 120 via adaptor from support arm connection Ø 130 mm to ▭ 120 x 65 mm

Material:
– Cast aluminium

Supply includes:
– Seals and assembly parts

Colour RAL	Weight kg	**Model No.**
7024	0.7	**6206.490**

Also required:
– Coupling CP 40 for support arm connection ▭ 120 x 65 mm, 6501.130
– Attachment CP 60 for support arm connection ▭ 120 x 65 mm, 6206.360
– Coupling CP 60 for support arm connection ▭ 120 x 65 mm, 6206.340

Adaptor

for Siemens Pro-Panel

For the external mounting of Siemens Simatic
- MP 377 15″ Pro
- Thin Client 15″ Pro
- Flat-Panel Monitor 15″, 19″ Pro
- HMI IPC477C 15″ Pro

to support arm system
- CP 40, steel
- CP 60/120 with support arm connection ▭ 120 x 65 mm

Material:
– Aluminium

Colour:
– RAL 7035

Supply includes:
– Seals
– Assembly parts

Weight kg	**Model No.**
0.3	**6206.500**



Connection plates

with reinforcement plate

- For easy location of the command panel onto the support arm/pedestal
- More space for cable entry

For mounting command panels
- Comfort Panel from a front panel width of 247 mm and installation depth of 152 mm
- Optipanel from a front panel width of 220 mm and installation depth of 150 mm
- Sheet steel from 135 mm installation depth

For mounting on support arm system components
- Attachment CP 60/120 for support arm connection Ø 130 mm, 6206.320, 6212.320
- Coupling CP 60/120 for support arm connection Ø 130 mm, 6206.300, 6212.300
- Angle coupling 90° CP 60/120 for support arm connection Ø 130 mm, CP 6206.380, 6212.380
- Tilting adaptor 10° CP 60/120 for support arm connection Ø 130 mm, 6206.400
- Tilting adaptor +/-45° CP 60/120 for support arm connection Ø 130 mm, 6206.420
- Coupling CP 180 for support arm connection Ø 130 mm, 6218.300

Material:
– Connection plate: Cast aluminium
– Reinforcement plate: Sheet steel, 6 mm

Colour:
– RAL 7035

Supply includes:
– Reinforcement plate
– Seals
– Assembly parts

Weight kg	**Model No.**
1.4	**6212.540**





Support arm, height-adjustable

for support arm system CP 120

Offers enhanced ergonomics thanks to
- Adjustment range
  - for tall and short operators
  - for seated and standing work
  - adjustable to a maximum of 800 mm as required via an adjusting screw at the front of the support arm
- Precise coordination of the compression spring to the enclosure weight via an adjusting screw at the rear of the support arm
- Complete functional reliability – if the compression spring breaks, the arm will remain in position
- Clip-off plastic panels for access to integral cable routing
- Tilting angle of the mounted enclosure is identical in every height position

For 6510.330 and 6510.340
- More space for cable routing
- Cables with connectors such as DVI, VGA are also easily inserted
- Integral locking in three stages
- Superior load capacity

Supply includes:
– Assembly parts

Note:
Maximum cross-section for cable entry:
– 6510.210 = 8 x 15 mm

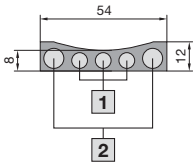
Overall length mm	Colour RAL	Weight range kg[1)]	Model No.
962	9006	10 – 20	**6510.210**
1090	9006	15 – 32	**6510.330**
1090	9006	20 – 40	**6510.340**

[1)] For configured enclosure and vertical support section

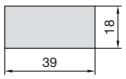
Also required:
– Adaptor CP 120 to support arm, height-adjustable, 2 x 6071.600, see page 198

6510.330, 6510.340

Maximum no. of cables that may be inserted



Maximum connector dimensions



1 Max. Ø 7 mm (3 x)
2 Max. Ø 8.5 mm (2 x)





Adaptor CP 120 to support arm, height-adjustable

Application:
- For integration of the height-adjustable support arm onto the support arm system CP 120

Benefits:
- Integral adjustment facility

Material:
– Cast aluminium

Colour:
– RAL 7035

Supply includes:
– Seals
– Self-tapping screws for support section attachment

Weight kg	Model No.
0.6	**6071.600**

Housing coupling

for desktop mounting

The stable, rotating connection with extra space for cable routing.
For additional stability of the roof and base with heavy installed equipment.
For mounting

- Command panels from 150 mm installation depth on
- IW worktops
- Horizontal surfaces (floors or ceilings)

Attachment

- of command panels: With one-person assembly via machined keyholes
- on surfaces: Via external screws with cover

Rotation range:

– Max. 350°, lockable via clamping levers
– By using additional M6 cheese-head screws, the rotation range may be limited to ±28°, ±73°, ±118°, ±163°

Material:

– Housing coupling: Cast aluminium/die-cast zinc
– Reinforcement plate: Sheet steel, 6 mm

Surface finish:

– Housing coupling: Powder-coated, textured
– Reinforcement plate: Zinc-plated

Colour:

– Housing coupling: RAL 7024

Supply includes:

– Reinforcement plate
– Seals
– Assembly parts

Version	Optipanel	Comfort Panel	Weight kg	**Model No.**
W = 418 mm	432[1)]	435[1)]	4.2	**6528.410**

[1)] From front panel width mm without keyboard housing; with keyboard housing on request.

Note:

– With the Comfort Panel and Optipanel enclosures, the rectangular support arm cut-out can be selected, ordered and prepared using the command panel configurators at www.rittal.com.





Tilting adaptor +/-45°

for command panels with support arm connection Ø 130 mm

For mounting between:

- Coupling CP 60, 6206.300
- Coupling CP 120, 6212.300
- Coupling CP 180, 6218.300

or

- Attachment CP 60, 6206.320
- Attachment CP 120, 6212.320

or

- Angle coupling 90°, CP 60, 6206.380
- Angle coupling 90°, CP 120, 6212.380

and the command panel

Tilt angle:

– Adjustable in 7.5° increments.

Material:

– Tilting adaptor: Cast aluminium
– Concertina section: Plastic

Colour:

– RAL 7024

Supply includes:

– Seals
– Concertina section
– Assembly parts

Weight kg	**Model No.**
1.2	**6206.420**





Tilting adaptor +100°/-60°

for command panels with support arm connection ▭ 120 x 65 mm

For mounting on
- IW worktop, prepared for attachment of Ø 130 mm
- Surfaces
- Attachment/coupling with support arm connection ▭ 120 x 65 mm

To fit enclosures up to 20 kg with support arm connection
- ▭ 90 x 71 mm
- Ø 130 mm
- ▭ 120 x 65 mm
- VESA Standard 75

With cable tube for protected cable entry.

Tilt angle:
– Adjustable in 7.2° increments via clamping lever, and may be limited to +100°/-15° using the stop screw supplied loose

Material:
– Tilting adaptor: Sheet steel, spray-finished
– Concertina section: Plastic

Colour:
– Tilting adaptor: RAL 7035
– Concertina section: RAL 7024

Supply includes:
– Concertina section
– Assembly parts

Weight kg	**Model No.**
0.8	**6206.460**





Adaptor for IP compartmentalisation

for support arm connection Ø 130 mm

For mounting commercially available cable entry components with an external diameter M63 x 1.5. For ensuring the protection category between the operating housing and stand/support arm system.

Applications:
Shielding an operating housing from:
– Coupling CP 60/120/180 for support arm connection Ø 130 mm, 6206.300, 6212.300, 6218.300
– Attachment CP 60/120 for support arm connection Ø 130 mm, 6206.320, 6212.320
– Angle coupling 90°, CP 60/120, 6206.380, 6212.380

Material:
– Aluminium

Surface finish:
– Black anodised

Supply includes:
– Adaptor
– Seals
– Assembly screws

Packs of	**Model No.**
1 pc(s).	**6052.700**

Clamping elements

for support sections CP 60/120, open
For additional protection against rotation and twisting of the open section.

Benefits:
– Two-piece element, may also be retro-fitted
– Ideal for assemblies with a long jib

Material:
– Steel

Packs of	**Model No.**
4 pc(s).	**6212.220**





Pivot

with/without jib
For direct, vertically hinged integration into machines and systems.

Applications:
– Enclosure suspended or top-mounted

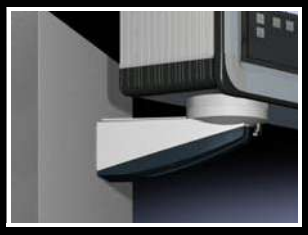
Benefits:
– With integral rotation range restrictor

Installation options:
– To fit enclosures with support arm connection Ø 130 mm.

Load capacity:
– 700 N

Rotation range/swivel area:
– Approx. 310°
– The range of rotation can be limited by inserting the grub screws provided.

Jib length mm	Colour	Packs of	**Model No.**
200	RAL 7024/7035	1 pc(s).	**6206.850**
–	RAL 7035	1 pc(s).	**6206.870**





Stand systems



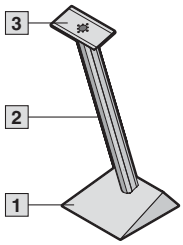
Comfort Panel Page 164 **Optipanel** Page 166 **Compact Panel** Page 173 **Command panels with handle strips** Page 170

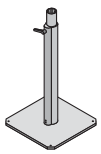
Pedestal, modular, consisting of:
- Pedestal base plate/cross member
- Support section
- Enclosure connection

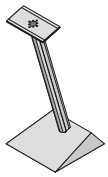
Colour:
– RAL 7035

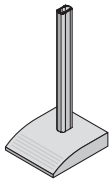
Photo shows a configuration example with equipment not included in the scope of supply

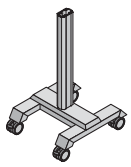
Pedestal, modular











Weight load kg		15	18	35[1]	35[1]	Page
1 Pedestal base plate		**Model No.**				
Pedestal base plate/cross member		**6146.100**	**6106.100**	**6106.200**	**6106.400**	
Dimensions mm	Width	400	400	490	600	
	Height	10	108	100	205	
	Depth	400	400	600	650	

2 Support section	**Model No.**				
Height-adjustable (adjustment range 732 – 1122 mm)	**6146.200**	**–**	**–**	**–**	
Closed, length 1000 mm	–	6206.100	6206.100[1]	6206.100[1]	

3 Enclosure connection	**Model No.**				
Enclosure reinforcement, rigid	–	6106.110	–	–	
Attachment CP 40, steel, for support arm connection ▭ 90 x 71 mm	6501.070	–	–	–	
Coupling CP 40, steel, for support arm connection ▭ 90 x 71 mm	6501.050	–	–	–	
Coupling CP 40, steel, for support arm connection ▭ 120 x 65 mm	6501.130	–	–	–	
Attachment CP 60, for support arm connection Ø 130 mm	–	–	6206.320	6206.320	
Attachment CP 60, for support arm connection ▭ 120 x 65 mm	–	–	6206.360	6206.360	
Coupling CP 60, for support arm connection Ø 130 mm	–	–	6206.300	–	
Coupling CP 60, for support arm connection ▭ 120 x 65 mm	–	–	6206.340	–	
Tilt adjustment	**6146.300**	**–**	**–**	**–**	

Accessories					
Adaptor CP 60 to CP 40	–	6206.650	6206.650	6206.650	205
Twin castors	6148.000	–	6148.000	■	628
Levelling feet	–	–	4612.000	–	628
Base mounting bracket	–	–	1590.000	–	698

[1] Alternative: Support arm system CP 120 may also be used by simply drilling a hole. Weight load 50 kg.



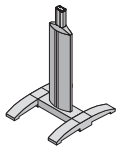
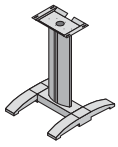
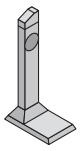
Comfort Panel Page 164 **Optipanel** Page 166 **Compact Panel** Page 173 **Command panels with handle strips** Page 170

The right system to suit any application:
- Different design variants
- Weight load from 15 – 25 kg
- Reliable protection of cable management

Colour:
- 6106.300, 6141.200: RAL 7035
- 6135.000: RAL 9011

Photo shows a configuration example with equipment not included in the scope of supply

Pedestal, complete

				
Weight load kg	25	25	15	Page
Model No.	**6106.300**	**6141.200**	**6135.000**	
Width mm	600	600	360	
Height mm	1093	946	995	
Depth mm	660	660	500	
Supply includes				
Cross member	■	■	–	
Base plate	–	–	■	
Support section	■	–	■	
Vertical aluminium panel	■	■	–	
Worktop attachment	–	■	–	
Accessories				
Adaptor CP 60 to CP 40	6206.650	–	–	205
Twin castors	6148.000, 7495.000	6148.000, 7495.000	–	628
Levelling feet	4612.000	4612.000	–	628
Base mounting bracket	6147.000	6147.000	–	205
Trim panel for pedestal	6144.100	6144.100	–	205
Attachment CP 60, for support arm connection Ø 130 mm	6206.320	–	–	187
Attachment CP 60, for support arm connection ▭ 120 x 65 mm	6206.360	–	–	187
Coupling CP 60, for support arm connection Ø 130 mm	6206.300	–	–	187
Coupling CP 60, for support arm connection ▭ 120 x 65 mm	6206.340	–	–	187
Worktop without handle[1)]	**–**	**6902.310**	**–**	

[1)] W x H x D 950 x 38 x 600 mm

Stand systems



Comfort Panel Page 164 **Optipanel** Page 166 **Compact Panel** Page 173 **Command panels with handle strips** Page 170

The welded alternatives to the pedestal, complete
- Open pedestal for retrospective cable entry with pre-assembled connectors
- Pillar, small: For heavy installed equipment

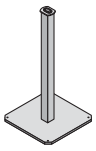
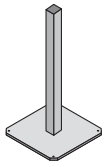
Material:
– Steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Photo shows a configuration example with equipment not included in the scope of supply

Pedestal, open/pillar, small

				
Weight load kg		40	80	Page
		6106.500	**6112.500**	
Supply includes				
Base plate cross section mm	Width	400	500	
	Height	10	12	
	Depth	400	500	
Overall height mm		1095	1150	
Accessories				
Attachment CP 60, for support arm connection Ø 130 mm		6206.320	–	187
Attachment CP 60, for support arm connection ▭ 120 x 65 mm		6206.360	–	187
Coupling CP 60, for support arm connection Ø 130 mm		6206.300	–	187
Coupling CP 60, for support arm connection ▭ 120 x 65 mm		6206.340	–	187
Attachment CP 120, for support arm connection Ø 130 mm		–	6212.320	195
Coupling CP 120, for support arm connection Ø 130 mm		–	6212.300	195
Adaptor CP 60 to CP 40		6206.650	–	205

Base mount

Brackets for screw-fastening from below to the cast feet with posidrive raised countersunk screws M12. Optionally with projection at the front, interior or sides, with Ø 11 mm hole for screw-fastening to the base.

Material:
– Steel

Surface finish:
– Zinc-plated

Supply includes:
– Posidrive raised countersunk screws M12

Packs of	**Model No.**
4 pc(s).	**6147.000**



Trim panel

Material:
– Cast aluminium

Supply includes:
– Assembly parts for screw-fastening between the cast feet at the front or rear.

Colour RAL	**Model No.**
7035 textured	**6144.100**

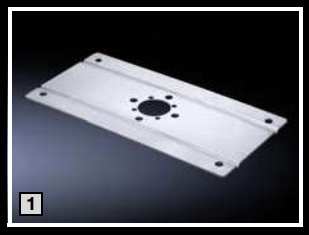


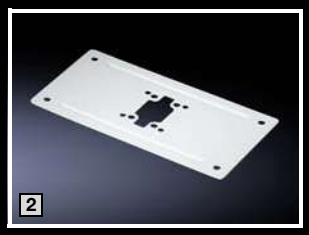
Enclosure reinforcement

For external or internal reinforcement of enclosures of a corresponding size. Smaller enclosures may also be mounted directly without reinforcement.

Supply includes:
– Assembly parts for the enclosure and support section plus 2 seals

	For enclosure	Support arm connection	Material	Weight kg	**Model No.**
1	B1 ≥ 300 mm, T1 ≥ 150 mm	CP 40, stainless steel	Stainless steel 1.4301	0.9	**6143.310**
2	B1 ≥ 300 mm, T1 ≥ 150 mm	CP 60	Sheet steel	0.9	**6106.110**





Adaptor CP 60 to CP 40

for stand and support arm systems
For the transition from CP 60 to 48 round pipe.

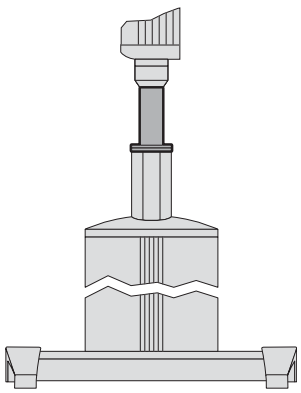
Material:
– Steel

Colour:
– RAL 7035

Supply includes:
– Adaptor
– Self-tapping screws for support section attachment
– Seal

Length mm	Weight kg	Rigid	Packs of	**Model No.**
300	1.81	■	1 pc(s).	**6206.650**





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Hygienic Design

Small and compact enclosures HD

HD terminal boxes 208
HD compact enclosure 209
Accessories 210



Hygienic Design



HD accessories Page 210 **System accessories** Page 613 **KL stainless steel** Page 217

Material:
- Enclosure and cover: Stainless steel 1.4301 (AISI 304) 1.5 mm
- Mounting bracket: Sheet steel, zinc-plated, passivated, 2.0 mm
- Screw plug: Stainless steel
- Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

Surface finish:
- Enclosure and cover: Brushed, grain 400, peak-to-valley height < 0.8 µm
- Seal: Blue, dyed (RAL 5010)

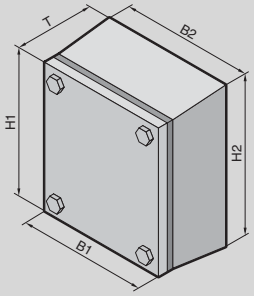
Protection category IP to IEC 60 529:
- IP 66

Protection category IP to DIN 40 050-9:
- IP 69K

Protection category NEMA:
- NEMA 13
- NEMA 3R
- NEMA 4X

Supply includes:
- Enclosure of all-round solid construction
- Cover
- Mounting bracket (pre-assembled)
- Seal and screw plug (supplied loose)

Approvals:
- UL
- cUL



Terminal boxes HD

Width (front) (B1) mm	Packs of	150	150	200	300	400	400	Page
Width (rear) (B2) mm		172	177	227	327	427	427	
Height (front) (H1) mm		150	150	200	200	200	300	
Height (rear) (H2) mm		172	177	227	227	227	327	
Depth (T) mm		80	120	120	120	120	120	
Model No.	1 pc(s).	**1670.600**	**1671.600**	**1672.600**	**1674.600**	**1675.600**	**1676.600**	
Weight kg		1.7	2.2	3.0	4.0	5.0	5.9	
Accessories								
Wall spacer bracket HD	1 pc(s).	4000.100	4000.100	4000.100	4000.100	4000.100	4000.100	210
Mounting plates	1 pc(s).	1560.700	1560.700	1562.700	1563.700	1564.700	1568.700	702
Support rails TS 35/7.5	10 pc(s).	2314.000	2314.000	2315.000	2316.000	2317.000	2317.000	725
Cable gland HD		see page	see page	see page	see page	see page	see page	777



HD accessories Page 210 **System accessories** Page 613 **AE stainless steel** Page 219 **Rails for interior installation HD** Page 212

Design:
– Roof angled forwards by 30°

Material:
– Enclosure and door: Stainless steel 1.4301 (AISI 304)
– Mounting plate: Sheet steel
– Lock inserts HD: Stainless steel 1.4404 (AISI 316L)
– Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

Surface finish:
– Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 µm
– Mounting plate: Zinc-plated
– Seal: Blue, dyed (RAL 5010)

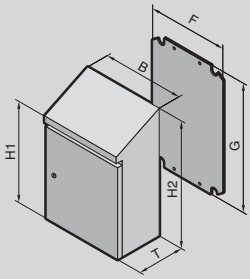
Protection category IP to IEC 60 529:
– IP 66

Protection category IP to DIN 40 050-9:
– IP 69K

Protection category NEMA:
– NEMA 13
– NEMA 4X

Supply includes:
– Enclosure of all-round solid construction
– Door with inserted seal
– Interchangeable door hinge
– Mounting plate

Approvals:
– UL
– cUL



Compact enclosure HD

Width (B) mm	Packs of	220	390	390	510	610	610	810	810	Page
Height (front) (H1) mm		350	430	650	550	430	650	1050	1250	
Height (rear) (H2) mm		437	549	769	669	601	769	1221	1421	
Depth (T) mm		155	210	210	210	300	210	300	300	
Mounting plate width (F) mm		162	334	334	449	549	549	739	740	
Mounting plate height (G) mm		275	355	570	470	355	570	955	1155	
Model No.	1 pc(s).	**1302.600**	**1306.600**	**1308.600**	**1307.600**	**1320.600**	**1310.600**	**1316.600**	**1317.600**	
Weight kg		6.6	14.7	17.9	19.7	19.7	27.4	60.1	71.0	
Accessories										
Wall spacer bracket HD	1 pc(s).	4000.100	4000.100	4000.100	4000.100	4000.100	4000.100	4000.100	4000.100	210
Cable gland HD		see page	see page	see page	see page	see page	see page	see page	see page	777

Accessories





HD levelling feet

Benefits:
– Minimises cleaning time thanks to fully covered, permanently sealed threads
– Compensation of floor inclines up to an angle of 10° thanks to flexible base
– Baying can even be achieved on sloping floors, thanks to a large levelling range
– Design to EHEDG standards

Material:
– Stainless steel 1.4301 (AISI 304)

Load capacity:
– Max. 7000 N static per levelling foot

Supply includes:
– Assembly parts and seals

Design	Thread	Adjustment range mm	Packs of	Model No.
without base mount	M12	122 - 175	4 pc(s).	**4000.240**
with base attachment	M12	122 - 175	4 pc(s).	**4000.250**





Wall spacer bracket HD

Benefits:
– Creates space for cleaning behind the enclosure.
– Shorter assembly times by eliminating the need for an all-round seal.
– Greater hygiene safety by avoiding an uncontrollable dead space or gap between the enclosure and wall.

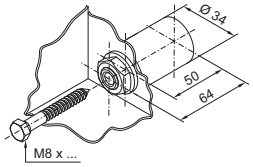
Functions:
– Mounting on the wall optionally from the enclosure interior via a through-hole (max. M8) or from the rear via an integral M10 thread.

Material:
– Stainless steel 1.4301 (AISI 304)

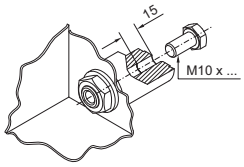
Supply includes:
– Assembly parts and seals

Note:
– Depending on the size of the enclosure, up to 4 wall spacer brackets are required to ensure sufficiently stable wall mounting

Wall distance mm	Packs of	Model No.
50	1 pc(s).	**4000.100**



Attachment from inside



Attachment from outside



Enclosure key HD

For HD cam lock

Note:
– Enclosure, case and lock systems are supplied as standard with matching keys

Packs of	Model No.
1 pc(s).	**2549.600**

Bit HD

for universal key

Packs of	Model No.
1 pc(s).	**2549.510**



Also required:

– Enclosure key, see page 683

Cam lock HD

Hygienic Design variant for easy, safe cleaning.

Applications:
– Compact enclosures AE stainless steel (except AE 1017.XXX and AE 1019.XXX).
– May be integrated into customised applications, e.g. covers of machine panels.

Material:
– Stainless steel 1.4404 (AISI 316L)

Packs of	Model No.
1 pc(s).	**2304.010**



Accessories:

– Enclosure key HD, see page 210

Accessories



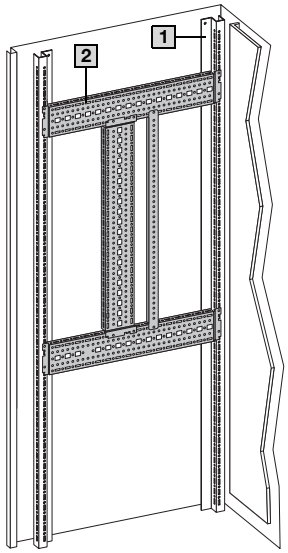
Rails for interior installation

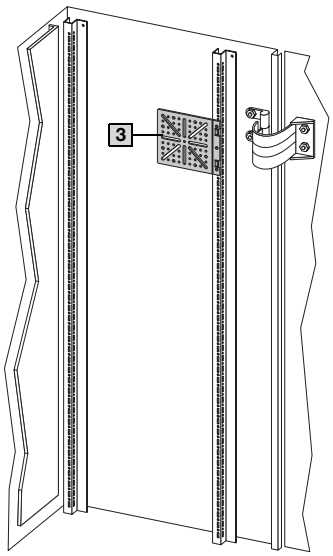
for HD compact enclosures
For mounting on the existing threaded bolts.
With TS system punchings on three sides.

Material:
– Sheet steel, zinc-plated

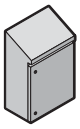
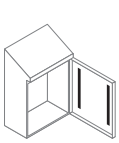
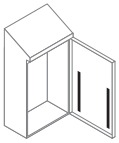
Supply includes:
– Assembly parts

Length mm	Packs of	Model No.	Page
510	4 pc(s).	**5001.050**	716
710	4 pc(s).	**5001.051**	716
910	4 pc(s).	**5001.052**	716
1110	4 pc(s).	**5001.053**	716





Interior installation, door

Enclosure	1	1	1
			
Model No.	**Model No.**		
1316.600	5001.052	5001.050	5001.050
1317.600	5001.053	5001.051 5001.050	5001.051 5001.050

Interior installation, enclosure

Enclosure	1 Rails for interior installation	2 TS punched section with mounting flange 17 x 73 mm	3 Mounting plates
			
Model No.	**Model No.**	**Model No.**	
1308.600 1310.600	5001.050	–	–
1316.600	5001.052	8612.130 (only on lock side)	8612.400 8612.410
1317.600	5001.053	8612.130 (only on lock side)	8612.400 8612.410

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Stainless steel

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Support arm system

Support arm system CP 40 180

Switch housing



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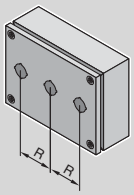
Material:
– Enclosure: Stainless steel 1.4301 (AISI 304)
– Cover: Stainless steel 1.4301 (AISI 304), all-round foamed-in PU seal

Surface finish:
– Enclosure and cover: Brushed, grain 240

Protection category IP to IEC 60 529:
– IP 66

Protection category NEMA:
– NEMA 4X

Supply includes:
– Enclosure with cover
– Quick-release fastener including plastic bushes



Stainless steel

Width mm	Packs of	100	160	220	280	Page
Height mm		100	100	100	100	
Depth mm		90	90	90	90	
Material thickness - enclosure mm		1.25	1.25	1.25	1.25	
Material thickness - cover mm		1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**2384.010**	**2384.020**	**2384.030**	**2384.040**	
Pitch pattern (R) mm		–	60	60	60	
No. of switch cut-outs Ø 22.5 mm		1	2	3	4	
Number of locks		2	4	4	4	
Accessories						
Wall mounting bracket	4 pc(s).	1594.000	1594.000	1594.000	1594.000	698
Pressure relief stoppers	5 pc(s).	2459.500	2459.500	2459.500	2459.500	642
Cable gland HD		see page	see page	see page	see page	777
Earthing kit	5 pc(s).	2570.100	2570.100	2570.100	2570.100	764
Earth straps	5 pc(s).	2565.100	2565.100	2565.100	2565.100	762



System accessories Page 613 **KL sheet steel** Page 42 **KL for potentially explosive areas** Page 232 **KL Hygienic Design** Page 208

Material:
- Enclosure: Stainless steel 1.4301 (AISI 304)
- Cover: Stainless steel 1.4301 (AISI 304), all-round foamed-in PU seal

Surface finish:
- Enclosure and cover: Brushed, grain 180

Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

Supply includes:
- Enclosure with cover
- Quick-release fastener including plastic bushes

Approvals:
- UL
- cUL
- CSA
- TÜV
- DNV GL
- Russian Maritime Register of Shipping
- Lloyds Register of Shipping
- Bureau Veritas

Stainless steel

Width mm	Packs of	150	150	300	200	200	Page
Height mm		150	150	150	200	200	
Depth mm		80	120	80	80	120	
Material thickness - enclosure mm		1.25	1.25	1.25	1.25	1.25	
Material thickness - cover mm		1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1521.010**	**1527.010**	**1522.010**	**1523.010**	**1528.010**	
Weight kg		1.3	1.6	1.8	1.8	2.2	
Number of locks		4	4	4	4	4	
Accessories							
Mounting plates	1 pc(s).	1560.700	1560.700	1561.700	1562.700	1562.700	702
Wall mounting bracket	4 pc(s).	1594.000	1594.000	1594.000	1594.000	1594.000	698
Wall angle	4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	699
Pole clamp	2 pc(s).	2584.000	2584.000	2584.000	2584.000	2584.000	700
Support rails TS 35/7.5	10 pc(s).	2314.000	2314.000	2316.000	2315.000	2315.000	725
Cover hinge	2 pc(s).	1592.010	1592.010	1592.010	1592.010	1592.010	684
Pressure relief stoppers	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	642

Stainless steel

Width mm	Packs of	300	300	400	300	400	Page
Height mm		200	200	200	300	300	
Depth mm		80	120	120	120	120	
Material thickness - enclosure mm		1.25	1.25	1.25	1.25	1.25	
Material thickness - cover mm		1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1524.010**	**1529.010**	**1525.010**	**1526.010**	**1530.010**	
Weight kg		2.4	2.9	3.6	3.9	4.6	
Number of locks		4	4	4	4	4	
Accessories							
Mounting plates	1 pc(s).	1563.700	1563.700	1564.700	1567.700	1568.700	702
Wall mounting bracket	4 pc(s).	1594.000	1594.000	1594.000	1594.000	1594.000	698
Wall angle	4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	699
Pole clamp	2 pc(s).	2584.000	2584.000	2584.000	2584.000	2584.000	700
Support rails TS 35/7.5	10 pc(s).	2316.000	2316.000	2317.000	2316.000	2317.000	725
Cover hinge	2 pc(s).	1592.010	1592.010	1592.010	1592.010	1592.010	684
Pressure relief stoppers	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	642

Bus enclosures BG



System accessories Page 613 **BG sheet steel** Page 48

Material:
- Enclosure: Stainless steel 1.4301 (AISI 304)
- Cover: Stainless steel 1.4301 (AISI 304), all-round foamed-in PU seal
- 180° hinges: Die-cast zinc

Surface finish:
- Enclosure and cover: Brushed, grain 240
- 180° hinges: chrome-plated

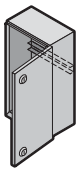
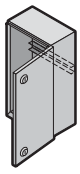
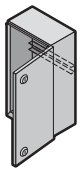
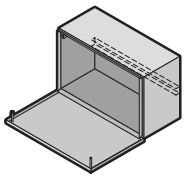
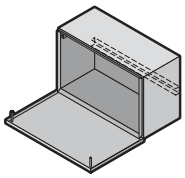
Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

Supply includes:
- Enclosure with cover
- 180° hinges (2)
- Support rail TS 35/7.5
- Quick-release fastener including plastic bushes

Approvals:
- UL
- cUL
- TÜV
- Lloyds Register of Shipping

Stainless steel

								
Width mm		Packs of	200	300	400	400	600	Page
Height mm			300	300	300	200	200	
Depth mm			80	80	80	123	123	
Material thickness - enclosure mm			1.5	1.5	1.5	1.5	1.5	
Material thickness - door mm			1.25	1.25	1.25	1.25	1.25	
Model No.		1 pc(s).	**1583.010**	**1584.010**	**1585.010**	**1558.010**	**1559.010**	
Design support rail	adjustable on profile strip		–	–	–	■	■	
	attached to studs		■	■	■	–	–	
Door hinge	bottom		–	–	–	■	■	
	right/left		■	■	■	–	–	
Number of locks			2	2	2	2	3	
Accessories								
Wall mounting bracket		4 pc(s).	1594.000	1594.000	1594.000	1594.000	1594.000	698
Pole clamp		2 pc(s).	2584.000	2584.000	2584.000	2584.000	2584.000	700
Condensate discharge		6 pc(s).	2459.000	2459.000	2459.000	2459.000	2459.000	642
Pressure relief stoppers		5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	642



System accessories Page 613 **AE sheet steel** Page 58 **Hygienic Design** Page 209

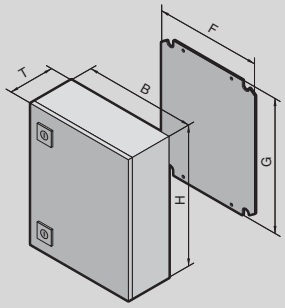
Material:
- Enclosure: Stainless steel
- Door: Stainless steel, all-round foamed-in PU seal
- Mounting plate: Sheet steel

Surface finish:
- Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 µm
- Mounting plate: Zinc-plated

Supply includes:
- Enclosure with door(s)
- Mounting plate
- Lock: 3 mm double-bit

Please observe the product-specific scope of supply.

Approvals:
- UL
- cUL
- CSA
- TÜV
- DNV GL
- Russian Maritime Register of Shipping
- Lloyds Register of Shipping
- Bureau Veritas



Stainless steel

Width (B) mm		Packs of	200	200	200	300	380	380	Page
Height (H) mm			300	300	300	300	300	300	
Depth (T) mm			120	155	155	210	155	210	
Mounting plate width (F) mm			162	162	162	254	334	334	
Mounting plate height (G) mm			275	275	275	275	275	275	
Material	Stainless steel 1.4301 (AISI 304)		■	–	■	■	■	■	
	Stainless steel 1.4404 (AISI 316L)		–	■	–	–	–	–	
Material of lock	Die-cast zinc, nickel-plated		■	–	■	■	■	■	
	Stainless steel 1.4404 (AISI 316L)		–	■	–	–	–	–	
Model No.		1 pc(s).	**1001.600**	**1002.500**	**1002.600**	**1003.600**	**1004.600**	**1011.600**	
Weight kg			3.6	4.1	4.1	6.9	7.4	8.4	
Protection category IP to IEC 60 529			IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA			NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	
Product-specific scope of supply									
Door(s)			1	1	1	1	1	1	
Cam lock			1	1	1	1	1	1	
Accessories									
Rails for interior installation		4 pc(s).	–	–	–	2383.210	–	2383.210	212
Wall mounting bracket		4 pc(s).	2433.000	2433.500	2433.000	2433.000	2433.000	2433.000	698
Wall angle		4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	2583.010	699
Pole clamp		2 pc(s).	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	700
Perforated mounting strip			–	–	–	–	–	–	
Rain canopies, stainless steel		1 pc(s).	–	2470.000	2470.000	2361.000	2471.000	2472.000	690
Mounting bars			–	–	–	–	–	–	
LED system light			–	–	–	–	–	–	

Compact enclosures AE

Stainless steel

Width (B) mm		Packs of	300	300	380	380	600	400	Page
Height (H) mm			380	380	380	380	380	500	
Depth (T) mm			210	210	210	210	210	210	
Mounting plate width (F) mm			275	275	334	334	549	354	
Mounting plate height (G) mm			334	334	355	355	355	475	
Material	Stainless steel 1.4301 (AISI 304)		–	■	–	■	■	■	
	Stainless steel 1.4404 (AISI 316L)		■	–	■	–	–	–	
Material of lock	Die-cast zinc, nickel-plated		–	■	–	■	■	■	
	Stainless steel 1.4404 (AISI 316L)		■	–	■	–	–	–	
Model No.		1 pc(s).	**1005.500**	**1005.600**	**1006.500**	**1006.600**	**1009.600**	**1015.600**	
Weight kg			8.4	8.4	9.8	9.8	14.6	12.9	
Protection category IP to IEC 60 529			IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA			NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	
Product-specific scope of supply									
Door(s)			1	1	1	1	1	1	
Cam lock			1	1	1	1	1	2	
Accessories									
Rails for interior installation		4 pc(s).	2383.210	2383.210	2383.210	2383.210	2383.210	2383.210	212
Wall mounting bracket		4 pc(s).	2433.500	2433.000	2433.500	2433.000	2433.000	2433.000	698
Wall angle		4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	2583.010	699
Pole clamp		2 pc(s).	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	700
Perforated mounting strip			–	–	–	–	–	–	
Rain canopies, stainless steel		1 pc(s).	2361.000	2361.000	2472.000	2472.000	2473.000	–	690
Mounting bars			–	–	–	–	–	–	
LED system light		1 pc(s).	–	–	–	–	2500.100	2500.100	750

Stainless steel

Width (B) mm		Packs of	500	500	380	600	600	600	Page
Height (H) mm			500	500	600	600	600	760	
Depth (T) mm			210	300	210	210	210	210	
Mounting plate width (F) mm			449	449	334	549	549	549	
Mounting plate height (G) mm			470	470	570	570	570	730	
Material	Stainless steel 1.4301 (AISI 304)		■	■	■	–	■	■	
	Stainless steel 1.4404 (AISI 316L)		–	–	–	■	–	–	
Material of lock	Die-cast zinc, nickel-plated		■	■	■	–	■	■	
	Stainless steel 1.4404 (AISI 316L)		–	–	–	■	–	–	
Model No.		1 pc(s).	**1007.600**	**1013.600**	**1008.600**	**1010.500**	**1010.600**	**1012.600**	
Weight kg			15.7	18.4	15.1	23.5	23.5	30.2	
Protection category IP to IEC 60 529			IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA			NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	
Product-specific scope of supply									
Door(s)			1	1	1	1	1	1	
Cam lock			2	2	2	2	2	2	
Accessories									
Rails for interior installation		4 pc(s).	2383.210	2383.300	2383.210	2383.210	2383.210	2383.210	212
Wall mounting bracket		4 pc(s).	2433.000	2433.000	2433.000	2433.500	2433.000	2433.000	698
Wall angle		4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	2583.010	699
Pole clamp		2 pc(s).	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	700
Perforated mounting strip		20 pc(s).	–	–	–	–	–	2310.076	686
Rain canopies, stainless steel		1 pc(s).	2362.000	–	2472.000	2473.000	2473.000	2473.000	690
Mounting bars		20 pc(s).	–	–	–	–	–	2326.000	685
LED system light		1 pc(s).	2500.100	2500.100	–	2500.100	2500.100	2500.100	750

Stainless steel

Width (B) mm		Packs of	760	800	1000	800	1000	1000	Page
Height (H) mm			760	1000	1000	1200	1200	1200	
Depth (T) mm			300	300	300	300	300	300	
Mounting plate width (F) mm			704	739	939	740	940	940	
Mounting plate height (G) mm			730	955	955	1155	1155	1155	
Material	Stainless steel 1.4301 (AISI 304)		■	■	■	■	–	■	
	Stainless steel 1.4404 (AISI 316L)		–	–	–	–	■	–	
Material of lock	Die-cast zinc, nickel-plated		■	■	■	–	–	–	
	Stainless steel 1.4301 (AISI 304)		–	–	–	■	■	■	
Model No.		1 pc(s).	**1014.600**	**1016.600**	**1018.600**	**1017.600**	**1019.500**	**1019.600**	
Weight kg			42.5	52.9	71.0	61.5	76.0	76.0	
Protection category IP to IEC 60 529			IP 66	IP 66	IP 55	IP 66	IP 55	IP 55	
Protection category NEMA			NEMA 4X	NEMA 4X	NEMA 12	NEMA 4X	NEMA 12	NEMA 12	
Product-specific scope of supply									
Door(s)			1	1	2	1	2	2	
Cam lock			2	2	2	–	–	–	
3-point lock system			–	–	–	■	■	■	
Accessories									
Rails for interior installation		4 pc(s).	2383.300	2383.300	2383.300	2383.300	2383.300	2383.300	212
Wall mounting bracket		4 pc(s).	2433.000	2433.000	2433.000	2433.000	2433.500	2433.000	698
Wall angle		4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	2583.010	699
Pole clamp		2 pc(s).	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	700
Perforated mounting strip		20 pc(s).	2310.076	2310.100	2310.100	2310.120	2310.120	2310.120	686
Rain canopies, stainless steel		1 pc(s).	2474.000	2475.000	2363.000	2475.000	2363.000	2363.000	690
Mounting bars		20 pc(s).	2327.000	2328.000	–	2328.000	2325.000	–	685
LED system light		1 pc(s).	2500.110	2500.110	2500.110	2500.110	2500.110	2500.110	750

Accessories



Cable gland HD

see page 777

Accessories



Lock systems

see from page 674

Baying systems TS 8



Lock systems Page 673 **Baying systems TS 8, sheet steel** Page 74 **Rail systems** Page 713

Material and surface finish:
- Enclosure frame: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Roof: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Door: Stainless steel 1.4301 (AISI 304), 2 mm, exterior brushed, grain size 400
- Rear panel: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Gland plates: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Mounting plate: Sheet steel, 3 mm, zinc-plated

Protection category IP to IEC 60 529:
- IP 55

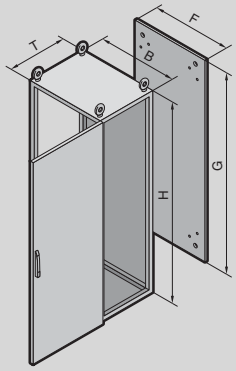
Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure frame
- Door(s)
- R/h door hinge with single-door enclosures, may be swapped to opposite side
- Roof plate
- Gland plates
- Rear panel
- Mounting plate
- 4 eyebolts
- Lock: 3 mm double-bit
- 2 TS punched rails 18 x 38 mm

Please observe the product-specific scope of supply.

Note:
- Due to the hardness of the material, we recommend using metal multi-tooth screws for the interior installation.

Approvals:
- UL
- cUL
- CSA
- TÜV
- Russian Maritime Register of Shipping
- Lloyds Register of Shipping
- Bureau Veritas



Stainless steel

Width (B) mm	Packs of	800	1200	1200	800	600	800	1200	600	Page
Height (H) mm		1800	1800	1800	1800	1800	2000	2000	2000	
Depth (T) mm		400	400	500	500	500	600	600	600	
Mounting plate width (F) mm		699	1099	1099	699	499	699	1099	499	
Mounting plate height (G) mm		1696	1696	1696	1696	1696	1896	1896	1896	
Model No.	1 pc(s).	**8454.600**	**8456.600**	**8453.600**	**8455.600**	**8457.600**	**8450.600**	**8451.600**	**8452.600**	
Weight kg		112.9	170.4	174.9	116.3	92.5	129.7	194.7	104.4	
Product-specific scope of supply										
2 support strips fitted in the enclosure depth		–	–	–	–	–	■	■	■	
Door(s)		1	2	2	1	1	1	2	1	
Accessories										
Side panels, screw-fastened, stainless steel	2 pc(s).	8700.840	8700.840	8700.850	8700.850	8700.850	8700.060	8700.060	8700.060	643
Divider panel	1 pc(s).	8609.840	8609.840	8609.850	8609.850	8609.850	8609.060	8609.060	8609.060	647
Base/plinth components, front and rear, 100 mm	2 pc(s).	8701.800	8701.200	8701.200	8701.800	8701.600	8701.800	8701.200	8701.600	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8701.040	8701.040	8701.050	8701.050	8701.050	8701.060	8701.060	8701.060	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8702.800	8702.200	8702.200	8702.800	8702.600	8702.800	8702.200	8702.600	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8702.040	8702.040	8702.050	8702.050	8702.050	8702.060	8702.060	8702.060	620
Base/plinth trim, modular	4 pc(s).	2907.000	2907.000	2908.000	2908.000	2908.000	2913.000	2913.000	2913.000	624
Cable clamp rails	2 pc(s).	4192.000	4196.000	4196.000	4192.000	4191.000	4192.000	4196.000	4191.000	783
Wiring plan pockets of sheet steel	1 pc(s).	4118.000	4116.000	4116.000	4118.000	4116.000	4118.000	4116.000	4116.000	688
Metal multi-tooth screws	300 pc(s).	2486.300	2486.300	2486.300	2486.300	2486.300	2486.300	2486.300	2486.300	737
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	4612.000	4612.000	4612.000	628
LED system light		see page	see page	see page	see page	see page	see page	see page	see page	750



System accessories Page 613 **Cable entry** Page 768

Material and surface finish:
- Enclosure frame: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Roof: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Door: Stainless steel 1.4301 (AISI 304), 2 mm, exterior brushed, grain size 400
- Rear panel: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Base: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Mounting plate: Sheet steel, 3 mm, zinc-plated

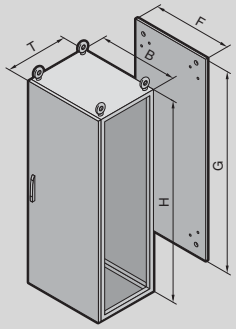
Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

Supply includes:
- Enclosure frame
- Door(s)
- Door hinged on the right, may be swapped to the left
- Roof
- Base, solid
- Rear panel
- Mounting plate
- 4 eyebolts
- Lock: 3 mm double-bit
- 2 TS punched rails 18 x 38 mm
- Accessory kit for side panels for upgrading to IP 66
- 2 support strips fitted in the enclosure depth

Note:
- Due to the hardness of the material, we recommend using metal multi-tooth screws for the interior installation.

Approvals:
- UL



IP 66/NEMA 4X

Width (B) mm	Packs of	800	Page
Height (H) mm		2000	
Depth (T) mm		600	
Mounting plate width (F) mm		699	
Mounting plate height (G) mm		1896	
Model No.	1 pc(s).	**8450.680**	
Weight kg		128.9	
Door(s)		1	
Accessories			
Side panels, screw-fastened, stainless steel	2 pc(s).	8700.060	643
Baying frame IP 66/NEMA 4, NEMA 4X	1 pc(s).	8700.010	644
Base/plinth components, front and rear, 100 mm	2 pc(s).	8701.800	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8701.060	620
Base/plinth components, front and rear, 200 mm	2 pc(s).	8702.800	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8702.060	620
Base/plinth trim, modular	4 pc(s).	2913.000	624
Quick-fit baying clamp, one-piece	6 pc(s).	8800.500	653
Baying clamp, horizontal	4 pc(s).	8800.400	653
Angular baying bracket	4 pc(s).	8800.430	655
Cable duct		see page	782
Cable clamp rails	2 pc(s).	4192.000	783
Wiring plan pockets of sheet steel	1 pc(s).	4118.000	688
LED system light		see page	750
Comfort handle		see page	674
Lock inserts		see page	675

System enclosures SE 8



System accessories Page 613 **SE 8 sheet steel** Page 94 **Lock systems** Page 673 **Rail systems** Page 713

The system enclosure is based on the TS 8 platform. System accessories for interior installation in the TS 8 design can be used without restrictions.

Material and surface finish:
- Enclosure: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Door: Stainless steel 1.4301 (AISI 304), 2 mm, exterior brushed, grain size 400
- Rear panel: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Mounting plate: Sheet steel, 3 mm, zinc-plated
- Gland plates: Stainless steel 1.4301 (AISI 304), 1.5 mm, uncoated

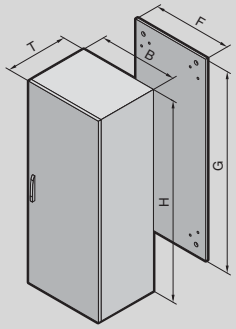
Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure, solid top and sides
- Door(s)
- R/h door hinge with single-door enclosures, may be swapped to opposite side
- Rear panel, detachable
- Mounting plate
- Gland plates
- Lock: 3 mm double-bit
- 2 TS punched rails 18 x 38 mm

Note:
- Due to the hardness of the material, we recommend using metal multi-tooth screws for the interior installation.

Approvals:
- UL
- cUL



Stainless steel

Width (B) mm	Packs of	600	600	800	800	1000	1200	Page
Height (H) mm		1600	1800	1800	2000	1800	2000	
Depth (T) mm		400	500	500	600	400	500	
Mounting plate width (F) mm		499	499	699	699	899	1099	
Mounting plate height (G) mm		1496	1696	1696	1896	1696	1896	
Model No.	1 pc(s).	**5850.500**	**5851.500**	**5852.500**	**5853.500**	**5854.500**	**5855.500**	
Weight kg		87.0	99.0	121.0	139.0	133.0	196.0	
Door(s)		1	1	1	1	1	2	
Accessories								
Base/plinth components, front and rear, 100 mm	2 pc(s).	8701.600	8701.600	8701.800	8701.800	8701.000	8701.200	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8701.040	8701.050	8701.050	8701.060	8701.040	8701.050	647
Base/plinth components, front and rear, 200 mm	2 pc(s).	8702.600	8702.600	8702.800	8702.800	8702.000	8702.200	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8702.040	8702.050	8702.050	8702.060	8702.040	8702.050	620
Eyebolts	4 pc(s).	4568.500	4568.500	4568.500	4568.500	4568.500	4568.500	697
Cable clamp rails	2 pc(s).	4191.000	4191.000	4192.000	4192.000	4336.000	4196.000	783
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	4612.000	628
Wiring plan pockets of sheet steel	1 pc(s).	see page	see page	see page	see page	4124.000	see page	688
Metal multi-tooth screws	300 pc(s).	2486.300	2486.300	2486.300	2486.300	2486.300	2486.300	737
Earth straps		see page	see page	see page	see page	see page	see page	762
Cable duct		see page	see page	see page	see page	see page	see page	782
Adaptor bracket TS	6 pc(s).	8800.360	8800.360	8800.360	8800.360	8800.360	8800.360	729
Door stay for escape routes	1 pc(s).	4583.500	4583.500	4583.500	4583.500	4583.500	4583.500	688
LED system light		see page	see page	see page	see page	see page	see page	750



System accessories Page 613 **SE 8 sheet steel** Page 94

The system enclosure is based on the TS 8 platform. System accessories for interior installation in the TS 8 design can be used without restrictions.

Material and surface finish:
- Enclosure: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Door: Stainless steel 1.4301 (AISI 304), 2 mm, exterior brushed, grain size 400
- Rear panel: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Mounting plate: Sheet steel, 3 mm, zinc-plated
- Base: Stainless steel 1.4301 (AISI 304), 1.5 mm

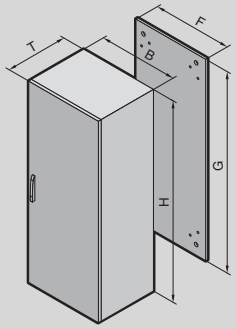
Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

Supply includes:
- Enclosure, solid top and sides
- Door(s)
- Door hinged on the right, may be swapped to the left
- Rear panel, detachable
- Mounting plate
- Base, solid
- Lock: 3 mm double-bit
- 2 TS punched rails 18 x 38 mm

Note:
- Due to the hardness of the material, we recommend using metal multi-tooth screws for the interior installation.

Approvals:
- UL
- cUL



IP 66/NEMA 4X

Width (B) mm	Packs of	600	800	800	Page
Height (H) mm		1600	1800	2000	
Depth (T) mm		400	500	600	
Mounting plate width (F) mm		499	699	699	
Mounting plate height (G) mm		1496	1696	1896	
Model No.	1 pc(s).	**5850.580**	**5852.580**	**5853.580**	
Weight kg		103.4	132.0	152.0	
Accessories					
Base/plinth components, front and rear, 100 mm	2 pc(s).	8701.600	8701.800	8701.800	619
Base/plinth trim panels, side, 100 mm	2 pc(s).	8701.040	8701.050	8701.060	647
Base/plinth components, front and rear, 200 mm	2 pc(s).	8702.600	8702.800	8702.800	619
Base/plinth trim panels, side, 200 mm	2 pc(s).	8702.040	8702.050	8702.060	620
Eyebolts	4 pc(s).	4568.500	4568.500	4568.500	697
Cable clamp rails	2 pc(s).	4191.000	4192.000	4192.000	783
Wiring plan pockets of sheet steel	1 pc(s).	4116.000	4118.000	4118.000	688
Earth straps		see page	see page	see page	762
Metal multi-tooth screws	300 pc(s).	2486.300	2486.300	2486.300	737
Snap-on nut TS		see page	see page	see page	729
Cable duct		see page	see page	see page	782
Door stay for escape routes	1 pc(s).	4583.500	4583.500	4583.500	688
Adaptor bracket TS	6 pc(s).	8800.360	8800.360	8800.360	729
LED system light		see page	see page	see page	750
Comfort handle		see page	see page	see page	674
Lock inserts		see page	see page	see page	675

One-piece consoles



System accessories Page 613 **Monitors, keyboards** Page 827/828 **Climate control** Page 389 **One-piece consoles, sheet steel** Page 153

Material:
- Enclosure: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Door or double door and console lid: Stainless steel 1.4301 (AISI 304), 2.0 mm
- Mounting plate: Sheet steel 3.0 mm

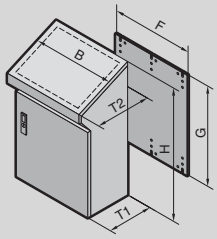
Surface finish:
- Enclosure, door, console lid and gland plates: Brushed, grain 240
- Mounting plate: Zinc-plated

Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure, solid back and sides
- Door or double door at front, with locking rod
- Console lid with lid stay and cam lock latched in the enclosure
- Locks with double-bit insert
- Gland plates, divided
- Mounting plate

Approvals:
- UL
- CSA
- TÜV
- Russian Maritime Register of Shipping



Stainless steel

Width (B) mm	Packs of	600	800	1000	1200	Page
Height (H) mm		960	960	960	960	
Depth, Bottom (T1) mm		400	400	400	400	
Depth, Top (T2) mm		480	480	480	480	
Mounting plate width (F) mm		530	730	930	1130	
Mounting plate height (G) mm		780	780	780	780	
Model No.	1 pc(s).	**2683.600**	**2684.600**	**2685.600**	**2686.600**	
Door(s)		1	1	2	2	
Weight kg		52.0	65.2	79.5	90.3	
Accessories						
Base/plinth, complete, 100 mm	1 pc(s).	2865.000	2869.000	2867.000	2870.000	625
Cable clamp rails	2 pc(s).	4191.000	4192.000	4336.000	4196.000	783
Support rails TS 35/15	6 pc(s).	4934.000	4935.000	4933.000	4937.000	725
Ergoform-S lock system		see page	see page	see page	see page	678
LED system light		see page	see page	see page	see page	750
Hose-proof hood		see page	see page	see page	see page	458



System accessories Page 613 **Monitors, keyboards** Page 827/828 **PC enclosure system, sheet steel** Page 156

PC enclosure systems based on SE, stainless steel 1.4301, (AISI 304), for the secure accommodation of all your computer equipment, from the monitor, computer system, printer, keyboard to the mouse.

Material:
- Enclosure: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Rear door: Stainless steel 1.4301 (AISI 304), 2.0 mm
- Gland plates: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Monitor field: Single-pane safety glass, 4 mm

Surface finish:
- Brushed, grain 400

Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure, solid top and sides
- Rear door with locking rod
- Glazed door at the top, latched from the inside
- Component shelf
- Keyboard drawer with swing-down front for handrest and mouse pad support
- Lock insert, lock no. 3524 E
- Bottom door with locking rod
- Gland plates, divided

Approvals:
- UL
- cUL

Stainless steel

Width mm	Packs of	600	Page
Height mm		1600	
Depth mm		630	
Model No.	1 pc(s).	**4650.100**	
Weight kg		115.0	
Accessories			
Base/plinth components, front and rear, 100 mm	2 pc(s).	8701.600	624
Base/plinth trim panels, side, 100 mm	2 pc(s).	8701.060	624
Levelling feet	4 pc(s).	2859.000	628
Base/plinth trim, modular	4 pc(s).	2913.000	624
Adaptor pieces, 482.6 mm (19")	4 pc(s).	8613.010	802
Component shelf, pull-out	1 pc(s).	6902.960	740
Cable clamp rails	2 pc(s).	4191.000	783
LED system light		see page	750
Comfort handle		see page	674

Premium Panel IP 69K



System accessories Page 613 **Support arm system CP 40, stainless steel** Page 180 **Hygienic Design** Page 207

Benefits:
- **Resistant to high-pressure cleaning:** The seal lies between two surfaces and is optimally compressed by the screw fastening.
- **Suitable for clean room use:** Screw fastening to comply with high standards in the food industry. With plastic stoppers on the inside or hex screws on the outside.
- **Optimum EMC conditions:** The labyrinthe seal achieves a particularly high level of RF shielding of the enclosure.

Material:
- Stainless steel 1.4301 (AISI 304)

Surface finish:
- Brushed, grain 240

Protection category IP to IEC 60 529:
- IP 66

Protection category IP to DIN 40 050-9:
- IP 69K

Clean room class:
- Air purity class 1 to DIN EN ISO 14 644-1

Stainless steel

Width mm	Packs of	530	Page
Height mm		360	
Depth mm		120	
Operating housing for panel width mm		482.6	
Operating housing for panel height mm		310	
Installation depth mm		115	
Support arm connection		Top or bottom (by rotating the enclosure)	
Model No.	1 pc(s).	**6681.000**	
Weight kg		9.3	

Command panel housings with door



System accessories Page 613 **Support arm system CP 40, stainless steel** Page 180 **Hygienic Design** Page 207

Material:
– Enclosure and door: Stainless steel 1.4301 (AISI 304)
– Handle strips: Plastic approved for use with foodstuffs, dyed blue

Surface finish:
– Brushed, grain 240

Colour:
– Handle strips: similar to RAL 5002

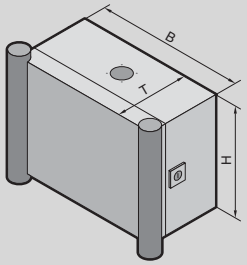
Protection category IP to IEC 60 529:
– IP 66

Protection category NEMA:
– NEMA 12

Supply includes:
– Enclosure of all-round solid construction
– Cut-out and reinforcement for support arm system CP 40 stainless steel
– Fastener with guide plate
– Door with sealing frame and side handle strips
– Lock: 3 mm double-bit

Note:
– The support arm connection and door hinge may be swapped over by rotating the enclosure
– Matching mounting plates from compact enclosures AE may be used
– 3 mm double-bit lock insert may be exchanged for 41 mm lock inserts, plastic handles and T handles, type C

Approvals:
– UL
– CSA
– TÜV



Stainless steel

Width (B) mm	Packs of	300	400	400	600	Page
Height (H) mm		300	300	400	400	
Depth (T) mm		150	150	150	150	
Model No.	1 pc(s).	**6535.010**	**6536.010**	**6538.010**	**6539.010**	
Weight kg		6.3	7.5	8.8	12.1	
Accessories						
Support rails TS 35/7.5	10 pc(s).	2316.000	2317.000	2317.000	–	725
Support rails TS 35/15	10 pc(s).	–	–	–	2319.000	725
TS punched rail 18 x 38 mm	4 pc(s).	–	8612.240	8612.240	8612.260	720
Mounting bars	20 pc(s).	–	4694.000	4694.000	see page	720

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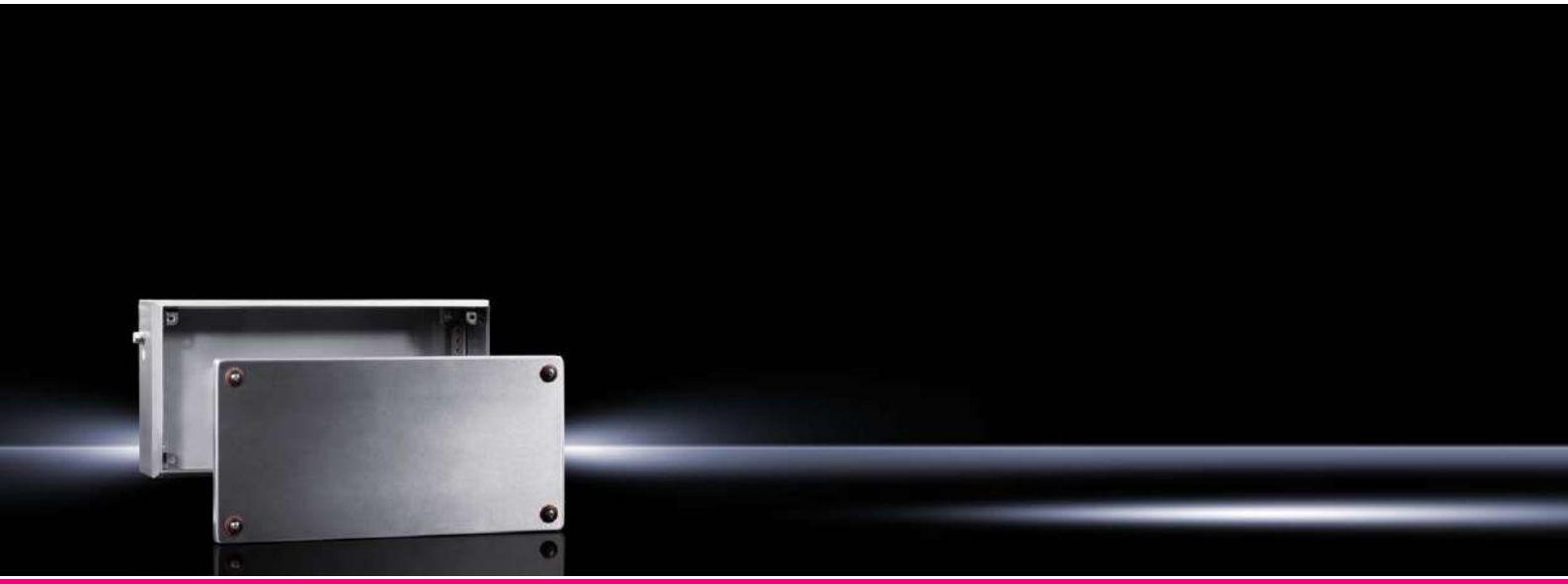
Ex enclosures

Ex enclosures

Stainless steel, empty enclosure with screw-fastened cover 232
Stainless steel, empty enclosure with hinged door 233
Plastic, empty enclosure with hinged door 234



Ex enclosures



System accessories Page 613

Applications:
- Zone 1 and 2 or 21 and 22 to 94/9/EC
- Ambient temperature range: -30°C...+80°C
- The specified temperatures may be limited by the installed equipment
- Protection type to EN 60 079: Equipment protection due to increased safety, equipment protection due to enclosure

Material:
- Enclosure: Stainless steel 1.4301 (AISI 304)
- Cover: Stainless steel 1.4301 (AISI 304), all-round foamed-in silicone seal

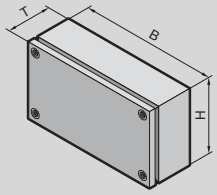
Surface finish:
- Enclosure: Brushed, grain 240

Protection category IP to IEC 60 529:
- IP 66

Supply includes:
- Enclosure
- Cover

Certificates:
- PTB 03 ATEX 1013U
- IEC Ex PTB 09.0033U

Approvals:
- ATEX
- IEC



Stainless steel, empty enclosure with screw fastened cover

Width (B) mm	Packs of	150	200	300	300	300	400	Page
Height (H) mm		150	200	150	200	300	200	
Depth (T) mm		80	80	80	80	120	120	
Model No.	1 pc(s).	**9301.000**	**9303.000**	**9302.000**	**9304.000**	**9306.000**	**9305.000**	
Weight kg		1.3	1.8	1.8	2.4	3.9	3.6	
Accessories								
Mounting plates	1 pc(s).	1560.700	1562.700	1561.700	1563.700	1567.700	1564.700	702
Wall mounting bracket	4 pc(s).	1594.000	1594.000	1594.000	1594.000	1594.000	1594.000	698
Support rails TS 35/7.5	10 pc(s).	2314.000	2315.000	2316.000	2316.000	2316.000	2317.000	725
Earth straps		see page	see page	see page	see page	see page	see page	762



System accessories Page 613

Applications:
- Zone 1 and 2 or 21 and 22 to 94/9/EC
- Ambient temperature range: -30°C...+80°C
- The specified temperatures may be limited by the installed equipment
- Protection type to EN 60 079: Equipment protection due to increased safety, equipment protection due to enclosure

Material:
- Enclosure: Stainless steel 1.4301 (AISI 304)
- Door: Stainless steel 1.4301 (AISI 304), all-round foamed-in silicone seal
- Mounting plate: Sheet steel

Surface finish:
- Enclosure: Brushed, grain 400, peak-to-valley height < 0.8 µm
- Mounting plate: Zinc-plated

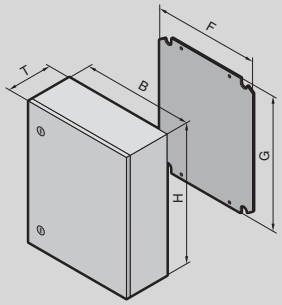
Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

Supply includes:
- Enclosure
- Door
- Mounting plate

Certificates:
- PTB 02 ATEX 1082U
- IEC Ex PTB 09.0035U

Approvals:
- UL
- cUL
- ATEX
- IEC



Stainless steel, empty enclosure with hinged door

Width (B) mm	Packs of	200	300	380	380	380	600	600	760	800	Page
Height (H) mm		300	380	300	380	600	600	760	760	1000	
Depth (T) mm		155	210	155	210	210	210	210	300	300	
Mounting plate width (F) mm		162	275	334	334	334	549	549	704	739	
Mounting plate height (G) mm		275	334	275	355	570	570	730	730	955	
Model No.	1 pc(s).	**9401.600**	**9409.600**	**9402.600**	**9403.600**	**9404.600**	**9405.600**	**9406.600**	**9407.600**	**9408.600**	
Cam lock with 3 mm double-bit insert		1	1	1	1	2	2	2	2	2	
Reinforcement section in the door		–	–	–	–	–	■	■	■	■	
Weight kg		5.0	8.1	7.8	10.1	16.9	25.2	32.5	44.1	57.8	
Accessories											
Wall mounting bracket	4 pc(s).	2433.000	2433.000	2433.000	2433.000	2433.000	2433.000	2433.000	2433.000	2433.000	698
Support rails TS 35/7.5	10 pc(s).	2315.000	2316.000	–	–	–	–	–	–	–	725
Rails for interior installation	4 pc(s).	–	2383.210	–	2383.210	2383.210	2383.210	2383.210	2383.300	2383.300	716
Support rails TS 35/15	10 pc(s).	–	–	–	–	–	2319.000	2319.000	–	–	725
Earth straps		see page	see page	see page	see page	see page	see page	see page	see page	see page	762

Ex enclosures



System accessories Page 613

Applications:
- Zone 1 and 2 or 21 and 22 to 94/9/EC
- Ambient temperature range: -30°C...+80°C
- The specified temperatures may be limited by the installed equipment
- Protection type to EN 60 079: Equipment protection due to increased safety, equipment protection due to enclosure

Material:
- Fibre-glass-reinforced unsaturated polyester, surface resistance: < 10^9 Ω
- Door: Fibre-glass-reinforced unsaturated polyester, surface resistance: < 10^9 Ω all-round foamed-in silicone seal
- Mounting plate: Sheet steel, zinc-plated

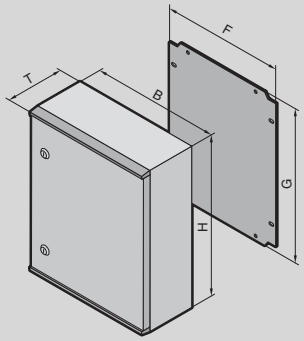
Colour:
- RAL 9011

Protection category IP to IEC 60 529:
- IP 66

Supply includes:
- Enclosure
- Door
- Mounting plate

Certificates:
- PTB 03 ATEX 1011U
- IEC Ex PTB 10.0011U

Approvals:
- ATEX
- IEC



Plastic, empty enclosure with hinged door

Width (B) mm	Packs of	200	250	300	400	400	500	600	600	800	Page
Height (H) mm		300	350	400	400	600	500	600	800	1000	
Depth (T) mm		150	150	200	200	200	300	200	300	300	
Mounting plate width (F) mm		145	195	245	345	345	417	545	517	717	
Mounting plate height (G) mm		250	300	350	350	550	450	550	750	950	
Model No.	1 pc(s).	**9201.600**	**9202.600**	**9203.600**	**9204.600**	**9205.600**	**9207.600**	**9206.600**	**9208.600**	**9209.600**	
Cam lock with 3 mm double-bit insert		1	2	2	2	2	2	2	–	–	
3-point locking rod		–	–	–	–	–	–	–	■	■	
Reinforcement section in the door		–	–	–	–	–	■	■	–	–	
Weight kg		3.7	4.6	6.0	6.5	11.5	12.9	15.9	24.3	39.0	
Accessories											
Wall mounting bracket	4 pc(s).	9266.000	9266.000	9266.000	9266.000	9266.000	9266.000	9266.000	9266.000	9266.000	698
Threaded inserts M6	20 pc(s).	1482.000	1482.000	1482.000	1482.000	1482.000	1482.000	1482.000	1482.000	1482.000	737
Mounting plate adjustment bracket	4 pc(s).	1481.000	1481.000	1481.000	1481.000	1481.000	1491.000	1481.000	1491.000	1491.000	705
Support rails TS 35/7.5	10 pc(s).	2315.000	–	2316.000	2317.000	2317.000	–	–	–	–	725
Support rails TS 35/15	10 pc(s).	–	–	–	–	–	2318.000	2319.000	2319.000	–	725
Earth straps		see page	see page	see page	see page	see page	see page	see page	see page	see page	762
Pole clamp	2 pc(s).	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000	700

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Comfort Panel – Simple selection with the online configurator



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Outdoor

Outdoor enclosures

Basic enclosures 242
Wall-mounted enclosures 243

Outdoor project solutions

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At home in any outdoor application



Energy

- Mounting benefits – Flexible basic enclosure, optionally with doors front and rear, for rapid interior installation and optimum on-site accessibility
- Variable base mounting – Easy to plan, because it is suitable for all site conditions: Concrete base/plinth, base plate, plastic base/plinth



Water industry

- Ideal material – Powder-coated aluminium for a long service life and corrosion resistance, plus fast machining of cut-outs
- Fast interior installation – All-round 25 mm system punchings and an extensive range of system accessories help to reduce assembly time



Telecommunications

- Fully integrated system solutions for mobile communications and broadband network installation reduce planning complexity
- Vandal-resistant – Enclosure solutions up to resistance category RC4



Telematics

- Optimum protection against corrosion – Coordinated mix of materials for heavily contaminated roadside environments increases servicing intervals



Outdoor Basic enclosures – Flexibility included



Systematic roof concept

Multi-functional benefits:

- Roof projection increases the proportion of shading
- Air exchange with all-round louvred grilles
- Fan for active climate control has an IP-compatible covering



Integral transport options

- Eyebolts on the inner roof, concealed by the rain canopy
- For transporting the fully configured unit by crane



Systematic installation benefits

- System compatibility thanks to TS 8 system punchings in the base
- Extensive range of system-compatible accessories for individual installations



Outdoor Basic enclosures



Climate control Page 389 **Rail systems** Page 721 – 723 **Cable routing** Page 768

Outdoor enclosure with 100 mm transport plinth and rain canopy with projections on all sides.

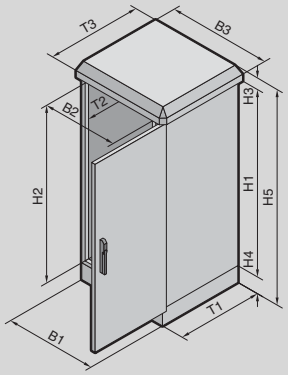
Material:
– Aluminium AlMg3

Surface finish:
– Powder-coated
– UV-resistant pure polyester

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55
– NEMA 3R

Supply includes:
– Single-walled outdoor enclosure, fully preconfigured
– Basic enclosure with three-part gland plate
– 25 mm system punchings in the roof, base, front and in the enclosure depth
– Front door(s) with door stay, swing lever handle and semi-cylinder, lock BJ 20027
– Transport plinth with screw-fastened trim panels front and rear
– Enclosure width 1200 mm has two 600 mm wide mounting panels
– Rain canopy



Single-walled

Width (B1) mm	P. of	600	800	1200	Page
Height (H1) mm		1200	1200	1200	
Depth (T1) mm		500	500	500	
Clearance width (B2) mm		512	712	512	
Clearance height (H2) mm		1112	1112	1112	
Clearance depth (T2) mm		449	449	449	
Rain canopy width (B3) mm		650	850	1250	
Rain canopy height (H3) mm		55	55	55	
Rain canopy depth (T3) mm		550	550	550	
Base/plinth height (H4) mm		100	100	100	
Overall height (H5) mm		1355	1355	1355	
Model No.	1 pc(s).	**9783.530**	**9783.610**	**9784.540**	
Door(s)		1	1	2	
Weight kg		38.0	49.5	66.0	
With removable centre bar, 2 lockable doors		–	–	■	
Accessories					
Cable entry plates	2 pc(s).	8800.060	8800.080	8800.060	768
Mounting plates	1 pc(s).	9765.092	9765.095	9765.191	704
Enclosure heaters	1 pc(s).	3105.400	3105.400	3105.400	451
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	467
Semi-cylinder	1 pc(s).	9785.040	9785.040	9785.040	675
Mounting angles 19″	2 pc(s).	7688.000	7688.000	7688.000	802
Depth stays for mounting angles 19″	2 pc(s).	7696.000	7698.000	7696.000	803

Outdoor wall-mounted enclosures



Compact enclosures AE, stainless steel Page 219 **Hygienic Design** Page 209

Outdoor enclosures for wall or pole mounting. Enclosure-within-an-enclosure concept, outer enclosure with cut-out at the bottom and integrated louvres on the rear panel and side panels for ventilation.

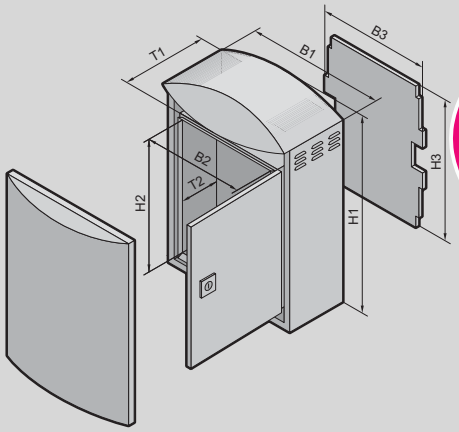
Material:
– Enclosure: Aluminium AlMg3
– Mounting plate: Sheet steel

Surface finish:
– Enclosure: Powder-coated, UV-resistant pure polyester
– Mounting plate: Zinc-plated

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Double-walled outdoor enclosure fully preconfigured
– Inner enclosure with mounting plate, gland plate and security lock (CS 9791.045 with 2 security locks)
– Mounting bracket for enclosure internal thermostat or hygrostat
– Outer enclosure with designer cover and security lock 3524 E
– 2 C rails on the rear panel



Double-walled

Outer enclosure						
Width (B1) mm	Packs of	370	420	530	630	Page
Height (H1) mm		522	560	700	780	
Depth (T1) mm		210	210	265	380	
Inner enclosure						
Width (B2) mm		300	350	460	580	
Height (H2) mm		400	440	565	580	
Depth (T2) mm		170	170	220	333	
Clearance width mm		280	330	440	560	
Clearance height mm		380	420	545	560	
Clearance depth mm		145	145	195	308	
Mounting plate width (B3) mm		270	320	430	550	
Mounting plate height (H3) mm		380	410	535	550	
Model No.	1 pc(s).	**9791.015**	**9791.025**	**9791.035**	**9791.045**	
Accessories						
Pole clamp	1 set(s)	2584.000	2584.000	2584.000	2584.000	700
Enclosure heaters	1 pc(s).	3105.330	3105.330	3105.330	3105.330	451
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	3110.100	467
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	468
Hygrostat with strain relief	1 pc(s).	3118.100	3118.100	3118.100	3118.100	468
Socket	2 pc(s).	2506.100	2506.100	2506.100	2506.100	510
LED system light	1 pc(s).	2500.100	2500.100	2500.100	2500.100	750

Toptec – project solutions

Universal platform for outdoor applications

- TS 8 frame – Identical system platform in the outdoor sector as for IE or IT free-standing enclosures
- Weather canopy – With projection on all sides
- Chimney effect of the twin-walled structure – Reduces the influence of sunlight
- Mounting benefit – Open frame structure means fast configuration, also applies to bayed variants



Version

Enclosure type:
– Outdoor enclosure, twin-walled

Material:
– Base frame: Stainless steel
– Enclosure panels: Aluminium
– Rain canopy: Aluminium

Multifunctional enclosures – project solutions

Platform for telecommunications solutions

- Weather canopy – With ventilation
- Gland plate with cable glands
- 482.6 mm (19˝) mounting angles inside the enclosure, in stainless steel throughout
- Aluminium mounting plate
- Depending on the design, with single door/two doors, symmetrical or asymmetrical



Version

Enclosure type:

– Modular outdoor enclosure system, single- or twin-walled

Material:

– Base frame: Aluminium
– Enclosure and panels: Aluminium
– Rain canopy: Aluminium
– 482.6 mm (19˝) mounting angles: Stainless steel

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POWER DISTRIBUTION

RiLine busbar systems

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	RiLine busbar systems			
	The tried-and-trusted, super-flexible power distribution systems for individual requirements. From small power distributors, to individual switchgear and controlgear, through to heavy-current power distributors for infrastructure and industry applications. Simple, secure assembly plus user-friendly planning with design verification are the distinguishing features of these systems.			
Busbar system	RiLine Compact	Mini-PLS	RiLine PLS/flat copper bars	
Bar centre distance mm	–	40	60	
Rated current A up to	125	250	800, 1600	
Product characteristics	■ Contact hazard-protected board with integral busbars for the safe accommodation and contacting of components ■ The board and all components are simply top-mounted; no tools required ■ Suitable for AC and DC applications	■ Space-saving design with full-surface top-mounting of the busbar supports and bar connector elements ■ Simple component installation via plug and lock action from the front ■ Optimum contact hazard protection with all-round encapsulation	■ Thanks to the special styling of the PLS special busbars, top-mounting with components in the support area is not a problem ■ Optimum contact hazard protection with all-round encapsulation ■ Suitable for AC and DC applications	
From page	256	260	265	



	Ri4Power		
	The tested complete solution – Enclosure and bar system. Cross coupling between electrical equipment in low-voltage switchgear has already been tested to IEC 61 439 and documented with a design verification.	Modular system for low-voltage switchgear with design verification to IEC 61 439-1/-2 and DIN EN 61 439-1/-2, plus power distributors and structured system solutions for switchgear with 1-4b Form separation.	ISV distribution enclosures for standard-compliant power supply in buildings and industry. Flexible configuration with practical power distribution modules.
	185 mm system	Flat copper bars, Maxi-PLS, Flat-PLS	–
	185	100, 150, 185	–
	2100	5500	–
	■ Supports top-mounting of the busbar support with components on the cover system pitch pattern ■ Integral busbar shielding in the cover section to prevent accidental arcing ■ Top-mounting of the cover section and quick retrofitting of components without removing the cover section	■ Tested system solutions to the internationally valid standard IEC 61 439-1 and simple creation of the design verification ■ High levels of short-circuit withstand strength up to I_{cw} 100 kA for 1 sec./I_{pk} 220 kA ■ Tested accidental arcing protection to IEC 61 641	■ Distribution enclosures as wall-mounted and free-standing enclosures for individual population with modular elements
	330	351	379

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Busbar systems

RiLine Compact busbar system

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Component adaptor 257
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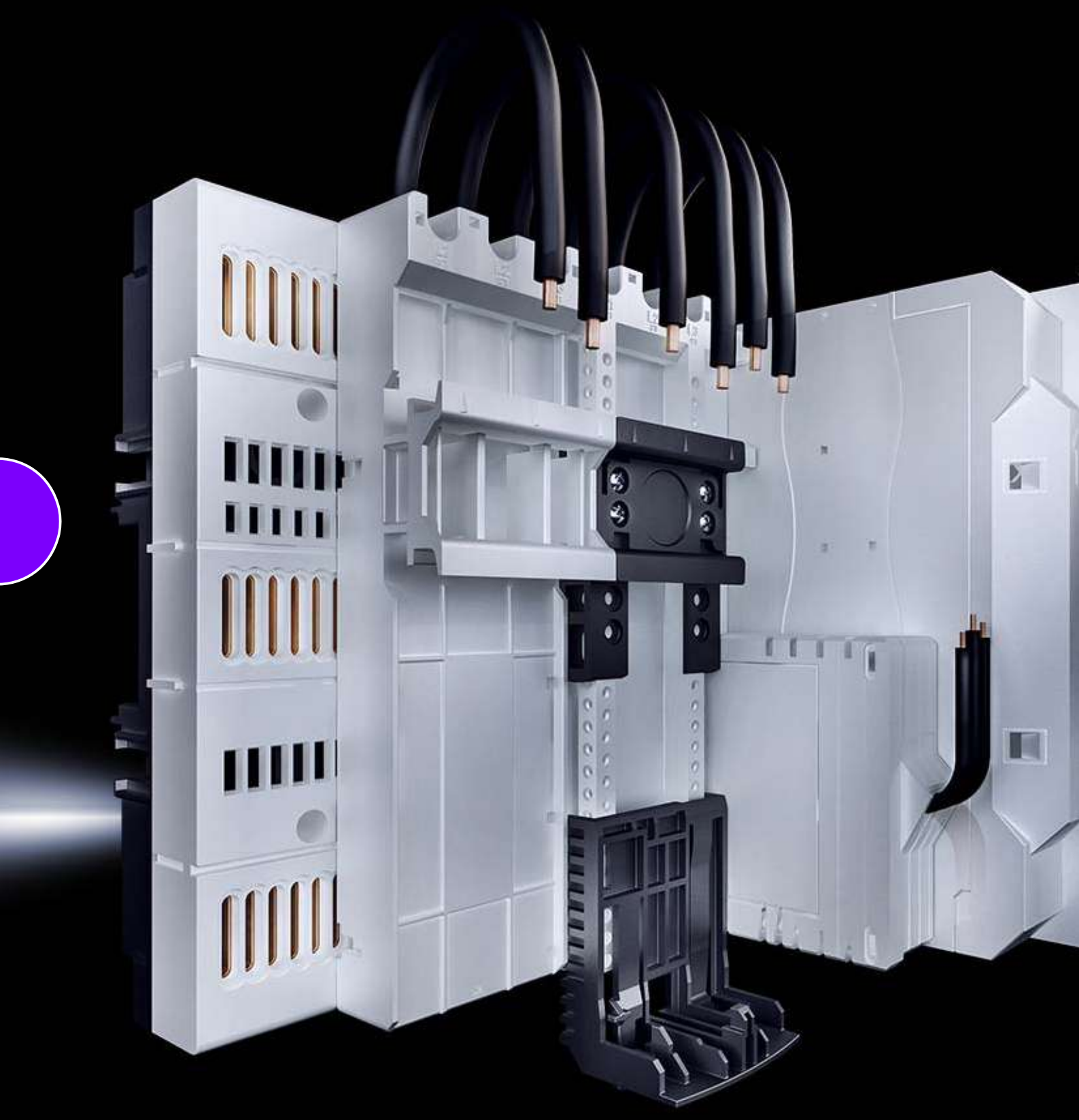
Mini-PLS busbar system (40 mm)

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RiLine busbar system (60 mm)

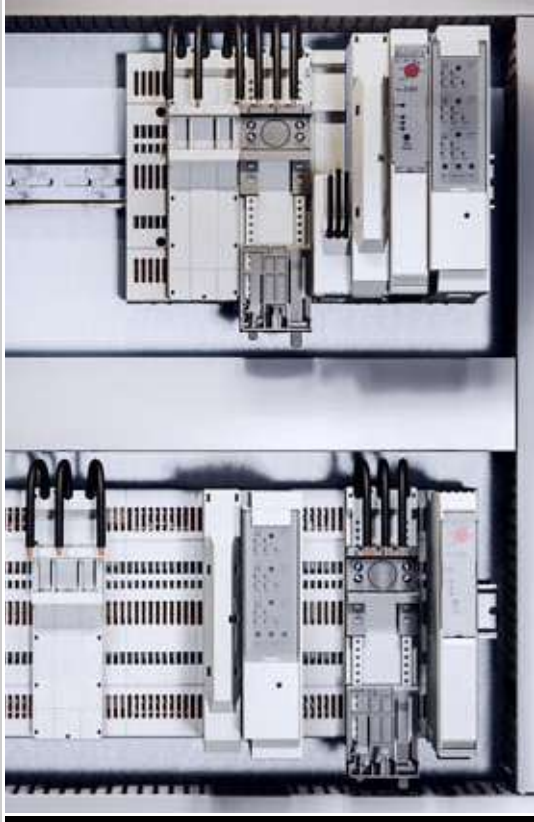
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RiLine Compact – Power distribution in a confined space



Tested system solution for power distribution

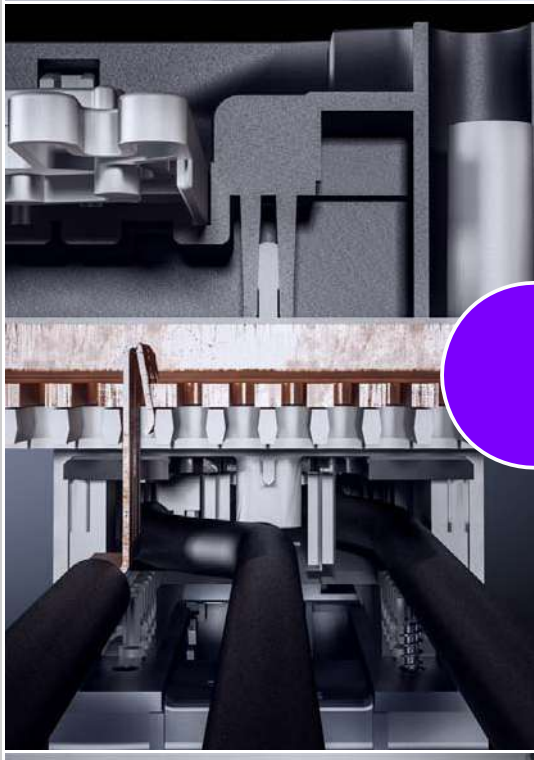
- Compact layout for controlgear up to 125 A
- Fast, space-saving assembly compared with conventional wiring technology
- All-round shock-hazard-protected busbar system
- Standardised, standard-compliant assembly of a wide range of component types
- Compliant with standards IEC 61 439 and UL 508

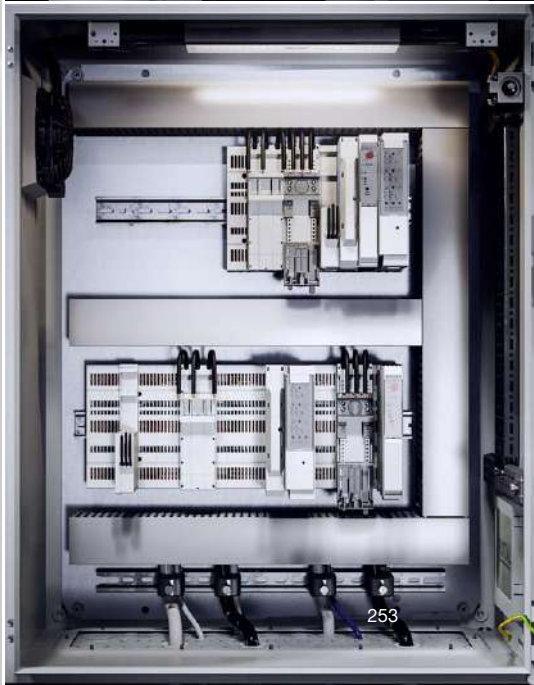




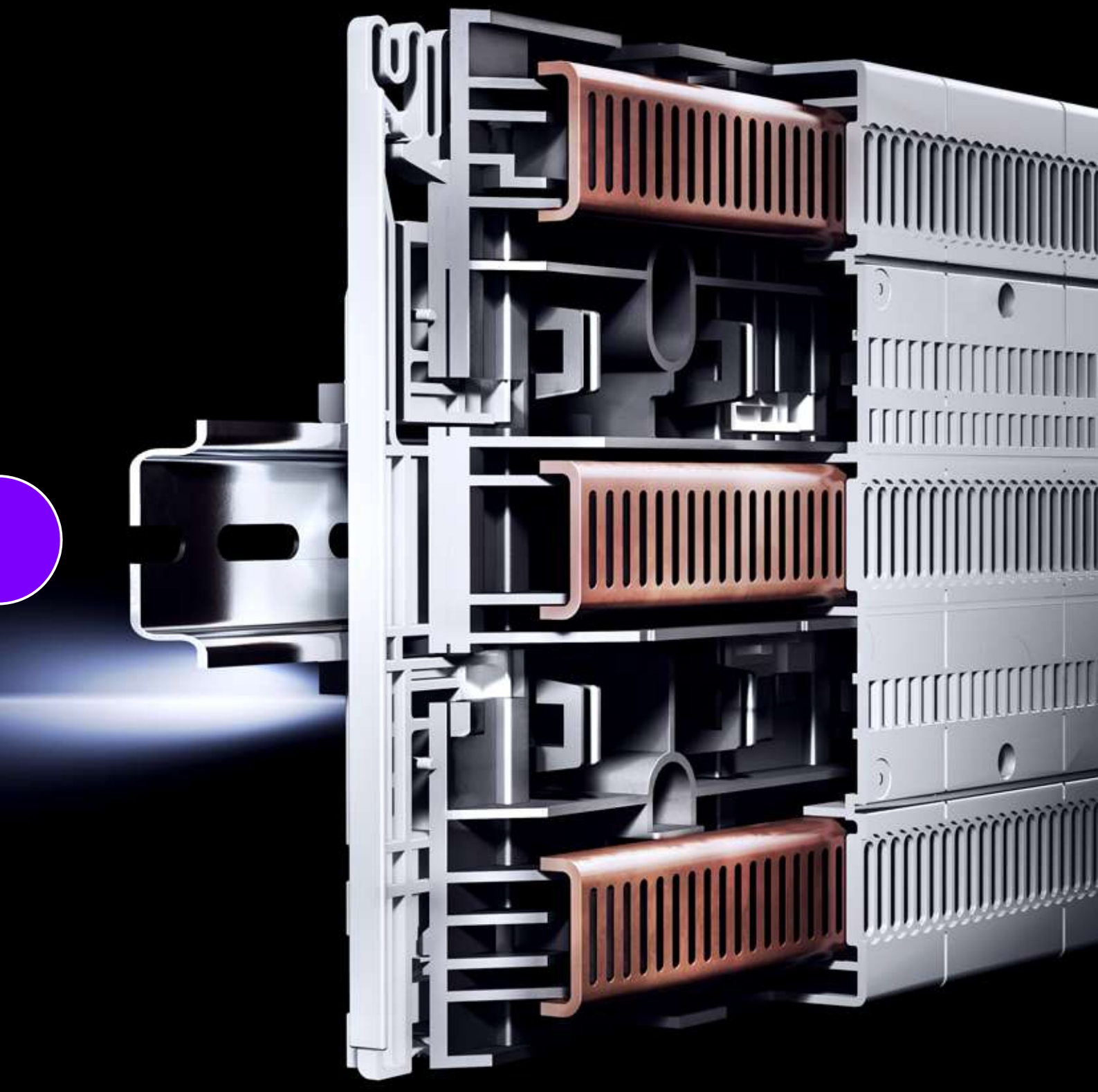
Compact, safe installation

- Tool-free attachment of components with plug-in mounting; electrical contact is made automatically
- Special latching ensures secure attachment of components. When dismantling, the latch can only be released with a screwdriver.
- Requires less space than conventionally wired motor controlgear





RiLine Compact – Simple, tool-free installation





Tool-free installation made easy

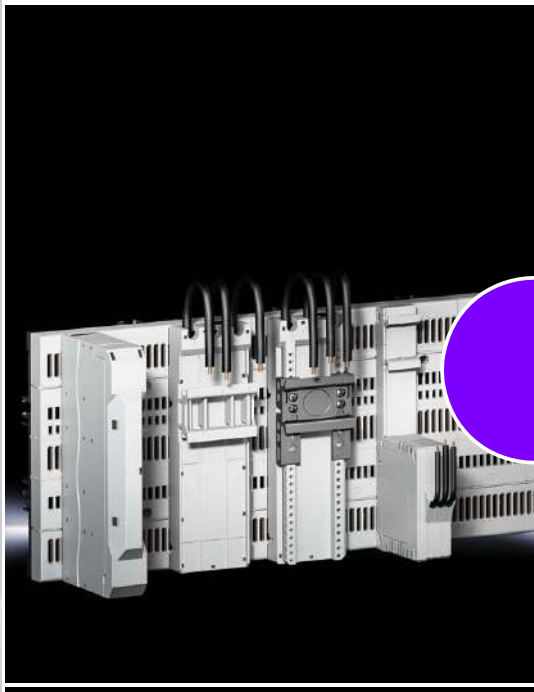
- RiLine Compact Board in 225 and 405 mm width
- Simply latches onto a 35 x 7.5 mm and 35 x 15 mm support rail
- Components are quickly top mounted without the need for tools
- Pre-punched pitch units of 45 mm in the board allow secure, fast positioning of components on the seamless 4.5 mm contact pitch pattern





Safe adaptor connection

- Screw-free connection with maintenance-free tension spring technology in the bus-bar connection adaptor
- Component adaptors meet the particular requirements of IEC 61 439 for laying active conductors
- Component adaptors with integral fuse holders on a 22.5 mm build width, for space-saving assembly
- Component adaptors optionally with fixed or adjustable support rail for the secure assembly of switchgear and protective gear



Space-saving installation of function modules

- Motor controller for motor starters and reversing starters up to 4 kW with electronic overload protection
- Electronic power switch for clocked heating output control
- Hybrid technology for higher switching frequency and minimal heat loss
- Long service life



RiLine Compact



Busbar connection adaptor/component adaptor Page 257 **Motor controller/electronic power switch** Page 258

Function:
– Shock-hazard-protected busbar board for the safe accommodation and contacting of components with plug-in mounting
– For snap-on mounting onto 35 x 7.5/15 mm busbars or for direct attachment to the mounting plate

Material:
– Polyamide
– Polycarbonate
– E-Cu
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Protection category to IEC 60 529:
– IP 20

Supply includes:
– Integral busbars

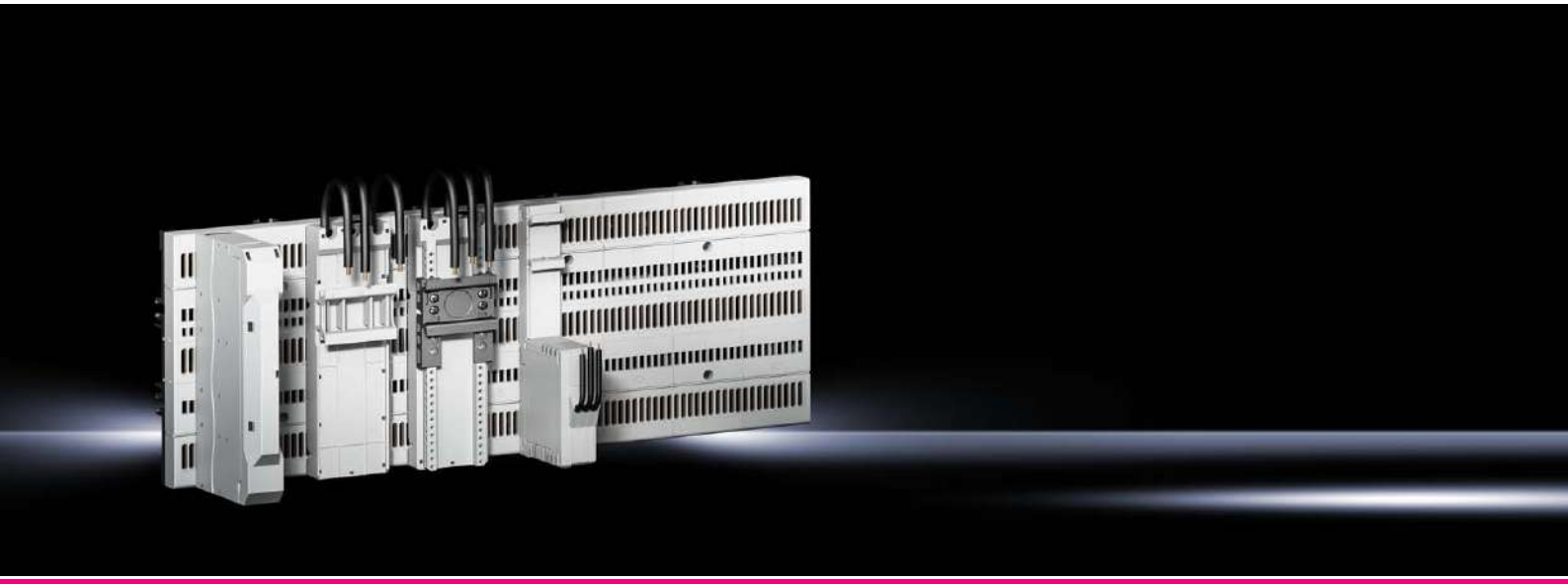
Approvals:
– UL listed

Standards:
– UL 508
– EN 61 439

Note:
– The technical data given here may vary for UL applications.

Board

Width mm	P. of	225	405
Height mm		160	160
Depth mm		45.1	45.1
Rated max. current A		125	125
Rated operating voltage V		690 (AC), 600 (DC)	690 (AC), 600 (DC)
Number of poles		3-pole	3-pole
No. of space units @ 45 mm		5	9
Model No.	1 pc(s).	**9635.000**	**9635.010**



Board Page 256 **Motor controller/electronic power switch** Page 258 **Accessories** Page 259

Function of busbar connection adaptor:
– Direct connection of conductors using spring terminals

Function of component adaptor:
– For assembly of switchgear and protective gear with support rail attachment

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Approvals:
– UL

Note:
– The technical data given here may vary for UL applications.

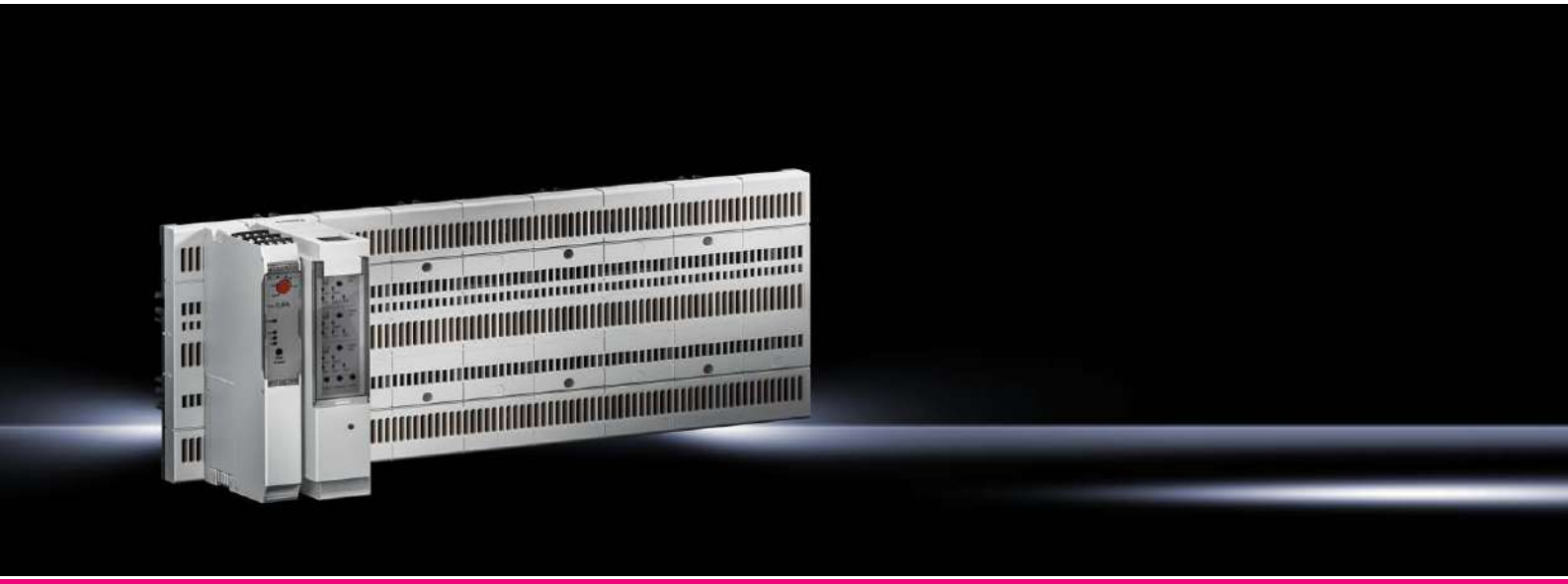
Busbar connection adaptors/component adaptors

Version		Busbar connection adaptor	Component adaptor	Component adaptor, Basic	
Rated max. current A		80	16	16	32
Rated operating voltage V		690 (AC), 600 (DC)	690 (AC), 600 (DC)	690 (AC), 600 (DC)	690 (AC), 600 (DC)
Number of poles		3-pole	3-pole	3-pole	3-pole
Cable outlet		Top/bottom	–	–	–
Connection of round conductors		AWG 6 – 16	–	–	–
Connection of round conductors, fine wire with/without wire end ferrule mm²		1.5 – 16	–	–	–
Connection of round conductors, single-wire mm²		1.5 – 10	–	–	–
Connection of round conductors, multi-wire mm²		16	–	–	–
Connection cables, version		–	AWG 14	AWG 14	AWG 10
Connection cables, length mm		–	125	120	100
Conditional rated short-circuit current Icc kA		–	50	–	–
For fuse		–	10 x 38 mm/Class CC (max. 16 A)	–	–
No. of fixed support rails/height mm		–	1/10	1/10	1/10
Width mm		22.5	22.5	45	45
Height mm		160	160	160	160
Depth mm		115.5	80.2	34.5	34.5
Model No.		**9635.200**	**9635.300**	**9635.310**	**9635.320**
	P. of	4 pc(s).	1 pc(s).	4 pc(s).	4 pc(s).

Component adaptor

Version	P. of	Component adaptor, Comfort			
Rated max. current A		16	25	32	45
Rated operating voltage V		690 (AC), 600 (DC)	690 (AC), 600 (DC)	690 (AC), 600 (DC)	690 (AC), 600 (DC)
Number of poles		3-pole	3-pole	3-pole	3-pole
Connection cables, version		AWG 14	AWG 12	AWG 10	AWG 8
Connection cables, length mm		120	100	100	100
No. of adjustable support rails/height mm		1/10	1/10	1/10	1/10
Width mm		45	45	45	45
Height mm		160	160	160	160
Depth mm		34.5	34.5	34.5	34.5
Model No.	4 pc(s).	**9635.330**	**9635.340**	**9635.350**	**9635.360**

RiLine Compact



Board Page 256 **Busbar connection adaptors/component adaptors** Page 257

Function of motor controller:
- For controlling motors as a direct or reversing starter with integral over-ride prevention and emergency-off
- The hybrid technology used facilitates wear-free, frequent switching by semi-conductors
- During operation, mechanical contacts ensure a low heat loss
- Space-saving configuration thanks to the minimal build width

Function of electronic power switch:
- For controlling ohmic loads, such as clocked heating controllers
- The hybrid technology used facilitates wear-free, frequent switching by semi-conductors
- During operation, mechanical contacts ensure a low heat loss

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Note:
- The technical data given here may vary for UL applications.

Motor controller

Rated max. current A	P. of	0.6	2.4	9
Rated operating voltage V		500	500	500
Rated frequency Hz		50/60	50/60	50/60
Heat loss W		2.8	5.5	12
Adjustable current monitoring A		0.075 – 0.6	0.18 – 2.4	1.5 – 9
Number of poles		3-pole	3-pole	3-pole
Connection of round conductors mm^2		0.14 – 2.5	0.14 – 2.5	0.14 – 2.5
Width mm		22.5	22.5	22.5
Height mm		160	160	160
Depth mm		114	114	114
For fuses		10 x 38 mm gR 20 A	10 x 38 mm gR 20 A	10 x 38 mm gR 20 A
Conditional rated short-circuit current Icc kA		5	5	5
Approvals		UL	UL	UL
Model No.	1 pc(s).	**9635.400**	**9635.410**	**9635.420**

Electronic power switch

Rated max. current A	P. of	25	25
Rated operating voltage V		42 – 400	42 – 500
Rated frequency Hz		50/60	50/60
Heat loss W		20	20
Adjustable current monitoring A		16/20/25	16/20/25
Number of poles		3-pole	3-pole
Connection of round conductors mm^2		0.2 – 6	0.2 – 6
Width mm		36	36
Height mm		160	160
Depth mm		130	130
For fuses		10 x 38 mm 32 A	Class CC 30 A
Conditional rated short-circuit current Icc kA		30	30
Approvals		–	UL
Model No.	1 pc(s).	**9635.500**	**9635.510**

Support rail

for component adaptor, Comfort
For attaching equipment and reverser combinations.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 9005

Width mm	P. of	**Model No.**
45	10 pc(s).	**9635.600**



Positioner

for component adaptor, Comfort
For attaching equipment and reverser combinations.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

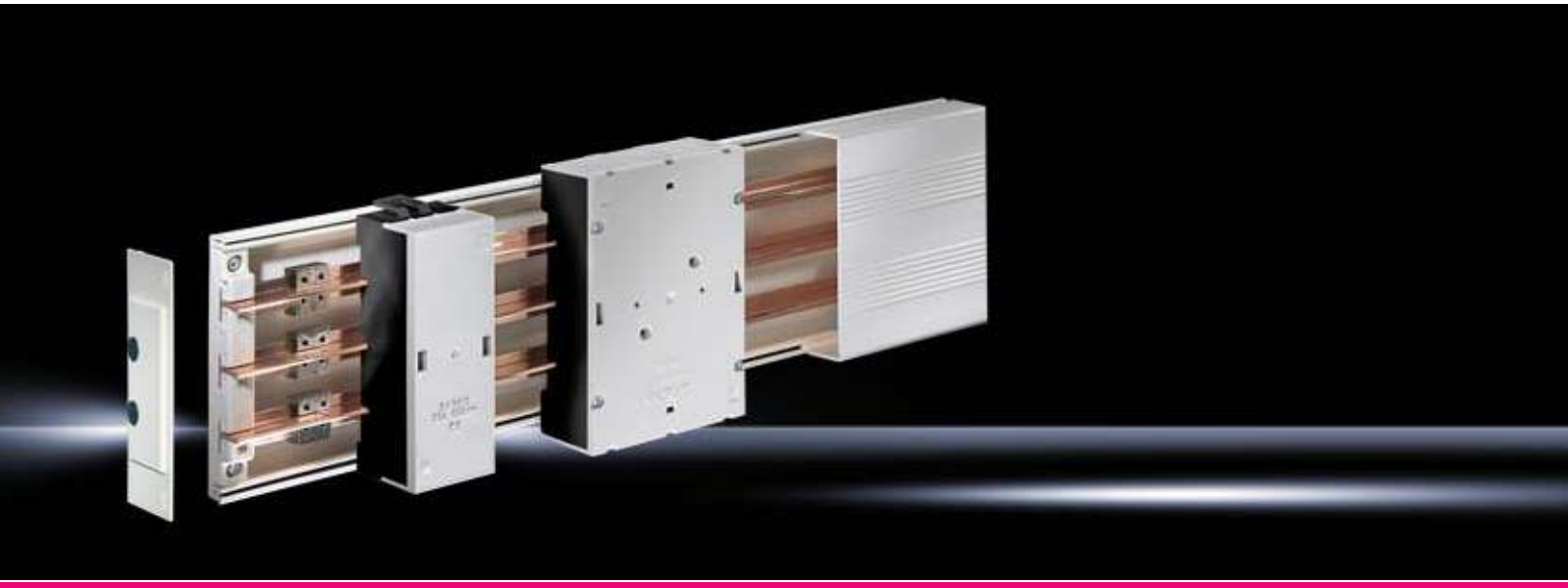
Colour:
– RAL 9005

Width mm	Height mm	For switchgear make (model)	P. of	**Model No.**
45	55	Siemens (S00, S0)	10 pc(s).	**9635.610**
45	35	Eaton PKZ/PKE size 0	10 pc(s).	**9635.620**





Mini-PLS busbar system (40 mm)



Component adaptors Page 262 **Fuse elements** Page 261

Busbar supports, busbar connection adaptors

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

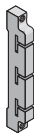
Colour:
– RAL 7035
– RAL 9011 (busbar connection adaptor chassis)

Contact hazard protection

Material:
– Thermally modified hard PVC
– Fire protection corresponding to UL 94-V0

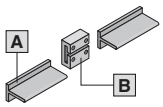
Colour:
– RAL 7035

Mini-PLS busbar supports (3-pole)



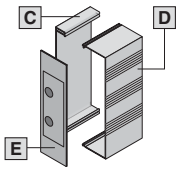
Busbar support, suitable for top mounting	P. of	■
Bar centre distance mm		40
Approvals		UR
Model No.	4 pc(s).	**9600.000**

A Mini-PLS special busbars E-Cu, bar thickness 3 mm, bar cross-section 120 mm²



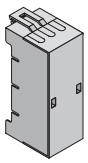
Length mm		P. of	500	700	1100	1500
Approvals			UR	UR	UR	UR
Model No.		3 pc(s).	**9601.000**	**9602.000**	**9603.000**	**9624.000**
Accessories						
B Busbar connectors	Approvals		**Model No.**			
	UR	3 pc(s).	**9611.000**			

Mini-PLS contact hazard protection



Components	Approvals	Length mm	P. of	**Model No.**
C Base tray	UR	500	1 pc(s).	**9605.000**
		700	1 pc(s).	**9606.000**
		1100	1 pc(s).	**9607.000**
D Cover section	UR	250	1 pc(s).	**9608.000**
		500	1 pc(s).	**9609.000**
E End cover	UR	–	2 pc(s).	**9610.000**

Mini-PLS busbar connection adaptors (3-pole)



				Page
Rated max. current A	P. of	63	250	
Rated operating voltage V, ~		690, 3~	690, 3~	
Cable outlet		Top/bottom	Top/bottom	
Connection of round conductors mm²		1.5 – 35	10 – 120	
Clamping area for laminated copper bars, W x H mm		10 x 8	17 x 15	
Width mm		54	115	
Height mm		160	182	
Approvals		UR	UR	
Model No.	1 pc(s).	**9613.000**	**9612.000**	
Accessories				
Laminated copper bars		■	■	311



Busbar system Page 260 **Busbar connection adaptor** Page 260 **Component adaptor** Page 262/263

Bus-mounting fuse base

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– Chassis: RAL 9011
– Cover: RAL 7035

NH fuse-switch disconnector

Material:
– Fibreglass-reinforced polyamide
– Fire protection corresponding to UL 94-V0
– Contact tracks: Silver-plated hard copper

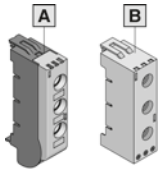
Colour:
– RAL 7035

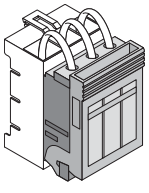
Basis of test:
– IEC/DIN EN 60 947-3
– DIN EN 60 269-2 (fuse inserts)

Busbar adaptor

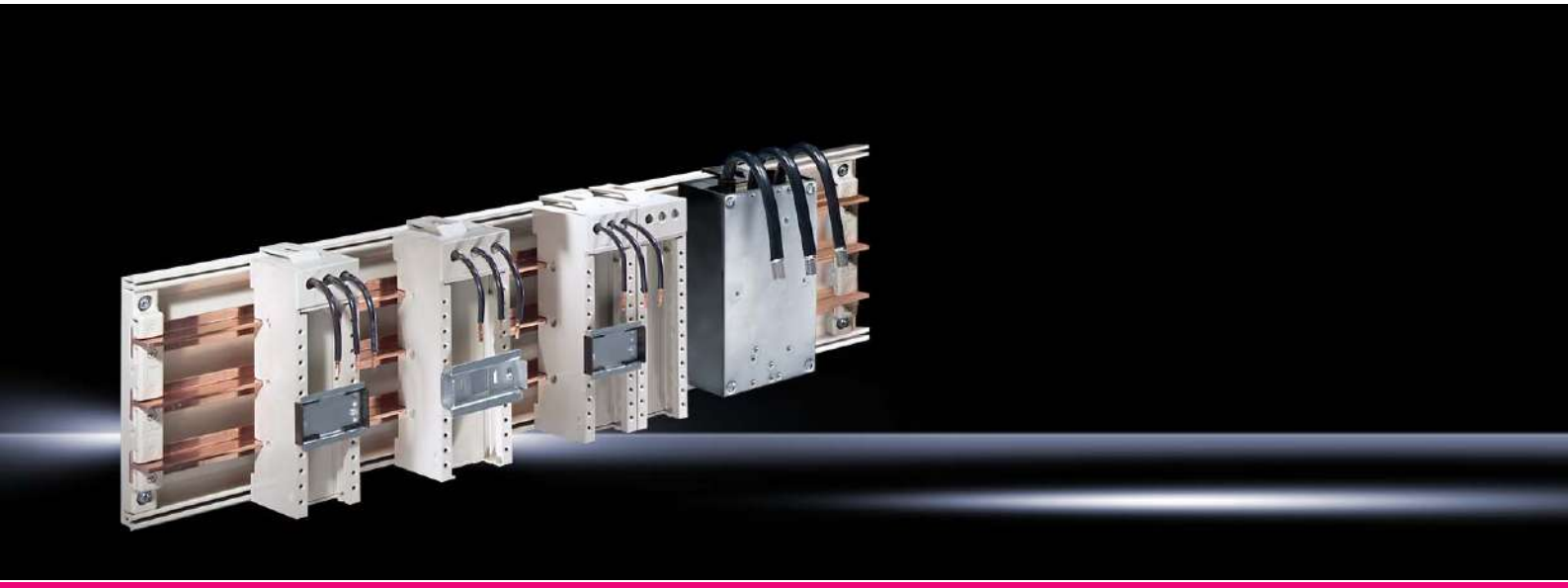
Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 9011

Mini-PLS bus-mounting fuse base (3-pole)			**A**	**B**
	Fuse insert	P. of	D 02-E18	D 02-E18
	Rated max. current A		63	63
	Rated operating voltage V, ~		400, 3~	400, 3~
	Connection of round conductors mm²		1.5 – 16	1.5 – 16
	Connection type		Spring terminal	Screw clamp
	Width mm		39.5	38
	Height mm		189	160
	Model No.	1 pc(s).	**9630.005**	**9630.000**

NH fuse-switch disconnector size 000 (3-pole)				
	Rated operating current max. A	P. of	100	Page
	Rated operating voltage V, ~		690, 3~	
	Cable outlet		Top/bottom	
	Connection type		Box terminal	
	Connection of round conductors mm²		1.5 – 50	
	Clamping area for laminated copper bars, W x H mm		10 x 10	
	Width mm		89	
	Height mm		141.5	
	Model No.	1 pc(s).	**3431.000**	291
Also required				
Mini-PLS busbar adaptor (3-pole)				
With connection cables mm²			35	
Width mm			90	
Height mm			160	
Model No.		1 pc(s).	**9629.100**	
Accessories				
Micro-switch		5 pc(s).	3071.000	322

Mini-PLS component adaptor

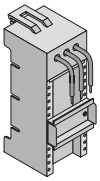


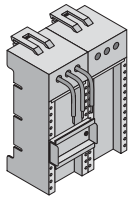
Busbar system Page 260 **Busbar connection adaptor** Page 260 **Fuse elements** Page 261 **Switchgear assignment** Page 263

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035
– RAL 9011 (9629.000)

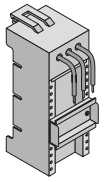
Rated current max. 12 – 25 A

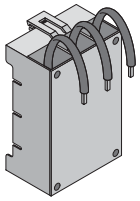




Rated max. current A		P. of	12	25	25	25	25	25	25	Page
Rated operating voltage V, ~			690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles			3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	
Connection cables			AWG 14	AWG 12	AWG 12	AWG 12	AWG 12	AWG 12	AWG 12	
Support rails quantity/height mm			1/7.5	1/7.5	1/15	1/7.5	1/15	1/7.5	1/7.5	
Width mm			45	45	45	54	54	72	90	
Height mm			160	160	160	160	160	160	160	
Approvals			–	–	–	UR	UR	UR	–	
Model No.		1 pc(s).	**9614.110**	**9614.100**	**9615.100**	**9614.000**	**9615.000**	**9625.000**	**9629.010**	
Accessories										
Insert strip		2 pc(s).	9623.000	9623.000	9623.000	9623.000	9623.000	9623.000	9623.000	316
Support rails, height 7.5 mm	Width 45 mm	10 pc(s).	9320.150	9320.150	9320.150	–	–	–	9320.150	316
	Width 54 mm	10 pc(s).	–	–	–	3548.000	3548.000	–	–	316

Rated current max. 40 – 100 A





Rated max. current A			P. of	40	40	40	100	Page
Rated operating voltage V, ~				690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles				3-pole	3-pole	3-pole	3-pole	
Connection cables				AWG 10	AWG 10	AWG 10	35 mm²	
Support rails quantity/height mm				1/7.5	1/15	1/7.5	–	
Width mm				54	54	72	90	
Height mm				160	160	160	160	
Approvals				UR	UR	UR	–	
Model No.			1 pc(s).	**9616.000**	**9617.000**	**9627.000**	**9629.000**	
Accessories								
Insert strip			2 pc(s).	9623.000	9623.000	9623.000	–	316
Support rails	Height 7.5 mm	Width 54 mm	10 pc(s).	3548.000	3548.000	–	–	316
	Height 15 mm	Width 72 mm	5 pc(s).	–	–	–	9320.120	316

Switchgear assignment – Mini-PLS component adaptors 12 A/25 A

Make/model	Model No.
ABB	
MS116	9614.100
MS325	9614.000
MS450 (max. 25 A)	9614.000
MS451 (max. 25 A)	9614.000
Eaton	
PKZM0 (up to 25 A)	9614.100
PKZM01 (up to 25 A)	9614.100
PKZM4 (up to 25 A)	9614.000
PKE12	9614.100
PKE32 (up to 25 A)	9614.100
PKE65 (up to 25 A)	9614.000
Schneider Electric	
GV2-P (up to 25 A)	9614.100
GV2-RT	9614.100
GV2-LE10	9614.100
GV3 (up to 25 A)	9614.100

Make/model	Model No.
Siemens	
S0	
3RV10 21...	9614.100
3RV20 21... (up to 25 A)	9614.100
S00	
3RV10 11...	9614.100[1)]
3RV20 11...	9614.100[1)]
S2	
3RV10 31... (up to 25 A)	9614.000

[1)] Support rail must be offset

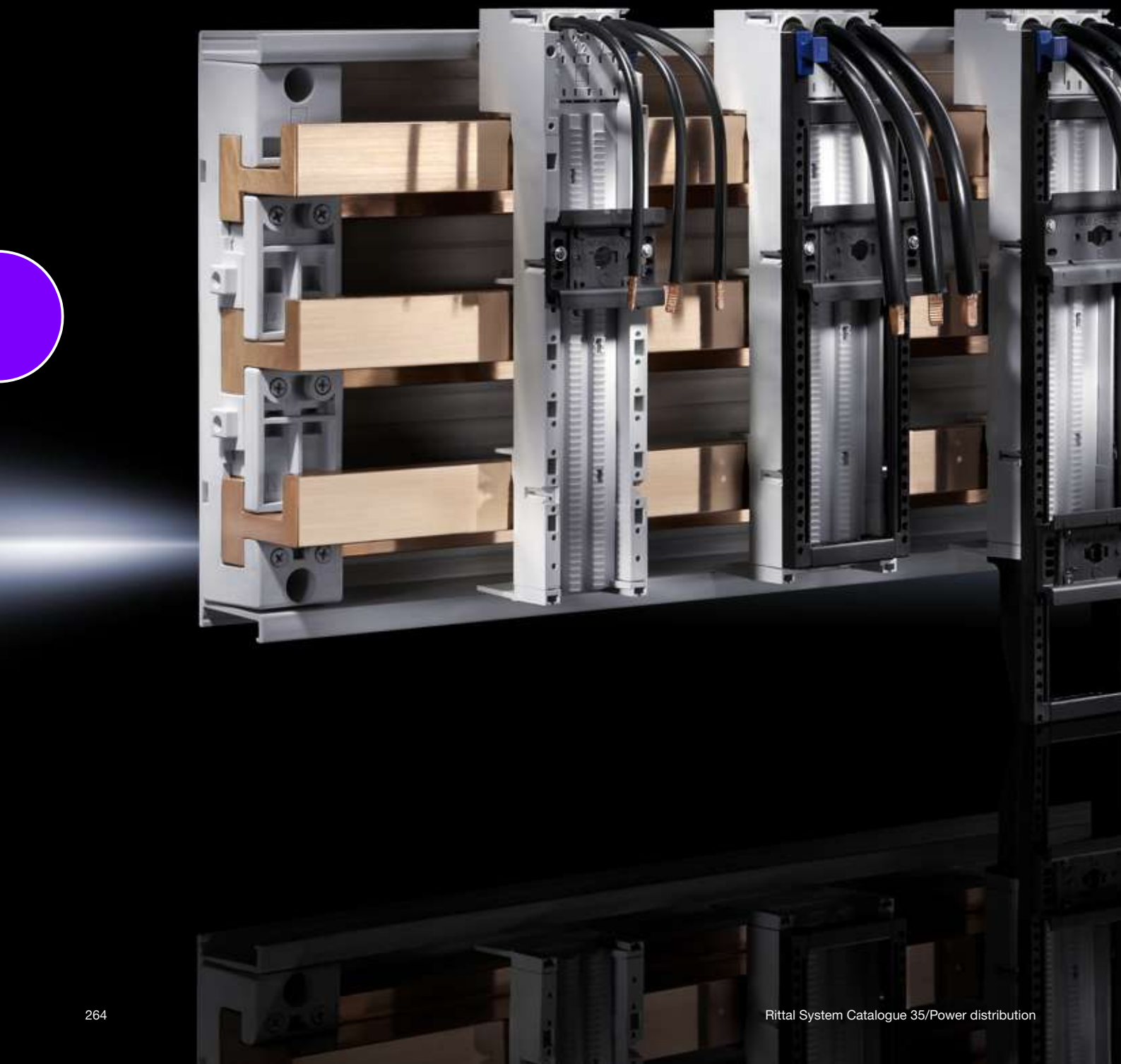
Switchgear assignment – Mini-PLS component adaptors 40 A/100 A

Make/model	Model No.	Accessories Model No.
ABB		
MS450 (max. 40 A)	9617.000	–
MS451 (max. 40 A)	9629.000	9320.120
MS495	9629.000	9320.120
MS496	9629.000	9320.120
MS497	9629.000	9320.120
Tmax		
T1	9629.000	–
T2	9629.000	–
Eaton		
NZM 1	9629.000	–
PKZ2	9627.000	–
PKZM4 (max. 40 A)	9617.000	–
PKZM4	9629.000	9320.120

Make/model	Model No.	Accessories Model No.
Schneider Electric		
NS 80	9629.000	–
GV3 (max. 40 A)	9616.000	–
GV3	9629.000	9320.120
Siemens		
S2		
3RV10 31... (max. 40 A)	9616.000	–
3RV10 31...	9629.000	9320.120
S3		
3RV1341/42	9629.000	9320.120

Rittal – The System.

Faster – better – everywhere.



RiLine

Busbar systems 3-/4-pole and DC

Support + bars + contact hazard protection

- Flat copper bar system, see page 266
- PLS busbar system, see page 268
- Accessories, see page 306





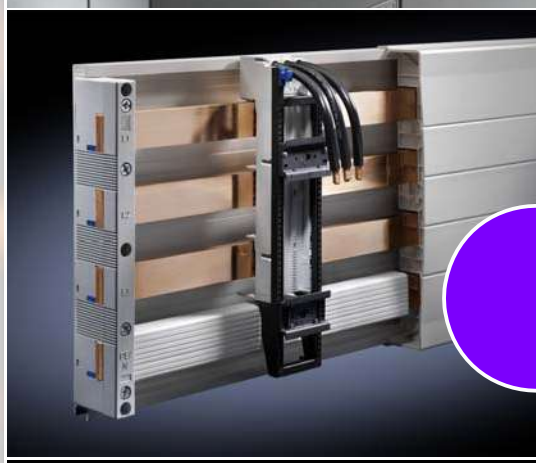
Connection system 3- and 4-pole

- Busbar connection adaptor, see page 270
- Connection clamps, see page 313
- Connection block, see page 315
- Accessories, see page 313



Component adaptors 3- and 4-pole

- OM adaptor, see page 273
- Circuit-breaker component adaptor, see page 280
- Accessories, see page 317



Fuse elements 3-pole

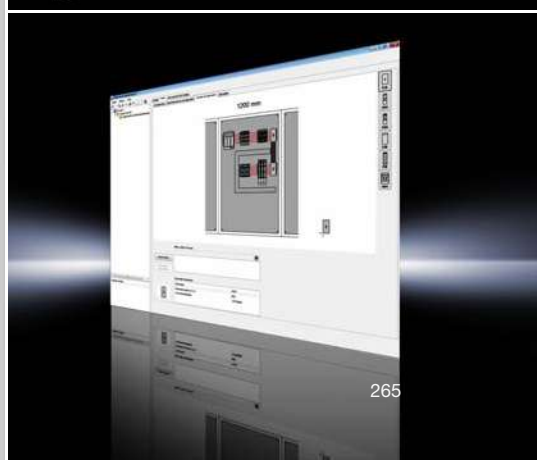
- Bus-mounting fuse bases, see page 289
- NH fuse-switch disconnectors, see page 291
- NH slimline fuse-switch disconnectors, see page 301
- Fuse holders, see page 303
- Accessories, see page 321



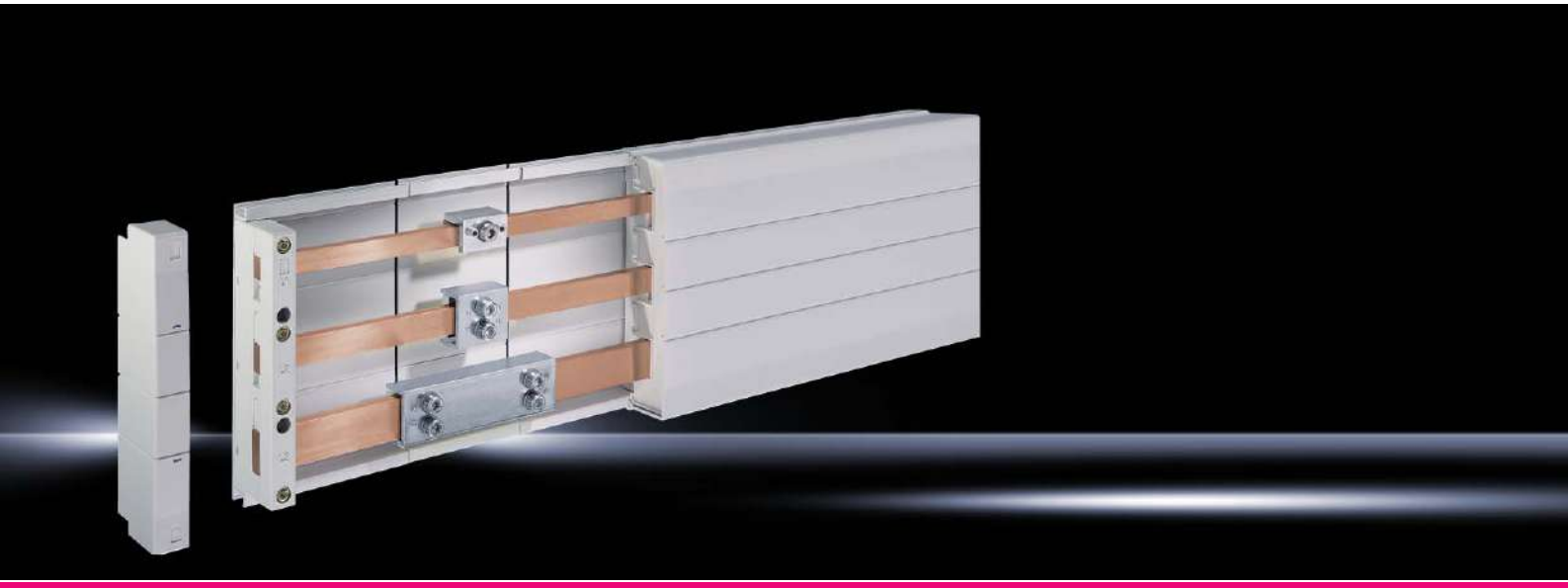
Rittal Power Engineering with update function

see page 377

- Configuration of RiLine busbar systems
- Simple component selection, integral switchgear database
- Automatic calculation of rated currents and heat losses



RiLine busbar systems up to 800 A (60 mm)



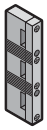
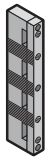
Busbar connection adaptors Page 270 **Component adaptors** Page 280 **Fuse elements** Page 289

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– UL approval only valid in conjunction with AC applications
– The use of a base tray is required for UL applications.

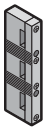
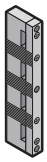
Flat copper busbar system

Busbar supports							
							
Number of poles		P. of	3-pole	3-pole	3-pole	4-pole	Page
Bar centre distance mm			60	60	60	60	
External attachment			■	–	–	–	
Internal attachment			–	■	■	■	
For busbars mm	12 x 5/10		■	■	–	■	
	15 x 5 – 30 x 10		■	■	■	■	
Rated operating voltage V, ~			1000, 3~	1000, 3~	1000, 3~	1000, 3~	
			–	–	1500 (DC)	–	
Approvals			–	–	UL	UL	
Model No.		4 pc(s).	**9340.010**	**9340.000**	**9340.050**	**9340.004**	
Also required							
Spacers when using busbars 12 x 5/10 mm			■	■	–	■	
Model No.		12 pc(s).	9340.090	9340.090	–	9340.090	307

Flat copper busbar system

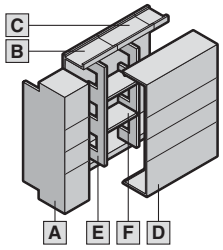
Busbar supports



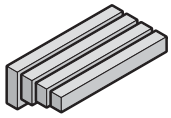
Number of poles	P. of	3-pole	3-pole	3-pole	4-pole	Page
Bar centre distance mm		60	60	60	60	
Model No.	4 pc(s).	9340.010	9340.000	9340.050	9340.004	266
Also required						
Spacer when using busbars 12 x 5/10 mm		■	■	–	■	
Model No.	12 pc(s).	9340.090	9340.090	–	9340.090	307

Contact hazard protection



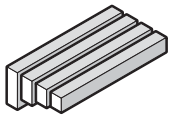
Components	Length mm	Approvals	P. of	Model No.			Model No.	Page
A End covers	–	UL	2 pc(s).	**9340.070**	**9340.070**	**9340.070**	**9340.074**	–
B Base trays	500	UL	2 pc(s).	–	9340.100	9340.100	–	312
	700	UL	2 pc(s).	–	9340.110	9340.110	–	312
	900	UL	2 pc(s).	–	9340.120	9340.120	–	312
	1100	UL	2 pc(s).	–	9340.130	9340.130	9340.134	312
	2400	UL	1 pc(s).	–	9340.170	–	–	312
C Base tray infills	100	UL	2 pc(s).	–	9340.140	9340.140	–	312
D Cover sections	700	UL	2 pc(s).	–	9340.200	9340.200	–	312
	1100	UL	2 pc(s).	–	9340.210	9340.210	9340.214	312
E Support panels	–	UL	5 pc(s).	–	9340.220	9340.220	9340.224	312
F Cross members	160	UL	2 pc(s).	–	–	9340.230	–	312

Busbars E-Cu, length: 2400 mm/bar



Dimensions mm	Max. rated current A acc. to DIN[1]	Max. rated current A acc. to UL 508	Approvals	P. of	Model No.			Model No.	Page
12 x 5	210	160	UL	6 pc(s).	3580.000	3580.000	3580.000	3580.000	308
12 x 10	340	320	UL	6 pc(s).	3580.100	3580.100	3580.100	3580.100	308
15 x 5	260	200	UL	6 pc(s).	3581.000	3581.000	3581.000	3581.000	308
15 x 10	360	400	UL	6 pc(s).	3581.100	3581.100	3581.100	3581.100	308
20 x 5	274	270	UL	6 pc(s).	3582.000	3582.000	3582.000	3582.000	308
20 x 10	427	540	UL	3 pc(s).	3585.005	3585.005	3585.005	3585.005	308
25 x 5	327	330	UL	6 pc(s).	3583.000	3583.000	3583.000	3583.000	308
30 x 5	379	400	UL	6 pc(s).	3584.000	3584.000	3584.000	3584.000	308
30 x 10	573	810	UL	3 pc(s).	3586.005	3586.005	3586.005	3586.005	308

CUPONAL busbars, length: 2400 mm/bar



Dimensions mm	Max. rated current A acc. to DIN[1]	Max. rated current A acc. to UL 508	Approvals	P. of	Model No.			Model No.	Page
20 x 5	235	–	–	6 pc(s).	–	3582.020	3582.020	–	307
20 x 10	363	–	–	3 pc(s).	–	3585.020	3585.020	–	307
30 x 5	328	–	–	6 pc(s).	–	3584.020	3584.020	–	307
30 x 10	493	–	–	3 pc(s).	–	3586.020	3586.020	–	307

Accessories

Components	For busbars mm	Approvals	P. of	Model No.			Model No.	Page
Busbar connectors for single connection	12 x 5 – 15 x 10	UL	3 pc(s).	9350.075	9350.075	9350.075	9350.075	309
	20 x 5 – 30 x 10	UL	3 pc(s).	9320.020	9320.020	9320.020	9320.020	309
Busbar connectors for baying connection[2]	20 x 5 – 30 x 10	UL	3 pc(s).	9320.030	9320.030	9320.030	9320.030	309
Busbar cover sections Length: 1000 mm/section	12 x 5 – 30 x 10	UR	10 pc(s).	3092.000	3092.000	3092.000	3092.000	308
	12/15 x 5	UR	4 pc(s).	9350.010	9350.010	9350.010	9350.010	308
	12/15 x 10	UR	4 pc(s).	9350.060	9350.060	9350.060	9350.060	308

[1] Maximum rated value of an exposed, uncovered busbar at a temperature increase of 30 K to DIN 43 671
[2] Connection from enclosure to enclosure

RiLine busbar systems 800 A/1600 A (60 mm)



Connection system Page 270 **Component adaptors** Page 280 **Fuse elements** Page 289

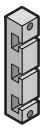
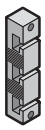
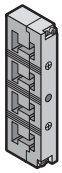
Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– UL approval only valid in conjunction with AC applications
– The use of a base tray is required for UL applications.

PLS busbar system

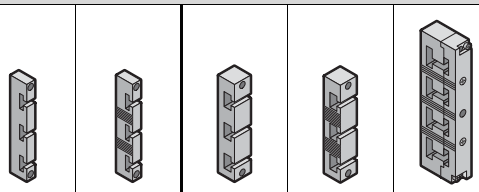
Busbar supports

						 PLS 1600 PLUS
For Rittal system	P. of	**PLS 800**		**PLS 1600**		
Number of poles		3-pole	3-pole	3-pole	3-pole	4-pole
Bar centre distance mm		60	60	60	60	60
Internal attachment		■	■	■	■	■
Busbar support, suitable for top mounting		■	■	■	■	–
Rated operating voltage V, ~		1000, 3~	1000, 3~	1000, 3~	1000, 3~	1000, 3~
		–	1500 (DC)	–	1500 (DC)	–
Approvals		–	UL	–	UL	UL
Model No.	4 pc(s).	**9341.000**	**9341.050**	**9342.000**	**9342.050**	**9342.004**

RiLine busbar systems 800 A/1600 A (60 mm)

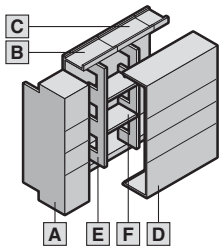
PLS busbar system

Busbar supports



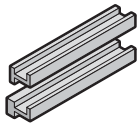
For Rittal system	P. of	PLS 800		PLS 1600			Page
Number of poles		3-pole	3-pole	3-pole	3-pole	4-pole	
Bar centre distance mm		60	60	60	60	60	
Model No.	4 pc(s).	9341.000	9341.050	9342.000	9342.050	9342.004	268

Contact hazard protection



Components	Length mm	Approvals	P. of	Model No.		Model No.			Page
A End covers	–	UL	2 pc(s).	**9341.070**	**9341.070**	**9342.070**	**9342.070**	**9342.074**	–
B Base trays	500	UL	2 pc(s).	9341.100	9341.100	9342.100	9342.100	–	312
	700	UL	2 pc(s).	9341.110	9341.110	9342.110	9342.110	–	312
	900	UL	2 pc(s).	9341.120	9341.120	9342.120	9342.120	–	312
	1100	UL	2 pc(s).	9341.130	9341.130	9342.130	9342.130	9342.134	312
	2400	UL	1 pc(s).	9341.170	–	9342.170	–	–	312
C Base tray infills	100	UL	2 pc(s).	9341.140	9341.140	9342.140	9342.140	–	312
D Cover sections	700	UL	2 pc(s).	9340.200	9340.200	9340.200	9340.200	–	312
	1100	UL	2 pc(s).	9340.210	9340.210	9340.210	9340.210	9340.214	312
E Support panels	–	UL	5 pc(s).	9340.220	9340.220	9340.220	9340.220	9340.224	312
F Cross members	160	UL	2 pc(s).	–	9340.230	–	9340.230	–	312

PLS special busbars E-Cu



Version			P. of	PLS 800	PLS 1600	Page
Bar cross-section mm²				300	900	
Bar thickness mm				5	10	
Max. rated current A acc. to		DIN[1]		684	1368	
		UL 508		890	1500	
Length mm	For enclosure width mm	Approvals		Model No.	Model No.	
495	600	UL	3 pc(s).	3524.000	3527.000	309
695	800	UL	3 pc(s).	3525.000	3528.000	309
895	1000	UL	3 pc(s).	3525.010	3528.010	309
1095	1200	UL	3 pc(s).	3526.000	3529.000	309
2400	variable	UL	1 pc(s).	3509.000	3516.000	309

Accessories

Components		Approvals	P. of	Model No.	Model No.	Page
PLS busbar connectors	Single connection	UL	3 pc(s).	3504.000	3514.000	310
	Bayed connection[2]	UL	3 pc(s).	3505.000	3515.000	310
PLS expansion connector[3]		UR	3 pc(s).	9320.060	9320.070	310

[1] Maximum rated value of an exposed, uncovered busbar at a temperature increase of 30 K to DIN 43 671
[2] Connection from enclosure to enclosure
[3] 2 PLS busbar connectors (single connectors) are required to fit one expansion connector

Connection adaptors



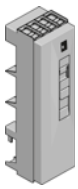
Busbar system Page 266 **OM adaptors** Page 273 **Circuit-breaker component adaptors** Page 280 **Fuse elements** Page 289

Material:
- Cover: ABS
- Chassis: Polyamide (PA 6.6).
- Chassis 3439.010: Fibreglass-reinforced, thermoplastic polyester (PBT)
- Fire protection corresponding to UL 94-V0

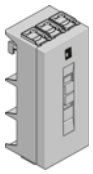
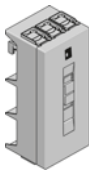
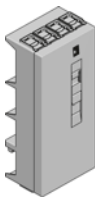
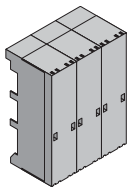
Colour:
- RAL 7035

Note:
- The technical data may vary for UL applications
- UL approval only applies in conjunction with AC application
- The rated operating voltage for DC applications depends on the busbar arrangement in the busbar support 9340.050/ 9341.050/9342.050.

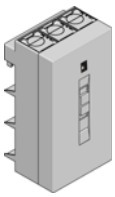
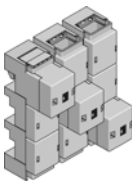
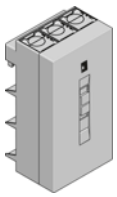
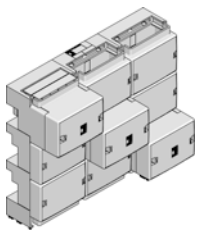
Rated current max. 63 – 125 A

							
Rated current max. A	Packs of	63	63	125	125	125	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 4~	
Rated operating voltage (L1 + L2) V		–	1000 (DC)	–	1000 (DC)	–	
Rated operating voltage (L1 + L3) V		–	1500 (DC)	–	1500 (DC)	–	
Number of poles		3-pole	3-pole	3-pole	3-pole	4-pole	
Cable outlet		Top	Bottom	Top/bottom	Bottom	Top/bottom	
Connection of round conductors, fine wire with wire end ferrule mm²		2.5 - 10	2.5 - 10	10 - 25	10 - 25	10 - 25	
Connection of round conductors, multi-wire mm²		2.5 - 10	2.5 - 10	16 - 35	16 - 35	16 - 35	
Connection of round conductors, single-wire mm²		2.5 - 10	2.5 - 10	–	–	–	
Clamping area for laminated copper bars (W x H) mm		–	–	10 x 7.8	10 x 7.8	10 x 7.8	
Clamping area for laminated copper bars with 5 mm bar thickness (W x H)		–	–	–	–	–	
Clamping area for laminated copper bars with 10 mm bar thickness (W x H)		–	–	–	–	–	
Width mm		20	20	55	55	75	
Height mm		215	215	210	210	270	
Approvals		UL	UL	UR	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9342.200**	**9342.210**	**9342.220**	**9342.240**	**9342.224**	
Accessories							
Laminated copper bars		–	–	see page	see page	see page	311
Connection adaptor expansion set		–	–	–	–	–	

Rated current max. 250 – 600 A

						
Rated current max. A	Packs of	250	250	250	600	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 4~	690, 3~	
Rated operating voltage (L1 + L2) V		–	1000 (DC)	–	–	
Rated operating voltage (L1 + L3) V		–	1500 (DC)	–	–	
Number of poles		3-pole	3-pole	4-pole	3-pole	
Cable outlet		Top/bottom	Bottom	Top/bottom	Top/bottom	
Connection of round conductors, fine wire with wire end ferrule mm²		35 - 120	35 - 120	35 - 120	35 - 240	
Connection of round conductors, multi-wire mm²		35 - 120	35 - 120	35 - 120	35 - 240	
Connection of round conductors, single-wire		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		18.5 x 15.5	18.5 x 15.5	18.5 x 15.5	24 x 21	
Clamping area for laminated copper bars with 5 mm bar thickness (W x H)		–	–	–	–	
Clamping area for laminated copper bars with 10 mm bar thickness (W x H)		–	–	–	–	
Width mm		90	90	118	180	
Height mm		210	210	270	247	
Approvals		UL	UL	UL	–	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9342.250**	**9342.270**	**9342.254**	**3439.010**	
Accessories						
Laminated copper bars		see page	see page	see page	see page	311
Connection adaptor expansion set		–	–	–	–	

Rated current max. 800 – 1600 A

						
Rated current max. A	Packs of	800	800	800	1600	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Rated operating voltage (L1 + L2) V		–	1000 (DC)	1000 (DC)	1000 (DC)	
Rated operating voltage (L1 + L3) V		–	1500 (DC)	1500 (DC)	1500 (DC)	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Bottom	Top/bottom	
Connection of round conductors, fine wire with wire end ferrule mm²		95 - 185	95 - 185	95 - 185	–	
Connection of round conductors, multi-wire mm²		95 - 300	95 - 300	95 - 300	–	
Connection of round conductors, single-wire		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		33 x 20	–	33 x 20	–	
Clamping area for laminated copper bars with 5 mm bar thickness (W x H) mm		–	33 x 26	–	65 x 27	
Clamping area for laminated copper bars with 10 mm bar thickness (W x H) mm		–	33 x 21	–	65 x 22	
Width mm		129	150	129	255	
Height mm		246	210	246	210	
Approvals		UR	UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9342.280**	**9342.310**	**9342.300**	**9342.320**	
Accessories						
Laminated copper bars		see page	see page	see page	see page	311
Connection adaptor expansion set	1 pc(s).	–	9342.314	–	9342.324	272

Connection adaptor expansion set



Busbar system Page 266 **OM adaptors** Page 273 **Circuit-breaker component adaptors** Page 280 **Fuse elements** Page 289

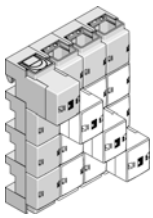
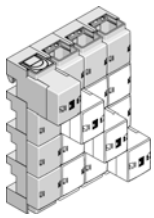
Single-pole extra set to complement the 3-pole connection adaptor for 4-pole configurations.

Material:
- Cover: ABS
- Chassis: Polyamide (PA 6.6).
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Note:
- The technical data may vary for UL applications
- UL approval only applies in conjunction with AC application

for 4-pole configuration

				
To fit Model No.	Packs of	9342.310	9342.320	Page
Rated current max. A		800	1600	
Rated operating voltage V, ~		690, 1~	690, 1~	
Number of poles		Single-pole	Single-pole	
Connection of round conductors, fine wire with wire end ferrule mm^2		95 - 185	–	
Connection of round conductors, multi-wire mm^2		95 - 300	–	
Clamping area for laminated copper bars with 5 mm bar thickness (W x H) mm		33 x 26	65 x 27	
Clamping area for laminated copper bars with 10 mm bar thickness (W x H) mm		33 x 21	65 x 22	
Width mm		50	85	
Height mm		270	270	
Approvals		UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	
For bar thickness mm		5/10	5/10	
Model No.	1 pc(s).	**9342.314**	**9342.324**	
Accessories				
Laminated copper bars		see page	see page	311

OM adaptors



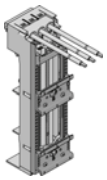
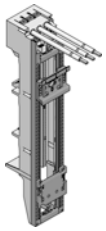
Busbar system Page 266 **Connection adaptors** Page 270 **Fuse elements** Page 289 **Allocation of switchgear** Page 285

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– Chassis: RAL 7035

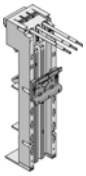
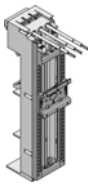
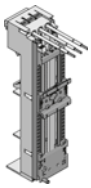
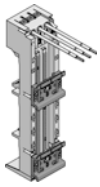
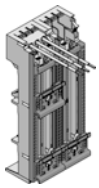
Note:
– The technical data may vary for UL applications

Rated current max. 16 A, with connection cables

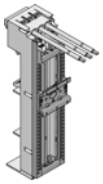
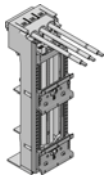
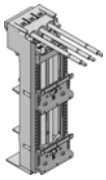
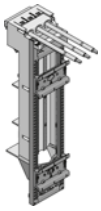
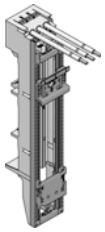
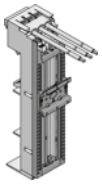
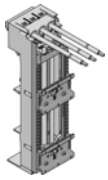
				
Rated current max. A	Packs of	16	16	Page
Rated operating voltage V, ~		690, 3~	690, 3~	
Number of poles		3-pole	3-pole	
Connection cables, design		AWG 12	AWG 12	
Connection cables, length mm		165	165	
With support frame mm		45 x 170	45 x 237	
With support frame support		–	■	
With PinBlock		–	■	
With insert strips		–	–	
Support rails Qty/height mm		2 / 10	1 / 10	
Support rail version		TS 45D TS 45D-V	TS 45D	
Width mm		45	45	
Height mm		208	272	
Approvals		–	UL	
For bar systems with centre-to-centre spacing mm		60	60	
For bar thickness mm		5/10	5/10	
Model No.	1 pc(s).	**9340.780**	**9340.760**	
Accessories				
Connection pin	20 pc(s).	9340.280	9340.280	318
Insert strip	2 pc(s).	9340.290	9340.290	318
Support rails 35 x 10 mm		see page	see page	317
OM supports		see page	see page	279
PinBlock	5 pc(s).	9342.800	–	318

OM adaptors

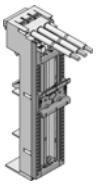
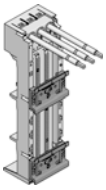
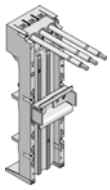
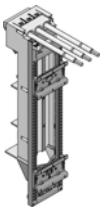
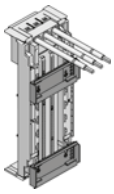
Rated current max. 25 A, with connection cables

							
Rated current max. A	Packs of	25	25	25	25	25	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	
Connection cables, design		AWG 12	AWG 12	AWG 12	AWG 12	AWG 12	
Connection cables, length mm		130	130	130	130	130	
With support frame mm		–	45 x 170	45 x 170	–	45 x 170	
With support frame support		–	–	–	–	–	
With PinBlock		–	–	■	–	–	
With insert strips		–	–	–	–	–	
Support rails Qty/height mm		1 / 10	1 / 10	1 / 10	2 / 10	3 / 10	
Support rail version		TS 45C	TS 45C	TS 45C	TS 45D	TS 45D TS 45D-V	
Width mm		45	45	45	45	90	
Height mm		208	208	208	208	208	
Approvals		UL	UL	UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.310**	**9340.340**	**9340.370**	**9340.320**	**9340.400**	
Accessories							
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	9340.280	–	318
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	9340.290	–	318
Support rails 35 x 10 mm		see page	see page	see page	see page	see page	317
OM supports		see page	see page	see page	see page	–	279
PinBlock	5 pc(s).	–	9342.800	–	–	9342.800	318

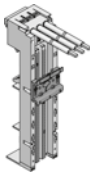
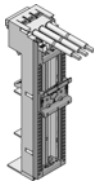
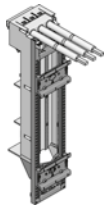
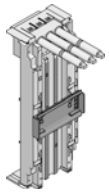
Rated current max. 32 A, with connection cables

									
Rated current max. A	Packs of	32	32	32	32	32	32	32	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	
Connection cables, design		AWG 10	AWG 10	AWG 10	AWG 10	AWG 10	AWG 10	AWG 10	
Connection cables, length mm		130	130	165	130	165	130	130	
With support frame mm		45 x 170	45 x 170	45 x 170	45 x 237	45 x 237	55 x 170	55 x 170	
With support frame support		–	–	–	■	■	–	–	
With PinBlock		–	–	–	–	■	–	–	
With insert strips		–	–	–	–	–	–	–	
Support rails Qty/height mm		1 / 10	2 / 10	2 / 10	2 / 10	1 / 10	1 / 10	2 / 10	
Support rail version		TS 45C	TS 45D TS 45D-V	TS 45D TS 45D-V	TS 45D TS 45D-V	TS 45D	TS 55D	TS 55D TS 55D-V	
Width mm		45	45	45	45	45	55	55	
Height mm		208	208	208	272	272	208	208	
Approvals		UL	UL	–	UL	UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.350**	**9340.380**	**9340.790**	**9340.390**	**9340.770**	**9340.460**	**9340.470**	
Accessories									
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	9340.280	9340.280	9340.280	9340.280	318
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	9340.290	9340.290	9340.290	9340.290	318
Support rails 35 x 10 mm		see page	see page	see page	see page	see page	see page	see page	317
OM supports		see page	see page	see page	see page	see page	see page	see page	279
PinBlock	5 pc(s).	9342.800	9342.800	9342.800	9342.800	9342.800	9342.810	9342.810	318

Rated current max. 40 A, with connection cables

							
Rated current max. A	Packs of	40	40	40	40	40	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	
Connection cables, design		AWG 8	AWG 8	AWG 8	AWG 8	AWG 8	
Connection cables, length mm		130	130	130	130	130	
With support frame mm		55 x 170	–	–	55 x 237	–	
With support frame support		–	–	–	■	–	
With PinBlock		–	–	–	–	–	
With insert strips		–	–	–	–	■	
Support rails Qty/height mm		1 / 10	2 / 10	1 / 15	2 / 10	2 / 7.5	
Support rail version		TS 55D	TS 55D	Metal	TS 55D TS 55D-V	Metal	
Width mm		55	55	55	55	75	
Height mm		208	208	208	272	208	
Approvals		UL	UL	UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.720**	**9340.740**	**9340.750**	**9340.730**	**9340.710**	
Accessories							
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	9340.280	9340.280	318
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	9340.290	–	318
Support rails 35 x 10 mm		see page	see page	see page	see page	–	317
OM supports		see page	see page	see page	see page	see page	279
PinBlock	5 pc(s).	9342.810	–	–	9342.810	–	318

Rated current max. 65 A, with connection cables

						
Rated current max. A	Packs of	65	65	65	65	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Connection cables, design		AWG 6	AWG 6	AWG 6	AWG 6	
Connection cables, length mm		130	130	130	130	
With support frame mm		–	55 x 170	55 x 237	–	
With support frame support		–	–	■	–	
With PinBlock		–	–	–	–	
With insert strips		–	–	–	■	
Support rails Qty/height mm		1 / 10	1 / 10	2 / 10	1 / 7.5	
Support rail version		TS 55E	TS 55E	TS 55E TS 55D-V	Metal	
Width mm		55	55	55	75	
Height mm		208	208	272	208	
Approvals		UL	UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.410**	**9340.430**	**9340.450**	**9340.700**	
Accessories						
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	–	318
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	–	318
Support rails 35 x 10 mm		see page	see page	see page	–	317
OM supports		see page	see page	see page	see page	279
PinBlock	5 pc(s).	–	9342.810	9342.810	–	318

OM adaptors

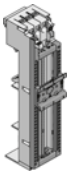
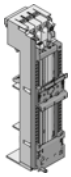
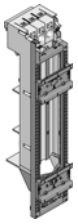
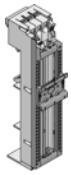


Busbar system Page 266 **Connection adaptors** Page 270 **Fuse elements** Page 289 **Allocation of switchgear** Page 285

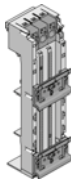
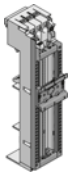
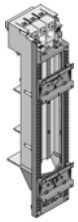
Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– Chassis: RAL 7035

Rated current max. 32 A, with tension spring clamp

								
Rated current max. A	Packs of	32	32	32	32	32	32	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	
Connection of round conductors mm²		1.5 - 6	1.5 - 6	1.5 - 6	1.5 - 6	1.5 - 6	1.5 - 6	
With support frame mm		–	–	45 x 170	45 x 170	45 x 237	55 x 170	
With support frame support		–	–	–	–	■	–	
With PinBlock		–	–	–	■	–	–	
Support rails Qty/height mm		1 / 10	2 / 10	1 / 10	1 / 10	2 / 10	1 / 10	
Support rail version		TS 45C	TS 45D	TS 45C	TS 45C	TS 45D TS 45D-V	TS 55D	
Width mm		45	45	45	45	45	55	
Height mm		208	208	208	208	272	208	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.510**	**9340.520**	**9340.530**	**9340.550**	**9340.560**	**9340.660**	
Accessories								
Cable set		see page	see page	see page	see page	see page	see page	319
Twin cords		–	–	–	–	–	–	
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	9340.280	9340.280	9340.280	318
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	9340.290	9340.290	9340.290	318
Support rails 35 x 10 mm		see page	see page	see page	see page	see page	see page	317
OM supports		see page	see page	see page	see page	see page	see page	279
PinBlock	5 pc(s).	–	–	9342.800	9342.800	9342.800	9342.810	318

Rated current max. 65 A, with tension spring clamp

						
Rated current max. A	Packs of	65	65	65	65	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Connection of round conductors mm²		2.5 - 16	2.5 - 16	2.5 - 16	2.5 - 16	
According to a heat dissipation test to IEC 61 439-1, a current carrying capacity of up to 80 A is supported		■	■	■	■	
With support frame mm		–	–	55 x 170	55 x 237	
With support frame support		–	–	–	■	
With PinBlock		–	–	–	–	
Support rails Qty/height mm		1 / 10	2 / 10	1 / 10	2 / 10	
Support rail version		TS 55E	TS 55E TS 55D	TS 55E	TS 55E TS 55D-V	
Width mm		55	55	55	55	
Height mm		208	208	208	272	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.610**	**9340.620**	**9340.630**	**9340.650**	
Accessories						
Cable set		see page	see page	see page	see page	319
Twin cords		see page	see page	see page	see page	319
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	9340.280	318
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	9340.290	318
Support rails 35 x 10 mm		see page	see page	see page	see page	317
OM supports		see page	see page	see page	see page	279
PinBlock	5 pc(s).	–	–	9342.810	9342.810	318



OM adaptors

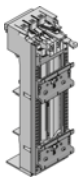
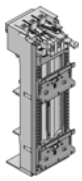


Busbar system Page 266 **Connection adaptors** Page 270 **Fuse elements** Page 289

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– Chassis: RAL 7035

Rated current max. 25 A, with plug-in cable outlet

				
Rated current max. A	Packs of	25	25	Page
Rated operating voltage V, ~		690, 3~	690, 3~	
Number of poles		3-pole	3-pole	
Connection of round conductors mm^2		1.5 - 4	1.5 - 4	
With support frame mm		45 x 170	55 x 170	
Support rails Qty/height mm		2 / 10	2 / 10	
Support rail version		TS 45D TS 45D-V	TS 55D TS 55D-V	
Width mm		45	55	
Height mm		208	208	
Approvals		UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	
For bar thickness mm		5/10	5/10	
Model No.	1 pc(s).	**9340.910**	**9340.930**	
Product-specific scope of supply				
Connector with connection facility for 3 main contacts (1.5 – 4 mm^2)		■	■	
Accessories				
Cable set		see page	see page	319
Support rails 35 x 10 mm		see page	see page	317

OM supports



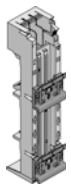
Busbar system Page 266 **Connection adaptors** Page 270 **Fuse elements** Page 289

For mounting of switchgear with external power supply.

Material:
- Polyamide (PA 6.6)
- Fire protection corresponding to UL 94-V0

Colour:
- Chassis: RAL 7035

without contact system

					
Number of poles	Packs of	3-pole	3-pole	3-pole	Page
With support frame mm		45 x 170	55 x 237	–	
With support frame support		–	■	–	
With PinBlock		■	–	–	
Support rails Qty/height mm		–	1 / 10	2 / 10	
Support rail version		–	TS 55D-V	TS 45D	
Width mm		45	55	45	
Height mm		208	272	208	
Approvals		UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	
For bar thickness mm		5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.260**	**9340.270**	**9340.300**	
Accessories					
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	318
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	318
Support rails 35 x 10 mm		see page	see page	see page	317

Circuit-breaker component adaptors



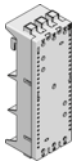
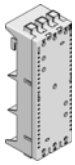
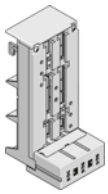
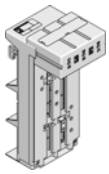
Busbar system Page 266 **Connection adaptors** Page 270 **Fuse elements** Page 289

Material:
- Polyamide (PA 6.6)
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

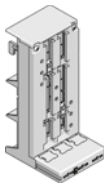
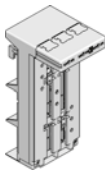
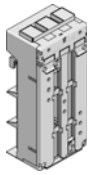
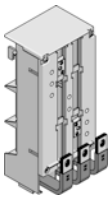
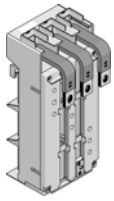
Note:
- Cable outlet: Switch outlet or as outgoing cable from the switchgear
- The technical data may vary for UL applications

Rated current max. 100 – 125 A, 3-pole

						
Rated current max. A	Packs of	100	100	125	125	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top	Bottom	Top	Bottom	
Type of connection		Box terminal	Box terminal	Box terminal	Box terminal	
Connection of round conductors mm²		10 - 35	10 - 35	35 - 120	35 - 120	
Clamping area for laminated copper bars (W x H) mm		10 x 7.8	10 x 7.8	18.5 x 15.5	18.5 x 15.5	
For switchgear make (model)		ABB (MS 495, MS 496, MS 497) Eaton (PKZ2) Schneider Electric (GV3ME80) Siemens (S3)	ABB (MS 495, MS 496, MS 497) Eaton (PKZ2) Schneider Electric (GV3ME80) Siemens (S3)	ABB (S1, S2, T1, T1 UL, T2, T2 UL, XT1, XT2) Allen Bradley (140-CMN) Eaton (NZM1, NZM1 UL, BZM B1) GE (FD160) OEZ (BC160N) Schneider Electric (NS80, NSC100, NSE75, NSE100, NSX100) Schrack (MC1) Siemens (3RV13 53, 3VT1, 3VA10, 3VA11, 3VA51) Terasaki (E125, S125)	ABB (S1, S2, T1, T1 UL, T2, T2 UL, XT1, XT2) Allen Bradley (140-CMN) Eaton (NZM1, NZM1 UL, BZM B1) GE (FD160) OEZ (BC160N) Schneider Electric (NS80, NSC100, NSE75, NS100, NSX100) Schrack (MC1) Siemens (3RV13 53, 3VT1, 3VA10, 3VA11, 3VA51) Terasaki (E125, S125)	
Width mm		72	72	90	90	
Height mm		210	210	225	225	
Approvals		UL	UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9342.400**	**9342.410**	**9342.540**	**9342.550**	
Product-specific scope of supply						
Terminal cover		–	–	■	■	
Sliding blocks		–	–	■	■	
Accessories						
Support rails 35 x 15 mm	5 pc(s).	9320.120	9320.120	–	–	320
Connection bracket	3 pc(s).	–	–	9342.570	9342.570	320
Insert strip		–	–	–	–	

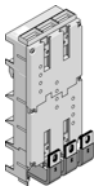
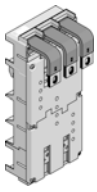
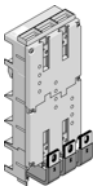
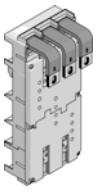
Circuit-breaker component adaptors

Rated current max. 160 – 250 A, 3-pole

							
Rated current max. A	Packs of	160	160	250	250	250	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top	Bottom	Bottom	Top	Bottom	
Type of connection		Box terminal	Box terminal	Box terminal	–	–	
Connection of round conductors mm^2		35 - 120	35 - 120	35 - 120	–	–	
Clamping area for laminated copper bars (W x H) mm		18.5 x 15.5	18.5 x 15.5	18.5 x 15.5	–	–	
For switchgear make (model)		ABB (S1, S2, T1, T2, XT1, XT2) Allen Bradley (140-CMN) Eaton (NZM1, BZM B1) GE (FD160) Legrand (DPX 125, DPX 160) OEZ (BC160N) Schneider Electric (NS80, NSC100, NSX100) Schrack (MC1) Siemens (3RV13 53, 3VT1, 3VA10, 3VA11) Terasaki (E125, S125)	ABB (S1, S2, T1, T2, XT1, XT2) Allen Bradley (140-CMN) Eaton (NZM1, BZM B1) GE (FD160) Legrand (DPX 125, DPX 160) OEZ (BC160N) Schneider Electric (NS80, NSC100, NSX100) Schrack (MC1) Siemens (3RV13 53, 3VT1, 3VA10, 3VA11) Terasaki (E125, S125)	ABB (S3, T3, T4/320 A, T3 UL, T4 UL, XT3, XT4) Allen Bradley (140U-J) Eaton (NZM2, NZM2 UL, BZM B2) GE (FE160, FE250, FD160) Legrand (DPX 250) Mitsubishi (NF125-SGW/HGW, NF160-SGW/HGW) OEZ (BD250N, BD250S) Schneider Electric (NS(X)100, NS(X)160, NS(X)250, GV7, NSF150, NSF250) Schrack (MC2) Siemens (VL150(X) UL, VL160(X), VL250, VL250 UL, 3RV10 63, 3RV13 63, 3RV13 64, 3VT2, 3VA12/20/21/22, 3VA52/61/62) Terasaki (H125, L125, H160, L160, S160, E250, H250, L250)	ABB (S3, T3, T4/320 A, T3 UL, T4 UL, XT3, XT4) Allen Bradley (140 U-J) Eaton (NZM2, NZM2 UL, BZM B2) GE (FE160, FE250, FD160) Legrand (DPX 250) Mitsubishi (NF125-SGW/HGW, NF160-SGW/HGW) OEZ (BD250N, BD250S) Schneider Electric (NS(X)100, NS(X)160, NS(X)250, GV7, NSF150, NSF250) Schrack (MC2) Siemens (VL150(X) UL, VL160(X), VL250, VL250 UL, 3RV10 63, 3RV13 63, 3RV13 64, 3VT2, 3VA12/20/21/22, 3VA52/61/62) Terasaki (H125, L125, H160, L160, S160, E250, H250, L250)	ABB (S3, T3, T4/320 A, T3 UL, T4 UL, XT3, XT4) Allen Bradley (140U-J) Eaton (NZM2, NZM2 UL, BZM B2) GE (FE160, FE250, FD160) Mitsubishi (DPX 250) Mitsubishi (NF125-SGW/HGW, NF160-SGW/HGW) OEZ (BD250N, BD250S) Schneider Electric (NS(X)100, NS(X)160, VL160, GV7, NSF150, NSF250) Schrack (MC2) Siemens (VL150(X) UL, VL160(X), VL250, VL250 UL, 3RV10 63, 3RV13 63, 3RV13 64, 3VT2, 3VA12/20/21/22, 3VA52/61/62) Terasaki (H125, L125, H160, L160, S160, E250, H250, L250)	
Width mm		90	90	105	105	105	
Height mm		215	215	240	240	240	
Approvals		–	–	UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9342.500**	**9342.510**	**9342.610**	**9345.600**	**9345.610**	
Product-specific scope of supply							
Terminal cover		■	■	■	–	–	
Sliding blocks		■	■	■	■	■	
Connection straps		–	–	–	■	■	
Accessories							
Support rails 35 x 15 mm		–	–	–	–	–	
Connection bracket	3 pc(s).	9342.570	9342.570	–	–	–	320
Insert strip		–	–	–	–	–	

Circuit-breaker component adaptors

Rated current max. 400 – 630 A, 3-pole

						
Rated current max. A	Packs of	400	400	630	630	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top	Bottom	Top	Bottom	
Type of connection		–	–	–	–	
Connection of round conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H)		–	–	–	–	
When using the Siemens VL630 switchgear, insert strip 9342.720 is additionally required		–	–	■	■	
For switchgear make (model)		Eaton (NZM3, NZM3 UL/400 A) GE (FG400) Mitsubishi (NF400-SEW/HEW/REW) Schneider Electric (NS(X)400, NSJ400) Schrack (MC3) Siemens (VL400, VL400X UL, VL400 UL, 3VA23, 3VA63) Terasaki (E400, S400, H400, L400)	Eaton (NZM3, NZM3 UL/400 A) GE (FG400) Mitsubishi (NF400-SEW/HEW/REW) Schneider Electric (NS(X)400, NSJ400) Schrack (MC3) Siemens (VL400, VL400X UL, VL400 UL, 3VA23, 3VA63) Terasaki (E400, S400, H400, L400)	ABB (S5, T5, T5 UL) Allen Bradley (140U-L) Eaton (NZM3, NZM3 UL/630 A) GE (FG630) Legrand (DPX 630) Mitsubishi (NF630-SEW/HEW/REW) OEZ (BH630N, BH630S) Schneider Electric (NS(X)630, NSJ600) Schrack (MC3) Siemens (VL630, 3VA24, 3VT3, 3V10 73, 3RV13 73, 3RV13 74, 3VA64) Terasaki (E630, S630)	ABB (S5, T5, T5 UL) Allen Bradley (140U-L) Eaton (NZM3, NZM3 UL/630 A) GE (FG630) Legrand (DPX 630) Mitsubishi (NF630-SEW/HEW/REW) OEZ (BH630N, BH630S) Schneider Electric (NS(X)630, NSJ600) Schrack (MC3) Siemens (VL630, 3VA24, 3VT3, 3V10 73, 3RV13 73, 3RV13 74, 3VA64) Terasaki (E630, S630)	
Width mm		140	140	140	140	
Height mm		345	345	345	345	
Approvals		UL	UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9345.720**	**9345.730**	**9345.700**	**9345.710**	
Product-specific scope of supply						
Connection straps		■	■	■	■	
Sliding blocks		■	■	■	■	
Accessories						
Support rails 35 x 15 mm		–	–	–	–	
Connection bracket		–	–	–	–	
Insert strip	4 pc(s).	9342.720	9342.720	9342.720	9342.720	320

Circuit-breaker component adaptors



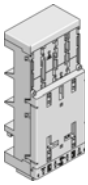
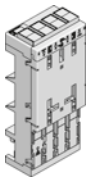
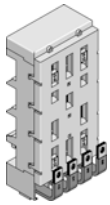
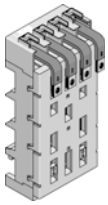
Busbar system Page 266 **Connection adaptors** Page 270

Material:
- Polyamide (PA 6.6)
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

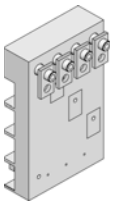
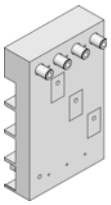
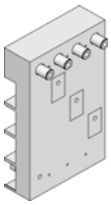
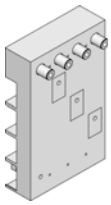
Note:
- Cable outlet: Switch outlet or as outgoing cable from the switchgear
- The technical data may vary for UL applications

Rated current max. 160 – 250 A, 4-pole

						
Rated current max. A	Packs of	160	160	250	250	Page
Rated operating voltage V, ~		690, 4~	690, 4~	690, 4~	690, 4~	
Number of poles		4-pole	4-pole	4-pole	4-pole	
Cable outlet		Top	Bottom	Top	Bottom	
Type of connection		Box terminal	Box terminal	–	–	
Connection of round conductors mm²		35 - 120	35 - 120	–	–	
Clamping area for laminated copper bars (W x H) mm		18.5 x 15.5	18.5 x 15.5	–	–	
For switchgear make (model)		ABB (T1, T2, XT1, XT2) Eaton (NZM1-4/125 A, BZM E1-4/100 A) Schneider Electric (NSC100) Schrack (MC1) Siemens (3VA10, 3VA11)	ABB (T1, T2, XT1, XT2) Eaton (NZM1-4/125 A, BZM E1-4/100 A) Schneider Electric (NSC100) Schrack (MC1) Siemens (3VA10, 3VA11)	ABB (T3S, XT3) Eaton (NZM2-4/250 A) Schneider Electric (NS(X)100, NS(X)160, NS(X)250) Schrack (MC2) Siemens (VL160X, VL160, VL250, 3RV10 63, 3VA12/20/21/22, 3VA61/62)	ABB (T3S, XT3) Eaton (NZM2-4/250 A) Schneider Electric (NS(X)100, NS(X)160, NS(X)250) Schrack (MC2) Siemens (VL160X, VL160, VL250, 3RV10 63, 3VA12/20/21/22, 3VA61/62)	
Width mm		120	120	140	140	
Height mm		277	277	310	310	
Approvals		UL	UL	–	–	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9342.504**	**9342.514**	**9345.604**	**9345.614**	
Product-specific scope of supply						
Terminal cover		■	■	–	–	
Sliding blocks		■	■	■	■	
Connection straps		–	–	■	■	

Circuit-breaker component adaptors

Rated current max. 500 A, 4-pole

						
Rated current max. A	Packs of	500	500	500	500	Page
Rated operating voltage V, ~		690, 4~	690, 4~	690, 4~	690, 4~	
Number of poles		4-pole	4-pole	4-pole	4-pole	
Cable outlet		Bottom	Bottom	Bottom	Bottom	
Type of connection		–	–	–	–	
Connection of round conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H)		–	–	–	–	
For switchgear make (model)		ABB (Tmax T5)	Schneider Electric (NS(X)400, NS(X)630)	Eaton (NZM3-4-XKR130)	Siemens (VL400)	
Width mm		185	185	185	185	
Height mm		300	300	300	300	
Approvals		–	–	–	–	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9345.704**	**9345.714**	**9345.724**	**9345.734**	
Product-specific scope of supply						
Spacer rolls		■	■	■	■	
Connection screws		■	■	■	■	
Contact plates		■	–	–	–	

Accessories

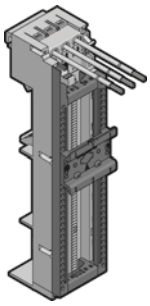


Power Engineering

see page 377

OM adaptors with connection cables

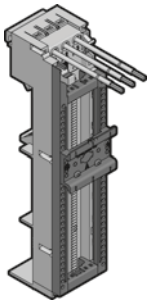
Switchgear assignment



For make/model	ABB													Eaton															
	Circuit-breaker				Starter			Reversing starter			Soft starter			Circuit-breaker						Starter						Reversing starter			Soft starter	
	MS 116/132	MS 325	MS 450/451	MS 495/496/497	MS 116 + AF09, AF12, AF16	MS 132 + AF09, AF12, AF16, AF26, AF30, AF38	MS 450 + A40, A50	MS 116 + AF09, AF12, AF16	MS 132 + AF09, AF12, AF16, AF26, AF30, AF38	MS 450 + A40, A50	MS 116 + PSR3, PSR6, PSR9, PSR12, PSR16, PSR25	MS 325 + PSR25	MS 450 + PSR30	PKZM0	PKZM01	PKZM4	PKE12	PKE32	PKE65	MSC-D + M7 - M15	MSC-D + M17 - M32	PKZM4 + DILM 17-65	MSC - DE ... M7 - M12	MSC - DE ... M17 - M32	PKE 65 + DILM 65	MSC - DE ... M7 - M12	MSC - DE ... M17 - M32	PKE 65 + DILM 65	PKE 12, PKE 32 + DS7-340	PKZ0 + DS7-340
	Construction width													Construction width															
	45	54	55	70	45	45	70	90	90	140	45	45	55	45	45	55	45	45	55	45	45	55	45	45	55	90	90	110	45	45
Model No.	**Version**	**Required quantity (pieces)**													**Required quantity (pieces)**															
9340.340	OM adaptor 25 A, AWG 12, W = 45 mm	1													1		1	1												
9340.350	OM adaptor 32 A, AWG 10, W = 45 mm					1								1																
9340.370	OM adaptor 25 A, AWG 12, W = 45 mm								1											1						1				
9340.380	OM adaptor 32 A, AWG 10, W = 45 mm																				1						1			
9340.390	OM adaptor 32 A, AWG 10, W = 45 mm						1			1		1	1										1	1					1	1
9340.430	OM adaptor 65 A, AWG 6, W = 55 mm			1	1												1		1											
9340.450	OM adaptor 65 A, AWG 6, W = 55 mm							1			1			1									1			1				
9340.460	OM adaptor 32 A, AWG 10, W = 55 mm		1																											
9340.260	OM support, 45 x 208 mm								1	1																1	1			
9340.270	OM support, 55 x 272 mm										1																			
9342.860	Support rail TS45D, 35 x 10 mm	1							1																					
9342.870	Support rail TS45D-V, 35 x 10 mm					1																					1			
9340.290	Insert strip, 10 x 208 mm				2			2			3																			
9340.280	Connection pin								3	3	3															3	3			

OM adaptors with connection cables

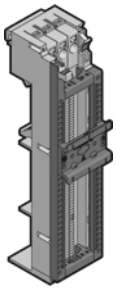
Switchgear assignment



Model No.	Version	Siemens																		Schneider Electric															
		Circuit-breaker					Starter								Reversing starter					Circuit-breaker			Starter							Reversing starter						Soft starter
		3RV10 11... (S00)	3RV10 21... (S0)	3RV10 31... (S2)	3RV20 11... (S00) screw terminal	3RV20 21... (S0) screw terminal up to 40 A	3RA11 10... (S00)	3RA11 20... (S0)	3RA11 30... (S2)	3RA21 10... (S00) screw terminal	3RV20 11...(S00 + S0) spring terminal block	3RA21 20... (S00/S0) screw terminal	3RA21 20... (S0) screw terminal	3RA61 20...	3RA12 10... (S00 + S00)	3RA11 20... (S0 + S0)	3RV10 31.. + 3RT103... (S2 + S2)	3RA22 10... (S00) screw terminal	3RA22 20... (S0) screw terminal	GV2 - ME (screw terminal and spring terminal block)	GV2 - P	GV2 - RT, LE10, L10	GV3 BIS 65A	GV2 P + LC1D	GV2 ME + LC1D	GV2 - DM102 + LC1D/LC1K	GV2 - DP + LC1D/LC1K	GV3 + LC1D65	LUB 12	LUB 32	GV2 P + LC2D (AC)	GV2 ME + LC2D/LC2K (AC)	GV2 DM + LC2D/LC2K	GV2 DP + LC2D/LC2K	GV2 DP + LC2D/LC2K	GV2 ME + ATS
		Construction width																		Construction width															
		45	45	55	45	45	45	45	55	45	45	45	45	45	90	100	120	90	90	45	55	45	55	45	45	45	55	45	45	90	90	90	90	90	45
		Required quantity (pieces)																		Required quantity (pieces)															
9340.760	OM adaptor 16 A, AWG 12, W = 45 mm										1																								
9340.340	OM adaptor 25 A, AWG 12, W = 45 mm	1	1		1															1		1						1							
9340.350	OM adaptor 32 A, AWG 10, W = 45 mm											1	1					1						1	1	1	1		1	1	1	1	1	1	
9340.770	OM adaptor 32 A, AWG 10, W = 45 mm													1																					
9340.370	OM adaptor 25 A, AWG 12, W = 45 mm						1	1		1					1	1		1																		
9340.390	OM adaptor 25 A, AWG 12, W = 45 mm																																		1
9340.430	OM adaptor 65 A, AWG 6, W = 55 mm			1																	1		1												
9340.450	OM adaptor 65 A, AWG 6, W = 55 mm								1								1										1								
9340.720	OM adaptor 40 A, AWG 8, W = 55 mm					1																													
9340.260	OM support, 45 x 208 mm														1	1		1												1	1	1	1	1	
9340.270	OM support, 55 x 272 mm																1		1																
9340.290	Insert strip, 10 x 208 mm															1	1																		
9340.280	Connection pin														3	3	3	3	3											3	3	3	3	3	
9342.800	PinBlock, W = 45 mm											1	1											1	1	1	1			2	2	2	2	2	
9342.820	PinBlock PLUS													1										1	1	1	1								

OM adaptors with spring terminal blocks

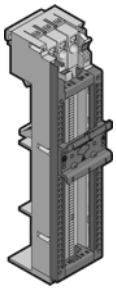
Switchgear assignment



For make/model	ABB													Eaton															
	Circuit-breaker				Starter			Reversing starter			Soft starter			Circuit-breaker						Starter						Reversing starter			Soft starter		
	MS 116/132	MS 325	MS 450/451	MS 495/496/497	MS 116 + AF09, AF12, AF16	MS 132 + AF09, AF12, AF16, AF26, AF30, AF38	MS 450 + A40, A50	MS 116 + AF09, AF12, AF16	MS 132 + AF09, AF12, AF16, AF26, AF30, AF38	MS 450 + A40, A50	MS 116 + PSR3, PSR6, PSR9, PSR12, PSR16, PSR25	MS 325 + PSR25	MS 450 + PSR30	PKZM0	PKZM01	PKZM4	PKE12	PKE32	PKE65	MSC-D + M7 - M15	MSC-D + M17 - M32	PKZM4 + DILM 17-65	MSC - DE ... M7 - M12	MSC - DE ... M17 - M32	PKE 65 + DILM 65	MSC - DE ... M7 - M12	MSC - DE ... M17 - M32	PKE 65 + DILM 65	PKE 12 + DS7-340	PKE 32 + DS7-340	PKZ0 + DS7-340
	Construction width													Construction width															
	45	54	55	70	45	45	70	90	90	140	45	45	55	45	45	55	45	45	55	45	45	55	45	45	55	90	90	110	45	45	45
Model No.	**Version**	**Required quantity (pieces)**													**Required quantity (pieces)**															
9340.530	OM adaptor 32 A, 1.5 - 6 mm², W = 45 mm	1				1								1	1		1	1													
9340.550	OM adaptor 32 A, 1.5 - 6 mm², W = 45 mm								1											1	1					1	1				
9340.560	OM adaptor 32 A, 1.5 - 6 mm², W = 45 mm						1			1		1	1										1	1					1	1	1
9340.660	OM adaptor 32 A, 1.5 - 6 mm², W = 55 mm		1																												
9340.630	OM adaptor 65 A, 2.5 - 16 mm², W = 55 mm			1	1											1			1												
9340.650	OM adaptor 65 A, 2.5 - 16 mm², W = 55 mm							1			1											1			1			1			
9340.260	OM support, 45 x 208 mm								1	1																1	1				
9340.270	OM support, 55 x 272 mm										1																	1			
9340.290	Insert strip, 10 x 208 mm				2			2			3																				
9340.280	Connection pin								3	3	3															3	3	3			
9340.860	Cable set AWG 12	3				3			3			3	3				3			3			3			3			3		
9340.870	Cable set AWG 10		3				3			3				3	3			3			3			3			3			3	3
9340.890	Cable set AWG 6			3	3			3			3		3			3			3			3			3			3			
9342.860	Support rail TS45D, 35 x 10 mm	1																													
9342.930	Support rail TS55D, 35 x 10 mm								1																						

OM adaptors with spring terminal blocks

Switchgear assignment



For make/model	Siemens															Schneider Electric											
	Circuit-breaker					Starter						Reversing starter				Circuit-breaker				Starter						Reversing starter				Soft starter
	3RV10 11... (S00)	3RV10 21... (S0)	3RV10 31... (S2)	3RV20 11... (S00) screw terminal	3RV20 21... (S0) screw terminal up to 40 A	3RA11 10... (S00)	3RA11 20... (S0)	3RA11 30... (S2)	3RA21 10... (S00) screw terminal	3RA21 20... (S00/S0) screw terminal	3RA21 20... (S0) screw terminal	3RA12 10... (S00 + S00)	3RA11 20... (S0 + S0)	3RV10 31.. + 3RT103... (S2 + S2)	3RA22 10... (S00) screw terminal	3RA22 20... (S0) screw terminal	GV2 - ME (screw terminal and spring terminal block)	GV2 - P	GV2 - RT, LE10, L10	GV3 BIS 65A	GV2 P + LC1D	GV2 ME + LC1D	GV2 - DM102 + LC1D/LC1K	GV2 - DP + LC1D/LC1K	GV3 + LC1D65	LUB 12	LUB 32	GV2 P + LC2D (AC)	GV2 ME + LC2D/LC2K (AC)	GV2 DM + LC2D/LC2K	GV2 DP + LC2D/LC2K	GV2 ME + ATS
	Construction width																			Construction width										
	45	45	55	45	45	45	45	55	45	45	45	90	100	120	90	90	45	55	45	55	45	45	45	45	55	45	45	90	90	90	90	45
Model No.	**Version**	**Required quantity (pieces)**															**Required quantity (pieces)**															
9340.530	OM adaptor 32 A, 1.5 - 6 mm², W = 45 mm	1	1		1	1											1		1							1	1					
9340.550	OM adaptor 32 A, 1.5 - 6 mm², W = 45 mm						1	1		1	1	1	1		1	1					1	1	1	1				1	1	1	1	
9340.560	OM adaptor 32 A, 1.5 - 6 mm², W = 45 mm																															1
9340.630	OM adaptor 65 A, 2.5 - 16 mm², W = 55 mm			1														1		1												
9340.650	OM adaptor 65 A, 2.5 - 16 mm², W = 55 mm								1					1											1							
9340.260	OM support, 45 x 208 mm											1	1		1	1												1				
9340.270	OM support, 55 x 272 mm													1																		
9340.290	Insert strip, 10 x 208 mm												1																			
9340.280	Connection pin											3	3	3														3	3	3	3	
9340.860	Cable set AWG 12	3			3		3			3	3	3	3			3											3						
9340.870	Cable set AWG 10		3					3					3			3	3		3		3	3	3	3			3	3	3	3	3	3
9340.880	Cable set AWG 8					3																										
9340.890	Cable set AWG 6			3					3					3				3		3					3							
9342.820	PinBlock PLUS																				1			1				1	1	1	1	

Bus-mounting fuse bases

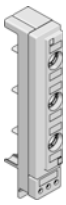
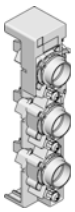
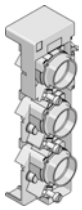
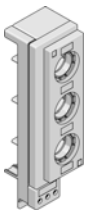


Busbar system Page 266 **Connection adaptors** Page 270 **OM adaptors** Page 273 **Circuit-breaker component adaptors** Page 280

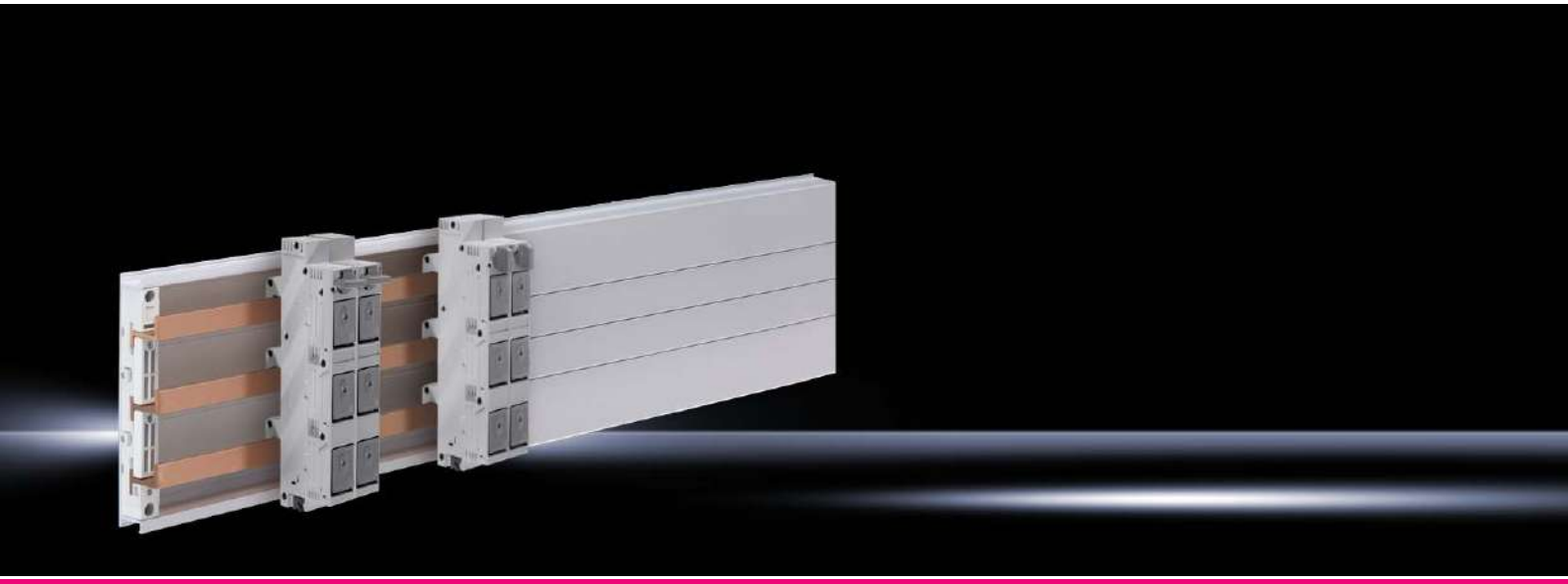
Material:
- Bus-mounting fuse base: Fibreglass-reinforced, thermoplastic polyester (PBT)
- Contact hazard protection: Polyamide (PA 6.6)
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Note:
- For the use of fuse inserts to EN 60 269-3 (DIN VDE 0636-301)

								
Fuse inserts		D 02-E 18 (adaptor sleeve)	D 02-E 18 (adaptor sleeve)	D II-E 27 (adaptor screw)	D II-E 27 (adaptor screw)	D III-E 33 (adaptor screw)	D III-E 33 (adaptor screw)	Page
Rated current max. A		63	63	25	25	63	63	
Rated operating voltage V, ~		400, 3~ 400 (DC)	400, 3~ 400 (DC)	500, 3~ 500 (DC)	500, 3~ 500 (DC)	690, 3~ 690 (DC)	690, 3~ 690 (DC)	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	
Type of connection		Box terminal	Box terminal	Box terminal	Box terminal	Box terminal	Box terminal	
Connection of round conductors mm²		1.5 - 25	1.5 - 16	1.5 - 16	1.5 - 16	1.5 - 25	1.5 - 16	
Width mm		27	41	42	56	57	71	
Height mm		209	251	209	251	209	251	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	5/10	
Model No.		**3418.010**	**3418.040**	**3427.010**	**3427.040**	**3433.010**	**3433.040**	
	Packs of	10 pc(s).	5 pc(s).	10 pc(s).	5 pc(s).	10 pc(s).	5 pc(s).	
Product-specific scope of supply								
Pre-configured element ready for connection including cover plate, contact hazard protection and exterior connection clamps		–	■	–	■	–	■	
Also required								
Contact hazard protection cover plate	10 pc(s).	3418.020	–	3427.020	–	3433.020	–	321
Accessories								
Connection space extender	10 pc(s).	3418.030	–	3427.030	–	3433.030	–	321
Covers, side	10 pc(s).	3093.010	–	3093.020	–	3093.020	–	321

Bus-mounting fuse base D-Switch



Busbar system Page 266 **Connection adaptors** Page 270 **OM adaptors** Page 273 **Circuit-breaker component adaptors** Page 280

Material:
- Polyamide (PA 6)
- Fire protection corresponding to UL 94-V0

Colour:
- Chassis: RAL 7035
- Fuse holder: RAL 7001

Supply includes:
- Retaining springs for D 01 and 10 x 38 mm fuses

Basis of test:
- IEC/DIN EN 60 947-3

Note:
- For the use of fuse inserts to EN 60 269-3 (DIN VDE 0636-301)
- With integral visual fuse monitoring via flashing indicator and operating status display as well as cable routing for conductors up to 6 mm²

Fuse inserts	Packs of	D 01 (with retaining spring) D 02 (with Neozed adaptor sleeve) 10 x 38 (with retaining spring)	Page
Rated operating current max. A		63	
Rated operating voltage V, ~		400, 3~	
Number of poles		3-pole	
Voltage, indicator light V		100 - 400	
Type of connection		Box terminal	
Connection of round conductors mm²		1.5 - 25	
Width mm		27	
Height mm		226	
For bar systems with centre-to-centre spacing mm		60	
For bar thickness mm		5/10	
Model No.	3 pc(s).	**9340.950**	

NH fuse-switch-disconnectors, size 000



Busbar system Page 266 **Connection adaptors** Page 270 **OM adaptors** Page 273 **Circuit-breaker component adaptors** Page 280

Material:
- Fibreglass-reinforced polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

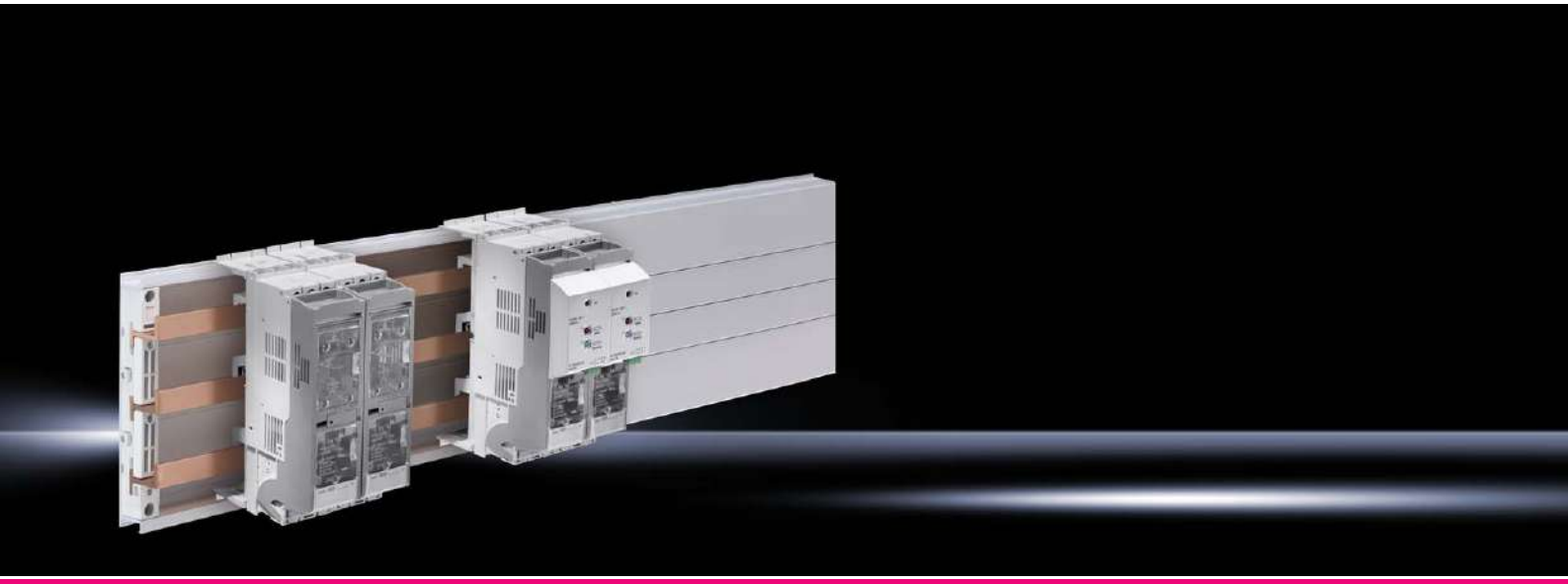
Colour:
- Chassis: RAL 9011
- Cover: RAL 7035

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 000, for mounting plate assembly

Size	Packs of	000	Page
Rated operating current max. A		100	
Rated operating voltage V, ~		690, 3~	
Number of poles		3-pole	
Cable outlet		Top/bottom	
Type of connection		Box terminal	
Connection of round conductors mm^2		1.5 - 50	
Clamping area for laminated copper bars (W x H) mm		10 x 10	
Width mm		89	
Height mm		141.5	
For mounting plate assembly		■	
Model No.	1 pc(s).	**3431.000**	
Accessories			
Micro-switch	5 pc(s).	3071.000	322

NH fuse-switch-disconnectors, size 000



Busbar system Page 266 **Connection adaptors** Page 270 **OM adaptors** Page 273 **Circuit-breaker component adaptors** Page 280

Material:
- Fibreglass-reinforced polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

Colour:
- Chassis: RAL 7035
- Cover: RAL 7001

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 000

Size	Packs of	000	000	000	Page
Rated operating current max. A		100	100	100	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Cable outlet		Top	Bottom	Bottom	
Type of connection		Box terminal	Box terminal	Box terminal	
Connection of round conductors mm^2		2.5 - 50	2.5 - 50	2.5 - 50	
Width mm		53	53	53	
Height mm		213	213	213	
with electronic fuse monitoring		–	–	■	
For bar systems with centre-to-centre spacing mm		60	60	60	
For bar thickness mm		5/10	5/10	5/10	
Model No.	1 pc(s).	**3431.020**	**3431.030**	**3431.035**	
Accessories					
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	322

NH fuse-switch-disconnectors, size 00 to 3



Busbar system Page 266 **Connection adaptors** Page 270 **OM adaptors** Page 273 **Circuit-breaker component adaptors** Page 280

Material:
- Polyamide (PA 6)
- Fire protection corresponding to UL 94-V0
- Contact tracks: Electrolytic copper, silver-plated

Colour:
- Chassis: RAL 7035
- Cover: RAL 7035/7001

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Note:
- The technical data may vary for UR applications. Applications to UR only in conjunction with "Special Purpose Fuses".

Size 00

Size	Packs of	00	00	00	00	Page
Rated operating current max. A		160	160	160	160	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M8	Box terminal	Screw M8	
Connection of round conductors mm^2		4 - 95	10 - 95	4 - 95	10 - 95	
Connection of sector-shaped conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		13 x 13	20 x 5	13 x 13	20 x 5	
Width mm		106	106	106	106	
Height mm		194	194	194	194	
Approvals		UR	UR	UR	UR	
For mounting plate assembly		–	–	■	■	
For bar systems with centre-to-centre spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Model No.	1 pc(s).	**9343.000**	**9343.010**	**9344.000**	**9344.010**	
Accessories						
Box terminal		–	–	–	–	
Connection space cover	2 pc(s).	9344.520	9344.520	9344.520	9344.520	322
Arc chambers		–	–	–	–	
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	3071.000	322
Laminated copper bars		see page	see page	see page	see page	311

NH fuse-switch-disconnectors, size 00 to 3

Size 1

Size	Packs of	1	1	1	1	Page
Rated operating current max. A		250	250	250	250	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M10	Box terminal	Screw M10	
Connection of round conductors mm^2		35 - 150	10 - 150	35 - 150	10 - 150	
Connection of sector-shaped conductors mm^2		50 - 150	–	50 - 150	–	
Clamping area for laminated copper bars (W x H) mm		20 x 3 - 14	32 x 10	20 x 3 - 14	32 x 10	
Width mm		184	184	184	184	
Height mm		298	298	298	298	
Approvals		UR	UR	UR	UR	
For mounting plate assembly		–	–	■	■	
For bar systems with centre-to-centre spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Model No.	1 pc(s).	**9343.100**	**9343.110**	**9344.100**	**9344.110**	
Accessories						
Box terminal	3 pc(s).	–	9344.610	–	9344.610	322
Connection space cover	2 pc(s).	9344.530	9344.530	9344.530	9344.530	322
Arc chambers	3 pc(s).	9344.680	9344.680	9344.680	9344.680	322
Micro-switch	2 pc(s).	9344.510	9344.510	9344.510	9344.510	322
Laminated copper bars		see page	see page	see page	see page	311

Size 2 – 3

Size	Packs of	2	2	2	3	3	3	Page
Rated operating current max. A		400	400	400	630	630	630	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M10	Screw M10	Box terminal	Screw M10	Screw M10	
Connection of round conductors mm^2		95 - 300	10 - 240	10 - 240	95 - 300	10 - 300	10 - 300	
Connection of sector-shaped conductors mm^2		120 - 300	–	–	120 - 300	–	–	
Clamping area for laminated copper bars (W x H) mm		32 x 10 - 20	50 x 10	50 x 10	32 x 10 - 20	50 x 10	50 x 10	
Width mm		210	210	210	250	250	250	
Height mm		298	298	298	298	298	298	
Approvals		UR	UR	UR	UR	UR	UR	
For mounting plate assembly		–	–	■	–	–	■	
For bar systems with centre-to-centre spacing mm		60	60	–	60	60	–	
For bar thickness mm		5/10	5/10	–	5/10	5/10	–	
Model No.	1 pc(s).	**9343.200**	**9343.210**	**9344.210**	**9343.300**	**9343.310**	**9344.310**	
Accessories								
Box terminal	3 pc(s).	–	9344.620	9344.620	–	9344.620	9344.620	322
Connection space cover	2 pc(s).	9344.540	9344.540	9344.540	9344.550	9344.550	9344.550	322
Arc chambers	3 pc(s).	9344.680	9344.680	9344.680	9344.680	9344.680	9344.680	322
Micro-switch	2 pc(s).	9344.510	9344.510	9344.510	9344.510	9344.510	9344.510	322
Laminated copper bars		see page	see page	see page	see page	see page	see page	311

NH fuse-switch-disconnectors, size 00 to 3



Busbar system Page 266 **Connection adaptors** Page 270 **OM adaptors** Page 273 **Circuit-breaker component adaptors** Page 280

Material:
- Polyamide (PA 6)
- Fire protection corresponding to UL 94-V0
- Contact tracks: Electrolytic copper, silver-plated

Colour:
- Chassis: RAL 7035
- Cover: RAL 7035/7001

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 00, with electronic fuse monitoring

Size	Packs of	00	00	00	00	Page
Rated operating current max. A		160	160	160	160	
Rated operating voltage V, ~		400 - 690, 3~	400 - 690, 3~	400 - 690, 3~	400 - 690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M8	Box terminal	Screw M8	
Connection of round conductors mm^2		4 - 95	10 - 95	4 - 95	10 - 95	
Connection of sector-shaped conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		13 x 13	20 x 5	13 x 13	20 x 5	
Width mm		106	106	106	106	
Height mm		194	194	194	194	
For mounting plate assembly		–	–	■	■	
For bar systems with centre-to-centre spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Model No.	1 pc(s).	**9343.020**	**9343.030**	**9344.020**	**9344.030**	
Accessories						
Box terminal		–	–	–	–	
Connection space cover	2 pc(s).	9344.520	9344.520	9344.520	9344.520	322
Arc chambers		–	–	–	–	
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	3071.000	322
Laminated copper bars		see page	see page	see page	see page	311

NH fuse-switch-disconnectors, size 00 to 3

Size 1, with electronic fuse monitoring

Size	Packs of	1	1	1	Page
Rated operating current max. A		250	250	250	
Rated operating voltage V, ~		400 - 690, 3~	400 - 690, 3~	400 - 690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M10	Screw M10	
Connection of round conductors mm^2		35 - 150	10 - 150	10 - 150	
Connection of sector-shaped conductors mm^2		50 - 150	–	–	
Clamping area for laminated copper bars (W x H) mm		20 x 3 - 14	32 x 10	32 x 10	
Width mm		184	184	184	
Height mm		298	298	298	
For mounting plate assembly		–	–	■	
For bar systems with centre-to-centre spacing mm		60	60	–	
For bar thickness mm		5/10	5/10	–	
Model No.	1 pc(s).	**9343.120**	**9343.130**	**9344.130**	
Accessories					
Box terminal	3 pc(s).	–	9344.610	9344.610	322
Connection space cover	2 pc(s).	9344.530	9344.530	9344.530	322
Arc chambers	3 pc(s).	9344.680	9344.680	9344.680	322
Micro-switch	2 pc(s).	9344.510	9344.510	9344.510	322
Laminated copper bars		see page	see page	see page	311

Size 2 – 3, with electronic fuse monitoring

Size	Packs of	2	2	3	3	Page
Rated operating current max. A		400	400	630	630	
Rated operating voltage V, ~		400 - 690, 3~	400 - 690, 3~	400 - 690, 3~	400 - 690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Screw M10	Screw M10	Screw M10	Screw M10	
Connection of round conductors mm^2		10 - 240	10 - 240	10 - 300	10 - 300	
Connection of sector-shaped conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		50 x 10	50 x 10	50 x 10	50 x 10	
Width mm		210	210	250	250	
Height mm		298	298	298	298	
For mounting plate assembly		–	■	–	■	
For bar systems with centre-to-centre spacing mm		60	–	60	–	
For bar thickness mm		5/10	–	5/10	–	
Model No.	1 pc(s).	**9343.230**	**9344.230**	**9343.330**	**9344.330**	
Accessories						
Box terminal	3 pc(s).	–	–	9344.620	9344.620	322
Connection space cover	2 pc(s).	9344.540	9344.540	9344.550	9344.550	322
Arc chambers	3 pc(s).	9344.680	9344.680	9344.680	9344.680	322
Micro-switch	2 pc(s).	9344.510	9344.510	9344.510	9344.510	322
Laminated copper bars		see page	see page	see page	see page	311

NH fuse-switch-disconnectors, size 00 to 3



Busbar system Page 266 **Connection adaptors** Page 270 **OM adaptors** Page 273 **Circuit-breaker component adaptors** Page 280

Material:
- Polyamide (PA 6)
- Fire protection corresponding to UL 94-V0
- Contact tracks: Electrolytic copper, silver-plated

Colour:
- Chassis: RAL 7035
- Cover: RAL 7035/7001

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 00, with electromechanical fuse monitoring

Size	Packs of	00	00	00	00	Page
Rated operating current max. A		160	160	160	160	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M8	Box terminal	Screw M8	
Connection of round conductors mm^2		4 - 95	10 - 95	4 - 95	10 - 95	
Connection of sector-shaped conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		13 x 13	20 x 5	13 x 13	20 x 5	
Width mm		106	106	106	106	
Height mm		194	194	194	194	
For mounting plate assembly		–	–	■	■	
For bar systems with centre-to-centre spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Model No.	1 pc(s).	**9343.040**	**9343.050**	**9344.040**	**9344.050**	
Accessories						
Box terminal		–	–	–	–	
Connection space cover	2 pc(s).	9344.520	9344.520	9344.520	9344.520	322
Arc chambers		–	–	–	–	
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	3071.000	322
Laminated copper bars		see page	see page	see page	see page	311

NH fuse-switch-disconnectors, size 00 to 3

Size 1, with electromechanical fuse monitoring

Size	Packs of	1	1	1	Page
Rated operating current max. A		250	250	250	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M10	Screw M10	
Connection of round conductors mm²		35 - 150	10 - 150	10 - 150	
Connection of sector-shaped conductors mm²		50 - 150	–	–	
Clamping area for laminated copper bars (W x H) mm		20 x 3 - 14	32 x 10	32 x 10	
Width mm		184	184	184	
Height mm		298	298	298	
For mounting plate assembly		–	–	■	
For bar systems with centre-to-centre spacing mm		60	60	–	
For bar thickness mm		5/10	5/10	–	
Model No.	1 pc(s).	**9343.140**	**9343.150**	**9344.150**	
Accessories					
Box terminal	3 pc(s).	–	9344.610	9344.610	322
Connection space cover	2 pc(s).	9344.530	9344.530	9344.530	322
Arc chambers	3 pc(s).	9344.680	9344.680	9344.680	322
Micro-switch	2 pc(s).	9344.510	9344.510	9344.510	322
Laminated copper bars		see page	see page	see page	311

Size 2 – 3, with electromechanical fuse monitoring

Size	Packs of	2	2	3	3	Page
Rated operating current max. A		400	400	630	630	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Screw M10	Screw M10	Screw M10	Screw M10	
Connection of round conductors mm²		10 - 240	10 - 240	10 - 300	10 - 300	
Connection of sector-shaped conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		50 x 10	50 x 10	50 x 10	50 x 10	
Width mm		210	210	250	250	
Height mm		298	298	298	298	
For mounting plate assembly		–	■	–	■	
For bar systems with centre-to-centre spacing mm		60	–	60	–	
For bar thickness mm		5/10	–	5/10	–	
Model No.	1 pc(s).	**9343.250**	**9344.250**	**9343.350**	**9344.350**	
Accessories						
Box terminal	3 pc(s).	9344.620	9344.620	9344.620	9344.620	322
Connection space cover	2 pc(s).	9344.540	9344.540	9344.550	9344.550	322
Arc chambers	3 pc(s).	9344.680	9344.680	9344.680	9344.680	322
Micro-switch	2 pc(s).	9344.510	9344.510	9344.510	9344.510	322
Laminated copper bars		see page	see page	see page	see page	311



NH fuse-switch disconnectors Page 293

Compact measurement unit consisting of measurement data acquisition unit, evaluation electronics, communication module, measurement power supply and flash data memory.

Functions:
- Continuous measurement of energy-related data
- Data logging in CSV format (Excel)
- Individual limit monitoring and alarm function
- May be integrated into the CMC III monitoring system
- Automatic address allocation via CAN bus

Material:
- Polyamide (PA 6)
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Supply includes:
- NH measurement module
- Connector 2 x 2.5 mm² with preassembled bridge
- USB cable (mini-B connector on micro-B jack)

NH measurement module for NH fuse-switch disconnectors

For size	Packs of	00	1	2	3	Page
To fit Model No.		9343.000/9343.020/ 9343.040	9343.100/9343.120/ 9343.140	9343.200	9343.300	
Rated operating current max. A		150	250	400	600	
Rated operating voltage V, ~		400, 3~	400, 3~	400, 3~	400, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Bottom	Bottom	Bottom	Bottom	
Type of connection		Box terminal	Box terminal	Box terminal	Box terminal	
Connection of round conductors mm²		4 - 95	35 - 150	95 - 300	95 - 300	
Connection of sector-shaped conductors mm²		–	50 - 150	120 - 300	120 - 300	
Clamping area for laminated copper bars (W x H) mm		13 x 13	20 x 3 - 14	32 x 10 - 20	32 x 10 - 20	
Width mm		102	170	185	214	
Height mm		108	123	123	123	
Depth mm		68	92	107	107	
Precision class measurement output (voltage/current/power)		0.2 / 1.5 / 2	0.2 / 1.5 / 2	0.2 / 1.5 / 2	0.2 / 1.5 / 2	
Interfaces		2 x CAN bus (RJ45) 2 x Modbus RTU (RJ45) 1 x USB	2 x CAN bus (RJ45) 2 x Modbus RTU (RJ45) 1 x USB	2 x CAN bus (RJ45) 2 x Modbus RTU (RJ45) 1 x USB	2 x CAN bus (RJ45) 2 x Modbus RTU (RJ45) 1 x USB	
Model No.	1 pc(s).	**9343.070**	**9343.170**	**9343.270**	**9343.370**	

Accessories



LCD display

for monitoring

Functions:
– Illuminated display with more than 50 measurement parameters
– Intuitive configuration of alarm and limit values
– Voltage supply for display via pluggable RJ12 patch cable

Material:
– Polyphenylene ether (PPE)

Colour:
– RAL 9005

Protection category IP to IEC 60 529:
– IP 51 (front)
– IP 41 (enclosure)

Supply includes:
– LCD display
– Modbus RTU cable (RJ12), length: 2 m

Interfaces	1 x Modbus RTU (RJ12)
Operating temperature range	-5°C...+55°C
Storage temperature range	-25°C...+70°C
Operating humidity range %	5 - 95
Width mm	96
Height mm	96
Depth mm	46
Packs of	1 pc(s).
Model No.	**9343.410**

Also required:

– Power pack, see page 300



Power pack

for LCD display

For mounting on support rails to EN 60 715, 7.5 mm high.

Material:
– Polycarbonate
– Fire protection corresponding to UL 94-V0

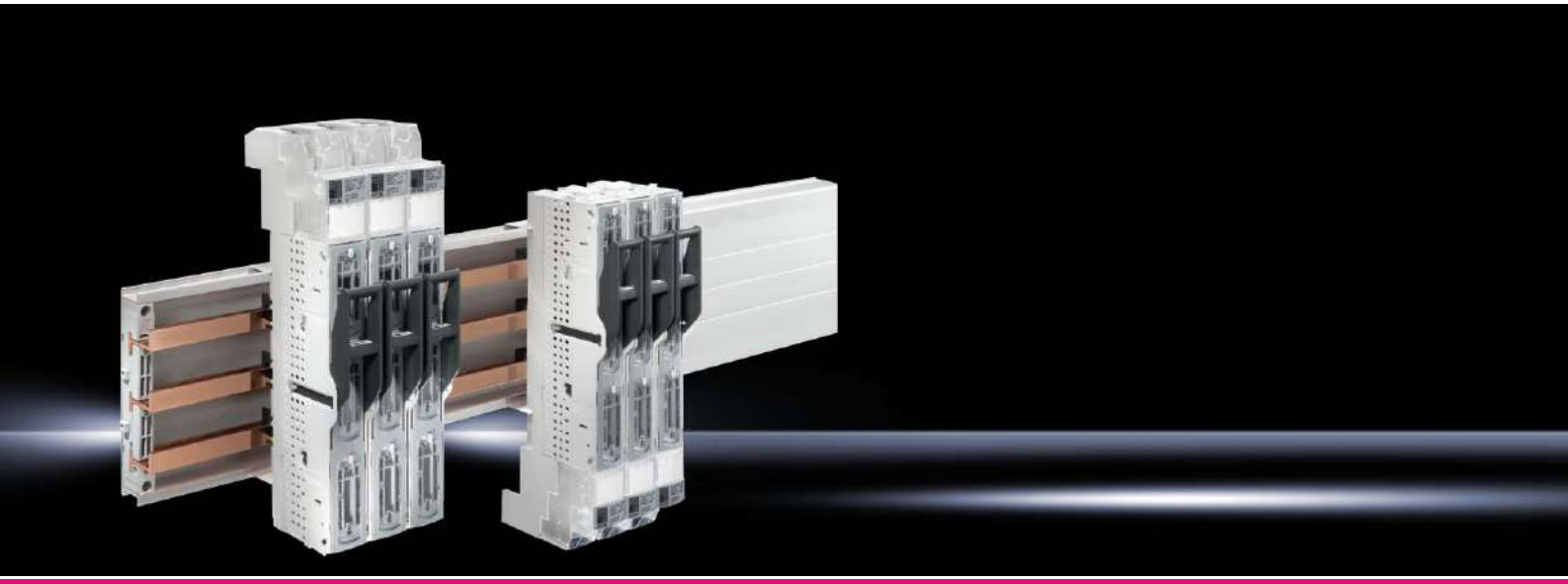
Colour:
– RAL 9005

Protection category IP to IEC 60 529:
– IP 20

Supply includes:
– Power pack
– Connector 2 x 2.5 mm^2

Interfaces	1 x Modbus RTU (RJ12) 2 x Modbus RTU (RJ45)
Operating temperature range	-5°C...+55°C
Storage temperature range	-25°C...+70°C
Operating humidity range %	5 - 95
Width mm	71
Height mm	91
Depth mm	61
Rated operating voltage V, Hz	85 - 265 (AC/DC), 50/60
Output current (max.) A	0.42
Output voltage V (DC)	24
Packs of	1 pc(s).
Model No.	**9343.400**

NH slimline fuse-switch disconnectors



Busbar system Page 266 **Connection adaptors** Page 270 **NH slimline fuse-switch disconnectors 185 mm** Page 336

Material:
- Fibreglass-reinforced polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

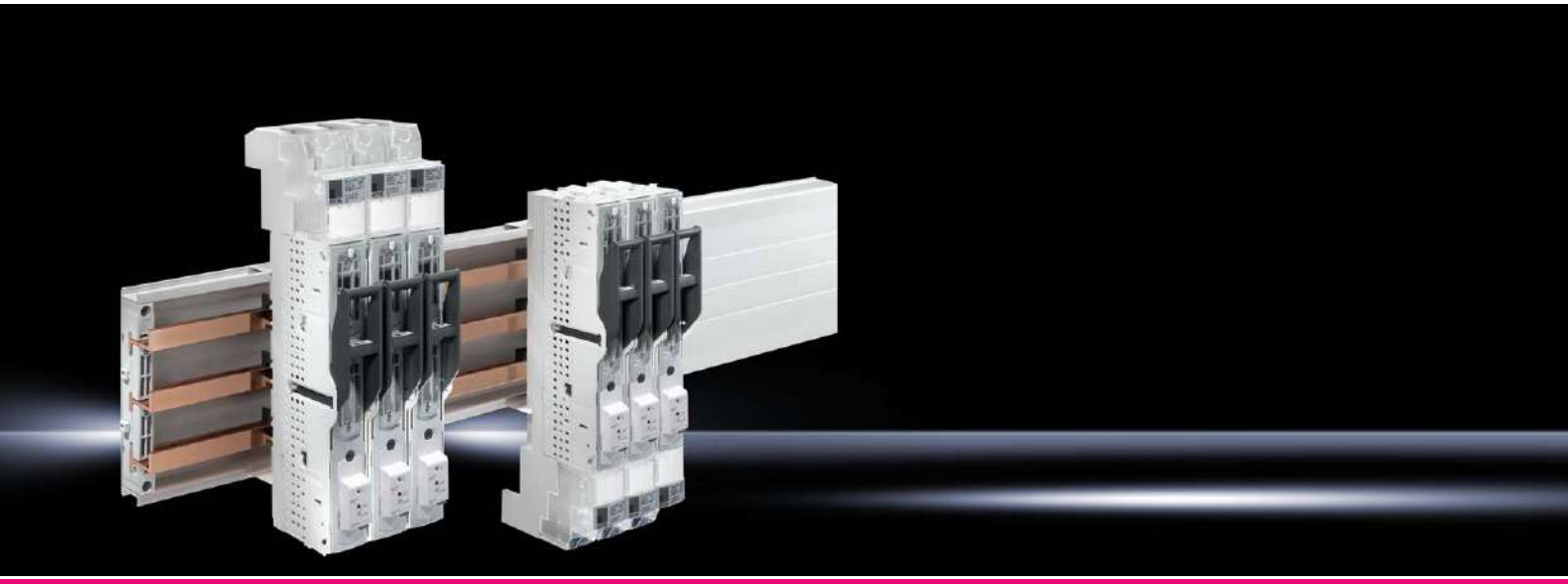
Colour:
- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 00

Size	Packs of	00	00	00	00	00	Page
Rated operating current max. A		160	160	160	160	160	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M8	Box terminal	Screw M8	Screw M8	
Connection of round conductors mm^2		2.5 - 95	2.5 - 95	2.5 - 95	2.5 - 95	2.5 - 95	
Width mm		50	50	50	50	50	
Height mm		400	400	400	400	400	
For converter installation		–	–	–	–	■	
For bar systems with centre-to-centre spacing mm		60	60	100	100	100	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9346.000**	**9346.010**	**9346.020**	**9346.030**	**9346.060**	
Product-specific scope of supply							
3 mounting hooks		■	■	■	■	–	
Accessories							
Connection space cover	1 pc(s).	9346.460	9346.460	9346.460	9346.460	9346.460	323
Clamp-type terminal connection	3 pc(s).	–	3592.010	–	3592.010	3592.010	323
Micro-switch	5 pc(s).	9346.400	9346.400	9346.400	9346.400	9346.400	322

NH slimline fuse-switch disconnectors



Busbar system Page 266 **Connection adaptors** Page 270 **NH slimline fuse-switch disconnectors 185 mm** Page 336

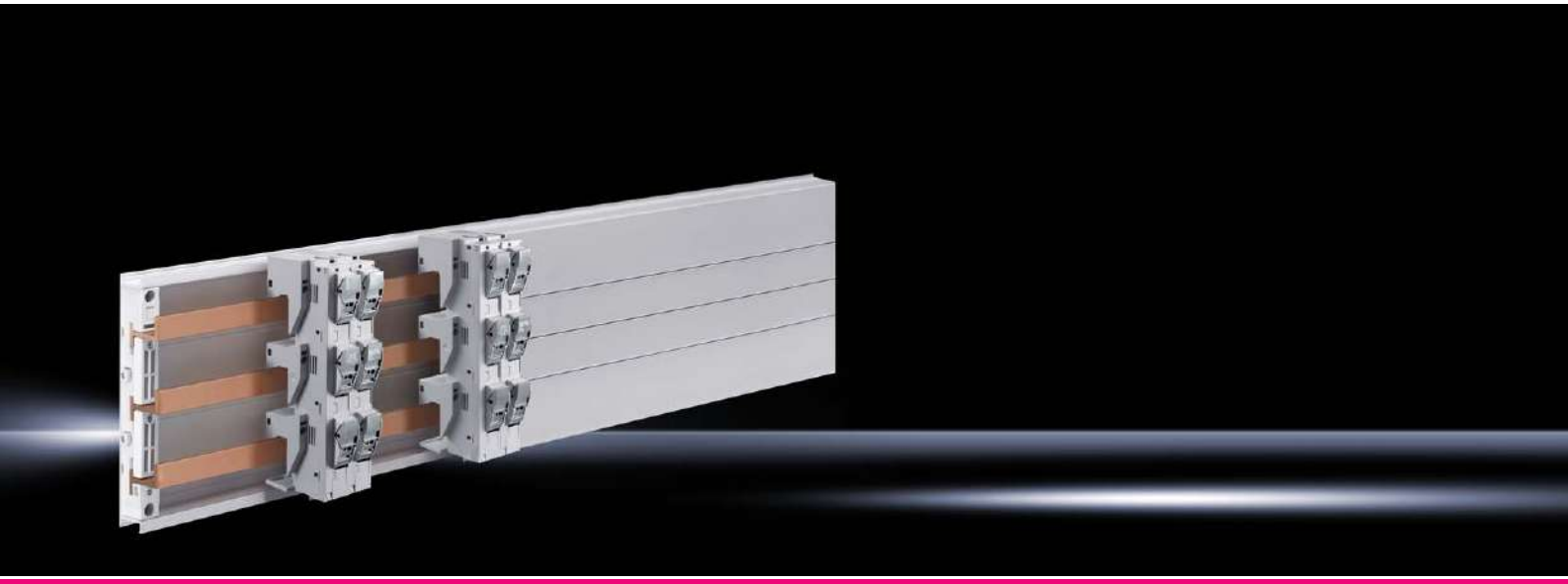
Material:
- Fibreglass-reinforced polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

Colour:
- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 00, with electronic fuse monitoring

Size	Packs of	00	Page
Rated operating current max. A		160	
Rated operating voltage V, ~		690, 3~	
Number of poles		3-pole	
Cable outlet		Top/bottom	
Type of connection		Screw M8	
Connection of round conductors mm^2		2.5 - 95	
Width mm		50	
Height mm		400	
For bar systems with centre-to-centre spacing mm		60	
For bar thickness mm		5/10	
Model No.	1 pc(s).	**9346.015**	
Product-specific scope of supply			
3 mounting hooks		■	
Accessories			
Connection space cover	1 pc(s).	9346.460	323
Clamp-type terminal connection	3 pc(s).	3592.010	323
Micro-switch	5 pc(s).	9346.400	322



Busbar system Page 266 **Connection adaptors** Page 270 **OM adaptors** Page 273 **Circuit-breaker component adaptors** Page 280

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

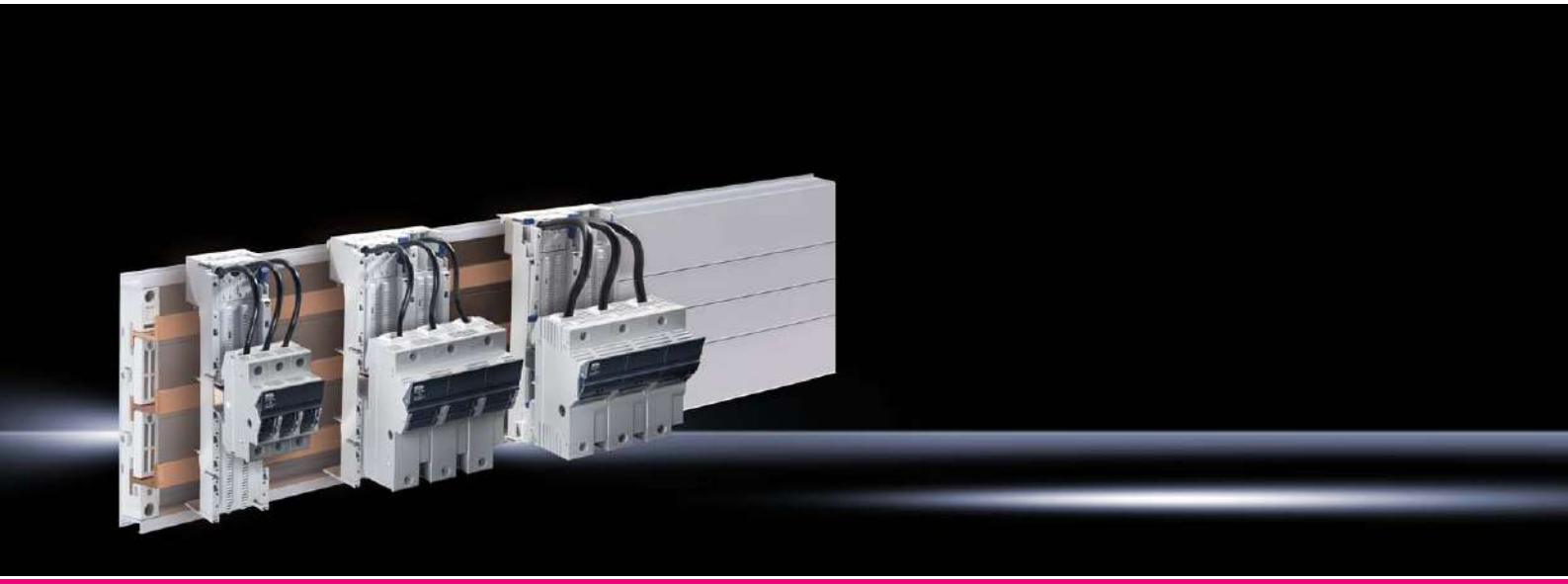
Colour:
– RAL 7035

Basis of test:
– UL 4248-4

Rated operating current max. 30 A

Fuse type (class)	Packs of	CC	Page
Rated operating current max. A		30	
Rated operating voltage V, ~		600, 3~	
Number of poles		3-pole	
Fuse standard		UL 248-4	
Fuse size mm		10 x 38	
Connection of round conductors mm^2		1.5 - 6	
Connection of round conductors		AWG 10 - 16	
Width mm		27	
Height mm		200	
For bar systems with centre-to-centre spacing mm		60	
For bar thickness mm		5/10	
Model No.	4 pc(s).	**9345.040**	

Fuse holders



Busbar system Page 266 **Connection adaptors** Page 270 **OM adaptors** Page 273 **Circuit-breaker component adaptors** Page 280

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Note:
- For snap-on mounting on 35 mm (7.5 mm/15 mm high) support rails to DIN EN 60 715 or RiLine component adaptor combinations (OM adaptors/ supports)

Approvals:
- UL 4248-1
- UL 4248-4
- UL 4248-8

Rated operating current max. 30 – 60 A

Fuse type (class)		CC	J	J	Page
Rated operating current max. A		30	30	60	
Rated operating voltage V, ~		600, 3~	600, 3~	600, 3~	
Number of poles		3-pole	3-pole	3-pole	
Fuse standard		UL 248-4	UL 248-8	UL 248-8	
Fuse size mm		10 x 38	21 x 57	27 x 60	
Voltage, indicator light V		110 - 600	110 - 600	110 - 600	
Connection of round conductors mm^2		0.75 - 25	1.5 - 50	2.5 - 50	
Connection of round conductors		AWG 8 - 18	AWG 1 - 18	AWG 1 - 14	
Width mm		54	108	120	
Height mm		81	115	118	
Model No.		**9345.005**	**9345.015**	**9345.035**	
	Packs of	4 pc(s).	2 pc(s).	2 pc(s).	

Fuse holders



Busbar system Page 266 **Connection adaptors** Page 270 **OM adaptors** Page 273 **Circuit-breaker component adaptors** Page 280

Material:
- Polyamide (PA 6)
- Fire protection corresponding to UL 94-V0
- Contact tracks: Electrolytic copper, silver-plated

Colour:
- Chassis: RAL 7035
- Cover: RAL 7035/7001

Note:
- UL (listed accessory) is met when using the fuse holder on RiLine busbar systems

Standards:
- UL 508

Rated operating current max. 100 – 400 A

Fuse type (class)	Packs of	J	J	J	Page
Rated operating current min. A		61	101	201	
Rated operating current max. A		100	200	400	
Rated operating voltage V, ~		600, 3~	600, 3~	600, 3~	
Number of poles		3-pole	3-pole	3-pole	
Fuse standard		UL 4248-8	UL 4248-8	UL 4248-8	
Fuse size mm		29 x 118	41 x 146	54 x 181	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Box terminal	Box terminal	
Connection of round conductors		AWG 2 – MCM 300	AWG 4/0 – MCM 600	AWG 4/0 – MCM 600	
Width mm		184	210	250	
Height mm		288	288	328	
Approvals		UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	
For bar thickness mm		5/10	5/10	5/10	
Model No.	1 pc(s).	**9345.100**	**9345.200**	**9345.400**	

Busbar supports





Busbar support

1-pole

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Supply includes:
9342.030
– Raised section for stepped configuration of the PLS busbars

Note:
– The busbar supports may be bayed with 60 mm bar centre distance for the configuration of multi-pole systems

Version	P. of	1	2	Page
Number of poles		1-pole	1-pole	
Bar centre distance mm		–	–	
For busbars mm		PLS 1600	–	309
		–	12 x 5/10[1], 15 x 5 – 30 x 10	308
Rated operating voltage V, ~		1000, 1~	1000, 1~	
		1500 (DC)	1500 (DC)	
PEN/N/PE support		■	■	
N/PE support		–	–	
Approvals		UL	UL	
Model No.	4 pc(s).	**9342.030**	**9340.030**	
Accessories				
Spacers	12 pc(s).	–	9340.090	307
Cage nuts M5[2]	50 pc(s).	–	4166.000	736

[1] When using busbars 12 x 5/10 mm, spacer 9340.090 is additionally required
[2] For attaching the busbar support to the TS frame section and punched sections with mounting flanges with rectangular system punchings 12.5 x 10.5 mm





Busbar support

2-pole

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Version	P. of	1	2	Page
Number of poles		2-pole	2-pole	
Bar centre distance mm		60	60	
For busbars mm		12 x 5	12 x 5 – 30 x 10	308
Rated operating voltage V, ~		1000, 2~	1000, 2~	
PEN/N/PE support		■	■	
N/PE support		■	■	
Approvals		–	UL	
Model No.	4 pc(s).	**9600.005**	**9340.040**	
Accessories				
Cage nuts M5[1]	50 pc(s).	–	4166.000	736

[1] For attaching the busbar support to the TS frame section and punched sections with mounting flanges with rectangular system punchings 12.5 x 10.5 mm

Base isolators

For configuring busbar systems with any given bar centre distances and for assembling insulated PE or PEN busbars.

Material:
– Duroplastic polyester (UP resin)

Rated operating voltage kV	1	1
Tensile strength kN	12	13
Torsional strength Nm	75	90
Bending strength kN	6	6
Height mm	40	50
Thread	M10	M10
P. of	6 pc(s).	6 pc(s).
Model No.	**3031.000**	**3032.000**



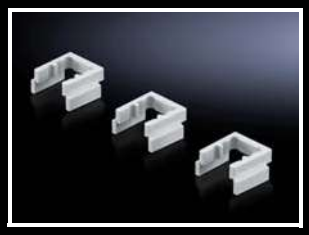
Spacers

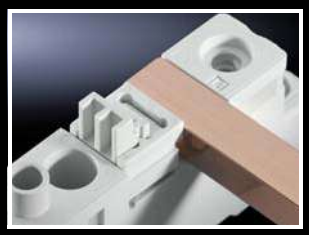
for RiLine busbar supports (flat busbar system)
For adapting 12 x 5 and 12 x 10 mm busbar sizes.
For busbar supports
- 9340.030 (1-pole), see page 306
- 9340.000/.010 (3-pole), see page 266
- 9340.004 (4-pole), see page 266

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

P. of	**Model No.**
12 pc(s).	**9340.090**





CUPONAL busbars

To DIN EN 13 601

Length: 2400 mm/bar

Copper-coated aluminium busbars, suitable for the configuration of busbar systems with busbar supports 9340.000/.050, see page 266.

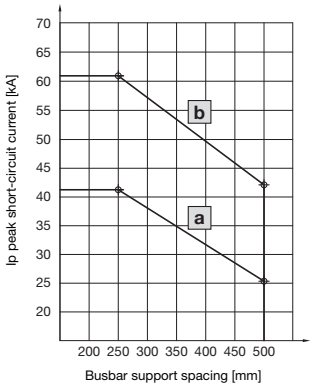
Material:
– Aluminium core with crimped copper coating made from E-Cu

Dimensions mm	Rated current[1] A	P. of	**Model No.**
20 x 5	235	6 pc(s).	**3582.020**
20 x 10	363	3 pc(s).	**3585.020**
30 x 5	328	6 pc(s).	**3584.020**
30 x 10	493	3 pc(s).	**3586.020**

[1] Current carrying capacity at 65°C bar temperature and 35°C ambient temperature, correction factor diagram to DIN 43 671



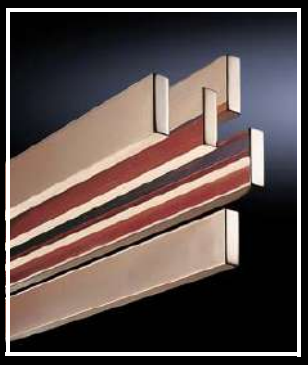
Short-circuit resistance diagram



CUPONAL busbars mm	Busbar supports	Curve
20 x 5/10	9340.000/.050	a
30 x 5/10	9340.000/.050	b



Busbars



E-Cu busbars

To DIN EN 13 601

Length: 2400 mm/bar

Material:
E-Cu F30

Dimensions mm	Approvals	P. of	**Model No.**	Page
12 x 5	UL	6 pc(s).	**3580.000**	
15 x 5	UL	6 pc(s).	**3581.000**	
20 x 5	UL	6 pc(s).	**3582.000**	
25 x 5	UL	6 pc(s).	**3583.000**	
30 x 5	UL	6 pc(s).	**3584.000**	
12 x 10	UL	6 pc(s).	**3580.100**	
15 x 10	UL	6 pc(s).	**3581.100**	
20 x 10	UL	3 pc(s).	**3585.005**	
30 x 10	UL	3 pc(s).	**3586.005**	
40 x 10	–	3 pc(s).	**3587.000**	
50 x 10	–	2 pc(s).	**3588.005**	
60 x 10	–	2 pc(s).	**3589.005**	
80 x 10	–	1 pc(s).	**3590.005**	
100 x 10	–	1 pc(s).	**3590.015**	
120 x 10	–	1 pc(s).	**3590.020**	
Accessories				
Busbar connectors for busbars mm	12 x 5 – 15 x 10 (single connection)	3 pc(s).	9350.075	309
	20 x 5 – 30 x 10 (single connection)	3 pc(s).	9320.020	309
	20 x 5 – 30 x 10 (bayed connection)	3 pc(s).	9320.030	309
Busbar cover sections for busbars mm	12/15 x 5	4 pc(s).	9350.010	308
	12/15 x 10	4 pc(s).	9350.060	308
	12 x 5 – 30 x 10	10 pc(s).	3092.000	308
	40 - 60 x 10	10 pc(s).	3085.000	308
Inserted screw nuts		30 pc(s).	3591.060	767





Busbar cover sections

Contact hazard protection by covering the busbars. May be cut to required length.

Length: 1000 mm/section

Material:
– Thermally modified hard PVC
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– Contact hazard protection, for more solutions see page 312.

For busbars mm	Approvals	P. of	**Model No.**
12/15 x 5	–	4 pc(s).	**9350.010**
12/15 x 10	–	4 pc(s).	**9350.060**
12 x 5 – 30 x 10	UR	10 pc(s).	**3092.000**
40 - 60 x 10	UR	10 pc(s).	**3085.000**

PLS special busbars E-Cu





For system PLS 800, bar thickness 5 mm, bar cross-section 300 mm²					
For enclosure width mm	Length mm	Approvals	P. of	**Model No.**	Page
600	495	UL	3 pc(s).	**3524.000**	
800	695	UL	3 pc(s).	**3525.000**	
1000	895	UL	3 pc(s).	**3525.010**	
1200	1095	UL	3 pc(s).	**3526.000**	
variable	2400	UL	1 pc(s).	**3509.000**	
Accessories					
PLS busbar connector (single connection)			3 pc(s).	3504.000	310
PLS busbar connector (bayed connection)			3 pc(s).	3505.000	310
PLS expansion connector			3 pc(s).	9320.060	310

For system PLS 1600, bar thickness 10 mm, bar cross-section 900 mm²					
For enclosure width mm	Length mm	Approvals	P. of	**Model No.**	Page
600	495	UL	3 pc(s).	**3527.000**	
800	695	UL	3 pc(s).	**3528.000**	
1000	895	UL	3 pc(s).	**3528.010**	
1200	1095	UL	3 pc(s).	**3529.000**	
variable	2400	UL	1 pc(s).	**3516.000**	
Accessories					
PLS busbar connector (single connection)			3 pc(s).	3514.000	310
PLS busbar connector (bayed connection)			3 pc(s).	3515.000	310
PLS expansion connector			3 pc(s).	9320.070	310

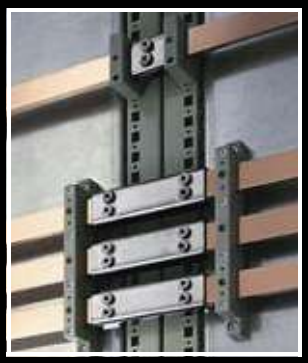
Busbar connectors

For connecting rectangular busbars, no drilling required.

Material:
9350.075
– Top piece: St 37, nickel-plated surface finish
– Contact plate: E-Cu, nickel-plated surface finish

9320.020/9320.030
– Top piece: Sheet steel, zinc-plated, passivated
– Contact plate: E-Cu, silver-plated

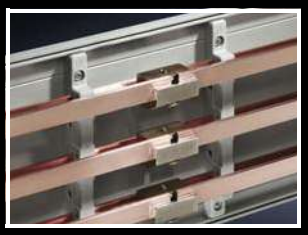


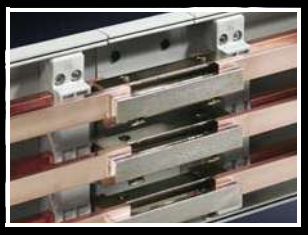


For busbars mm	Application		Approvals	P. of	**Model No.**
	Single connection	Bayed connection[1)]			
12 x 5 – 15 x 10	■	–	UL	3 pc(s).	**9350.075**
20 x 5 – 30 x 10	■	–	UL	3 pc(s).	**9320.020**
	–	■	UL	3 pc(s).	**9320.030**

[1)] Connection from enclosure to enclosure

Busbars





PLS busbar connectors

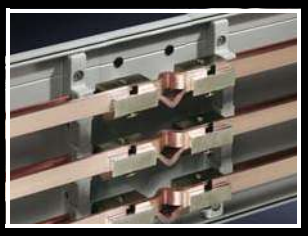
For connecting PLS special busbars; no drilling required.

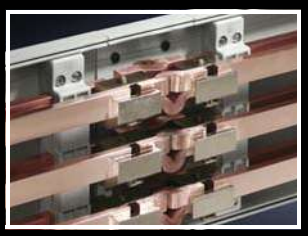
Material:
– E-Cu

Surface finish:
– Nickel-plated

Application	For system	Approvals	P. of	**Model No.**
Single connection	PLS 800	UL	3 pc(s).	**3504.000**
	PLS 1600	UL	3 pc(s).	**3514.000**
Bayed connection[1)]	PLS 800	UL	3 pc(s).	**3505.000**
	PLS 1600	UL	3 pc(s).	**3515.000**

[1)] Connection from enclosure to enclosure





PLS expansion connector

For thermal and mechanical compensation when connecting PLS special busbars from enclosure to enclosure.

Material:
– E-Cu

Note:
– At a temperature increase of 30 K, busbars expand by approximately 0.5 mm/m in the length. For this reason, it is advisable to use an expanding connection for thermal compensation in busbar systems with busbar sections > 3600 mm.

Expansion connector	For system	Approvals	P. of	**Model No.**	Page
	PLS 800	UR	3 pc(s).	**9320.060**	
	PLS 1600	UR	3 pc(s).	**9320.070**	
Also required					
PLS busbar connectors[1)]	PLS 800	UL	3 pc(s).	3504.000	310
	PLS 1600	UL	3 pc(s).	3514.000	310

[1)] Two busbar connectors are needed to fit one expansion connector.

Laminated copper bars

Length: 2000 mm/bar



Material:
Cu membranes
– High-purity electrolyte copper F20

Insulation
– High-strength vinyl compound
– Expansion 370%
– Temperature range: -30°C…+105°C
– Fire protection corresponding to UL 94-V0
– Dielectric strength: 20 kV/mm

Configuration[1] mm	I_n at 70 K[2] A	I_n at 50 K[2] A	I_n at 30 K[2] A	P. of	Model No.
6 x 9 x 0.8	285	240	180	1 pc(s).	**3565.005**
6 x 15.5 x 0.8	415	350	265	1 pc(s).	**3568.005**
10 x 15.5 x 0.8	575	480	365	1 pc(s).	**3569.005**
5 x 20 x 1	525	435	330	1 pc(s).	**3570.005**
5 x 24 x 1	605	510	385	1 pc(s).	**3571.005**
10 x 24 x 1	920	770	585	1 pc(s).	**3572.005**
5 x 32 x 1	770	645	485	1 pc(s).	**3573.005**
10 x 32 x 1	1155	965	730	1 pc(s).	**3574.005**
5 x 40 x 1	930	780	590	1 pc(s).	**3575.005**
10 x 40 x 1	1370	1145	865	1 pc(s).	**3576.005**
5 x 50 x 1	1125	940	710	1 pc(s).	**3577.005**
10 x 50 x 1	1635	1365	1030	1 pc(s).	**3578.005**
10 x 63 x 1	1950	1610	1230	1 pc(s).	**3579.005**

[1] Number of membranes x membrane width x membrane thickness
[2] The conductor temperature of the laminated copper bar is derived by adding the ambient temperature and the temperature increase together
Example:
3565.005 carrying 180 A, i.e. the temperature increases by 30 K. At an ambient temperature of 35°C, this produces a resultant conductor temperature of 35°C + 30 K = 65°C.

Universal support

For the attachment of laminated copper bars from 5 x 20 x 1 mm to 10 x 63 x 1 mm.



Material:
– Fibreglass-reinforced, thermoplastic polyester (PBT)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Supply includes:
– Screws and sliding nuts for mounting on PS punched rails

P. of	Model No.
3 pc(s).	**3079.000**

Accessories:
– PS punched rails, see page 721

Universal support

For the attachment of multi-packetised laminated copper bars from 5 x 40 x 1 mm to 10 x 100 x 1 mm.



Material:
– Fibreglass-reinforced, thermoplastic polyester (PBT)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Supply includes:
– Screws and sliding nuts for mounting on C rails

P. of	Model No.
1 pc(s).	**3079.010**

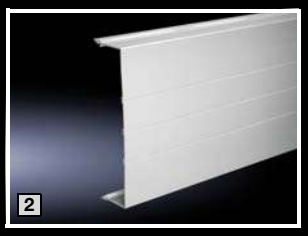
Note:
– 1 universal support corresponds to the supply scope shown in the photograph

Accessories:
– C rails 30/15, see page 723

Contact hazard protection







System components

Material:
– Thermally modified hard PVC
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

For RiLine busbar system			3-pole			4-pole	
			Flat bars	PLS 800	PLS 1600	Flat bars	PLS 1600 PLUS
1 Base trays							
Length (L) mm	P. of	Appro-vals	Model No.			Model No.	
500	2 pc(s).	UL	**9340.100**	**9341.100**	**9342.100**	–	–
700	2 pc(s).	UL	**9340.110**	**9341.110**	**9342.110**	–	–
900	2 pc(s).	UL	**9340.120**	**9341.120**	**9342.120**	–	–
1100	2 pc(s).	UL	**9340.130**	**9341.130**	**9342.130**	**9340.134**	**9342.134**
2400	1 pc(s).	UL	**9340.170**	**9341.170**	**9342.170**	–	–
1 Base tray infills							
100	2 pc(s).	UL	**9340.140**	**9341.140**	**9342.140**	–	–
2 Cover sections							
700	2 pc(s).	UL	**9340.200**	**9340.200**	**9340.200**	–	–
1100	2 pc(s).	UL	**9340.210**	**9340.210**	**9340.210**	**9340.214**	**9340.214**

1 Base tray
For rear contact hazard protection of the flat bar assembly.

1 Base tray infill
For rear contact hazard protection when connecting the busbars from enclosure to enclosure.

Supply includes:
Assembly parts

2 Cover section
May be cut to required length; for clip-on mounting onto the base tray.

Note:
If the cover section is loaded from the front, the support panel is needed for stability.



Support panels

for cover section
To prevent side access to the cover section. The support panel also provides additional stability.

Recommended mounting distance: ≤ 500 mm

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

For system configuration	Approvals	P. of	Model No.
3-pole	UL	5 pc(s).	**9340.220**
4-pole	UL	5 pc(s).	**9340.224**



Cross members

for RiLine busbar connections, 3-pole
To comply with the clearances required for "feeder circuits" under UL 508. For flat bar systems with 60 mm bar centre distance and PLS 800/1600.

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– Two cross members are required for one busbar connection

Length mm	Approvals	P. of	Model No.
160	UL	2 pc(s).	**9340.230**

Also required:
– Support panel 9340.220, see page 312

Conductor connection clamps

Push-in

Applications:
– For use as busbar pick-off of L, N or PE conductors in switchgear and controlgear, and as a conductor connection clamp in meter boxes.
– For mounting on E-Cu or CUPONAL busbars.

Benefits:
– maintenance-free
– Time-saving top-mounting
– Terminal box with integral label panels
– Universal conductor connection

Functions:
– Fully insulated terminal for tool-free conductor connection
– Conductor is released by the integral release pin

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7042

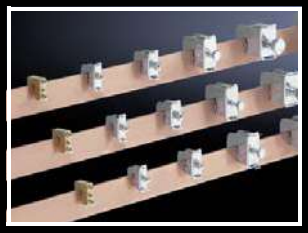
Basis of test:
– IEC 60 999-1
– IEC 60 947-7-1/-2





For bar thickness mm	Connection of round conductors, single-wire mm^2	Connection of round conductors, multi-wire mm^2	Connection of round conductors, fine wire without wire end ferrule mm^2	Connection of round conductors, fine wire with wire end ferrule mm^2	Packs of	**Model No.**
5	0.5 - 6	0.5 - 4	0.5 - 4	0.5 - 4	10 pc(s).	**3450.505**
5	1.5 - 16	1.5 - 16	1.5 - 16	1.5 - 16	10 pc(s).	**3451.505**
10	0.5 - 6	0.5 - 4	0.5 - 4	0.5 - 4	10 pc(s).	**3455.505**
10	1.5 - 16	1.5 - 16	1.5 - 16	1.5 - 16	10 pc(s).	**3456.505**

Conductor connection clamps



For connecting round conductors and laminated copper bars.

Note:
– Wire end ferrules should be used with fine wire conductors.

Approvals:
– UR

Accessories:

– Laminated copper bars, see page 311

For bar thickness mm	Clamping area for laminated copper bars (W x H) mm	Connection of round conductors mm^2	Material	Surface finish	Packs of	**Model No.**
5	–	1 - 4	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3450.500**
5	8 x 8	2.5 - 16	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3451.500**
5	10.5 x 11	16 - 50	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3452.500**
5	16.5 x 15	35 - 70	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3453.500**
5	22.5 x 20	70 - 185	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3454.500**
10	–	1 - 4	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3455.500**
10	8 x 8	2.5 - 16	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3456.500**
10	10.5 x 11	16 - 50	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3457.500**
10	16.5 x 15	35 - 70	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3458.500**
10	22.5 x 20	70 - 185	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3459.500**
3 - 5	–	1 - 4	Brass	–	15 pc(s).	**3550.000**
6 - 10	–	1 - 4	Brass	–	15 pc(s).	**3555.000**

Connection systems



Plate clamps

For connecting laminated copper bars; no drilling required.

Material:
– Sheet steel

Surface finish:
– Zinc-plated, passivated

For busbars mm	Clamping area for laminated copper bars (W x H) mm	Packs of	Model No.
12 x 5 - 30 x 10	34 x 10	3 pc(s).	**3554.000**
40 x 10	34 x 10	3 pc(s).	**3559.000**
50 x 10	34 x 10	3 pc(s).	**3560.000**
50 x 10	54 x 10	3 pc(s).	**3562.000**
60 x 10	34 x 10	3 pc(s).	**3561.000**
60 x 10	54 x 10	3 pc(s).	**3563.000**
80 x 10	65 x 10	3 pc(s).	**3460.500**

Accessories:

– Laminated copper bars, see page 311



System covers

For conductor connection clamps and plate clamps.

Material:
– ABS
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– For 3-pole systems with 60/100 mm bar centre distance
– Only suitable for use with systems without a base tray
– For systems with a base tray, the system covers must be mechanically shortened

Approvals:
– UR

Width mm	Depth mm	Height when mounting on busbar systems 60 mm mm	Height when mounting on busbar systems 100 mm mm	Packs of	Model No.
50	80	230	325	4 pc(s).	**3086.000**
100	80	230	325	4 pc(s).	**3087.000**
100	110	230	325	4 pc(s).	**3090.000**
200	80	230	325	4 pc(s).	**3088.000**
200	110	230	325	4 pc(s).	**3091.000**

Connection block



For connecting round conductors and laminated copper bars. Suitable for busbars 12 x 5 to 30 x 10 mm and PLS 800/1600.

Material:
– Chassis: Polyamide (PA 6.6).
– Cover: ABS
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Supply includes:
– 3 terminals including cover.

Note:
– When using the terminal on 2-pole busbar systems (SV 9340.040), the terminal must be rotated through 180° for connection to the PE busbar.

Approvals:
– UL

Accessories:

– Laminated copper bars, see page 311

Rated current (max.) A	800	1600
Rated operating voltage V, ~	690, 1~	690, 1~
Rated operating voltage (L1 + L2) V	1000 (DC)	1000 (DC)
Rated operating voltage (L1 + L3) V	1500 (DC)	1500 (DC)
Cable outlet	Top/bottom	Top/bottom
Connection of round conductors, fine wire with wire end ferrule mm^2	95 - 185	–
Connection of round conductors, multi-wire mm^2	95 - 300	–
Clamping area for laminated copper bars with 5 mm bar thickness (W x H) mm	33 x 26	65 x 27
Clamping area for laminated copper bars with 10 mm bar thickness (W x H) mm	33 x 22	65 x 22
Width mm	50	85
Height mm	88	88
Packs of	3 pc(s).	3 pc(s).
Model No.	**9342.311**	**9342.321**

Mini-PLS component adaptor



Insert strip

for Mini-PLS component adaptors
To extend the construction width.

Material:
– ABS

Colour:
– RAL 7035

Approvals:
– UR

Width mm	Packs of	Model No.
9	2 pc(s).	**9623.000**



Support rails 35 x 7.5 mm

for Mini-PLS component adaptors

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws and side anti-slip guard

Width mm	Packs of	Model No.
45	10 pc(s).	**9320.150**
54	10 pc(s).	**3548.000**

Support rails 35 x 10 mm

for OM adaptor/support
For attaching to the adaptor section and support frame.

Material:
– Polyamide (PA 6.6)

Colour:
– RAL 9005

Supply includes:
– Assembly screws

Note:
– UL approval in conjunction with OM adaptor/ support
– Support rail TS xxD-V only suitable for non-pitch pattern-dependent mounting on support frame

Width mm	With anti-slip guard for motor circuit-breaker	Design	Packs of	Model No.
45	■	TS 45C	5 pc(s).	**9342.850**
45	–	TS 45D	5 pc(s).	**9342.860**
45	–	TS 45D-V	5 pc(s).	**9342.870**
55	■	TS 55C	5 pc(s).	**9342.920**
55	–	TS 55D	5 pc(s).	**9342.930**
55	–	TS 55D-V	5 pc(s).	**9342.940**



Support rails 35 x 15 mm

for OM adaptor/support
For attaching to the adaptor section.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws and side anti-slip guard

Width mm	Packs of	Model No.
45	5 pc(s).	**9342.880**
55	5 pc(s).	**9342.950**



Support rails 35 x 7.5 mm

for OM adaptor/support

Applications:
– For assembly on 55 mm wide OM adaptors/ supports with 10 mm wide insert strips mounted on the right and left.
– Arrangement of the mounting hole for central configuration on 55 mm wide adaptor section or support frame.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws and side anti-slip guard

Width mm	Packs of	Model No.
72	5 pc(s).	**9342.980**



for OM adaptor/support



Insert strip

for OM adaptor/support
To extend the construction width in a 10 mm pitch pattern. May be bayed as often as required on both sides. With integral cable duct.

Material:
– Polyamide (PA 6.6)

Colour:
– RAL 7035

Supply includes:
– 6 connection pins

Approvals:
– UL

Width mm	Packs of	Model No.
10	2 pc(s).	**9340.290**



Connection pin

for OM adaptor/support
For any required mechanical connection of OM adaptor/support and insert strip 9340.290.

Material:
– Polyamide (PA 6)

Colour:
– RAL 5010

Approvals:
– UL

Packs of	Model No.
20 pc(s).	**9340.280**



PinBlock

for support frames
For reliable attachment and positioning of the contactor on motor starter combinations. Simple clip-on mounting onto the support frame. Individual vertical positioning is achieved by relocating the PinBlock.

Material:
– Polyamide (PA 6.6)

Colour:
– RAL 9005

Note:
– UL approval in conjunction with OM adaptor/support

For support frame width mm	Packs of	Model No.
45	5 pc(s).	**9342.800**
55	5 pc(s).	**9342.810**

Accessories:
– PinBlock Plus, see page 318



PinBlock Plus

for starters with increased contactor attachment
Mounted by simply clipping onto the PinBlock 9342.800/.810.

Material:
– Polyamide (PA 6.6)

Colour:
– RAL 9005

Note:
– UL approval in conjunction with OM adaptor/support

Packs of	Model No.
5 pc(s).	**9342.820**

Cable set

for OM adaptors with tension spring clamp
Pre-assembled connection cables for individual connection of switchgear, top-mounted on OM adaptors with tension spring clamps.

Material:
– PVC insulation
– Temperature resistant to 105°C
– Wire ends with ultrasonic wire-end compression at both ends

Note:
– AWG = American Wire Gauge

Cross-section	Length mm	Packs of	Model No.
AWG 14 = 2.08 mm² ≙ 2,5 mm²	140	15 pc(s).	**9340.850**
AWG 12 = 3.31 mm² ≙ 4 mm²	140	15 pc(s).	**9340.860**
AWG 10 = 5.26 mm² ≙ 6 mm²	140	15 pc(s).	**9340.870**
AWG 8 = 8.37 mm² ≙ 10 mm²	140	6 pc(s).	**9340.880**
AWG 6 = 13.3 mm² ≙ 16 mm²	140	6 pc(s).	**9340.890**



Twin cords

for OM adaptors with tension spring clamp
2.5 – 16 mm²
Pre-assembled connection cables for individual connection of up to two switchgear units per adaptor.

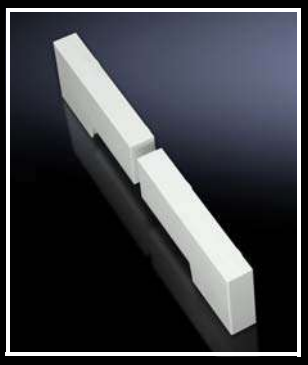
Material:
– PVC insulation
– Temperature resistant to 105°C
– Wire ends with ultrasonic wire-end compression at both ends

Note:
– AWG = American Wire Gauge

Cross-section	Length mm	Packs of	Model No.
AWG 10 = 5.26 mm² ≙ 6 mm²	140 250	6 pc(s).	**9340.820**
AWG 8 = 8.37 mm² ≙ 10 mm²	140 250	6 pc(s).	**9340.830**



for circuit-breaker component adaptors



Insert strip

for circuit-breaker component adaptors
To extend the construction width from 140 mm to 190 mm.

Material:
– ABS

Colour:
– RAL 7035

Supply includes:
– Including connection parts for power circuit-breaker, brand Siemens VL630 (3-pole)

Note:
– 4 pieces are needed to widen a component adaptor

Approvals:
– UL

Width mm	To fit Model No.	Packs of	Model No.
25	9345.700/ 9345.710/ 9345.720/ 9345.730	4 pc(s).	**9342.720**



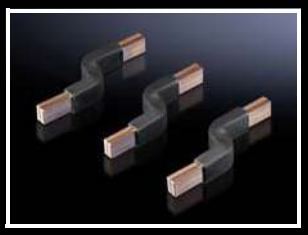
Sliding blocks

for circuit-breaker component adaptors
For additional locking of circuit-breakers with more than two attachment points.

Colour:
– RAL 7035

Note:
– UL approval in conjunction with circuit-breaker component adaptor

To fit Model No.	With threaded insert	Packs of	Model No.
9342.500/.510/ 9342.504/.514/ 9342.540/.550	M3 M4	6 pc(s).	**9342.560**
9345.600/.610/ 9345.604/.614	M4 M5	6 pc(s).	**9342.640**



Connection bracket

for circuit-breaker component adaptors
Pre-assembled, laminated flat copper for connecting standard, commercially available moulded case circuit-breakers (MCCB).

Material:
– Electrolytic copper F20

Note:
– Universal application for switchgear with a dimensional difference between the mounting level and the upper edge of the contact level of 20 ± 5 mm.

For switchgear make (model)	To fit Model No.	Number of lamina	Membrane width mm	Membrane thickness mm	Packs of	Model No.
ABB (T1, T1 UL, T2, T2 UL) Eaton (NZM1, NZM1 UL, BZM B1) Schneider Electric (NSC100, NSE75, NSE100)	9342.500/ 9342.510/ 9342.540/ 9342.550	6	9	0.8	3 pc(s).	**9342.570**



Support rails 35 x 15 mm

for Mini-PLS/circuit-breaker component adaptors

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws and side anti-slip guard

Approvals:
– UR

Width mm	To fit Model No.	Packs of	Model No.
72	9342.400/ 9342.410/ 9629.000	5 pc(s).	**9320.120**

Contact hazard protection cover plate

for bus-mounting fuse bases
The cover ensures contact hazard protection from the front, top and below. All-round contact hazard protection (up to IP 2X) in conjunction with the side cover 3093.010/.020.

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

To fit Model No.	Fuse inserts	Packs of	**Model No.**
3418.010	D 02-E 18	10 pc(s).	**3418.020**
3427.010	D II-E 27	10 pc(s).	**3427.020**
3433.010	D III-E 33	10 pc(s).	**3433.020**



Covers, side

for bus-mounting fuse bases
For clip-on mounting onto the cover plate, contact hazard protection.

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

To fit Model No.	Fuse inserts	Packs of	**Model No.**
3418.010	D 02-E 18	10 pc(s).	**3093.010**
3427.010/ 3433.010	D II-E 27 D III-E 33	10 pc(s).	**3093.020**



Connection space extender

for bus-mounting fuse bases
Contact hazard protection cover plate including cable duct for side extension of the connection space by 14 mm.

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

To fit Model No.	Fuse inserts	Packs of	**Model No.**
3418.010	D 02-E 18	10 pc(s).	**3418.030**
3427.010	D II-E 27	10 pc(s).	**3427.030**
3433.010	D III-E 33	10 pc(s).	**3433.030**



for NH fuse-switch disconn./NH slimline fuse-switch disconn.



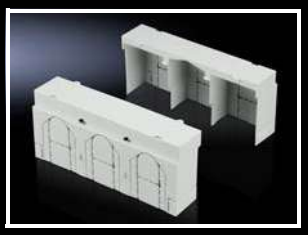
Box terminal

for NH fuse-switch disconnectors
For direct connection of round and sector-shaped conductors and laminated copper bars. Suitable for NH fuse-switch disconnectors with screw terminal.

Material:
– Cast brass

Surface finish:
– Nickel-plated

For size	Clamping area for laminated copper bars (W x H) mm	Connection of round conductors mm^2	Connection of sector-shaped conductors mm^2	Packs of	Model No.
1	20 x 14	35 - 150	50 - 150	3 pc(s).	**9344.610**
2/3	32 x 20	95 - 300	120 - 300	3 pc(s).	**9344.620**



Connection space cover

for NH fuse-switch disconnectors
For extending the contact hazard protection cover, e.g. when using ring terminals with a long collar. Bayable as required at the top and bottom.

Material:
– Polyamide (PA 6)

Colour:
– RAL 7035

For size	Packs of	Model No.
00	2 pc(s).	**9344.520**
1	2 pc(s).	**9344.530**
2	2 pc(s).	**9344.540**
3	2 pc(s).	**9344.550**



Arc chambers

for NH fuse-switch disconnectors
To increase switching capacity (utilisation category).

For size	Packs of	Model No.
1 - 3	3 pc(s).	**9344.680**



Micro-switch

for NH fuse-switch disconnectors
To indicate the switch position of the NH unit (cover).

For size	Note on Model No.	Packs of	Model No.
000 00	–	5 pc(s).	**3071.000**
1 - 3	Including plastic lug for attaching the micro-switch to the isolator chassis	2 pc(s).	**9344.510**



Micro-switch

for NH slimline fuse-switch disconnectors
To indicate the switch position of the NH unit (cover).

For size	Packs of	Model No.
00	5 pc(s).	**9346.400**

Connection space cover

for NH slimline fuse-switch disconnectors
Extended version for the use of ring terminals with a long collar.

Material:
– Polycarbonate

For size	Packs of	**Model No.**
00	1 pc(s).	**9346.460**



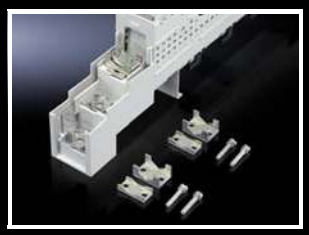
Clamp-type terminal connection

for NH slimline fuse-switch disconnectors
For the connection of round conductors. Suitable for NH slimline fuse-switch disconnectors with screw terminal.

Material:
– Cast brass

Surface finish:
– Nickel-plated

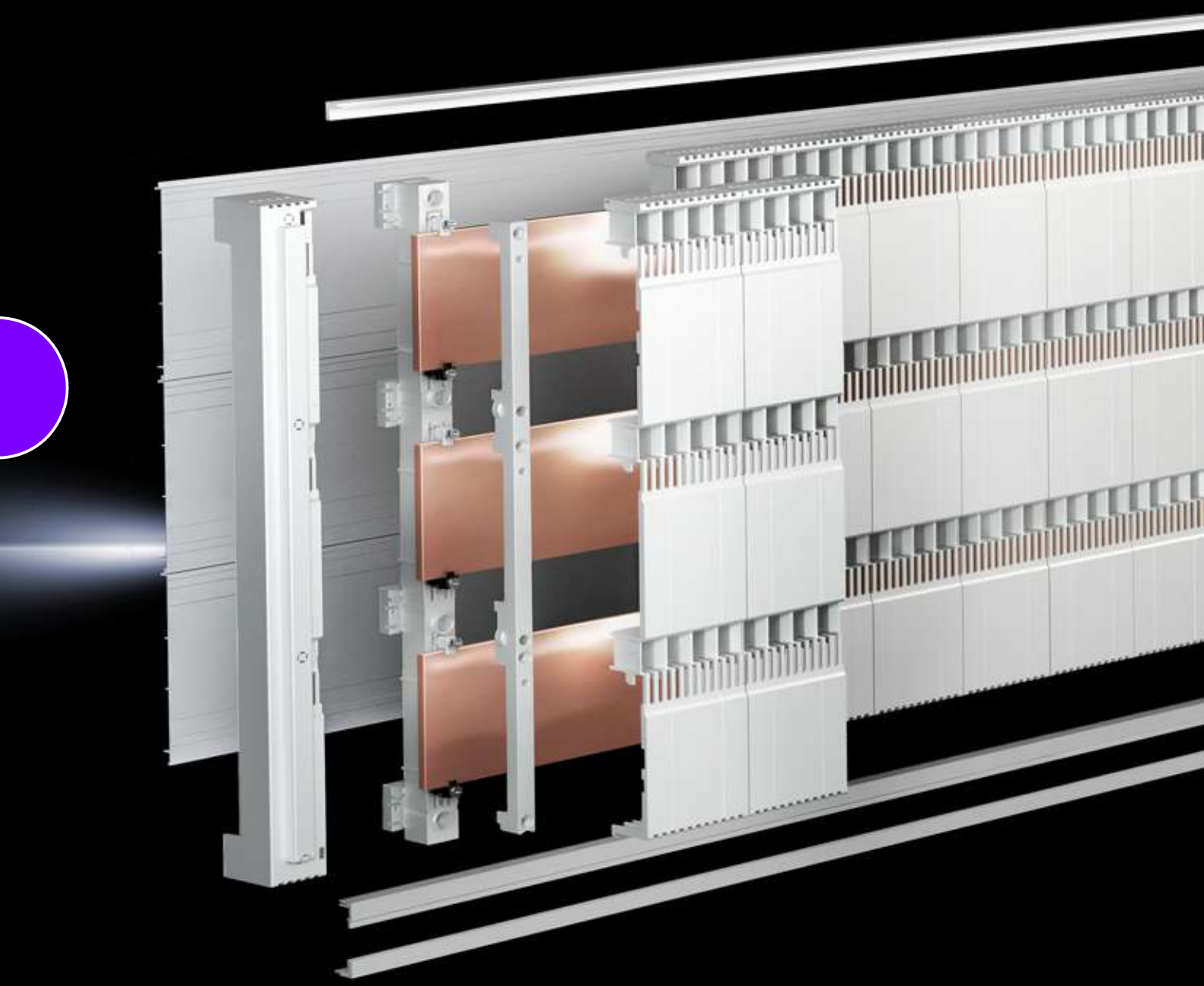
For size	Connection of round conductors mm^2	Packs of	**Model No.**
00	1.5 - 95	3 pc(s).	**3592.010**

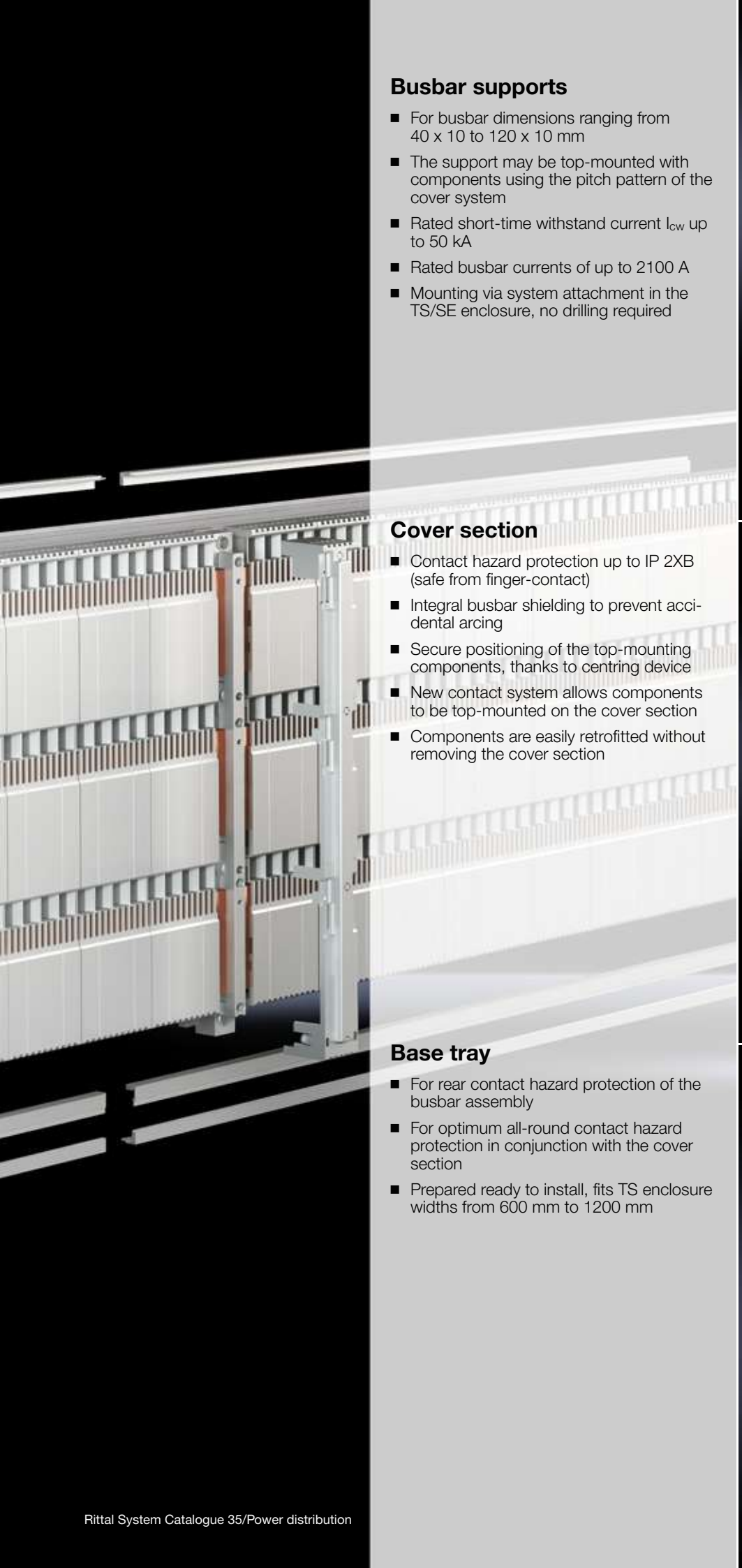


Ri4Power system 185 mm – System assembly without drilling

The busbar system is quickly and conveniently installed in the enclosure in just three steps:

- Position the TS punched section with mounting flange and system attachment in the enclosure
- Secure the busbar assembly
- Clip the cover system into position





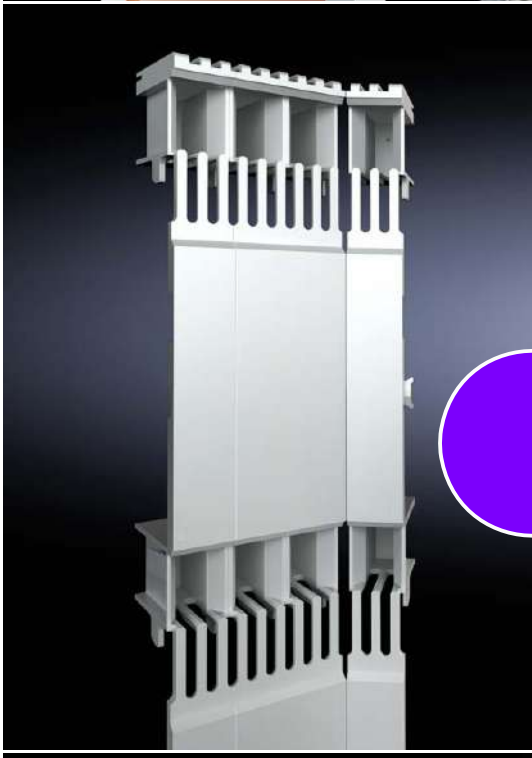
Busbar supports

- For busbar dimensions ranging from 40 x 10 to 120 x 10 mm
- The support may be top-mounted with components using the pitch pattern of the cover system
- Rated short-time withstand current I_{cw} up to 50 kA
- Rated busbar currents of up to 2100 A
- Mounting via system attachment in the TS/SE enclosure, no drilling required



Cover section

- Contact hazard protection up to IP 2XB (safe from finger-contact)
- Integral busbar shielding to prevent accidental arcing
- Secure positioning of the top-mounting components, thanks to centring device
- New contact system allows components to be top-mounted on the cover section
- Components are easily retrofitted without removing the cover section



Base tray

- For rear contact hazard protection of the busbar assembly
- For optimum all-round contact hazard protection in conjunction with the cover section
- Prepared ready to install, fits TS enclosure widths from 600 mm to 1200 mm



The perfect-fit adaptor system

Connection and component adaptors for tested, safe connection at high currents

- For air circuit-breakers up to 630 A and 1600 A
- Direction connection of various conductor types
- No-drill connection system to the busbar



Busbar connection adaptors and connection blocks

- Compact, fast connection of cables and lines
- Suitable for various types of conductor
- With standardised contact hazard protection cover plates



Component adaptors for compact air circuit-breakers

- Two sizes up to 630 A and 1600 A
- Variants for clamping or screw attachment
- Make contact without drilling
- Ideal for incoming and outgoing circuits



Connector kit and transformer

- Form-fit, prepared for switch brands ABB, Eaton, Schneider Electric, Siemens
- Preassembled connector kits from the adaptor to the air circuit-breaker
- Optional integration of a current transformer
- Complete contact hazard protection in the inlet and outlet zones



Fuse elements to suit all situations

The new system of NH slimline fuse-switch disconnectors is based on separate air routing for heat dissipation and targeted removal of switching gases, while the NH slimline switch-disconnectors ensure user-independent disconnection and switching for enhanced safety.

- Simple device assembly
- Safe operation
- Optimum contact hazard protection

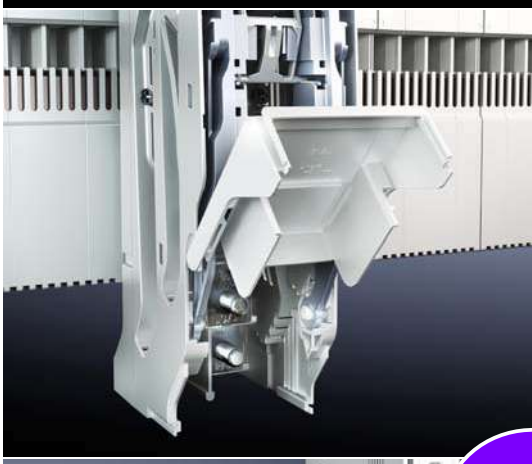




NH slimline fuse-switch disconnectors, sizes 00 to 3

- 1-pole and 3-pole switchable variants
- Symmetrical layout for cable outlet at the top and bottom
- Optional integration of current transformers
- Versions with and without fuse monitoring.
- Self-closing voltage testing holes
- Prepared for multiple lead seals
- Hinged terminal cover
- Cascadable connection space extension
- Simple conversion of the bolt or screw connections
- Contact hazard-proof fuse contacts with the top section dismantled
- Optional micro-switch monitoring of the cover switch position





NH slimline switch-disconnectors with fuses, size 00 to 3

- Disconnect and switch with one device
- Integral, user-independent quick-break contact ensures safe operation
- User-friendly cable connection from above or below
- Versions with and without fuse monitoring.
- Integral switch position display
- No-drill contacting with clamping screw attachment
- Double-break allows de-energised fuse replacement





Busbar support (185 mm)



Component adaptors Page 334 **Connection adaptors** Page 332 **Connection block** Page 333 **NH slimline switch-disconnectors** Page 336

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Supply includes:
– Including assembly components for contact hazard protection cover (base tray)

			
Bar centre distance mm	Packs of	185	Page
Number of poles		3-pole	
For busbars mm		40 x 10 60 x 10 80 x 10 100 x 10 120 x 10	
Model No.	2 pc(s).	**9677.500**	
Accessories			
Busbars E-Cu		see page	331
Contact hazard protection cover plate		see page	343
End covers	2 pc(s).	9677.600	342

Busbar system (185 mm)

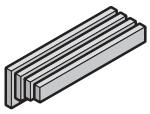
Busbar supports

Note:
Required quantity when using in the enclosure width
– 600/800 mm: 2 pc(s).
– 1000/1200 mm: 3 pc(s).



Number of poles	P. of	3-pole	Page
Bar centre distance mm		185	
Model No.	2 pc(s).	9677.500	330

Busbars E-Cu, length: 2400 mm/bar

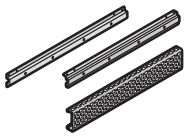


Dimensions mm	P. of	Model No.	Page
40 x 10	3 pc(s).	3587.000	308
60 x 10	2 pc(s).	3589.005	
80 x 10	1 pc(s).	3590.005	
100 x 10	1 pc(s).	3590.015	
120 x 10	1 pc(s).	3590.020	

Accessories

Busbar connector		see page	342

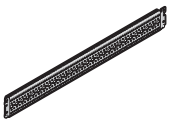
System attachment



For enclosure width mm	P. of	Model No.	Page
600	1 pc(s).	9677.510	342
800	1 pc(s).	9677.520	
1000	1 pc(s).	9677.530	
1200	1 pc(s).	9677.540	

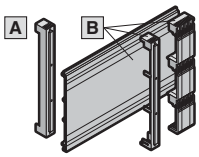
Accessories

TS punched section with mounting flange, 17 x 73 mm



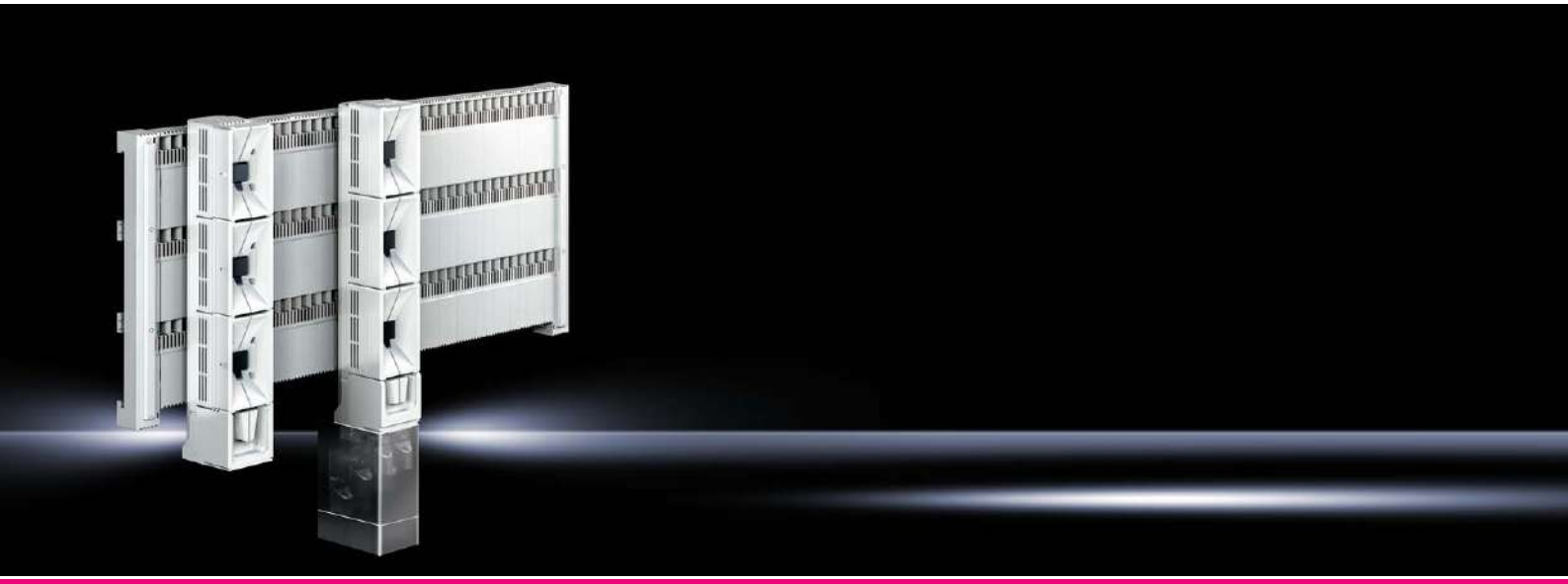
For enclosure depth mm	P. of	Model No.	Page
500	4 pc(s).	8612.150	717
600	4 pc(s).	8612.160	
800	4 pc(s).	8612.180	

Contact hazard protection



Components	For enclosure width mm	P. of	Model No.	Page
A End covers l/r	–	2 pc(s).	9677.600	342
B Cover plate, contact hazard protection (cover section, base tray, trim section)	600	1 pc(s).	9677.550	343
	800	1 pc(s).	9677.560	
	1000	1 pc(s).	9677.570	
	1200	1 pc(s).	9677.580	

Connection adaptors



Busbar system Page 330 **Connection block** Page 333 **Component adaptors** Page 334 **NH slimline switch-disconnectors** Page 336

Material:
– Chassis: Fibreglass-reinforced polyester
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– When using components on busbars with contact hazard protection cover, the contact terminal must be used

Rated current max. 800 – 1400 A

Rated current max. A	Packs of	800	1400	Page
Rated operating voltage V, ~		690, 3~	690, 3~	
Number of poles		3-pole	3-pole	
Cable outlet		Bottom	Bottom	
Type of connection		Screw M12	Screw M12	
Connection of round conductors mm^2		6 - 240	6 - 300	
Width mm		100	100	
Height mm		665	960	
For bar systems with centre-to-centre spacing mm		185	185	
For bar thickness mm		10	10	
Model No.	1 pc(s).	**9677.900**	**9677.905**	
Product-specific scope of supply				
Contact hazard protection cover plate		–	■	
Accessories				
Contact terminal	3 pc(s).	9677.460	9677.460	345
Busbar terminal	3 pc(s).	9677.480	9677.480	345

Connection block



Busbar system Page 330 **Connection adaptors** Page 332 **Component adaptors** Page 334 **NH slimline switch-disconnectors** Page 336

For connecting cables and laminated copper bars.

Material:
– Sheet steel, zinc-plated
– E-Cu, tin-plated

Rated current max. 1000 – 1600 A

Rated current max. A	Packs of	1000	1600	1600	Page
Rated operating voltage V, ~		690, 1~	690, 1~	690, 1~	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	–	Ring terminal M12	
Number of connection cables max.		2	–	4	
Connection of round conductors mm^2		185 - 300	–	240	
Clamping area for laminated copper bars (W x H) mm		–	80 x 20	–	
Width mm		98	98	98	
For bar thickness mm		10	10	10	
Model No.	1 pc(s).	**9677.915**	**9677.910**	**9677.920**	
Also required					
Contact hazard protection cover plate	1 pc(s).	9677.925	9677.925	9677.925	344

Component adaptors



Busbar system Page 330 **Connection adaptors** Page 332 **Connection block** Page 332 **NH slimline switch-disconnectors** Page 336

Material:
- Polyamide (PA 6.6)
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Note:
- Cable outlet: Switch outlet or as outgoing cable from the switchgear
- Suitable for the use of switchgear with front screw terminal
- For mounting on busbar systems with or without cover section

Rated current max. 630 – 1600 A, clamping attachment

Rated current max. A	Packs of	630	1000	1600	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Installation type		Clamping attachment	Clamping attachment	Clamping attachment	
Cable outlet		Bottom	Bottom	Bottom	
For switchgear make (model)		ABB (Tmax T5) Eaton (NZM3) Schneider Electric (NSX630) Siemens (3VA2, 3VL4)	ABB (Tmax T7 - 800 A/1000 A) Eaton (NZM4 - 800 A/1000 A) Schneider Electric (NS - 800 A/1000 A) Siemens (VL1250/3VL7 - 1000 A)	ABB (Tmax T7 - 1250 A/1600 A) Eaton (NZM4 - 1250 A/1600 A) Schneider Electric (NS - 1250 A/1600 A) Siemens (VL1250/3VL7 - 1250 A, VL1600/3VL8 - 1600 A)	
Width mm		150	300	300	
Height mm		585	652	652	
For bar systems with centre-to-centre spacing mm		185	185	185	
For bar thickness mm		10	10	10	
Model No.	1 pc(s).	**9677.770**	**9677.700**	**9677.710**	
Product-specific scope of supply					
Connection straps		■	–	–	
Also required					
Connector kit		–	see page	see page	344
Contact hazard protection cover plate		–	see page	see page	344



Busbar system Page 330 **Connection adaptors** Page 332 **Connection block** Page 333 **NH slimline switch-disconnectors** Page 336

Material:
- Polyamide (PA 6.6)
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Note:
- Cable outlet: Switch outlet or as outgoing cable from the switchgear
- Suitable for the use of switchgear with front screw terminal
- For attaching to busbars with holes. Please ensure that there is no cover section installed in the vicinity of the device.

Rated current max. 630 – 1600 A, screw attachment

Rated current max. A	Packs of	630	1000	1600	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Installation type		Screw attachment	Screw attachment	Screw attachment	
Cable outlet		Bottom	Bottom	Bottom	
For switchgear make (model)		ABB (Tmax T5) Eaton (NZM3) Schneider Electric (NSX630) Siemens (3VA2, 3VL4)	ABB (Tmax T7 - 800 A/1000 A) Eaton (NZM4 - 800 A/1000 A) Schneider Electric (NS - 800 A/1000 A) Siemens (VL1250/3VL7 - 1000 A)	ABB (Tmax T7 - 1250 A/1600 A) Eaton (NZM4 - 1250 A/1600 A) Schneider Electric (NS - 1250 A/1600 A) Siemens (VL1250/3VL7 - 1250 A, VL1600/3VL8 - 1600 A)	
Width mm		150	300	300	
Height mm		585	652	652	
For bar systems with centre-to-centre spacing mm		185	185	185	
For bar thickness mm		10	10	10	
Model No.	1 pc(s).	**9677.780**	**9677.705**	**9677.715**	
Product-specific scope of supply					
Connection straps		■	–	–	
Also required					
Connector kit		–	see page	see page	344
Contact hazard protection cover plate		–	see page	see page	344

NH slimline fuse-switch disconnectors



Busbar system Page 330 **Connection adaptors** Page 332 **Connection block** Page 333 **Component adaptors** Page 334

Material:
- Polyamide (PA 6.6)
- Fire protection corresponding to UL 94-V0
- Contact tracks: Partially silver-plated hard copper

Colour:
- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Note:
- When using components on busbars with contact hazard protection cover, the contact terminal must be used

Size 00 – 3, design single-pole, switchable

Size	Packs of	00	1	2	3	Page
Twin track		–	–	–	–	
Rated operating current max. A		160	250	400	630	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Screw M8	Bolt M12	Bolt M12	Bolt M12	
Connection of round conductors mm^2		1.5 - 95	6 - 240	6 - 240	6 - 240	
Width mm		50	100	100	100	
Height mm		670	670	670	670	
For converter installation		■	■	■	■	
For bar systems with centre-to-centre spacing mm		185	185	185	185	
For bar thickness mm		10	10	10	10	
Note on Model No.		–	–	–	–	
Model No.	1 pc(s).	**9677.010**	**9677.110**	**9677.210**	**9677.310**	
Accessories						
Connection space cover	1 pc(s).	see page	9677.410	9677.410	9677.410	345
Contact terminal	3 pc(s).	9677.450	9677.460	9677.460	9677.460	345
Busbar terminal	3 pc(s).	9677.470	9677.480	9677.480	9677.480	345
Prism terminal	3 pc(s).	9677.420	–	–	–	346
V connection terminal	3 pc(s).	–	9677.430	9677.430	9677.440	346
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	3071.000	348
Current converter	1 pc(s).	9677.810	see page	see page	see page	346
Cover	5 pc(s).	–	9677.415	9677.415	9677.415	347

Size 00 – 1, design 3-pole, switchable

Size	Packs of	00	00	1	Page
Twin track		–	–	–	
Rated operating current max. A		160	160	250	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	
Type of connection		Screw M8	Box terminal	Bolt M12	
Connection of round conductors mm²		1.5 - 95	1.5 - 95	6 - 240	
Width mm		50	50	100	
Height mm		670	670	670	
For converter installation		■	■	■	
For bar systems with centre-to-centre spacing mm		185	185	185	
For bar thickness mm		10	10	10	
Note on Model No.		–	–	–	
Model No.	1 pc(s).	**9677.000**	**9677.025**	**9677.100**	
Accessories					
Connection space cover	1 pc(s).	see page	see page	9677.410	345
Contact terminal	3 pc(s).	9677.450	9677.450	9677.460	345
Busbar terminal	3 pc(s).	9677.470	9677.470	9677.480	345
Prism terminal	3 pc(s).	9677.420	–	–	346
V connection terminal	3 pc(s).	–	–	9677.430	346
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	348
Current converter	1 pc(s).	9677.810	9677.810	see page	346
Cover	5 pc(s).	–	–	9677.415	347

Size 2 – 3, design 3-pole, switchable

Size	Packs of	2	3	3	Page
Twin track		–	–	■	
Rated operating current max. A		400	630	1250	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Bottom	
Type of connection		Bolt M12	Bolt M12	Bolt M12	
Connection of round conductors mm²		6 - 240	6 - 240	6 - 240	
Width mm		100	100	200	
Height mm		670	670	670	
For converter installation		■	■	■	
For bar systems with centre-to-centre spacing mm		185	185	185	
For bar thickness mm		10	10	10	
Note on Model No.		–	–	Special design	
Model No.	1 pc(s).	**9677.200**	**9677.300**	**9677.340**	
Accessories					
Connection space cover	1 pc(s).	9677.410	9677.410	–	345
Contact terminal	3 pc(s).	9677.460	9677.460	9677.460	345
Busbar terminal	3 pc(s).	9677.480	9677.480	9677.480	345
Prism terminal		–	–	–	
V connection terminal	3 pc(s).	9677.430	9677.440	–	346
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	348
Current converter		see page	see page	see page	346
Cover	5 pc(s).	9677.415	9677.415	–	347

NH slimline fuse-switch disconnectors



Busbar system Page 330 **Connection adaptors** Page 332 **Connection block** Page 333 **Component adaptors** Page 334

Material:
- Polyamide (PA 6.6)
- Fire protection corresponding to UL 94-V0
- Contact tracks: Partially silver-plated hard copper

Colour:
- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Note:
- When using components on busbars with contact hazard protection cover, the contact terminal must be used

Size 00 – 3, with electronic fuse monitoring

Size	Packs of	00	1	2	3	Page
Design		3-pole, switchable	3-pole, switchable	3-pole, switchable	3-pole, switchable	
Rated operating current max. A		160	250	400	630	
Rated operating voltage V, ~		400, 3~	400, 3~	400, 3~	400, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Screw M8	Bolt M12	Bolt M12	Bolt M12	
Connection of round conductors mm^2		1.5 - 95	6 - 240	6 - 240	6 - 240	
Width mm		50	100	100	100	
Height mm		830	830	830	830	
For converter installation		■	■	■	■	
For bar systems with centre-to-centre spacing mm		185	185	185	185	
For bar thickness mm		10	10	10	10	
Model No.	1 pc(s).	**9677.015**	**9677.115**	**9677.215**	**9677.315**	
Accessories						
Connection space cover	1 pc(s).	see page	9677.410	9677.410	9677.410	345
Contact terminal	3 pc(s).	9677.450	9677.460	9677.460	9677.460	345
Busbar terminal	3 pc(s).	9677.470	9677.480	9677.480	9677.480	345
Prism terminal	3 pc(s).	9677.420	–	–	–	346
V connection terminal	3 pc(s).	–	9677.430	9677.430	9677.440	346
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	3071.000	348
Current converter	1 pc(s).	9677.810	see page	see page	see page	346
Cover	5 pc(s).	–	9677.415	9677.415	9677.415	347

NH slimline switch-disconnectors



Busbar system Page 330 **Connection adaptors** Page 332 **Connection block** Page 333 **Component adaptors** Page 334

Functions:
- Automatic quick-break contact allows operator-independent switching
- Double-break for reliable disconnection of the contacts

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Partially silver-plated hard copper

Colour:
- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 00, design 3-pole, switchable

Size	Packs of	00	00	00	00	Page
Rated operating current max. A		160	160	160	160	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Installation type		Clamping attachment	Clamping attachment	Screw attachment	Screw attachment	
Cable outlet		Bottom	Top	Bottom	Top	
Type of connection		Screw M8	Screw M8	Screw M8	Screw M8	
Connection of round conductors mm^2		1.5 - 95	1.5 - 95	1.5 - 95	1.5 - 95	
Width mm		50	50	50	50	
Height mm		676	676	676	676	
For converter installation		■	■	■	■	
For bar systems with centre-to-centre spacing mm		185	185	185	185	
For bar thickness mm		10	10	10	10	
Model No.	1 pc(s).	**9677.060**	**9677.070**	**9677.065**	**9677.075**	
Accessories						
Connection space cover	1 pc(s).	9677.400	9677.400	9677.400	9677.400	345
Connection space cover, rear	1 pc(s).	9677.402	9677.402	9677.402	9677.402	347
Clamp-type terminal	3 pc(s).	9677.425	9677.425	9677.425	9677.425	347
Box terminal		–	–	–	–	
Contact terminal		–	–	–	–	
Micro-switch	1 pc(s).	9677.418	9677.418	9677.418	9677.418	348
Current converter	1 pc(s).	9677.810	9677.810	9677.810	9677.810	346

NH slimline switch-disconnectors

Size 1 – 2, design 3-pole, switchable

Size	Packs of	1	1	2	Page
Rated operating current max. A		250	250	400	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Installation type		Screw attachment	Screw attachment	Screw attachment	
Cable outlet		Bottom	Top	Bottom	
Type of connection		Bolt M12	Bolt M12	Bolt M12	
Connection of round conductors mm^2		6 - 240	6 - 240	6 - 240	
Width mm		100	100	100	
Height mm		772	772	772	
For converter installation		–	–	–	
For bar systems with centre-to-centre spacing mm		185	185	185	
For bar thickness mm		10	10	10	
Model No.	1 pc(s).	**9677.160**	**9677.165**	**9677.260**	
Accessories					
Connection space cover	1 pc(s).	9677.410	9677.410	9677.410	345
Connection space cover, rear	1 pc(s).	9677.412	9677.412	9677.412	347
Clamp-type terminal		–	–	–	
Box terminal		see page	see page	see page	348
Contact terminal	3 pc(s).	9677.485	9677.485	9677.485	348
Micro-switch	1 pc(s).	9677.418	9677.418	9677.418	348
Current converter		–	–	–	

Size 2 – 3, design 3-pole, switchable

Size	Packs of	2	3	3	Page
Rated operating current max. A		400	630	630	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Installation type		Screw attachment	Screw attachment	Screw attachment	
Cable outlet		Top	Bottom	Top	
Type of connection		Bolt M12	Bolt M12	Bolt M12	
Connection of round conductors mm^2		6 - 240	6 - 240	6 - 240	
Width mm		100	100	100	
Height mm		772	772	772	
For converter installation		–	–	–	
For bar systems with centre-to-centre spacing mm		185	185	185	
For bar thickness mm		10	10	10	
Model No.	1 pc(s).	**9677.265**	**9677.360**	**9677.365**	
Accessories					
Connection space cover	1 pc(s).	9677.410	9677.410	9677.410	345
Connection space cover, rear	1 pc(s).	9677.412	9677.412	9677.412	347
Clamp-type terminal		–	–	–	
Box terminal		see page	see page	see page	348
Contact terminal	3 pc(s).	9677.485	9677.485	9677.485	348
Micro-switch	1 pc(s).	9677.418	9677.418	9677.418	348
Current converter		–	–	–	

NH slimline switch-disconnectors



Busbar system Page 330 **Connection adaptors** Page 332 **Connection block** Page 333 **Component adaptors** Page 334

Functions:
- Automatic quick-break contact allows operator-independent switching
- Double-break for reliable disconnection of the contacts

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Partially silver-plated hard copper

Colour:
- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 00 – 3, with electronic fuse monitoring

Size	Packs of	00	00	1	2	3	Page
Design		3-pole, switchable	3-pole, switchable	3-pole, switchable	3-pole, switchable	3-pole, switchable	
Rated operating current max. A		160	160	250	400	630	
Rated operating voltage V, ~		400, 3~	400, 3~	400, 3~	400, 3~	400, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	
Installation type		Clamping attachment	Screw attachment	Screw attachment	Screw attachment	Screw attachment	
Cable outlet		Bottom	Bottom	Bottom	Bottom	Bottom	
Type of connection		Screw M8	Screw M8	Bolt M12	Bolt M12	Bolt M12	
Connection of round conductors mm^2		1.5 - 95	1.5 - 95	6 - 240	6 - 240	6 - 240	
Width mm		50	50	100	100	100	
Height mm		860	860	941	941	941	
For converter installation		■	■	–	–	–	
For bar systems with centre-to-centre spacing mm		185	185	185	185	185	
For bar thickness mm		10	10	10	10	10	
Model No.	1 pc(s).	**9677.080**	**9677.085**	**9677.180**	**9677.280**	**9677.380**	
Accessories							
Connection space cover	1 pc(s).	9677.400	9677.400	9677.410	9677.410	9677.410	345
Connection space cover, rear	1 pc(s).	9677.402	9677.402	9677.412	9677.412	9677.412	347
Clamp-type terminal	3 pc(s).	9677.425	9677.425	–	–	–	347
Box terminal		–	–	see page	see page	see page	348
Contact terminal	3 pc(s).	–	–	9677.485	9677.485	9677.485	348
Micro-switch	1 pc(s).	9677.418	9677.418	9677.418	9677.418	9677.418	348
Current converter	1 pc(s).	9677.810	9677.810	–	–	–	346

Accessories



System attachment

for TS, SE
For attaching busbar systems with 185 mm centre-to-centre spacing in TS/SE enclosures.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– 2 system attachments (left/right)
– 2 punched sections without mounting flanges
– Assembly parts

For enclosure width mm	Product-specific scope of supply	Packs of	Model No.
600	–	1 pc(s).	**9677.510**
800	–	1 pc(s).	**9677.520**
1000	System attachment (centre)	1 pc(s).	**9677.530**
1200	System attachment (centre)	1 pc(s).	**9677.540**

Assembly instruction:

– For variable depth adjustment of the busbar system in the enclosure, the TS punched section with mounting flange 17 x 73 mm (for the outer mounting level) is additionally required. Select according to the enclosure depth.



Busbar connectors

For connecting rectangular busbars, no drilling required.

Material:
– E-Cu

Surface finish:
– Tin-plated

Note:
– If using a 100 x 10 mm busbar, one 9677.610 and one 9677.620 are required

For busbars mm	Quantity required per bar	Length mm	Packs of	Model No.
40 x 10 80 x 10 100 x 10	1 2 1	40	1 pc(s).	**9677.610**
60 x 10 100 x 10 120 x 10	1 1 2	60	1 pc(s).	**9677.620**



End covers

for busbar supports
For contact hazard protection of the busbar system on the left and right. Attachment is on the busbar support.

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Supply includes:
– 1 end cover, left
– 1 end cover, right

To fit Model No.	Packs of	Model No.
9677.500	2 pc(s).	**9677.600**

Contact hazard protection cover plate

for busbar system
For contact hazard protection of the busbar assembly at the rear and front. To fit enclosures TS/SE.

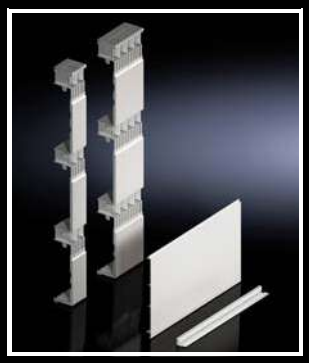
Material:
– Base tray: Polyphenylene ether (PPE)
– End section: Polyphenylene ether (PPE)
– Cover section: Polyamide (PA 6.6)
– Centre cover: Polyamide (PA 6.6)

Colour:
– RAL 7035

Supply includes:
– Cover section, slotted, 50 mm wide
– Cover sections, slotted, 100 mm wide
– Base trays
– Trim sections

For enclosure width mm	Product-specific scope of supply	Packs of	**Model No.**
600	–	1 pc(s).	**9677.550**
800	–	1 pc(s).	**9677.560**
1000	Centre cover for busbar support	1 pc(s).	**9677.570**
1200	Centre cover for busbar support	1 pc(s).	**9677.580**

Accessories:
– Cover strips, see page 343



Cover strips

for contact hazard protection cover
For covering the front exposed contact slots in the cover section.

Material:
– Polyamide (PA 6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Width mm	Height mm	To fit Model No.	Packs of	**Model No.**
100	67	9677.550/ 9677.560/ 9677.570/ 9677.580	3 pc(s).	**9677.650**





Contact hazard protection cover plate

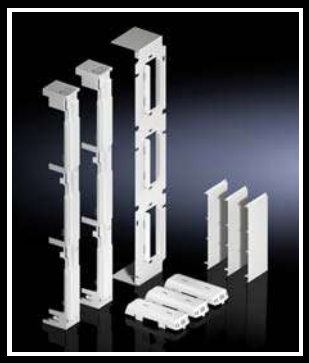
for enclosure connection
For rear and front contact hazard protection of the connection points from enclosure to enclosure, with and without busbar connectors.

Material:
– Base tray: Polyphenylene ether (PPE)
– Cover section: Polyamide (PA 6.6)
– Centre cover: Polyamide (PA 6.6)

Colour:
– RAL 7035

Supply includes:
– 3 base trays
– 1 cover (front)
– 2 centre covers for busbar support

Packs of	**Model No.**
1 pc(s).	**9677.640**



Accessories



Contact hazard protection cover plate

for connection block
To cover the connector block at the front.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Width mm	Height mm	Packs of	Model No.
130	255	1 pc(s).	**9677.925**



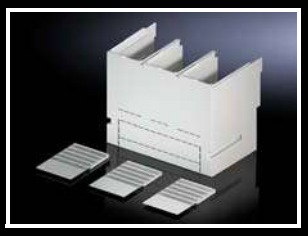
Connector kit

for component adaptors
Preassembled connector kit for common brands of moulded-case circuit-breaker (MCCB). For electrical connection between the switch and the component adaptor (3-pole).

Material:
– E-Cu

Supply includes:
– Assembly parts

For switchgear make (model)	To fit Model No.	Packs of	Model No.
ABB (Tmax T7 - 800 A/1000 A) Schneider Electric (NS - 800 A/1000 A)	9677.700/9677.705	1 pc(s).	**9677.730**
Eaton (NZM4 - 800 A/1000 A) Siemens (VL1250/3VL7 - 1000 A)	9677.700/9677.705	1 pc(s).	**9677.740**
ABB (Tmax T7 - 1250 A/1600 A) Schneider Electric (NS - 1250 A/1600 A)	9677.710/9677.715	1 pc(s).	**9677.750**
Eaton (NZM4 - 1250 A/1600 A) Siemens (VL1250/3VL7 - 1250 A, VL1600/VL8 - 1600 A)	9677.710/9677.715	1 pc(s).	**9677.760**



Contact hazard protection cover plate

for component adaptors
To cover the connector kit at the front. The cover may also optionally be used for the switchgear cable connection. Open cable accesses in the contact hazard protection cover may be sealed using the side panels.

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Supply includes:
– Side panels

For switchgear make (model)	Packs of	Model No.
–	1 pc(s).	**9677.790**
ABB (Tmax T7)	1 pc(s).	**9677.792**
Eaton (NZM 4)	1 pc(s).	**9677.794**
Siemens (3VL7/3VL8)	1 pc(s).	**9677.796**
Schneider Electric (NS1600)	1 pc(s).	**9677.798**

Connection space cover

for NH slimline fuse-switch-disconnectors/ NH slimline switch-disconnectors
Cascadable connection space cover to guarantee contact hazard protection in the cable connection zone when using ring terminals with a long collar.

Material:
– Polycarbonate
– Fire protection corresponding to UL 94-V0

Note:
– When using NH slimline fuse-switch disconnectors with top cable outlet, use of the connection space cover is mandatory



For size	To fit Model No.	Cable outlet	Note on Model No.	Packs of	**Model No.**
00	9677.0X0/ 9677.0X5	Bottom	Also suitable for use with NH slimline switch-disconnectors with top cable outlet	1 pc(s).	**9677.400**
00	9677.000/ 9677.010/ 9677.015/ 9677.025	Top	–	1 pc(s).	**9677.405**
1 - 3	9677.1X0/ 9677.1X5/ 9677.2X0/ 9677.2X5/ 9677.300/ 9677.310/ 9677.3X5	Top/bottom	–	1 pc(s).	**9677.410**

Contact terminal

for NH slimline fuse-switch disconnectors/ connection adaptors
For mounting components on busbar systems with 185 mm centre-to-centre spacing, no drilling required.

Material:
– Sheet steel, zinc-plated
– E-Cu, tin-plated

Note:
– Only suitable for use on busbar system with contact hazard protection cover (cover section, slotted)



For size	Packs of	**Model No.**
00	3 pc(s).	**9677.450**
1 - 3 and connection adaptor	3 pc(s).	**9677.460**

Busbar terminal

for NH slimline fuse-switch disconnectors/ connection adaptors
For mounting components on busbar systems with 185 mm centre-to-centre spacing, no drilling required.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Note:
– Can only be used on busbar system without contact hazard protection cover (cover section, slotted)



For size	Packs of	**Model No.**
00	3 pc(s).	**9677.470**
1 - 3 and connection adaptor	3 pc(s).	**9677.480**

Accessories



Prism terminal

for NH slimline fuse-switch disconnectors
For the direct connection of round conductors.

Material:
– Brass

Surface finish:
– Tin-plated

For size	To fit Model No.	Connection of round conductors mm²	Packs of	Model No.
00	9677.000/ 9677.010/ 9677.015	10 - 95	3 pc(s).	**9677.420**



V connection terminal

for NH slimline fuse-switch disconnectors
For the direct connection of round conductors.

Material:
– Brass

Surface finish:
– Tin-plated

For size	To fit Model No.	Connection of round conductors mm²	Packs of	Model No.
1/2	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215	70 - 240	3 pc(s).	**9677.430**
3	9677.300/ 9677.310/ 9677.315	120 - 300	3 pc(s).	**9677.440**



Current converter

for NH slimline fuse-switch-disconnectors/ NH slimline switch-disconnectors
Compact design without altering the installation depth via mechanical integration into the NH slim-line switch-disconnector (185 mm centre-to-centre spacing); this allows space-saving assembly.

Material:
– Polyamide (PA 6.6)

Basis of test:
– IEC 60 044-1
– EN 60 715
– DIN VDE 0414
– DIN 42 600-2





For size	00	1 - 3	1 - 3	1 - 3	1 - 3
To fit Model No.	9677.000/ 9677.010/ 9677.015/ 9677.025/ 9677.060/ 9677.065/ 9677.070/ 9677.075/ 9677.080/ 9677.085	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340
Primary current A	150	200	250	400	600
Secondary current A	5	5	5	5	5
Accuracy class	1	1	1	1	1
Rated frequency Hz	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60
Insulation voltage kV	3	3	3	3	3
Insulating material category	E	B	B	B	B
Connection of round conductors mm²	2.5 - 4	–	–	–	–
Type of connection	Screw terminals	Round conductor 2.5 mm² (length 1.5 m)	Round conductor 2.5 mm² (length 1.5 m)	Round conductor 2.5 mm² (length 1.5 m)	Round conductor 2.5 mm² (length 1.5 m)
Rated output VA	5	1.5	2.5	2.5	2.5
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Model No.	**9677.810**	**9677.840**	**9677.860**	**9677.870**	**9677.880**

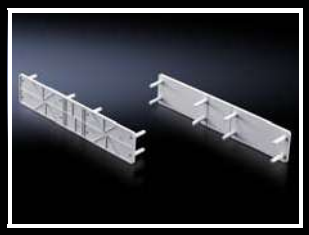
Cover

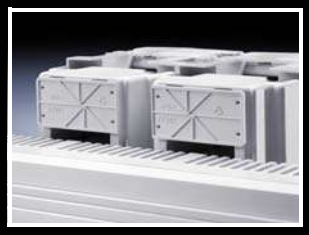
for NH slimline fuse-switch disconnectors
To increase rear contact hazard protection of the NH slimline fuse-switch-disconnector in the top section when mounting on a 185 mm bar system with contact hazard protection.

Material:
– Polyamide

Colour:
– RAL 7035

For size	Packs of	Model No.
1 - 3	5 pc(s).	**9677.415**





Trim strip

for NH slimline fuse-switch-disconnectors/ NH slimline switch-disconnectors
To create a contact surface for individual use of a front contact hazard protection cover plate. Mounted on the side of the NH strip enclosure.

For size	Packs of	Model No.
00 - 3	2 pc(s).	**9677.407**



Connection space cover, rear

for NH slimline switch-disconnectors
To guarantee contact hazard protection in the rear cable connection zone when using ring terminals with long press sleeves. In conjunction with the front connection space cover (9677.400/.410), this achieves all-round contact hazard protection of the connection space.

Material:
– Polyamide

Colour:
– RAL 7035

For size	Packs of	Model No.
00	1 pc(s).	**9677.402**
1 - 3	1 pc(s).	**9677.412**





Clamp-type terminal

for NH slimline switch-disconnectors
For the connection of round conductors.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

For size	Connection of round conductors mm^2	Packs of	Model No.
00	16 - 70	3 pc(s).	**9677.425**



Accessories



Box terminal

for NH slimline switch-disconnectors
For converting NH slimline switch-disconnectors to box terminal connection for round conductors.

Material:
– Aluminium
– E-Cu, silver-plated

Supply includes:
– Connection space cover, rear

For size	Connection of round conductors mm^2	Packs of	Model No.
1 - 3	70 - 240	3 pc(s).	**9677.435**
1 - 3	185 - 300	3 pc(s).	**9677.445**



Contact terminal

for NH slimline switch-disconnectors
For mounting NH slimline switch-disconnectors on bar systems with 185 mm centre-to-centre spacing, no drilling required.

Material:
– Sheet steel, zinc-plated
– E-Cu, tin-plated
– Polyamide

Note:
– Only suitable for use on busbar system with contact hazard protection cover (cover section, slotted)

For size	Packs of	Model No.
1 - 3	3 pc(s).	**9677.485**



Micro-switch

for NH slimline switch-disconnectors
To indicate the switch position of the NH unit (cover).

Supply includes:
– Bracket

For size	Packs of	Model No.
00 - 3	1 pc(s).	**9677.418**

Rittal – The System.

Faster – better – everywhere.

Push-in conductor connection clamps – Tool-free cable connection




Offener Leistungsschalter
Air circuit breaker
ABB
SIEMENS
Offener Leistungsschalter
Air circuit breaker
ABB
SIEMENS

Ri4Power

Modular system

- For low-voltage switchgear with design verification to IEC 61 439-1/-2
- For control systems and power distributors
- Structured system solution for switchgear with Form separation 1-4b
- Simple, installation-friendly configuration of the system



Busbar systems up to 5500 A

- RiLine – The compact busbar system up to 1600 A, see page 265
- Maxi-PLS – The assembly-friendly system, see page 354
- Flat-PLS – The flat busbar system for discerning requirements, see page 357
- Tested PE conductor system, see page 766
- High short-circuit withstand current ratings of up to 100 kA for 1 sec./220 kA



Modular enclosure system

- Based on enclosure platform TS 8, see page 89
- Flexible, modular front design, see page 662
- Roof plates to suit most requirements, see page 693
- Modular compartment configuration for internal compartmentalisation up to Form 4b, see page 367
- Internal cover plates, contact hazard protection for NH fuse-switch-disconnector sections Form 2b, see page 366
- Accessories for Ri4Power, see page 374



Simple planning

- **Rittal Power Engineering with update function** see page 377
- Configuration of low-voltage switchgear with design verification
- Simple, fast assembly with automatically generated assembly plan
- Generation of parts lists with graphical output



Busbar systems (100/185/150 mm)



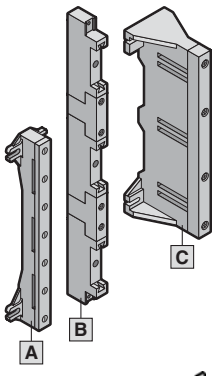
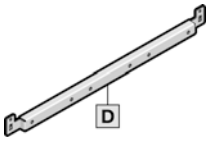
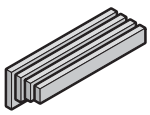
NH slimline fuse-switch disconnectors Page 301/336 **Accessories** Page 374

Material:
Busbar supports, inserts
– Fibreglass-reinforced, thermoplastic polyester (PBT)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

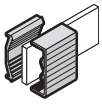
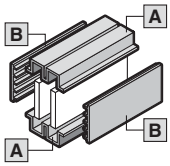
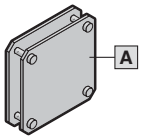
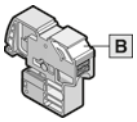
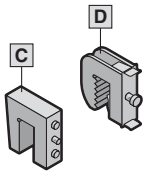
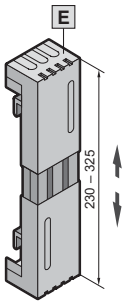
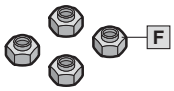
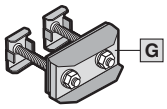
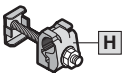
Note:
The base component of busbar support 3052.000 may also be used as a single-pole support

Busbar systems 1250 A (100 mm), 1600 A (185 mm), 2500 A (150 mm), 3000 A (150 mm)

Busbar support, 3-pole			Packs of	Model No.				Page
				A 1250 A	B 1600 A	C 2500 A	C 3000 A	
	Width x height x depth mm			22 x 320 x 70	24 x 515 x 51	30 x 420 x 160	30 x 420 x 170	
	Max. bar accommodation mm			60 x 10	80 x 10	2 x 80 x 10	2 x 100 x 10	
	Inserts for a) Reduces the cross-section to mm			30 x 10 to 50 x 10	50/60 x 10	–	–	
	b) Reduces the bar width in 10 mm increments			–	–	■	■	
	Bar centre distance mm			100	185	150	150	
	Packs of			4 pc(s)	2 pc(s)	2 pc(s)	2 pc(s)	
				3073.000	**3052.000**	**3055.000**	**3057.000**	
	Accessories							
	Inserts to adapt the bar dimensions	30 x 10 mm	24 pc(s).	**3074.000**	**–**	**–**	**–**	
		40 x 10 mm	24 pc(s).	**3075.000**	**–**	**–**	**–**	
		50 x 10 mm	24 pc(s).	**3076.000**	**3074.000**	**–**	**–**	
		60 x 10 mm	24 pc(s).	**–**	**3075.000**	**–**	**–**	
	Spacing piece for reducing the bar width in 10 mm increments		12 pc(s).	**–**	**–**	**3056.000**	**3056.000**	
	D System attachment for rear section Material: Sheet steel Surface finish: Zinc-plated Supply includes: Assembly parts		2 pc(s).	**–**	**9674.100**	**–**	**–**	
Busbars E-Cu[1] to DIN EN 13 601, length 2400 mm								
	Dimensions mm							
	30 x 10		3 pc(s).	3586.005	–	–	–	
	40 x 10		3 pc(s).	3587.000	–	–	–	
	50 x 10		2 pc(s).	3588.005	3588.005	–	–	308
	60 x 10		2 pc(s).	3589.005	3589.005	3589.005	3589.005	
	80 x 10		1 pc(s).	–	3590.005	3590.005	3590.005	
	100 x 10		1 pc(s).	–	–	–	3590.015	
Accessories								
	Baying bracket E-Cu for	30 x 10 mm	4 pc(s).	9661.350	–	–	–	
		40 x 10 mm	4 pc(s).	9661.050	–	–	–	767
		80 x 10 mm	4 pc(s).	–	9661.150	–	–	
	Longitudinal connector for 2 x bar width x 10 mm		1 pc(s).	–	–	9676.621[2]	9676.621[2]	358

[1] For other busbar lengths, see page 766
[2] The required screw must be ordered separately according to the bar width, see page 359

Busbar systems (100/185/150 mm)

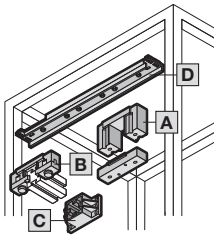
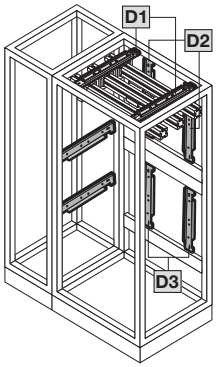
Contact hazard protection			Packs of	Model No. 1250 A	1600 A	2500 A	3000 A	Page
	End cover for busbar support		10 pc(s).	**3083.000**	–	–	–	
	Busbar cover section, length 1 m for E-Cu	30 x 10 mm	10 pc(s).	3092.000	–	–	–	308
		40 x 10 to 60 x 10 mm	10 pc(s).	3085.000	3085.000	–	–	
	A Edge cover section for bar systems with 10 mm space between the strands, length 1 m	for 1 busbar per conductor	10 pc(s).	9676.041	9676.041	–	–	358
		for 2 busbars per conductor	10 pc(s).	–	–	9676.052	9676.052	
	B Side cover section for bar systems, to match the edge cover sections, length 1 m	For busbar width						
		60 mm	10 pc(s).	9676.056	9676.056	9676.056	9676.056	
		80 mm	10 pc(s).	9676.058	9676.058	9676.058	9676.058	
		100 mm	10 pc(s).	9676.059	9676.059	9676.059	9676.059	
Connection system, see page 313 (system accessories)								
	**A Plate clamps** for connecting laminated copper bars; no drilling required.							
	For busbars mm	Clamping area for laminated copper bars mm						
	30 x 10	34 x 10	3 pc(s).	3554.000	–	–	–	314
	40 x 10	34 x 10	3 pc(s).	3559.000	–	–	–	
	50 x 10	34 x 10	3 pc(s).	3560.000	3560.000	–	–	
	50 x 10	54 x 10	3 pc(s).	3562.000	3562.000	–	–	
	60 x 10	34 x 10	3 pc(s).	3561.000	3561.000	–	–	
	60 x 10	54 x 10	3 pc(s).	3563.000	3563.000	–	–	
	80 x 10	65 x 10	3 pc(s).	–	3460.500	–	–	
	B Push-in conductor connection clamps for 10 mm bar thickness							
	Connection of round conductors mm^2	Clamping area for laminated copper bars mm						313
	0.5 – 6	–	10 pc(s).	3455.505	3455.505	3455.505	3455.505	
	1.5 – 16	–	10 pc(s).	3456.505	3456.505	3456.505	3456.505	
	Conductor connection clamps for 10 mm bar thickness							
	Connection of round conductors mm^2	Clamping area for laminated copper bars mm						
	C 1 – 4	–	15 pc(s).	3555.000	3555.000	3555.000	3555.000	313
	D 1 – 4	–	15 pc(s).	3455.500	3455.500	3455.500	3455.500	
	2.5 – 16	8 x 8	15 pc(s).	3456.500	3456.500	–	–	
	16 – 50	10.5 x 11	15 pc(s).	3457.500	3457.500	–	–	
	35 – 70	16.5 x 15	15 pc(s).	3458.500	3458.500	–	–	
	70 – 185	22.5 x 20	15 pc(s).	3459.500	3459.500	–	–	
	E System covers for conductor connection clamps and plate clamps							
	Width x depth mm							
	50 x 80		4 pc(s).	3086.000	–	–	–	314
	100 x 80		4 pc(s).	3087.000	–	–	–	
	100 x 110		4 pc(s).	3090.000	–	–	–	
	200 x 80		4 pc(s).	3088.000	–	–	–	
	200 x 110		4 pc(s).	3091.000	–	–	–	
	F Inserted screw nuts M12, self-holding nuts with knurled ring for mounting NH slimline fuse-switch disconnectors							
	For drilled holes in busbars Ø 14.5 mm.		30 pc(s).	3591.060	3591.060	–	–	767
	**G Connection plates for laminated copper bars**							
	For connecting laminated copper bars up to 2 x 10 x 100 x 1.0 mm to a busbar system with 2 bars per conductor.	For laminated copper bars up to						
		2 x 10 x 32 x 1 mm	1 pc(s).	–	–	9676.747[1)]	9676.747[1)]	359
		2 x 10 x 63 x 1 mm	1 pc(s).	–	–	9676.748[1)]	9676.748[1)]	
		2 x 10 x 100 x 1 mm	1 pc(s).	–	–	9676.749[1)]	9676.749[1)]	
	H Direct connection terminals							
	For the direct connection of round conductors 95 – 300 mm^2 (single-wire and multi-wire)		1 pc(s).	–	–	9676.730[1)]	9676.730[1)]	359

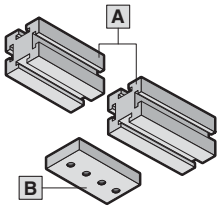
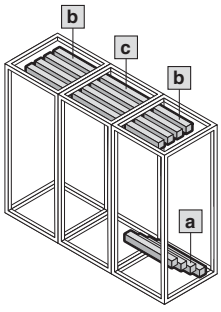
[1)] The required screw connection must be ordered separately according to the busbar width, see page 359

Busbar systems Maxi-PLS

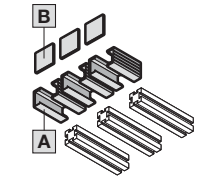
System components

Note:
– Busbars for PE/PEN combinations,
see page 766/767.

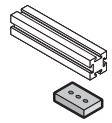
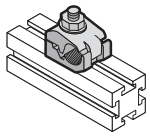
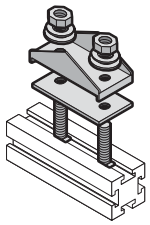
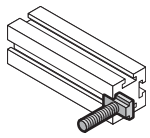
Supports and attachment in the TS enclosure				P. of	Maxi-PLS 1600/2000		Maxi-PLS 3200	
					Model No.		Model No.	
					3-pole	4-pole	3-pole	4-pole
	**A Busbar support** Material: Polyamide (PA 6.6)			1 pc(s).	**9649.000**		**9659.000**	
	B Busbar support, suitable for top mounting Material: Polyamide (PA 6.6)			1 pc(s).	**9649.160**		**9659.160**	
	C End support Material: Polyamide (PA 6.6)			2 pc(s).	**9649.010**		**9659.010**	
	**D System attachment** for installation in the busbar support. Material: Stainless steel							
	For use	For enclosure depth mm	Bar centre distance mm	P. of	Model No.		Model No.	
	D1 In the roof/base section directly above/below coupling switch	600	100	2 pc(s).	**9640.080**		–	
			150	2 pc(s).	–		**9650.100**	
		800	150	2 pc(s).	–		**9650.080**	
	D2 Rear section top/bottom	–	150	2 pc(s).	**9640.098**		**9650.098**	
	D3 Rear section, centre (185 mm)	–	185	2 pc(s).	3-pole	4-pole	3-pole	4-pole
					9640.150	–	**9650.150**	–

A Maxi-PLS busbars E-Cu					Maxi-PLS 1600	Maxi-PLS 2000	Maxi-PLS 3200
	For enclosure width mm	For use[1)]	Length mm	P. of	Model No.		Model No.
	600	a	491	1 pc(s).	**9640.206**	**9640.201**	**9650.201**
	600	b	525	1 pc(s).	**9640.216**	**9640.211**	**9650.211**
	600	c	599	1 pc(s).	**9640.226**	**9640.221**	**9650.221**
	800	a	691	1 pc(s).	**9640.236**	**9640.231**	**9650.231**
	800	b	725	1 pc(s).	**9640.246**	**9640.241**	**9650.241**
	800	c	799	1 pc(s).	**9640.256**	**9640.251**	**9650.251**
	1000	a	891	1 pc(s).	**9640.266**	**9640.261**	**9650.261**
	1000	b	925	1 pc(s).	**9640.276**	**9640.271**	**9650.271**
	1000	c	999	1 pc(s).	**9640.286**	**9640.281**	**9650.281**
	1200	a	1091	1 pc(s).	**9640.296**	**9640.291**	**9650.291**
	1200	b	1125	1 pc(s).	**9640.306**	**9640.301**	**9650.301**
	1200	c	1199	1 pc(s).	**9640.316**	**9640.311**	**9650.311**
	–	–	2400	3 pc(s).	**9640.365**	**9640.360**	**9650.360**
	–	–	2400	4 pc(s).	–	**9649.360**	**9659.360**
	**B Longitudinal connector E-Cu** for simple baying connection of Maxi-PLS busbars. Incl. sliding blocks, bolts, washers and nuts.			1 pc(s).	**9640.191**	**9640.191**	**9650.191**

[1)] a = Cable connection system with end support
b = Left-hand or right-hand end enclosure in a switchgear installation
c = Bayed enclosure with sections bayed on the left and right

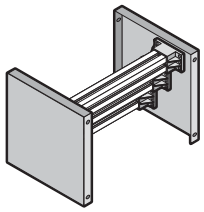
Contact hazard protection		P. of	Model No.	Model No.
	**A Cover section** for clip-on mounting onto the Maxi-PLS busbars, length 1000 mm. Material: Hard PVC	5 pc(s).	**9640.050**	**9650.050**
	B End cover for clip-on mounting onto the end surface of Maxi-PLS busbars. Material: Polyamide (PA 6.6)	2 pc(s).	**9649.060**	**9659.060**

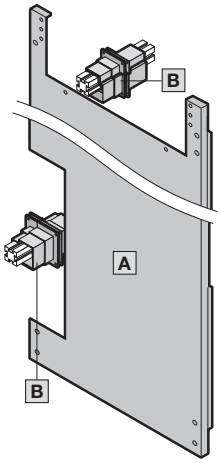
System components

Connection system				P. of	Maxi-PLS 1600/2000 Model No.	Maxi-PLS 3200 Model No.
	**Contact maker E-Cu** for contacting the connection brackets to the Maxi-PLS busbars. Incl. sliding blocks.					
	Width mm	60		1 pc(s).	**9640.171**	**9650.171**
		100		1 pc(s).	**9640.181**	**9650.181**
	**Connection clamp** for the connection of round conductors (Cu/AL) 95 to 300 mm² (single-wire and multi-wire). Incl. assembly parts.					
				1 pc(s).	**9640.325**	**9650.325**
	**Connection plates** for the connection of laminated flat copper bars. Including assembly parts.					
	Maximum clamping area	2 x 10 x 32 x 1		3 pc(s).	**9640.330**	**9650.330**
		2 x 10 x 63 x 1		3 pc(s).	**9640.340**	**9650.340**
		2 x 10 x 100 x 1		3 pc(s).	**9640.350**	**–**
	**Terminal stud** for connecting cables with ring terminals. Incl. sliding blocks.				Length 30 mm	Length 32 mm
	Thread	M12		3 pc(s).	**9640.370**	**9650.370**
		M16		3 pc(s).	**9640.380**	**9650.380**
	**Sliding blocks** for sliding into the Maxi-PLS busbar section at the sides.					
	Thread	M8	Length 20 mm	15 pc(s).	**9640.970**	**–**
		M10	Length 25 mm	15 pc(s).	**9640.980**	**9650.980**
		M12	Length 35 mm	15 pc(s).	**–**	**9650.990**
	**Sliding nuts** for retrospectively inserting into the Maxi-PLS busbar section.					
	Thread	M6		15 pc(s).	**9640.900**	**9650.900**
		M8		15 pc(s).	**9640.910**	**–**
				3 pc(s).	**–**	**9650.905**
		M10		15 pc(s).	**9640.920**	**9650.910**
		M12		15 pc(s).	**–**	**9650.920**
	**Threaded bolts** for individual connection options. Including nuts, plain washers, spring lock washers (M6 and M8 only) or washers (M10 and M12 only). Note: Sliding blocks or sliding nuts are additionally required for attachment.					
	Thread	M6	Length 35 mm	6 pc(s).	**9640.930**	**9640.930**
		M8	Length 35 mm	6 pc(s).	**9640.940**	**9640.940**
		M10	Length 35 mm	8 pc(s).	**9676.971**	**9676.971**
		M10	Length 45 mm	8 pc(s).	**9676.972**	**9676.972**
		M10	Length 55 mm	8 pc(s).	**9676.973**	**9676.973**
		M10	Length 70 mm	8 pc(s).	**9676.976**	**9676.976**
		M10	Length 80 mm	8 pc(s).	**9676.977**	**9676.977**
		M12	Length 40 mm	8 pc(s).	**–**	**9676.981**
		M12	Length 50 mm	8 pc(s).	**–**	**9676.982**
		M12	Length 60 mm	8 pc(s).	**–**	**9676.983**
		M12	Length 70 mm	8 pc(s).	**–**	**9676.986**
		M12	Length 80 mm	8 pc(s).	**–**	**9676.987**

Busbar systems Maxi-PLS

System components

Connection system		P. of	Model No.
	**Compact infeed for Maxi-PLS busbar 1600/2000** For individual use as a 3-pole cable connection bar system. Direct mounting on the mounting plate or punched section without mounting flange. **Supply includes:** 6 end supports, 2 support plates for end supports, 1 PS mounting rail 23 x 23 mm (length 495 mm), mounting accessories	1 pc(s).	**9660.980**

Shielding				Maxi-PLS 1600/2000		Maxi-PLS 3200	
				Model No.		Model No.	
	**A Divider panel** for TS enclosures. For side shielding from neighbouring panels. Including assembly parts.						
	Maxi-PLS busbars in the roof section						
	For enclosure depth mm	For enclosure height mm	P. of				
	600	2000	1 pc(s).	**9660.620**		**9660.620**	
	Maxi-PLS busbars in the rear section						
	For enclosure depth mm	For enclosure height mm	P. of				
	600	2000	1 pc(s).	**9660.610**		**9660.610**	
	B Busbar gland The busbar gland may also be used as a cover for longitudinal connectors. Including assembly parts.						
	Use with longitudinal connector	Packs required	P. of	1600/2000		3200	
	no / yes			3-pole	4-pole	3-pole	4-pole
	■ / –	6	1 pc(s).	**9640.600**	**–**	**9650.600**	**–**
	■ / –	8	1 pc(s).	**–**	**9640.600**	**–**	**9650.600**
	– / ■	3 3	1 1	**9640.610** **+** **9640.600**	**–**	**9650.610** **+** **9650.600**	**–**
	– / ■	4 4	1 1	**–**	**9640.610** **+** **9640.600**	**–**	**9650.610** **+** **9650.600**

Accessories

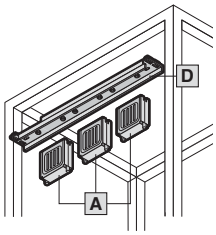
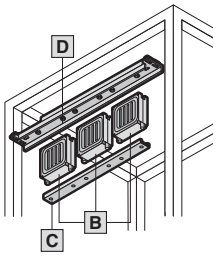
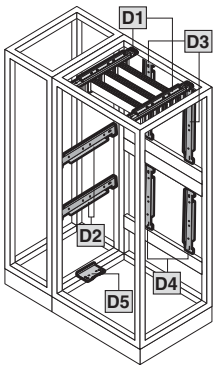


Power Engineering

see page 377

System components

Busbar system Flat-PLS 60/ Flat-PLS 100, for flat copper bars
For the configuration of busbar systems from flat copper bars.
For mounting on a system attachment or directly on the mounting plate.
Max. permissible tolerance of bar width (60/100 mm) ± 0.3 mm, bar thickness (10 mm) ± 0.15 mm.

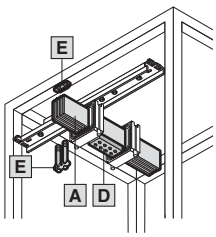
Supports and attachment in the TS enclosure						Flat-PLS 60 Model No.		Flat-PLS 100 Model No.	
	**A Busbar support** Material: Polyamide (PA 6.6)								
System	For busbars up to mm[1]				P. of				
Flat-PLS 60	4 x 60 x 10				1 pc(s).	**9676.002**		–	
Flat-PLS 100	4 x 100 x 10				1 pc(s).	–		**9676.004**	
	B Busbar support for stabiliser bar Material: Polyamide (PA 6.6)								
System	For busbars up to mm[1]				P. of				
Flat-PLS 60	4 x 60 x 10				1 pc(s).	**9676.020**		–	
Flat-PLS 100	4 x 100 x 10				1 pc(s).	–		**9676.021**	
	**D System attachment** for installation in the busbar support. Material: Stainless steel								
For use	For enclosure depth mm	Bar centre distance mm 120	165	185	P. of	3-pole	4-pole	3-pole	4-pole
D1 In the roof/base section directly above/below coupling switch	600	■	–	–	2 pc(s).	**9674.162**	**9674.162**	–	–
		–	■	–	2 pc(s).	–	–	**9674.164**	–
	800	■	–	–	2 pc(s).	**9674.182**	**9674.182**	–	–
		–	■	–	2 pc(s).	–	–	**9674.184**	**9674.184**
D2 Vertical coupling set	600	■	–	–	2 pc(s).	**9674.172**	**9674.172**	–	–
		–	■	–	2 pc(s).	–	–	**9674.174**	–
	800	■	–	–	2 pc(s).	**9674.192**	**9674.192**	–	–
		–	■	–	2 pc(s).	–	–	**9674.194**	**9674.194**
D3 Rear section, top/bottom	–	■	–	–	2 pc(s).	**9674.122**	**9674.122**	–	–
		–	■	–	2 pc(s).	–	–	**9674.124**	**9674.124**
D4 Rear section, centre (185 mm)		–	–	■	2 pc(s).	**9674.152**	–	–	–
		–	–	■	2 pc(s).	–	–	**9674.154**	–
D5 Single-pole assembly, for mounting on the TS frame					2 pc(s).	**9674.102**	**9674.102**	**9674.104**	**9674.104**
	**C Busbar stabiliser bars** Material: Stainless steel								
For busbar supports	Bar centre distance mm	System layout			P. of	3-pole	4-pole	3-pole	4-pole
9676.020	120	3-/4-pole			2 pc(s).	**9676.022**	**9676.023**	–	–
	185	3-pole			2 pc(s).	**9676.026**	–	–	–
9676.021	165	3-/4-pole			2 pc(s).	–	–	**9676.024**	**9676.025**
	185	3-pole			2 pc(s).	–	–	**9676.027**	–

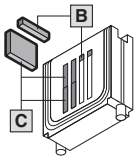
[1] For a bar width of < 60 mm for Flat-PLS 60 or < 100 mm for Flat-PLS 100, the empty gaps in the support should be filled with spacers. When using only 1, 2 or 3 bars, the vacant bar slots should be closed using the filler pieces.

Flat-PLS busbar systems

System components

Busbars and accessories for supports





A Busbars E-Cu to DIN EN 13 601. Length: 2400 mm/bar

Dimensions mm	P. of	Flat-PLS 60 Model No.	Flat-PLS 100 Model No.
40 x 10	3 pc(s).	**3587.000**	**–**
50 x 10	2 pc(s).	**3588.005**	**–**
60 x 10	2 pc(s).	**3589.005**	**–**
80 x 10	1 pc(s).	**–**	**3590.005**
100 x 10	1 pc(s).	**–**	**3590.015**

B Spacer – For a bar width of < 60/100 mm the spacer should be used.
Material Polyamide (PA 6.6)

E-Cu dimensions mm	Required number of spacers per chamber	P. of	Flat-PLS 60 Model No.	Flat-PLS 100 Model No.
40 x 10	2 pc(s).	16 pc(s).	**9676.007**	**9676.007**
50 x 10	1 pc(s).			
80 x 10	2 pc(s).			

C Filler piece – When using only 1, 2 or 3 bars, the vacant bar slots should be closed using the filler pieces.
Material: Polyamide (PA 6.6)

		P. of	Flat-PLS 60 Model No.	Flat-PLS 100 Model No.
Flat-PLS 60	2 per free bar slot	16 pc(s).	**9676.008**	**9676.008**
Flat-PLS 100	3 per free bar slot			

D Longitudinal connector E-Cu for connecting Flat-PLS busbar systems, no drilling required.

No. of strands per conductor	For busbar width mm	Screw	P. of	Flat-PLS 60 Model No.	Flat-PLS 100 Model No.
2	40 – 100	[1]	1 pc(s).	**9676.621**	**9676.621**
3 or 4	40 – 100	[1]	1 pc(s).	**9676.641**	**9676.641**

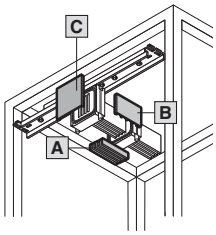
[1] Must be ordered separately according to the busbar width B (length = B + 40 mm, screw connections, see page 359).

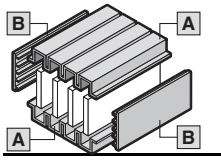
E Busbar claws for Flat-PLS

For busbar width up to mm	Screw	P. of	Flat-PLS 60 Model No.	Flat-PLS 100 Model No.
2 x B x 10	[1]	1 pc(s).	**9676.017**	**9676.017**
4 x B x 10	[1]	1 pc(s).	**9676.019**	**9676.019**

[1] Must be ordered separately according to the busbar width B (length = B + 20 mm, screw connections, see page 359).

Contact hazard protection





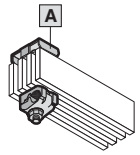
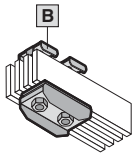
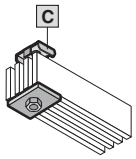
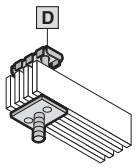
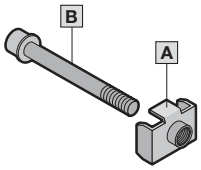
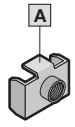
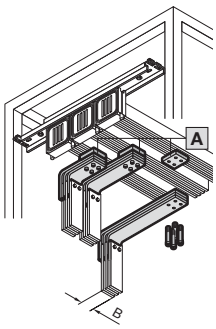
Cover sections for Flat-PLS
Material: Hard PVC

For system	No. of bars per conductor	For busbar width mm	Length mm	P. of	Flat-PLS 60 Model No.	Flat-PLS 100 Model No.
A Edge cover section for bar systems with no space between the strands	1	–	1000	10 pc(s).	**9676.041**	**9676.041**
A Edge cover section for bar systems with 10 mm space between the strands	2	–	1000	10 pc(s).	**9676.052**	**9676.052**
	4	–	1000	10 pc(s).	**9676.054**	**9676.054**
B Side cover section for bar systems, to match the edge cover sections	–	60	1000	10 pc(s).	**9676.056**	**9676.056**
	–	80	1000	10 pc(s).	**9676.058**	**9676.058**
	–	100	1000	10 pc(s).	**9676.059**	**9676.059**

C End covers for busbar supports Flat-PLS
Material: Polyamide (PA 6.6)

	P. of	Flat-PLS 60 Model No.	Flat-PLS 100 Model No.
For Flat-PLS 60 and Flat-PLS 100	2 pc(s).	**9676.006**	**9676.006**

System components

Connection system				Flat-PLS 60 Model No.	Flat-PLS 100 Model No.
	**A Direct connection terminal** for Flat-PLS For the direct connection of round conductors.				
For round conductors	Screw	P. of			
95 – 300 mm² re/rm	[1]	1 pc(s).		**9676.730**	**9676.730**
	[1] Must be ordered separately according to the busbar width B (length = B + 60 mm, screw connections, see page 359).				
	**B Connection plates for laminated copper bars**, including assembly parts (excluding screws)				
For busbar width mm	Screw	P. of			
2 x 10 x 32 x 1	[1]	1 pc(s).		**9676.747**	**9676.747**
2 x 10 x 63 x 1	[1]	1 pc(s).		**9676.748**	**9676.748**
2 x 10 x 100 x 1	[1]	1 pc(s).		**9676.749**	**9676.749**
	[1] Must be ordered separately according to the busbar width B (length = B + 50 mm, screw connections, see page 359).				
	C Connection plates with bolts M10, including assembly parts (excluding screws)				
Connection bolts	Screw	P. of			
M10	[1]	1 pc(s).		**9676.710**	**9676.710**
	[1] Must be ordered separately according to the busbar width B (length = B + 40 mm, screw connections, see page 359).				
	D Connection plates with bolts M12, including assembly parts (excluding screws)				
Connection bolts	Screw	Bolt length mm	P. of		
M12	[1]	30	1 pc(s).	**9676.700**	**9676.700**
	[1] Must be ordered separately according to the busbar width B (length = B + 20 mm, screw connections, see page 359).				
	**A Claw with threaded insert M10**				
Threaded insert			P. of		
M10			8 pc(s).	**9676.832**	**9676.832**
	B Screw connections				
Screw design			P. of		
M10 x 60			8 pc(s).	**9676.806**	**9676.806**
M10 x 70			8 pc(s).	**9676.807**	**9676.807**
M10 x 80			8 pc(s).	**9676.808**	**9676.808**
M10 x 90			8 pc(s).	**9676.809**	**9676.809**
M10 x 100			8 pc(s).	**9676.810**	**9676.810**
M10 x 110			8 pc(s).	**9676.811**	**9676.811**
M10 x 120			8 pc(s).	**9676.812**	**9676.812**
M10 x 130			8 pc(s).	**9676.813**	**9676.813**
M10 x 140			8 pc(s).	**9676.814**	**9676.814**
M10 x 150			8 pc(s).	**9676.815**	**9676.815**
M10 x 160			8 pc(s).	**9676.816**	**9676.816**
M10 x 170			8 pc(s).	**9676.817**	**9676.817**
M10 x 190			8 pc(s).	**9676.819**	**9676.819**
	**A Claw with threaded insert M8 for NH slimline fuse-switch disconnectors, size 00** For mounting NH slimline fuse-switch disconnectors size 00 on Flat-PLS bar systems with 185 mm centre-to-centre spacing. **Note:** M8 screws (zinc-plated and passivated, strength 8.8, length: busbar width + 20 mm) are additionally required. Screws are not included with the supply.				
Threaded insert			P. of		
M8			3 pc(s).	**9676.831**	**9676.831**
	**A Contact makers E-Cu** for contacting the connection brackets to the Flat-PLS busbars.				
For busbar width B mm	Screw	No. of strands per conductor	P. of		
60	[1]	2	1 pc(s).	**9676.526**	**9676.526**
60	[1]	3 or 4	1 pc(s).	**9676.546**	**9676.546**
80	[1]	2	1 pc(s).	**9676.528**	**9676.528**
80	[1]	3 or 4	1 pc(s).	**9676.548**	**9676.548**
100	[1]	2	1 pc(s).	**9676.520**	**9676.520**
100	[1]	3 or 4	1 pc(s).	**9676.540**	**9676.540**

[1] Must be ordered separately according to the busbar width B (screw connections, see page 359).
Screw length = (no. of strands x 10 mm) + bar width of main busbar + 40 mm.
No. of screws per bracket:
– for 2 strands per conductor of the main busbar system: 2 pc(s).,
– for 3/4 strands per conductor of the main busbar system: 4 pc(s).

Connection components for Maxi-PLS/Flat-PLS

For air circuit-breakers and busbar connections

For connecting air circuit-breakers (ACB) to Maxi-PLS/Flat-PLS busbar systems in TS enclosures. Alternatively, for connecting main and distribution busbar systems and for connecting horizontal and vertical main busbar systems.
Please include the design code of the specification given below in the order text for your connector kit.
We recommend the **Rittal Power Engineering software 3020.500 from Version 6.1** for easier configuration of the connector kits and connection brackets, see page 377.

Material:
– E-Cu

Note:
– Please quote the complete design code on all enquiries and orders.
– For configuration with the Rittal Power Engineering software, 2 check numbers are additionally output with a hyphen.

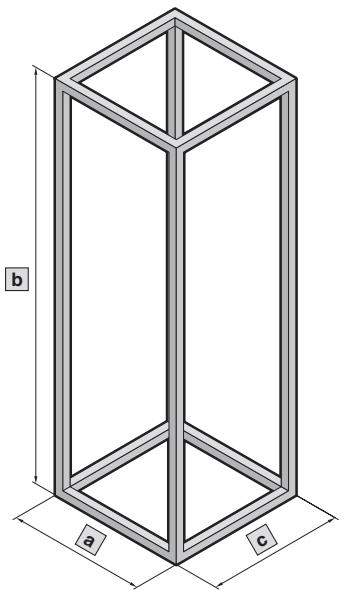
Also required:
– M10/M12 screw connections, see page 359
– Terminal studs Maxi-PLS, see page 355
– Screw connections Flat-PLS, see page 359
– Copper spacer rolls, page 374

Design code

Model No.		Enclosure			Busbar system, bottom		Air circuit-breaker						Busbar system, top		Compartment height of air circuit-breaker	Distribution busbars, type and number of poles	Distribution busbar system, in front of or behind mounting plate	Busbar configuration	Code length
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	
9676.910	Connector kit for ACB, top																		14
9676.912	Connector kit for ACB, bottom																		14
9676.200	Connection bracket above ACB																		14
9676.210	Connection bracket below ACB																		14
9675.100	T-connector kit																		9
9675.840	Angular connector kit																		8
9674.481	Fuse-switch-disconnector section, connection bracket																		8

Leave grey sections blank

Enclosure

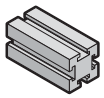
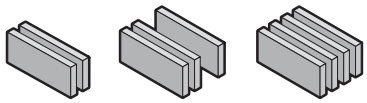
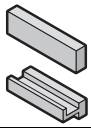


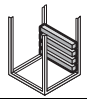
							Selection
	Width mm						
a	2 200	4 400	6 600	8 800	0 1000	1 1200	☐
	Height mm						
b	0 2000	2 2200					☐
	Depth mm						
c	6 600	8 800					☐

Connection components for Maxi-PLS/Flat-PLS

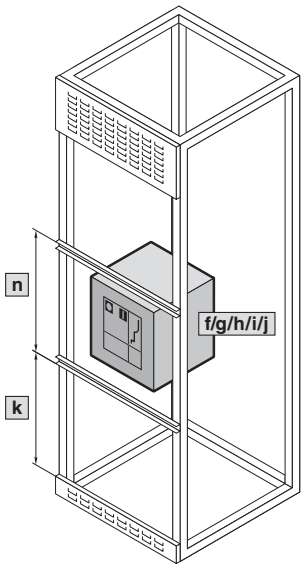
For air circuit-breakers and busbar connections

Busbar system, bottom

Busbar type					Selection
d		**Maxi-PLS**	1600	3-pole A	☐
				4-pole B	
			2000	3-pole C	
				4-pole D	
			3200	3-pole E	
				4-pole F	
	 2 bars 3 bars 4 bars	**Flat-PLS**	60	3-pole I	
				4-pole J	
			100	3-pole M	
				4-pole N	
	 Cu PLS	**RiLine (only for T-connector kit)**	Cu 30 x 5/10 mm	3-pole Q	
				4-pole R	
			PLS 1600	3-pole S	
				4-pole T	
	No system available			X	

Busbar system configuration			Selection
e		in the base section	6
		in the lower rear section	7
		as cable connection system	8
		directly underneath the air circuit-breaker	9
	No system available		0

Air circuit-breaker



			Selection
f	**Brand**	ABB A	☐
		ABB (Emax2) B	
		Eaton E	
		GE G	
		Mitsubishi J	
		Schneider Electric M	
		Siemens S	
		Terasaki T	
		Various V	
g	**Size**	1/none 1	☐
		2 2	
		3 3	
		4 4	
h	**Rated max.**	630 A A	☐
		800 A B	
		1000 A C	
		1250 A D	
		1600 A E	
		2000 A F	
		2500 A G	
		3200 A H	
		4000 A[2] I	
		5000 A[2] J	

[2] Not available for all brands.

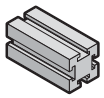
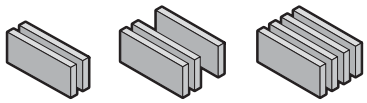
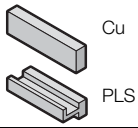
				Selection
i	**No. of poles/ version**	Static installation	3-pole 3	☐
			4-pole 4	
			3-pole with non-switched N 5	
		Rack-mounted	3-pole 6	
			4-pole 8	
			3-pole with non-switched N 7	
j	**Position**	Behind the door HT H		☐
		In front of the door (in door cut-out) VT V		
k	**Compartment height underneath the circuit-breaker**	0 mm 0		☐
		150 mm 1		
		200 mm 2		
		250 mm 3		
		300 mm 4		
		400 mm 5		
		600 mm[1] 6		
		800 mm 7		
		1000 mm 8		
n	**Compartment height of air circuit-breaker**	600 mm[1] 6		☐
		800 mm 7		
		1000 mm 8		

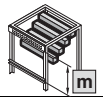
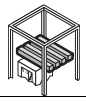
[1] Standard height in Form 1
For Form 1 please select a 6

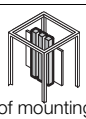
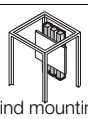
Connection components for Maxi-PLS/Flat-PLS

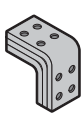
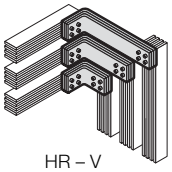
For air circuit-breakers and busbar connections

Busbar system, top

Busbar type						Selection
l		**Maxi-PLS**	1600	3-pole	A	☐
				4-pole	B	
			2000	3-pole	C	
				4-pole	D	
			3200	3-pole	E	
				4-pole	F	
	 2 bars 3 bars 4 bars	**Flat-PLS**	60	3-pole	I	
				4-pole	J	
			100	3-pole	M	
				4-pole	N	
	 Cu PLS	**RiLine (only for T-connector kit)**	Cu 30 x 5/10 mm	3-pole	Q	
				4-pole	R	
			PLS 1600	3-pole	S	
				4-pole	T	
	No system available				X	

Busbar system configuration				Selection
m		in the roof section	1	☐
		in the top rear section	2	
	 m	as cable connection system 600 mm	3	
		as cable connection system 800 mm	8	
		as cable connection system 1000 mm	9	
		directly above the air circuit-breaker	4	
		in rear centre section, Form 1	5	
	No system available		0	

						Selection
o	Distribution busbar system	Distribution busbar system Type and number of poles	RiLine	Cu 30 x 5/10 mm	3-pole Q	☐
			RiLine	Cu 30 x 5/10 mm	4-pole R	
			RiLine	PLS 1600	3-pole S	
			RiLine	PLS 1600	4-pole T	
			Distribution busbar fuse-switch disconnector section		3-pole E	
			Distribution busbar fuse-switch disconnector section		4-pole F	
p	 in front of mounting plate  behind mounting plate	Distribution busbar system in front of or behind mounting plate	In front of mounting plate (indoor)		1	☐
			Behind mounting plate		2	

Bar configuration, busbar dimensions				Selection
q	Version/bar configuration of the busbar systems to be connected  H – V  HR – V H = Horizontal V = Vertical HR = Horizontal in the rear section, behind one another	Maxi PLS 1600/2000	H – V	A	☐
		Maxi PLS 1600/2000	HR – V	B	
		Maxi-PLS 3200	H – V	C	
		Maxi-PLS 3200	HR – V	D	
		up to 2 x 40 x 10	H – V	E	
		up to 2 x 60 x 10	H – V	F	
		up to 4 x 60 x 10	H – V	G	
		up to 4 x 40 x 10	H – V	H	
		up to 2 x 100 x 10	H – V	I	
		up to 4 x 80 x 10	H – V	J	
		up to 4 x 100 x 10	H – V	K	
		up to 2 x 60 x 10	HR – V	L	
		up to 4 x 60 x 10	HR – V	M	
		up to 2 x 100 x 10	HR – V	N	
		up to 4 x 100 x 10	HR – V	O	

Connection components for Maxi-PLS/Flat-PLS

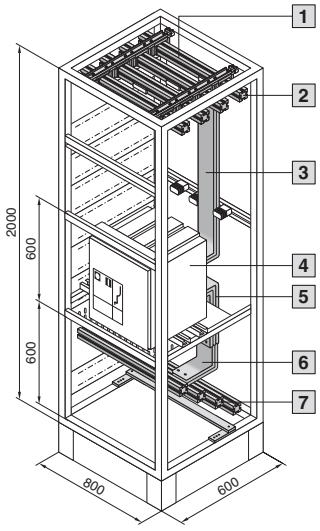
For air circuit-breakers and busbar connections

Sample design code

Model No.		Enclosure			Busbar system, bottom		Air circuit-breaker						Busbar system, top		Compartment height of air circuit-breaker	Distribution busbars Type and number of poles	Distribution busbar system, in front of or behind mounting plate	Busbar configuration	Code length
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	
9676.910	Connector kit for ACB, top	**8**	**0**	**6**	**B**	**8**	**A**	**1**	**E**	**4**	**V**	**6**	**D**	**1**	**6**				14
9676.912	Connector kit for ACB, bottom	**8**	**0**	**6**	**B**	**8**	**A**	**1**	**E**	**4**	**V**	**6**	**D**	**1**	**6**				14
9676.200	Connection bracket above ACB	**8**	**0**	**6**	**B**	**8**	**A**	**1**	**E**	**4**	**V**	**6**	**D**	**1**	**6**				14
9676.210	Connection bracket below ACB	**8**	**0**	**6**	**B**	**8**	**A**	**1**	**E**	**4**	**V**	**6**	**D**	**1**	**6**				14
9675.100	T-connector kit	**6**	**0**	**6**	**X**	**0**							**T**	**2**		**T**	**1**		9
9675.840	Angular connector kit	**2**	**0**	**6**	**B**	**9**							**X**	**0**				**A**	8
9674.481	Fuse-switch-disconnector section, connection bracket	**1**	**0**	**6**	**X**	**0**							**J**	**1**		**F**			8

Leave grey sections blank

Example of 9676.910, 9676.912, 9676.200, 9676.210
Design code: 806B8A1E4V6D16



1 Maxi-PLS 2000 4-pole, in roof area

2 9676.200

3 9676.910

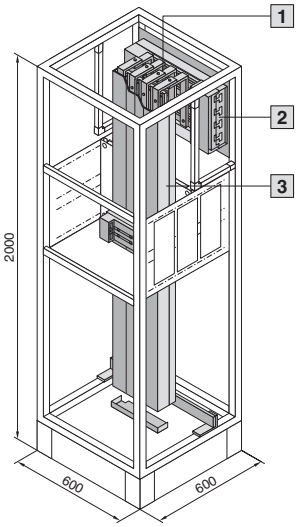
4 ACB: ABB E1, 1600 A, 4-pole, VT

5 9676.912

6 9676.210

7 Maxi-PLS 1600, 4-pole, as cable connection system

Example of 9675.100
Design code: 606X0T2T1

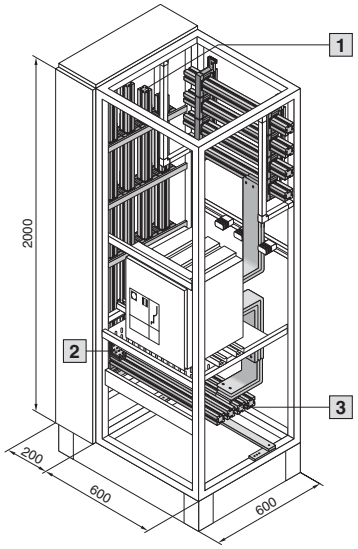


1 9675.100

2 RiLine60, PLS 1600, 4-pole, in top rear section

3 RiLine60, PLS 1600, 4-pole, in front of mounting plate

Example of 9675.840
Design code: 206B9X0A

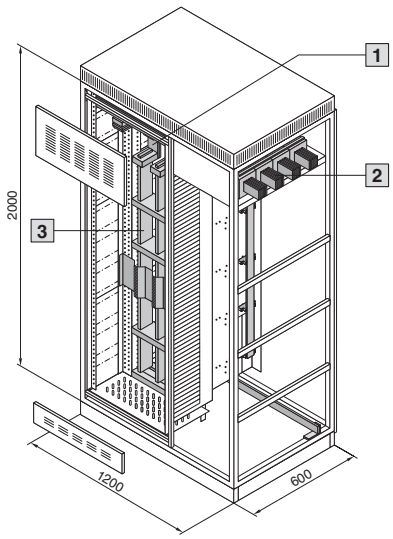


1 Vertical busbar system, Maxi-PLS 1600, 4-pole

2 9675.840

3 Horizontal busbar system, Maxi-PLS 1600, 4-pole

Example of 9674.481
Design code: 106X0J1F



1 9674.481

2 Flat-PLS 60, 4-pole, in roof section

3 Distribution busbar system, 4-pole

System accessories



Screw connections

for connection brackets
For connecting connection brackets and a connector kit. May be used for 3- and 4-pole connector kits.

Material:
– Steel screws, zinc-plated, passivated

Supply includes:
– 8 nuts and 16 washers.

Note:
– For a bar width of 120 mm, 2 packs are required per connector kit.

For system	Screw design mm	For connection brackets width mm	No. of bars per phase	Packs of	Model No.
Maxi-PLS	M10 x 40	60 80	1	8 pc(s).	**9676.966**
Maxi-PLS	M10 x 60	60 80	2	8 pc(s).	**9676.967**
Maxi-PLS	M10 x 80	60 80	3	8 pc(s).	**9676.968**
Maxi-PLS Flat-PLS	M12 x 40	100 120	1	8 pc(s).	**9676.961**
Maxi-PLS Flat-PLS	M12 x 60	100 120	2	8 pc(s).	**9676.962**
Maxi-PLS Flat-PLS	M12 x 80	100 120	3	8 pc(s).	**9676.963**



Support rail

For attaching to the outer mounting level of the TS enclosure and for use as a cable management bar.

Material:
– Sheet steel, zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**9676.196**
800	2 pc(s).	**9676.198**



Support set (stabiliser)

for connection kit
To support the connector kits top/bottom for air circuit-breakers (ACB).

Material:
– Stabiliser: Fibreglass-reinforced polyester
– Angle bracket: Sheet steel

Supply includes:
– 4 stabilisers
– 2 angle brackets
– Assembly parts

Packs of	Model No.
1 pc(s).	**9660.205**

Form 1

Cover plate

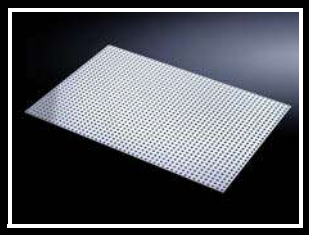
Slotted
To cover live parts and comply with the internal protection category IP 2X and IP XXB within low-voltage switchgear and controlgear. Integral vent holes allow convection inside a system.

Material:
– Insulating material

Width mm	Height mm	Packs of	**Model No.**
1200	800	1 pc(s).	**9674.990**

Accessories:

– Mounting bracket, see page 365



Mounting bracket

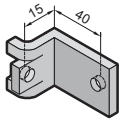
For the attachment of contact hazard protection covers. Tapped hole M6.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

Packs of	**Model No.**
24 pc(s).	**9660.090**





Form 2b





Contact hazard protection cover plate

for TS enclosures with NH slimline fuse-switch disconnectors

To cover outgoing sections with NH slimline fuse-switch disconnectors and Maxi-PLS/Flat-PLS busbar system in the rear enclosure section so that they are safe from finger contact (IP 2X).

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– Cover set, two-piece (top)
– Cover set, two-piece (bottom)
– Assembly parts

Note:
– The specified installation width when using Maxi-PLS only applies in conjunction with top-mountable busbar supports 9649.160/9659.160.

For enclosure width mm	Free installation width when using Flat-PLS mm	Free installation width when using Maxi-PLS mm	Packs of	Model No.
600	300	500	1 pc(s).	**9674.960**
800	500	700	1 pc(s).	**9674.980**
1000	700	900	1 pc(s).	**9674.900**
1200	900	1100	1 pc(s).	**9674.920**

Accessories:

– Blanking cover, see page 366



Blanking cover

To cover free NH slimline fuse-switch disconnector slots.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– 2 cover brackets
– Assembly parts

Width mm	Packs of	Model No.
50	2 pc(s).	**9674.905**

Compartment side panel module

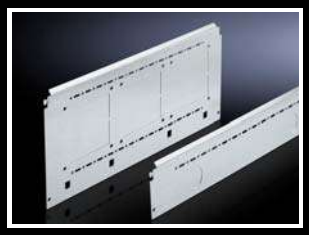
for internal compartmentalisation
Side divider panel for compartments, for locating into the TS pitch pattern. Prepared for the location of mounting brackets for horizontal compartment dividers or mounting plates. Two TS system punchings allow the use of additional TS accessories. The side panel modules for reduced compartment depth and an auxiliary construction using TS punched rails 17 x 17 mm can be used to provide a separate enclosure space in the side panel area, e.g. for the provision of a busbar system.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Accessories:
– Gland plate, see page 368
– TS punched rail 17 x 17 mm, see page 726
– Frame connector piece, see page 733
– T-connector piece, see page 734
– Corner connector, see page 734





For compartment depth mm	Height mm	With prepunched knockouts for M40 cable entries	With prepunched knockouts for gland plate, for cable entry	Packs of	Model No.
400	100	2	–	6 pc(s).	**9673.041**
400	150	–	2	6 pc(s).	**9673.045**
400	200	–	2	6 pc(s).	**9673.042**
400	300	–	1	2 pc(s).	**9673.043**
400	400	–	1	2 pc(s).	**9673.044**
400	600	–	3	2 pc(s).	**9673.046**
425	100	2	–	6 pc(s).	**9673.051**
425	150	–	3	6 pc(s).	**9673.055**
425	200	–	3	6 pc(s).	**9673.052**
600	100	2	–	6 pc(s).	**9673.061**
600	150	–	3	6 pc(s).	**9673.065**
600	200	–	3	6 pc(s).	**9673.062**
600	300	–	3	2 pc(s).	**9673.063**
600	400	–	3	2 pc(s).	**9673.064**
600	600	–	9	2 pc(s).	**9673.066**
800	100	2	–	6 pc(s).	**9673.081**
800	150	–	3	6 pc(s).	**9673.085**
800	200	–	3	6 pc(s).	**9673.082**
800	300	–	3	2 pc(s).	**9673.083**
800	400	–	3	2 pc(s).	**9673.084**
800	600	–	9	2 pc(s).	**9673.086**

Compartment side panel module

for cable connection space
For mounting a Maxi-PLS cable connection bar system

Material:
– Sheet steel, 2 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Also required:
– End support for Maxi-PLS, see page 354



For enclosure depth mm	Height mm	For system	Packs of	Model No.
600	450	Maxi-PLS 1600, 3/4 pole Maxi-PLS 2000, 3/4 pole Maxi-PLS 3200, 3-pole	2 pc(s).	**9673.069**
800	450	Maxi-PLS 1600, 3/4 pole Maxi-PLS 2000, 3/4 pole Maxi-PLS 3200, 3/4 pole	2 pc(s).	**9673.089**

Form 1-4



Gland plate

for compartment side panel modules (internal compartmentalisation)
For closing cable entries.

Material:
– PVC, 3 mm
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7004

Supply includes:
– Assembly parts

For side panel module height mm	Packs of	Model No.
150	10 pc(s).	**9673.195**
200 600	10 pc(s).	**9673.192**
300	4 pc(s).	**9673.193**
400	4 pc(s).	**9673.194**



Terminal box Form 4b

for modular outgoing section
For shielding the connections (terminals) of the compartment, busbar space and cable chamber in accordance with Form 4b to IEC 61 439-2. The terminal boxes are externally mounted on the compartment side panel modules (for internal compartmentalisation) in the cable chamber to match the heights of the compartments. If necessary, a clamping strip may be mounted on the cable retainer included with the supply.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Note:
– For installation of the terminal boxes, the width of the cable chamber must be at least 400 mm

For enclosure width mm	For compartment height mm	Packs of	Model No.
400 600	150	1 pc(s).	**9674.701**
400 600	200	1 pc(s).	**9674.702**
400 600	300	1 pc(s).	**9674.703**
400 600	400	1 pc(s).	**9674.704**
400 600	600	1 pc(s).	**9674.706**

Also required:
– Compartment side panel module, see page 367

Compartment divider

For the horizontal separation of compartments.
In combination with the side panel modules, this creates Form separation in accordance with Form 3 or 4.

Design:
– with vents

Material:
– Sheet steel, 1.25 mm

Surface finish:
– Zinc-plated

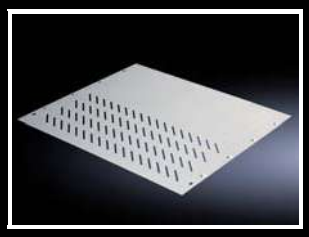
Also required:

– Mounting bracket for compartment divider, see page 371
– Mounting bracket for compartment divider and air circuit-breaker support rail, see page 371

Assembly instruction:

– 2 mounting brackets are required to install each compartment divider.





For enclosure width mm	For compartment depth mm	Width mm	Depth mm	Packs of	**Model No.**
400	400	306	370	4 pc(s).	**9673.443**
400	425	306	445	4 pc(s).	**9673.444**
400	600	306	588	4 pc(s).	**9673.445**
400	800	306	788	4 pc(s).	**9673.448**
600	400	506	370	4 pc(s).	**9673.463**
600	425	506	445	4 pc(s).	**9673.464**
600	600	506	588	4 pc(s).	**9673.465**
600	800	506	788	4 pc(s).	**9673.468**
800	400	706	370	4 pc(s).	**9673.483**
800	425	706	445	4 pc(s).	**9673.484**
800	600	706	588	4 pc(s).	**9673.485**
800	800	706	788	4 pc(s).	**9673.488**

Compartment divider

for RiLine busbar systems
For the horizontal separation of compartments with integral RiLine distribution busbar system. In combination with the side panel modules, this creates Form separation in accordance with Form 3 or 4.

Design:
– with vents

Material:
– Sheet steel, 1.25 mm

Surface finish:
– Zinc-plated

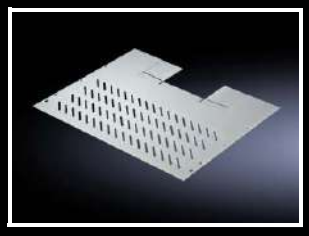
For enclosure width mm	For compartment depth mm	Width mm	Depth mm	Packs of	**Model No.**
600	400	506	413	4 pc(s).	**9673.454**

Also required:

– Mounting bracket, see page 371

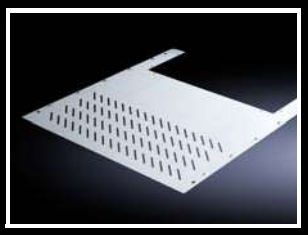
Assembly instruction:

– 2 mounting brackets for compartment dividers are required for each installation.





Form 1-4



Compartment divider

with duct for vertical busbar systems
For the horizontal separation of compartments with vertical busbars. In combination with the side panel modules, this creates Form separation in accordance with Form 3 or 4.

Design:
– with vents

Material:
– Sheet steel, 1.25 mm

Surface finish:
– Zinc-plated

Also required:
– Gland plate, see page 370
– Mounting bracket for compartment divider, see page 371
– Mounting bracket for compartment divider and air circuit-breaker support rail, see page 371

Assembly instruction:
– 2 mounting brackets are required to install each compartment divider.

For enclosure width mm	For compartment depth mm	Width mm	Depth mm	Width of entry mm	Depth of entry mm	Packs of	Model No.
400	600	306	588	212	201	4 pc(s).	**9673.436**
400	800	306	788	212	201	4 pc(s).	**9673.438**
600	600	506	588	412	201	4 pc(s).	**9673.456**
600	800	506	788	412	201	4 pc(s).	**9673.458**
800	600	706	588	612	201	4 pc(s).	**9673.476**
800	800	706	788	612	201	4 pc(s).	**9673.478**



Gland plate

for compartment divider with duct
To shroud the opening for vertical busbar systems.

Material:
– ABS PMMA

For enclosure width mm	Width mm	Height mm	Packs of	Model No.
400	250	223.5	4 pc(s).	**9673.504**
600	450	223.5	4 pc(s).	**9673.506**
800	650	223.5	4 pc(s).	**9673.508**





Air circuit-breaker support bar

For the configuration of air circuit-breakers (ACB) in compartments.

Material:
– Sheet steel, 2.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Length mm	Packs of	Model No.
400	351	2 pc(s).	**9673.004**
600	551	2 pc(s).	**9673.006**
800	751	2 pc(s).	**9673.008**

Also required:
– Mounting bracket, see page 371
– Attachment set, see page 371

Form 1-4

Mounting bracket

for compartment divider
The mounting bracket may be attached to a TS frame, to a side panel module or between a frame section and an auxiliary construction. Pre-machined mounting openings allow slide-in attachment of compartment dividers.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For compartment depth mm	Length mm	Packs of	**Model No.**
400	352	8 pc(s).	**9673.404**
425	427	8 pc(s).	**9673.405**
600	552	8 pc(s).	**9673.406**
800	752	8 pc(s).	**9673.408**







Mounting bracket

for compartment divider and air circuit-breaker support rail
The mounting bracket is secured to the side panel module. Pre-machined mounting openings allow slide-in attachment of functional space dividers. The air circuit-breaker support bar may be attached to the upper level.

Material:
– Sheet steel, 2 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For compartment depth mm	Length mm	Packs of	**Model No.**
600	552	2 pc(s).	**9673.426**
800	752	2 pc(s).	**9673.428**





Attachment set

for air circuit-breaker installation
For attaching air circuit-breakers (ACB) to air circuit-breaker support bars.

Material:
– Steel

Surface finish:
– Zinc-plated

Supply includes:
– 4 threaded plates (M8/M12)

Packs of	**Model No.**
1 pc(s).	**9660.970**



Form 1-4





Partial mounting plates

for compartment side panel modules (internal compartmentalisation)
For direct attachment to the compartment side panel modules for internal compartmentalisation. Universal interior installation with switchgear and controlgear. Creation of additional mounting levels. In combination with compartment dividers and side panel modules, internal compartmentalisation in accordance with Form 2, 3 or 4 is possible.

Material:
– Sheet steel, 2 mm

Surface finish:
– Zinc-plated

Supply includes:
– Angle brackets and assembly parts

Also required:
– Compartment side panel module, see page 367

Design with gland made from insulating material

For enclosure width mm	For compartment height mm	Width mm	Height mm	Packs of	Model No.
600	150	502	143	1 pc(s).	**9673.671**
600	200	502	193	1 pc(s).	**9673.672**
600	300	502	293	1 pc(s).	**9673.673**
600	400	502	393	1 pc(s).	**9673.674**
800	200	702	193	1 pc(s).	**9673.692**
800	300	702	293	1 pc(s).	**9673.693**
800	400	702	393	1 pc(s).	**9673.694**

Design without duct

For enclosure width mm	For compartment height mm	Width mm	Height mm	Packs of	Model No.
400	200	302	193	1 pc(s).	**9673.642**
400	300	302	293	1 pc(s).	**9673.643**
400	400	302	393	1 pc(s).	**9673.644**
400	600	302	593	1 pc(s).	**9673.646**
400	800	302	793	1 pc(s).	**9673.648**
600	150	502	143	1 pc(s).	**9673.661**
600	200	502	193	1 pc(s).	**9673.662**
600	300	502	293	1 pc(s).	**9673.663**
600	400	502	393	1 pc(s).	**9673.664**
600	600	502	593	1 pc(s).	**9673.666**
600	800	502	793	1 pc(s).	**9673.668**
600	1000	502	993	1 pc(s).	**9673.660**
800	150	702	143	1 pc(s).	**9673.681**
800	200	702	193	1 pc(s).	**9673.682**
800	300	702	293	1 pc(s).	**9673.683**
800	400	702	393	1 pc(s).	**9673.684**
800	600	702	593	1 pc(s).	**9673.686**
800	800	702	793	1 pc(s).	**9673.688**
800	1000	702	993	1 pc(s).	**9673.680**

Form 1-4

Support frame

for DIN rail-mounted devices

Support frame set for accepting DIN rail-mounted devices (e.g. MCBs). The support rails are fastened with two mounting brackets to the side panel modules for internal compartmentalisation. The cover is fastened to the support frame with knurled screws. In combination with compartment dividers, partial mounting plates and side panel modules, internal compartmentalisation in accordance with Form 2, 3 or 4 is possible.

Material:
- Support frame: Sheet steel, zinc-plated, passivated, 1.5 mm
- Cover: Sheet steel, spray finished, 1.5 mm

Supply includes:
- Support rails
- 2 mounting brackets
- 1 cover with cut-out
- Assembly parts

For enclosure width mm	For compartment height mm	No. of pitch units 17.5 mm	Packs of	**Model No.**
600	150	1 x 24	1 pc(s).	**9674.761**
600	300	2 x 24	1 pc(s).	**9674.762**
800	300	2 x 36	1 pc(s).	**9674.782**

Also required:
- Compartment side panel module, see page 367

Accessories:
- Compartment divider, see page 369
- Partial mounting plates, see page 372



Coupling set mounting kit

for busbar enclosure or riser

The mounting kit is used as a base support for a vertical Maxi-PLS busar system/Flat-PLS busbar system.

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- Mounting plate
- 2 punched sections with mounting flanges
- Assembly parts

Design for Flat-PLS busbar system

For enclosure width mm	For enclosure depth mm	Product-specific scope of supply	Packs of	**Model No.**
400	600	Gland plate	1 pc(s).	**9674.046**
400	800	Gland plate	1 pc(s).	**9674.048**



Design for Maxi-PLS busbar system

For enclosure width mm	For enclosure depth mm	Product-specific scope of supply	Packs of	**Model No.**
200	600	–	1 pc(s).	**9674.196**
200	800	–	1 pc(s).	**9674.198**



Also required:
- End support for Maxi-PLS, see page 354

Busbar system



System attachments

for RiLine main busbar system
System attachment with threaded holes M5 and M6 on a 50 mm pitch pattern for rear assembly of a RiLine main busbar system. For locating into the TS frame.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Note:
– RiLine busbar systems, see page 265

For enclosure width mm	Width mm	Height mm	P. of	Model No.
400	338.5	362	1 pc(s).	**9674.004**
600	538.5	362	1 pc(s).	**9674.006**
800	738.5	362	1 pc(s).	**9674.008**



Distribution busbars

Prepared for the connection of T-connector kits.

Material:
– E-Cu

Flat busbar Cu 30 x 10 mm

For distribution busbar systems behind the compartment	For distribution busbar systems in the compartment (indoors)	P. of	Length mm	Model No.
For enclosure height mm				
2000	–	1 pc(s).	1410	**9675.210**
2200	1800[1)]	1 pc(s).	1610	**9675.212**
–	2000[1)]	1 pc(s).	1810	**9675.220**

[1)] Also suitable as a vertical busbar for PE/PEN/N

PLS 1600

For distribution busbar systems behind the compartment	For distribution busbar systems in the compartment (indoors)	P. of	Length mm	Model No.
For enclosure height mm				
2000	–	1 pc(s).	1350	**9675.230**
2200	1800[1)]	1 pc(s).	1550	**9675.232**
–	2000[1)]	1 pc(s).	1750	**9675.240**
–	2200[1)]	1 pc(s).	1950	**9675.242**

[1)] Also suitable as a vertical busbar for PE/PEN/N

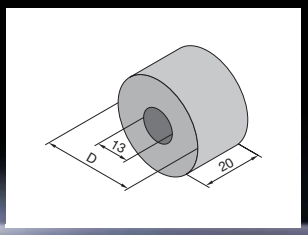


Copper spacer rolls

for Maxi-PLS busbars and flat copper bars
For use as a universal spacer.

Height: 20 mm
Hole diameter: 13 mm

Material:
– E-Cu



Diameter (D) mm	For connecting						P. of	Model No.
	Cu bar – Cu bar		Maxi-PLS – Cu bar		Flat-PLS – Cu bar			
	Cross-section size mm²	Rated max. current A	Contact area mm²	Rated max. current A	Contact area mm²	Rated max. current A		
30	550	1100	360	800	380	850	4 pc(s).	**9676.503**
40	1100	2200	780	1600	670	1400	4 pc(s).	**9676.504**
50	1800	3400	1380	2800	990	2000	4 pc(s).	**9676.505**

Fuse-switch disconnector section

Busbar support

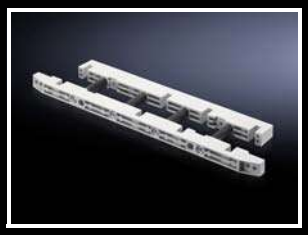
for fuse-switch disconnector section
Busbar support for the distribution busbar system of the fuse-switch disconnector section.

Material:
– Duroplastic polyester

Supply includes:
– Mounting bracket and screws

For busbars mm	Number of poles	Packs of	Model No.
50 x 10	3-pole 4-pole	1 pc(s).	**9674.415**
60 x 10	3-pole 4-pole	1 pc(s).	**9674.416**
80 x 10	3-pole 4-pole	1 pc(s).	**9674.418**
100 x 10	3-pole 4-pole	1 pc(s).	**9674.410**

Also required:
– End support, see page 375
– Distribution busbars, see page 375





End support

for fuse-switch disconnector section
End support for the distribution busbar system of the fuse-switch disconnector section, for vertical support of the distribution busbar system with infeed from above.

Material:
– Duroplastic polyester

Supply includes:
– Mounting bracket and screws

For busbars mm	Number of poles	Packs of	Model No.
50 x 10	3-pole 4-pole	1 pc(s).	**9674.435**
60 x 10	3-pole 4-pole	1 pc(s).	**9674.436**
80 x 10	3-pole 4-pole	1 pc(s).	**9674.438**
100 x 10	3-pole 4-pole	1 pc(s).	**9674.430**

Also required:
– Distribution busbars, see page 375

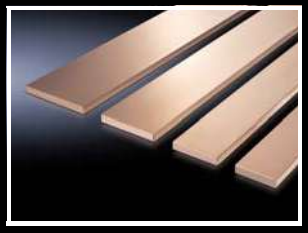




Distribution busbars

for fuse-switch disconnector section
Distribution busbar to fit the main busbar systems Maxi-PLS and Flat-PLS for installation in the fuse-switch disconnector sections.

Material:
– E-Cu





For enclosure height mm	Dimensions mm	Length mm	Packs of	Model No.
2000	50 x 10	1632.5	1 pc(s).	**9674.405**
2000	60 x 10	1632.5	1 pc(s).	**9674.406**
2000	80 x 10	1632.5	1 pc(s).	**9674.408**
2000	100 x 10	1632.5	1 pc(s).	**9674.400**

Fuse-switch disconnector section





Cover

Set for distribution busbar (Jean Müller fuse-switch disconnector section)
To cover the distribution busbar system of a fuse-switch disconnector section, designed to accommodate Jean Müller devices. The 150 mm high busbar and cable connection space covers shield the busbar compartment from the functional space so that it is safe from finger contact, with a protection category of IP 20.

Material:
– PVC, black

Supply includes:
– Set consisting of 12 busbar covers and cable connection space covers

For enclosure height mm	Packs of	Model No.
2000 2200	1 pc(s).	**9674.380**

Also required:
– Punched rail, see page 376





Punched rail

Set for cover, distribution busbar (Jean Müller fuse-switch disconnector section)
Required for mounting the distribution busbar cover.

Material:
– Sheet steel, zinc-plated

Supply includes:
– Set consisting of 2 punched rails

Note:
– For 1 fuse-switch disconnector section, 1 pack of punched rails is required.

For enclosure height mm	Packs of	Model No.
2000 2200	1 pc(s).	**9674.381**

Fuse-switch-disconnector section/software

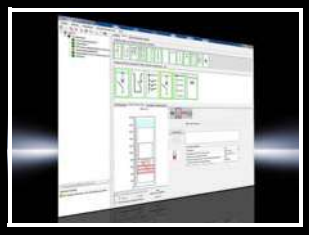


Cover

for distribution busbar (ABB/Siemens fuse-switch-disconnector section)
To cover the distribution busbar system of a fuse-switch-disconnector section, designed to accommodate ABB (SlimLine) or Siemens (3NJ62) devices. The 200 mm high busbar compartment covers shield the busbar compartment from the functional space so that it is safe from finger contact, with a protection category of IP 20.

Material:
– PVC, black

Note:
– The cover may be ordered from ABB under order number NHP 407062R000X.
– For enclosure height 2000 mm, a height of 1500 mm should be covered, and for enclosure height 2200 mm, a height of 1700 mm should be covered.





Rittal Power Engineering

Planning software for RiLine busbar systems and Ri4Power low-voltage switchgear with design verification
The multi-lingual software package includes the following functions:
- Project handling, from the initial enquiry through to ordering
- Configuration of RiLine busbar systems in the TS enclosure, compact enclosure AE, CM, KS and free-standing enclosure SE.
- Configuration of low-voltage switchgear with Ri4Power systems Form 1-4 and ISV
- Fully automated generation of complete bills of materials and a calculation program for quote preparation
- Input and evaluation of assembly times to calculate man hours
- Access to the entire range of Rittal products
- Output of automatically generated system documentation with rated current and heat loss calculation

P. of	**Model No.**
1 pc(s).	**3020.500**

- Generation of special fields configured by the customer with graphical processing in the CAD view
- Import/export interfaces for product and CAD data
- Export function for order lists and bills of materials in Excel format
- Interface to EPLAN Electric P8, for the export of CAD data and bills of materials
- The extra benefit for engineering and planning offices: Output of detailed tender texts based on systems that have been project-planned in Power Engineering in MS Word format
- Output of project-specific assembly plans together with field and plant definitions
- Integral configurator for the generation of drawings and bills of materials to create connector kits for connecting air circuit-breakers (ACB)
- Simple generation of the design verification to IEC 61 439

Supply includes:
– DVD-ROM
Languages: German/English/French/Dutch/Danish/Swedish/Czech/Italian/Spanish/Polish/Russian/Chinese

Rittal – The System.

Faster – better – everywhere.



Ri4Power ISV distribution enclosures

Distribution enclosures

- Based on baying system TS 8, see page 88
- Based on baying system SE 8, see page 94
- Mounting kits, see page 380

Wall-mounted distributors

- Based on compact enclosure AE, see page 58
- Mounting kits, see page 380

Installation modules

- Easy mounting on support frame or support plate
- Individual combination and configuration
- Pitch pattern 150 x 250 mm
- Installation modules, see page 381

Power distribution components

- Bus-mounting fuse bases, see page 289
- NH fuse-switch disconnectors, see page 291
- NH slimline fuse-switch disconnectors, see page 301









Mounting kits



Installation kit

for TS

For mounting ISV installation modules in TS enclosures.

Supply includes:
- Mounting aid support
- Contact hazard protection
- Assembly parts

Accessories:
- Cross rail, see page 387
- Mounting angle, see page 387
- Depth stay, see page 387
- Equipment support connectors, see page 387

For enclosure width mm	600	600	850	1100
For enclosure height mm	1800	2000	2000	2000
For enclosure depth mm	400 500 600	400 600	400 600	400 600
To fit Model No.	8457.600/8684.500/ 8685.500/8686.500	8452.600/8604.500/ 8606.500	9666.915/9666.955	9666.925/9666.965
Width units (WU) @ 250 mm	2	2	3	4
Height units (U) @ 150 mm	11	12	12	12
Note on Model No.	Mounting angle 9666.711 additionally required	Mounting angle 9666.712 additionally required	Mounting angle 9666.712 additionally required	Mounting angle 9666.712 and depth stay 9666.731 additionally required
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Model No.	**9666.931**	**9666.901**	**9666.911**	**9666.921**



Installation kit

for AE

For mounting ISV installation modules in AE enclosures.

Supply includes:
- Assembly kit
- Support rails
- Contact hazard protection
- Assembly parts

Accessories:
- Mounting angle, see page 387

For enclosure width mm	380	500	600	600	600	1000
For enclosure height mm	600	700	760	1000	1200	1200
For enclosure depth mm	210	250	210	250	300	300
To fit Model No.	1008.600/ 1038.500	1057.500	1012.600/ 1076.500	1090.500	1260.500	1019.500/ 1019.600/ 1213.500
Width units (WU) @ 250 mm	1	1	2	2	2	3
Height units (U) @ 150 mm	3	4	4	6	7	7
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Model No.	**9666.801**	**9666.811**	**9666.821**	**9666.831**	**9666.841**	**9666.851**

Installation modules

1 Contact hazard protection modules

- For covering free installation areas
- Cover is prepared for a lead seal

2 Mounting plate modules

- With mounting plate made from 2 mm zinc-plated sheet steel
- Cover is prepared for a lead seal
- Possible installation depth 105 – 140 mm

Material:
– Cover: Polystyrene (PS)

Colour:
– RAL 7035





Size				P. of	1 Contact hazard protection		2 Mounting plate	
Width unit		Height unit			Interior installation	Model No.	Dimensions of mounting plate mm	Model No.
WU	mm	U	mm					
1	250	1	150	1 pc(s).	Empty module	**9666.000**	188 x 116	**9666.080**
1	250	2	300	1 pc(s).		**9666.010**	188 x 266	**9666.090**
1	250	3	450	1 pc(s).		**9666.020**	188 x 416	**9666.100**
1	250	4	600	1 pc(s).		**9666.030**	188 x 566	**9666.110**
2	500	1	150	1 pc(s).		**9666.040**	438 x 116	**9666.120**
2	500	2	300	1 pc(s).		**9666.050**	438 x 266	**9666.130**
2	500	3	450	1 pc(s).		**9666.060**	438 x 416	**9666.140**
2	500	4	600	1 pc(s).		**9666.070**	438 x 566	**9666.150**
3	750	2	300	1 pc(s).		**9666.053**	688 x 266	**9666.133**
3	750	3	450	1 pc(s).		**9666.063**	688 x 416	**9666.143**
3	750	4	600	1 pc(s).		**9666.073**	–	**–**

1 WU ≙ 250 mm
1 U ≙ 150 mm

1 Support rail modules

- For installing terminal blocks, switchgear, etc.
- Support rails 35/15 mm
- Adjustable on a 25 mm pitch pattern
- Cover is prepared for a lead seal

2 DIN rail mounted device modules

- To accommodate DIN rail mounted devices
- Support rails 35/15 mm
- Cover is prepared for a lead seal

Material:
– Cover: Polystyrene (PS)

Colour:
– RAL 7035

Accessories:

– Cover strips for DIN rail mounted device modules, see page 386

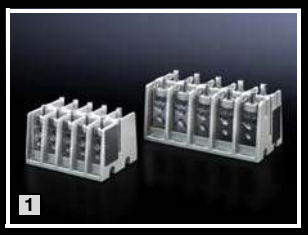


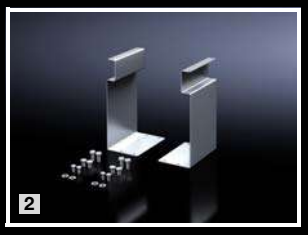


Size				P. of	1 Support rails		2 DIN rail mounted devices	
Width unit		Height unit			Number of support rails	Model No.	Mechanical interior installation[1]	Model No.
WU	mm	U	mm					
1	250	1	150	1 pc(s).	1	**9666.160**	12 pitch units (1 x 12 x 18 mm)	**9666.240**
1	250	2	300	1 pc(s).	2	**9666.170**	24 pitch units (2 x 12 x 18 mm)	**9666.250**
1	250	3	450	1 pc(s).	3	**9666.180**	36 pitch units (3 x 12 x 18 mm)	**9666.260**
1	250	4	600	1 pc(s).	4	**9666.190**	48 pitch units (4 x 12 x 18 mm)	**9666.270**
2	500	1	150	1 pc(s).	1	**9666.200**	24 pitch units (2 x 12 x 18 mm)	**9666.280**
2	500	2	300	1 pc(s).	2	**9666.210**	48 pitch units (4 x 12 x 18 mm)	**9666.290**
2	500	3	450	1 pc(s).	3	**9666.220**	72 pitch units (6 x 12 x 18 mm)	**9666.300**
2	500	4	600	1 pc(s).	4	**9666.230**	–	**–**
3	750	2	300	1 pc(s).	2	**9666.213**	72 pitch units (6 x 12 x 18 mm)	**9666.293**
3	750	3	450	1 pc(s).	3	**9666.223**	108 pitch units (9 x 12 x 18 mm)	**9666.303**

1 WU ≙ 250 mm
1 U ≙ 150 mm
[1] No. of panels x pitch units x width

Installation modules





Connection terminal blocks

- For connecting copper and aluminium conductors
- Single-wire or multi-wire conductors with crimped wire end ferrule or laminated copper bar

Material:
– Duroplastic

Colour:
– RAL 7035

Version	Connection of round conductors mm²	Clamping area for laminated copper bars, W x H mm	P. of	Model No.	Page
[1] 250 A, 5-pole	1 x 16 – 150 or 2 x 16 – 70	17 x 21	1 pc(s).	**9666.340**	
400 A, 5-pole	1 x 50 – 240 or 2 x 25 – 120	25 x 21	1 pc(s).	**9666.350**	

Also required

Description	Size				P. of	Model No.	
	Width unit		Height unit				
	WU	mm	U	mm			
[2] Mounting kit for connection terminal block	1	250	3	450	1 pc(s).	**9666.310**	
Contact hazard protection modules	1	250	3	450	1 pc(s).	9666.020	381

Accessories

Laminated copper bars	311

1 WU ≙ 250 mm
1 U ≙ 150 mm



NH fuse-switch-disconnector modules

- Suitable for accommodating NH fuse-switch disconnectors for mounting plate assembly
- Cover is prepared for a lead seal

Material:
– Cover: Polystyrene (PS)

Colour:
– RAL 7035

Note:
– Blanking cover 9666.665 should be used to seal unneeded cut-outs for NH fuse-switch disconnectors size 00.

To fit NH disconnector		Size				P. of	Model No.	Page
Size	Model No.	Width unit		Height unit				
		WU	mm	U	mm			
2 pc(s). size 00	9344.000/.010/ .020/.030/.040/.050	1	250	2	300	1 pc(s).	**9666.380**	
4 pc(s). size 00		2	500	2	300	1 pc(s).	**9666.390**	
1 pc(s). size 1	9344.100/.110/ .130/.150	1	250	3	450	1 pc(s).	**9666.400**	
1 pc(s). size 2	9344.200/.210/ .230/.250	1	250	3	450	1 pc(s).	**9666.410**	
1 pc(s) size 3 or 2 pc(s) size 2	9344.300/.310/ .330/.350	2	500	3	450	1 pc(s).	9666.060[1)]	381
						1 pc(s).	9666.420[1)]	382

1 WU ≙ 250 mm
1 U ≙ 150 mm
[1)] Module unit consisting of disconnector cross-member 9666.420 and contact hazard protection module 9666.060



Disconnector cross-member

for NH fuse-switch disconnector, size 2/3

- Suitable for the accommodation of NH fuse-switch disconnectors for mounting plate assembly

To fit NH disconnector		Size				P. of	Model No.	Page
Size	Model No.	Width unit		Height unit				
		WU	mm	U	mm			
1 pc(s). size 3 or 2 pc(s). size 2	9344.300/.310/ .330/.350	2	500	3	450	1 pc(s).	**9666.420**	

Also required

Contact hazard protection modules	1 pc(s).	9666.060	381

NH slimline fuse-switch disconnector modules



For NH slimline fuse-switch disconnectors, sizes 00 to 3 (100/185 mm bar centre distance).

Material:
– Cover: Polystyrene (PS)

Colour:
– RAL 7035

Note:
– Busbars are not included with the supply
– In order to ensure problem-free cable connection, a contact hazard protection module or an N/PE busbar module must be installed above or below the NH slimline fuse-switch disconnector modules

Version	To fit NH slimline fuse-switch disconnectors Model No.	Size				P. of	Model No.	Page
		Width unit		Height unit				
		WU	mm	U	mm			
100 mm module, 3-pole, max. 3 x size 00	9346.020 9346.030	1	250	3	450	1 pc(s).	**9666.570**	
100 mm module, 3-pole, max. 6 x size 00		2	500	3	450	1 pc(s).	**9666.580**	
100 mm module, 3-pole, max. 10 x size 00		3	750	3	450	1 pc(s).	**9666.583**	
185 mm module, 3-pole, max. 8 x size 00/ 4 x size 1, 2, 3	9677.XXX	2	500	5	750	1 pc(s).	**9666.550**	
185 mm module, 3-pole, max. 12 x size 00/ 6 x size 1, 2, 3		3	750	5	750	1 pc(s).	**9666.560**	
Also required								
Contact hazard protection modules								381
Busbar modules N/PE								384

1 WU ≙ 250 mm
1 U ≙ 150 mm

Air circuit-breaker modules



- Suitable for accommodating standard circuit-breakers from ABB, Eaton, Schneider Electric and Siemens
- Cover is prepared for a lead seal

Material:
– Cover: Polystyrene (PS)

Colour:
– RAL 7035

Note:
– Attachment of the air circuit-breakers and the corresponding cut-out dimensions for the cover are shown in the enclosed assembly instructions
– Air circuit-breakers are not included with the supply

For air circuit-breakers	Size				P. of	Model No.
	Width unit		Height unit			
	WU	mm	U	mm		
up to 250 A	1	250	2	300	1 pc(s).	**9666.430**
up to 630 A	2	500	3	450	1 pc(s).	**9666.440**

1 WU ≙ 250 mm
1 U ≙ 150 mm

Installation modules



Meter mounting board module

- Open module for internal measurements
- Clearance depth available for meter installation 170 mm

Material:
– Meter mounting board: Polystyrene (PS)

Colour:
– RAL 7035

Note:
– The meter mounting board module does not comply with meter mounting board standard DIN 43 870/VDE 0603 and does not meet the conditions for total insulation. Use in unmetered areas only by arrangement with the local electricity supply company.
– 1 contact hazard protection module / DIN rail mounted device module or support rail module with 1 WU and at least 1 U is required both above and below the module.

Size				P. of	Model No.	Page
Width unit		Height unit				
WU	mm	U	mm			
1	250	3	450	1 pc(s).	**9666.640**	
Also required						
Contact hazard protection modules						381
Support rail modules						381
DIN rail mounted device modules						381

1 WU ≙ 250 mm
1 U ≙ 150 mm



Busbar modules N/PE

- For attaching the busbars for N and PE
- Cover is prepared for a lead seal

Material:
– Cover: Polystyrene (PS)

Colour:
– RAL 7035

Note:
– Copper or CUPONAL busbars should be ordered separately, see page 307/308
– Not suitable for use in mounting kit AE

For busbars mm	Size				P. of	Model No.
	Width unit		Height unit			
	WU	mm	U	mm		
12 x 5 to 30 x 10 mm	1	250	2	300	1 pc(s).	**9666.590**
	2	500	2	300	1 pc(s).	**9666.600**
	3	750	2	300	1 pc(s).	**9666.603**

1 WU ≙ 250 mm
1 U ≙ 150 mm



Busbar modules

For assembling bus-mounting fuse bases E18, E27, E33 and D-Switch as well as NH fuse-switch disconnectors sizes 000 and 00 (3-pole, 60 mm bar centre distance).

Material:
– Cover: Polystyrene (PS)

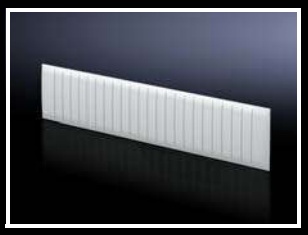
Colour:
– RAL 7035

Note:
– Busbars are not included with the supply

Size				To fit		P. of	**Model No.**	Page
Width unit		Height unit		Fusible elements Model No.	NH disconnectors Model No.			
WU	mm	U	mm					
1	250	2	300	3418.010 3427.010 3433.010 9340.950	9343.000[1)] 9343.020[1)] 9343.040[1)] 3431.020 3431.030 3431.035	1 pc(s).	**9666.520**	
2	500	2	300		3431.020 3431.030 3431.035	1 pc(s).	**9666.530**	
3	750	2	300		3431.020 3431.030 3431.035	1 pc(s).	**9666.533**	
Accessories								
Blanking cover						10 pc(s).	9666.660	386

1 WU ≙ 250 mm
1 U ≙ 150 mm
[1)] A depth extension frame 9666.680 should additionally be used to ensure unrestricted connection.
NH fuse-switch disconnectors size 00 cannot be combined with other equipment.

Accessories



Cover strips

for DIN rail mounted device modules
For sealing unused component cut-outs in DIN rail mounted device modules, max. 12 pitch units (12 x 18 mm), divisible every 9 mm.

Material:
– ABS

Colour:
– RAL 7035

P. of	Model No.
5 pc(s).	**9666.650**



Blanking cover

- For sealing unused cut-outs
- To fit bus-mounting fuse base, D-Switch and NH fuse-switch disconnector size 000 (3-pole, 60 mm busbar systems) in busbar modules (9666.520/.530/.533)
- Width: 16 – 34 mm variable

Material:
– Polypropylene (PP)

Colour:
– RAL 7035

P. of	Model No.
10 pc(s).	**9666.660**



Blanking cover

for disconnectors, size 00

- For sealing unused cut-outs with NH fuse-switch disconnectors size 00 in NH fuse-switch disconnector modules (9666.380/.390)
- Width: 117 mm

Material:
– PVC

Colour:
– RAL 7035

P. of	Model No.
1 pc(s).	**9666.665**



Wiring brackets

For tool-free external mounting on support rails TS 35/15 for cable routing on the rear of support rail modules.

Material:
– Polyamide (PA 6.6)

P. of	Model No.
10 pc(s).	**9666.670**



Depth extension frame

For extending the depth of the contact hazard protection cover. Allows unrestricted connection of NH fuse-switch disconnectors, size 00 (3-pole, 60 mm busbar systems).

Material:
– Polystyrene (PS)

Colour:
– RAL 7035

Size				P. of	Model No.
Width unit		Height unit			
WU	mm	U	mm		
1	250	2	300	1 pc(s).	**9666.680**

1 WU ≙ 250 mm
1 U ≙ 150 mm

Note:
– NH fuse-switch disconnectors size 00 with covers and depth extension frame cannot be used in conjunction with other equipment.

Accessories

Cross rails

for TS, SE
For horizontal sub-division of the support frame in the TS/SE enclosure.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Width unit		P. of	Model No.
WU	mm		
2	500	2 pc(s).	**9666.722**
3	750	2 pc(s).	**9666.723**
4	1000	2 pc(s).	**9666.724**

1 WU ≙ 250 mm



Mounting angles

for TS, SE
For vertical sub-division of the support frame in the TS/SE enclosure.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Height unit		P. of	Model No.
U	mm		
2	300	2 pc(s).	**9666.702**
3	450	2 pc(s).	**9666.703**
4	600	2 pc(s).	**9666.704**
5	750	2 pc(s).	**9666.705**
6	900	2 pc(s).	**9666.706**
7	1050	2 pc(s).	**9666.707**
11	1650	2 pc(s).	**9666.711**
12	1800	2 pc(s).	**9666.712**

1 U ≙ 150 mm



Accessories:

– Equipment support connector, see page 387

Mounting angles

for AE
For vertical sub-division of the support frame in the AE enclosure.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Height unit		P. of	Model No.
U	mm		
3	450	2 pc(s).	**9666.753**
4	600	2 pc(s).	**9666.754**
6	900	2 pc(s).	**9666.756**
7	1050	2 pc(s).	**9666.757**

1 U ≙ 150 mm



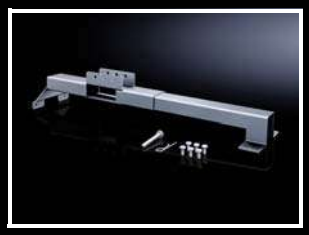
Depth stay

For installation kits ISV
For attaching the installation kit in the TS enclosure.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

For enclosure depth mm	To fit Model No.	P. of	Model No.
400 500 600	9666.901/ 9666.911/ 9666.921/ 9666.931	2 pc(s).	**9666.731**



Equipment support connector

- For connecting 2 mounting angles for TS/SE
- Increases the stability of the frame structure

Material:
– T-section: Aluminium

P. of	Model No.
4 pc(s).	**9666.740**



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CLIMATE CONTROL

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TÜV NORD
TÜV NORD Systems GmbH & Co. KG
Performance tested acc. to EN 14511
Enclosure cooling unit
Rittal TopTherm series
Periodic product testing
SEGP-0326/11

TÜV-tested output to EN 14511:2012-01
Rittal is the only supplier in the world to supply an entire range of enclosure cooling units tested to the latest (DIN) EN standard. Except cooling units with Atex authorisation for Zone 22 and NEMA 4X.

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Type of climate control	Air cooling	Cooling units	
	Ambient air cooling units are ideally suited for dissipating heat loads exceptionally cost-effectively. The pre-requisite for this is that the ambient air must be relatively clean and at a temperature below the required enclosure internal temperature.	Cooling units keep the enclosure internal temperature at a constant level, which is independent of the ambient temperature. The air routing meets individual requirements. Two separate circuits prevent the ingress of dust into the enclosure.	
Air throughput, unimpeded airflow m^3/h	20 – 1069	–	
Specific thermal output W/K	17.5 – 90	–	
Total cooling output W	–	100 – 6000	
Continuous thermal output W	–	–	
Product characteristics	Exceptionally energy-efficient, barely discernible loss of space within and outside of the enclosure, and a high protection category of IP 54 as standard.	The Rittal Blue e+ series is the world's most efficient cooling unit. With heat pipe technology as standard and speed-controlled components, energy savings of up to 75% can be achieved.	
From page	393	411	



	Liquid cooling	Enclosure heaters	Climate control accessories
	The enclosure interior air may also be cooled to below the level of the external temperature by using cooling water and air/water heat exchangers. The waste heat from the enclosure does not raise the temperature of the ambient air, provided the heat exchanger and cold water supply system are spatially separated from one another.	Condensation poses a particular risk for control electronics, especially with outdoor siting. A range of output categories ensures that the correct thermal output is always available.	Superbly coordinated components tailor climate control perfectly to your specific requirements, whether you need targeted air routing, precise control of the equipment or matching consumables.
	–	–	–
	–	–	–
	300 – 40000	–	–
	–	10 – 800	–
	Ideal for dissipating particularly high heat loads. Both the output and the installation type of the air/water heat exchangers may be individually selected depending on requirements.	Heaters with self-regulating PTC technology ensure constant heat distribution and are easily attached to a 35 mm top hat rail or mounting plate.	With innovative accessories, the efficiency and reliability of climate control components can be additionally enhanced with monitoring, control and individual air routing.
	437	451	454

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Air cooling



TopTherm fan-and-filter units

TopTherm fan-and-filter units ..... 20 – 55 m³/h 394
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TopTherm fan-and-filter units ..... 230 – 550 m³/h 395
TopTherm fan-and-filter units ..... 700 m³/h 396
TopTherm fan-and-filter units, EMC ..... 20 – 180 m³/h 397
TopTherm fan-and-filter units, EMC ..... 230 – 900 m³/h 398
TopTherm fan-and-filter units, with EC technology ..... 55 – 230 m³/h 399
TopTherm fan-and-filter units, with EC technology ..... 550 – 900 m³/h 400
TopTherm fan-and-filter units, air throughput and protection category 401

Roof-mounted fans

Roof-mounted fans, roof ventilation ..... 500 – 873 m³/h 402
Roof-mounted fans with EC technology ..... 1069 m³/h 403

Rack-mounted climate control

Rack-mounted fans for 482.6 mm (19″) ..... 320 – 480 m³/h 404
Vario rack-mounted fans for 482.6 mm (19″) ..... 320 – 480 m³/h 405
Tangential fans for 482.6 mm (19″) ..... 320 m³/h 406

Air/air heat exchangers

TopTherm, wall-mounted with controller ..... 17.5 – 90 W/K 407
Roof-mounted ..... 66 W/K 408

TopTherm fan-and-filter units



Air throughputs incl. outlet filter and protection categories Page 401 **Accessories for climate control** Page 454 **Therm software** Page 474

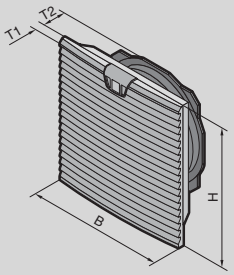
Colour:
– RAL 7035

Supply includes:
– Complete unit ready to install, including filter mat

Note:
– With the fan-and-filter unit 3237.XXX, electrical connection is made via two single wires on the unit; for all other fan-and-filter units, a screwless spring terminal is used.

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Air throughput 20 – 55 m³/h

Model No.	Packs of	**3237.100**	**3237.110**	**3237.124**	**3238.100**	**3238.110**	**3238.124**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	24 (DC)	230, 1~, 50/60	115, 1~, 50/60	24 (DC)	
Air throughput, unimpeded air flow m³/h		**20 / 25**	**20 / 25**	**20**	**55 / 66**	**55 / 66**	**55**	
Rated current A		0.065 / 0.052	0.12 / 0.1	0.125	0.12 / 0.11	0.24 / 0.22	0.24	
Pre-fuse A		2	2	2	2	2	2	
Motor circuit-breaker		–	–	–	–	–	–	
Power consumption W		11 / 9	11 / 9	3	19 / 18	19 / 18	5.5	
Width (B) mm		116.5	116.5	116.5	148.5	148.5	148.5	
Height (H) mm		116.5	116.5	116.5	148.5	148.5	148.5	
Depth (T1) mm		16	16	16	16	16	16	
Max. installation depth (T2) mm		43	43	43	58.5	58.5	58.5	
Required mounting cut-out (BxH) mm		92 x 92	92 x 92	92 x 92	124 x 124	124 x 124	124 x 124	
Fan		Axial, self-starting shaded pole motor	Axial, self-starting shaded pole motor	Axial, DC motor	Diagonal, self-starting shaded pole motor	Diagonal, self-starting shaded pole motor	Diagonal, DC motor	
Operating temperature range		-15°C...+55°C	-15°C...+55°C	-15°C...+55°C	-10°C...+55°C	-10°C...+55°C	-15°C...+55°C	
Storage temperature range		-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	
Noise level dB(A)		38 / 43	38 / 43	38	46 / 49	46 / 49	46	
Weight kg		0.46	0.48	0.3	0.8	0.8	0.54	
Accessories								
Outlet filter	1 pc(s).	3237.200	3237.200	3237.200	3238.200	3238.200	3238.200	457
Spare filter mats		see page	see page	see page	see page	see page	see page	456
Fine filter mats	5 pc(s).	–	–	–	3238.055	3238.055	3238.055	457
Hose-proof hood	1 pc(s).	3237.080	3237.080	3237.080	3238.080	3238.080	3238.080	458
Blanking cover	2 pc(s).	3237.020	3237.020	3237.020	3238.020	3238.020	3238.020	459
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	3110.100	3110.100	3110.100	467
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	466

Air throughput 105 – 180 m³/h

Model No.	Packs of	**3239.100**	**3239.110**	**3239.124**	**3240.100**	**3240.110**	**3240.124**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	24 (DC)	230, 1~, 50/60	115, 1~, 50/60	24 (DC)	
Air throughput, unimpeded air flow m³/h		**105 / 120**	**105 / 120**	**105**	**180 / 160**	**180 / 160**	**180**	
Rated current A		0.12 / 0.11	0.24 / 0.22	0.23	0.21 / 0.19	0.42 / 0.38	0.43	
Pre-fuse A		2	2	2	2	4	2	
Motor circuit-breaker		–	–	–	–	–	–	
Power consumption W		19 / 18	19 / 18	5.5	35 / 34	35 / 34	10	
Width (B) mm		204	204	204	255	255	255	
Height (H) mm		204	204	204	255	255	255	
Depth (T1) mm		24	24	24	25	25	25	
Max. installation depth (T2) mm		90	90	90	107	107	107	
Required mounting cut-out (BxH) mm		177 x 177	177 x 177	177 x 177	224 x 224	224 x 224	224 x 224	
Fan		Diagonal, self-starting shaded pole motor	Diagonal, self-starting shaded pole motor	Diagonal, DC motor	Diagonal, self-starting shaded pole motor	Diagonal, self-starting shaded pole motor	Diagonal, DC motor	
Operating temperature range		-10°C...+55°C	-10°C...+55°C	-15°C...+55°C	-30°C...+55°C	-30°C...+55°C	-30°C...+55°C	
Storage temperature range		-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	
Noise level dB(A)		46 / 49	46 / 49	46	51 / 46	51 / 46	51	
Weight kg		1.04	1.04	0.78	2.26	2.08	1.88	
Accessories								
Outlet filter	1 pc(s).	3239.200	3239.200	3239.200	3240.200	3240.200	3240.200	457
Spare filter mats		see page	see page	see page	see page	see page	see page	456
Fine filter mats	5 pc(s).	3181.100	3181.100	3181.100	3182.100	3182.100	3182.100	457
Hose-proof hood	1 pc(s).	3239.080	3239.080	3239.080	3240.080	3240.080	3240.080	458
Blanking cover	2 pc(s).	3239.020	3239.020	3239.020	3240.020	3240.020	3240.020	459
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	3110.100	3110.100	3110.100	467
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	466

Air throughput 230 – 550 m³/h

Model No.	Packs of	**3241.100**	**3241.110**	**3241.124**	**3243.100**	**3243.110**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	24 (DC)	230, 1~, 50/60	115, 1~, 50/60	
Air throughput, unimpeded air flow m³/h		**230 / 250**	**230 / 250**	**230**	**550 / 600**	**550 / 600**	
Rated current A		0.26 / 0.24	0.52 / 0.48	0.8	0.37 / 0.39	0.78 / 0.8	
Pre-fuse A		4	4	2	4	6	
Motor circuit-breaker		–	–	–	–	–	
Power consumption W		40 / 42	40 / 42	19	70 / 87	75 / 90	
Width (B) mm		255	255	255	323	323	
Height (H) mm		255	255	255	323	323	
Depth (T1) mm		25	25	25	25	25	
Max. installation depth (T2) mm		107	107	107	118.5	118.5	
Required mounting cut-out (BxH) mm		224 x 224	224 x 224	224 x 224	292 x 292	292 x 292	
Fan		Diagonal, self-starting shaded pole motor	Diagonal, self-starting shaded pole motor	Diagonal, DC motor	Diagonal, 1~ capacitor motor	Diagonal, 1~ capacitor motor	
Operating temperature range		-30°C...+55°C	-30°C...+55°C	-30°C...+55°C	-30°C...+55°C	-30°C...+55°C	
Storage temperature range		-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	
Noise level dB(A)		54 / 56	54 / 56	54	59 / 61	59 / 61	
Weight kg		2.235	2.26	2.04	3.58	3.58	
Accessories							
Outlet filter	1 pc(s).	3240.200	3240.200	3240.200	3243.200	3243.200	457
Spare filter mats		see page	see page	see page	see page	see page	456
Fine filter mats	5 pc(s).	3182.100	3182.100	3182.100	3183.100	3183.100	457
Hose-proof hood	1 pc(s).	3240.080	3240.080	3240.080	3243.080	3243.080	458
Blanking cover	2 pc(s).	3240.020	3240.020	3240.020	3243.020	3243.020	459
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	3110.100	3110.100	467
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	466

TopTherm fan-and-filter units

Air throughput 700 m³/h

Model No.	Packs of	**3244.100**	**3244.110**	**3244.140**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Air throughput, unimpeded air flow m³/h		**700 / 770**	**700 / 770**	**700 / 770**	
Rated current A		0.43 / 0.6	0.9 / 1.25	0.17 / 0.21	
Pre-fuse A		4	6	–	
Motor circuit-breaker A		–	–	0.2...0.4	
Power consumption W		95 / 135	100 / 145	93 / 140	
Width (B) mm		323	323	323	
Height (H) mm		323	323	323	
Depth (T1) mm		25	25	25	
Max. installation depth (T2) mm		130.5	130.5	130.5	
Required mounting cut-out (BxH) mm		292 x 292	292 x 292	292 x 292	
Fan		Diagonal, 1~ capacitor motor	Diagonal, 1~ capacitor motor	Diagonal, three-phase motor	
Operating temperature range		-30°C...+55°C	-30°C...+55°C	-30°C...+55°C	
Storage temperature range		-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	
Noise level dB(A)		65 / 66	65 / 66	67 / 70	
Weight kg		4.3	4.3	4.1	
Accessories					
Outlet filter	1 pc(s).	3243.200	3243.200	3243.200	457
Spare filter mats		see page	see page	see page	456
Fine filter mats	5 pc(s).	3183.100	3183.100	3183.100	457
Hose-proof hood	1 pc(s).	3243.080	3243.080	3243.080	458
Blanking cover	2 pc(s).	3243.020	3243.020	3243.020	459
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	467
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	466





Air throughputs incl. outlet filter and protection categories Page 401 **Accessories for climate control** Page 454 **Therm software** Page 474

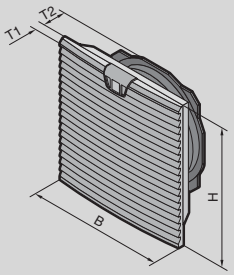
Colour:
– RAL 7035

Supply includes:
– Complete unit ready to install, including filter mat

Note:
– For energy-efficient operation of the fan-and-filter units, we recommend using the enclosure internal thermostat, the speed control or the digital enclosure internal temperature display and thermostat

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Air throughput 20 – 180 m³/h, EMC

Model No.	Packs of	**3237.600**	**3238.600**	**3239.600**	**3240.600**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Air throughput, unimpeded air flow m³/h		**20 / 25**	**55 / 66**	**105 / 120**	**180 / 160**	
Rated current A		0.065 / 0.052	0.12 / 0.11	0.12 / 0.11	0.21 / 0.19	
Pre-fuse A		2	2	2	2	
Power consumption W		11 / 9	19 / 18	19 / 18	35 / 34	
Width (B) mm		116.5	148.5	204	255	
Height (H) mm		116.5	148.5	204	255	
Depth (T1) mm		16	16	24	25	
Max. installation depth (T2) mm		43	58.5	90	107	
Required mounting cut-out (BxH) mm		92 x 92	124 x 124	177 x 177	224 x 224	
Fan		Axial, self-starting shaded pole motor	Diagonal, self-starting shaded pole motor	Diagonal, self-starting shaded pole motor	Diagonal, self-starting shaded pole motor	
Operating temperature range		-15°C...+55°C	-10°C...+55°C	-10°C...+55°C	-30°C...+55°C	
Storage temperature range		-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	
Noise level dB(A)		38 / 43	46 / 49	46 / 49	51 / 46	
Weight kg		0.485	2.0	1.2	2.12	
Accessories						
Outlet filter	1 pc(s).	3237.060	3238.060	3239.060	3240.060	457
Spare filter mats	5 pc(s).	3237.066	3238.066	3239.066	3240.066	456
Fine filter mats	5 pc(s).	–	3238.055	3181.100	3182.100	457
Hose-proof hood	1 pc(s).	3237.080	3238.080	3239.080	3240.080	458
Speed control	1 pc(s).	3120.200	3120.200	3120.200	3120.200	470
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	3110.100	467
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	466
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	468
Hygrostat with strain relief	1 pc(s).	3118.100	3118.100	3118.100	3118.100	468

TopTherm fan-and-filter units

Air throughput 230 – 900 m³/h, EMC

Model No.	Packs of	**3241.600**	**3243.600**	**3244.600**	**3245.600**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	200 - 240, 1~, 50/60	
Air throughput, unimpeded air flow m³/h		**230 / 250**	**550 / 600**	**700 / 770**	**900**	
Rated current A		0.26 / 0.24	0.37 / 0.39	0.43 / 0.6	1.33 / 1.33	
Pre-fuse A		4	4	4	4	
Power consumption W		40 / 42	70 / 87	95 / 135	165 / 165	
Width (B) mm		255	323	323	323	
Height (H) mm		255	323	323	323	
Depth (T1) mm		25	25	25	25	
Max. installation depth (T2) mm		107	118.5	130.5	130.5	
Required mounting cut-out (BxH) mm		224 x 224	292 x 292	292 x 292	292 x 292	
Fan		Diagonal, self-starting shaded pole motor	Diagonal, 1~ capacitor motor	Diagonal, 1~ capacitor motor	Diagonal, EC motor	
Operating temperature range		-30°C...+55°C	-30°C...+55°C	-30°C...+55°C	-25°C...+55°C	
Storage temperature range		-30°C...+70°C	-30°C...+70°C	-30°C...+70°C	-25°C...+70°C	
Noise level dB(A)		54 / 56	59 / 61	65 / 66	72	
Weight kg		2.12	3.56	4.28	3.5	
Accessories						
Outlet filter	1 pc(s).	3240.060	3243.060	3243.060	3243.060	457
Spare filter mats	5 pc(s).	3240.066	3243.066	3243.066	3243.066	456
Fine filter mats	5 pc(s).	3182.100	3183.100	3183.100	3183.100	457
Hose-proof hood	1 pc(s).	3240.080	3243.080	3243.080	3245.080	458
Speed control	1 pc(s).	3120.200	3120.200	3120.200	–	470
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	3110.100	467
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	466
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	468
Hygrostat with strain relief	1 pc(s).	3118.100	3118.100	3118.100	3118.100	468

Accessories



EC speed control

see page 469



Air throughputs incl. outlet filter and protection categories Page 401 **Accessories for climate control** Page 454 **Therm software** Page 474

Energy-efficient version of the TopTherm fan-and-filter units with diagonal fan technology. Fans 3240.500 to 3245.510 may be controlled and monitored. The fan may be activated via the control interface with tacho signal output integrated as standard, and monitoring of the fan speed and function is supported.

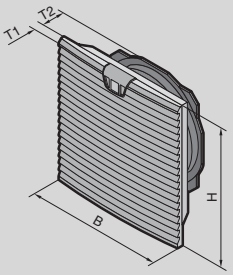
Colour:
– RAL 7035

Supply includes:
– Complete unit ready to install, including filter mat

Note:
– For even more efficient operation or for monitoring the fan-and-filter units, we recommend the use of an EC speed control for EC fan-and-filter units

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Air throughput 55 – 230 m³/h, with EC technology

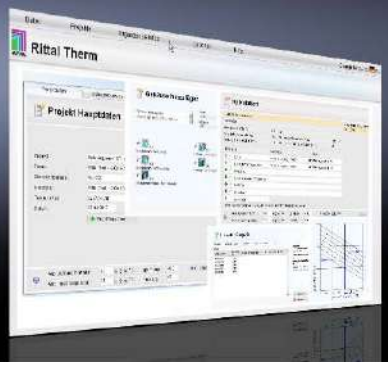
Model No.	Packs of	**3238.500**	**3239.500**	**3240.500**	**3241.500**	Page
Control interface		–	–	■	■	
Rated operating voltage V, ~, Hz		200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	
Air throughput, unimpeded air flow m³/h		**55**	**105**	**180**	**230**	
Rated current A		0.05	0.05	0.12	0.17	
Pre-fuse A		6	6	6	6	
Power consumption W		6	6	11	16	
Width (B) mm		148.5	204	255	255	
Height (H) mm		148.5	204	255	255	
Depth (T1) mm		16	24	25	25	
Max. installation depth (T2) mm		58.5	90	107	107	
Required mounting cut-out (BxH) mm		124 x 124	177 x 177	224 x 224	224 x 224	
Fan		Diagonal, EC motor	Diagonal, EC motor	Diagonal, EC motor	Diagonal, EC motor	
Operating temperature range		-20°C...+55°C	-20°C...+55°C	-25°C...+55°C	-25°C...+55°C	
Storage temperature range		-30°C...+70°C	-30°C...+70°C	-25°C...+70°C	-25°C...+70°C	
Noise level dB(A)		49	53	47	52	
Weight kg		0.615	0.91	2.01	1.983	
Accessories						
Outlet filter	1 pc(s).	3238.200	3239.200	3240.200	3240.200	457
Spare filter mats		see page	see page	see page	see page	456
Fine filter mats	5 pc(s).	3238.055	3181.100	3182.100	3182.100	457
Hose-proof hood	1 pc(s).	3238.080	3239.080	3240.080	3240.080	458
Blanking cover	2 pc(s).	3238.020	3239.020	3240.020	3240.020	459
EC speed control – Control unit for EC fan	1 pc(s).	–	–	3235.440	3235.440	469
EC speed control – Sensor for speed control	1 pc(s).	–	–	3235.450	3235.450	469
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	3110.100	467
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	466

TopTherm fan-and-filter units

Air throughput 550 – 900 m³/h, with EC technology

Model No.	Packs of	**3243.500**	**3244.500**	**3245.500**	**3245.510**	Page
Control interface		■	■	■	■	
Rated operating voltage V, ~, Hz		200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	100 - 130, 1~, 50/60	
Air throughput, unimpeded air flow m³/h		**550**	**700**	**900**	**900**	
Rated current A		0.5	0.7	1.33	2.1	
Pre-fuse A		6	6	4	6	
Power consumption W		51	80	165	165	
Width (B) mm		323	323	323	323	
Height (H) mm		323	323	323	323	
Depth (T1) mm		25	25	25	25	
Max. installation depth (T2) mm		118.5	130.5	130.5	130.5	
Required mounting cut-out (BxH) mm		292 x 292	292 x 292	292 x 292	292 x 292	
Fan		Diagonal, EC motor	Diagonal, EC motor	Diagonal, EC motor	Diagonal, EC motor	
Operating temperature range		-25°C...+55°C	-25°C...+55°C	-25°C...+55°C	-25°C...+55°C	
Storage temperature range		-25°C...+70°C	-25°C...+70°C	-25°C...+70°C	-25°C...+70°C	
Noise level dB(A)		63	64	72	72	
Weight kg		2.92	2.7	3.46	3.76	
Accessories						
Outlet filter	1 pc(s).	3243.200	3243.200	3243.200	3243.200	457
Spare filter mats		see page	see page	see page	see page	456
Fine filter mats	5 pc(s).	3183.100	3183.100	3183.100	3183.100	457
Hose-proof hood	1 pc(s).	3243.080	3243.080	3245.080	3245.080	458
Blanking cover	2 pc(s).	3243.020	3243.020	3243.020	3243.020	459
EC speed control – Control unit for EC fan	1 pc(s).	3235.440	3235.440	3235.440	3235.440	469
EC speed control – Sensor for speed control	1 pc(s).	3235.450	3235.450	3235.450	3235.450	469
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	3110.100	467
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	466

Accessories



Therm software

see page 474

Air throughput and protection category

TopTherm fan-and-filter units

Model No.	Air throughput m³/h at 50/60 Hz				Protection category IP to IEC 60 529/NEMA protection category		
	Unimpeded air flow	With outlet filter including filter mat			Standard filter	Standard filter and additional micro-filter mat	Standard filter and hose-proof hood
3237.100	20/25	1 x 3237.200 15/18	–	–	IP 54/ Type 12	–	IP 56/ Type 3, 3R
3237.110							
3237.124	20						
3238.100	55/66	1 x 3238.200 43/50	2 x 3238.200 46/56	–		IP 54/ Type 12	IP 56/ Type 3, 3R Type 4, 4X
3238.110							
3238.124	55	1 x 3238.200 43	2 x 3238.200 46				
3239.100	105/120	1 x 3239.200 87/100	2 x 3239.200 93/108	1 x 3240.200 98/111		IP 55/ Type 12	
3239.110							
3239.124	105	1 x 3239.200 87	2 x 3239.200 93	1 x 3240.200 98			
3240.100	180/160	1 x 3240.200 138/121	2 x 3240.200 165/140	1 x 3243.200 165/140			
3240.110							
3240.124	180	1 x 3240.200 138	2 x 3240.200 165	1 x 3243.200 165			
3241.100	230/250	1 x 3240.200 183/205	2 x 3240.200 203/230	1 x 3243.200 203/230			
3241.110							
3241.124	230	1 x 3240.200 183	2 x 3240.200 203	1 x 3243.200 203			
3243.100	550/600	1 x 3243.200 465/510	2 x 3243.200 508/548	–			
3243.110							
3244.100	700/770	1 x 3243.200 544/587	2 x 3243.200 614/662	–			
3244.110							
3244.140							

TopTherm fan-and-filter units, EMC

Model No.	Air throughput m³/h at 50/60 Hz				Protection category IP to IEC 60 529/NEMA protection category		
	Unimpeded air flow	With EMC outlet filter including EMC filter mat			Standard filter	Standard filter and additional micro-filter mat	Standard filter and hose-proof hood
3237.600	20/25	1 x 3237.060 15/18	–	–	IP 54/ Type 12	–	IP 56/ Type 3, 3R
3238.600	55/66	1 x 3238.060 43/50	2 x 3238.060 46/56	–		IP 54/ Type 12	IP 56/ Type 3, 3R Type 4, 4X
3239.600	105/120	1 x 3239.060 87/100	2 x 3239.060 93/108	1 x 3240.060 98/111		IP 55/ Type 12	
3240.600	180/160	1 x 3240.060 138/121	2 x 3240.060 165/140	1 x 3243.060 165/140			
3241.600	230/250	1 x 3240.060 183/205	2 x 3240.060 203/230	1 x 3243.060 203/230			
3243.600	550/600	1 x 3243.060 465/510	2 x 3243.060 508/548	–			
3244.600	700/770	1 x 3243.060 544/587	2 x 3243.060 630/690	–			
3245.600	900	1 x 3243.060 680	2 x 3243.060 820	–	IP 51	IP 52	IP 56/ Type 1, 12 Type 3, 3R

TopTherm fan-and-filter units with EC technology

Model No.	Air throughput m³/h at 50/60 Hz				Protection category IP to IEC 60 529/NEMA protection category		
	Unimpeded air flow	With outlet filter including filter mat			Standard filter	Standard filter and additional micro-filter mat	Standard filter and hose-proof hood
3238.500	55	1 x 3238.200 43	2 x 3238.200 46	–	IP 54/ Type 12	IP 54/ Type 12	IP 56/ Type 3, 3R Type 4, 4X
3239.500	105	1 x 3239.200 87	2 x 3239.200 93	1 x 3240.200 98		IP 55/ Type 12	
3240.500	180	1 x 3240.200 138	2 x 3240.200 165	1 x 3243.200 165			
3241.500	230	1 x 3240.200 183	2 x 3240.200 203	1 x 3243.200 203			
3243.500	550	1 x 3243.200 465	2 x 3243.200 508	–			
3244.500	700	1 x 3243.200 544	2 x 3243.200 630	–			
3245.500	900	1 x 3243.200 680	2 x 3243.200 820	–	IP 51	IP 52	IP 56/ Type 1, 12 Type 3, 3R
3245.510	900	1 x 3243.200 680	2 x 3243.200 820	–			

Roof-mounted fan, roof vent



Accessories for climate control Page 454

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 21 without filter mat
– IP 55 including filter mat

Supply includes:
– Complete unit ready to install, including filter mat

Note:
– For energy-efficient operation of the fans, we recommend the use of thermostats or temperature displays

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Air throughput, unimpeded air flow 500 – 873 m³/h

Model No.	Packs of	**3138.000**	**3139.100**	**3139.110**	**3140.100**	**3140.110**	**3140.140**	Page
Rated operating voltage V, ~, Hz		–	230, 1~, 50/60	115, 1~, 50/60	230, 1~, 50/60	115, 1~, 50/60	400, 3~, 50/60 460, 3~, 60	
Air throughput, unimpeded air flow (without filter mats) m³/h		–	**500 / 525**	**500 / 525**	**873 / 965**	**873 / 965**	**863 / 942**	
Air throughput, unimpeded air flow (with filter mats) m³/h		–	**417 / 446**	**417 / 446**	**725 / 759**	**725 / 759**	**700 / 749**	
Rated current A		–	0.22 / 0.27	0.43 / 0.55	0.43 / 0.56	0.88 / 1.17	0.17 / 0.19	
Pre-fuse A		–	6	6	6	6	–	
Motor circuit-breaker A		–	–	–	–	–	6.3...10	
Power consumption W		–	50 / 62	49 / 62	98 / 130	101 / 135	90 / 122	
Width mm		400	400	400	400	400	400	
Height mm		133	133	133	133	133	133	
Depth mm		400	400	400	400	400	400	
Max. installation depth mm		27.5	34.6	34.6	34.6	34.6	34.6	
Required mounting cut-out mm		258 x 258	258 x 258	258 x 258	258 x 258	258 x 258	258 x 258	
Fan		without fan motor	Radial, capacitor motor	Radial, capacitor motor	Radial, capacitor motor	Radial, capacitor motor	Radial, rotary current motor	
Operating temperature range		-30°C...+55°C	-30°C...+55°C	-30°C...+55°C	-30°C...+55°C	-30°C...+55°C	-30°C...+55°C	
Storage temperature range		-40°C...+70°C	-40°C...+70°C	-40°C...+70°C	-40°C...+70°C	-40°C...+70°C	-40°C...+70°C	
Accessories								
Outlet filter	1 pc(s).	3243.200	3243.200	3243.200	3243.200	3243.200	3243.200	457
Spare filter mats	12 pc(s).	3174.100	3174.100	3174.100	3174.100	3174.100	3174.100	456
Thermostat	1 pc(s).	–	3110.000	3110.000	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	–	3110.100	3110.100	3110.100	3110.100	3110.100	467
Digital enclosure internal temperature display and thermostat	1 pc(s).	–	3114.200	3114.200	3114.200	3114.200	3114.200	466
Hygrostat	1 pc(s).	–	3118.000	3118.000	3118.000	3118.000	3118.000	468
Hygrostat with strain relief	1 pc(s).	–	3118.100	3118.100	3118.100	3118.100	3118.100	468



Accessories for climate control Page 454

Energy-efficient and powerful design of the roof-mounted fans. The fan may be activated via the control interface with tacho signal output integrated as standard, and monitoring of the fan speed and function is supported.

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 21 without filter mat
– IP 55 including filter mat

Supply includes:
– Complete unit ready to install, including filter mat

Note:
– For even more efficient operation or for monitoring the fans, we recommend the use of the EC speed controls

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Air throughput, unimpeded air flow 1069 m³/h, with EC technology

Model No.	Packs of	**3140.500**	**3140.510**	Page
Control interface		■	■	
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	
Air throughput, unimpeded air flow (without filter mats) m³/h		**1069 / 1069**	**1069 / 1069**	
Air throughput, unimpeded air flow (with filter mats) m³/h		**841 / 841**	**841 / 841**	
Rated current A		0.99 / 0.99	1.45 / 1.45	
Pre-fuse A		6	6	
Power consumption W		129 / 129	106 / 106	
Width mm		400	400	
Height mm		133	133	
Depth mm		400	400	
Max. installation depth mm		34.6	34.6	
Required mounting cut-out mm		258 x 258	258 x 258	
Fan		Radial, EC motor	Radial, EC motor	
Operating temperature range		-30°C...+55°C	-30°C...+55°C	
Storage temperature range		-40°C...+70°C	-40°C...+70°C	
Accessories				
Outlet filter	1 pc(s).	3243.200	3243.200	457
Spare filter mats	12 pc(s).	3174.100	3174.100	456
EC speed control Control unit for EC fan	1 pc(s).	3235.440	3235.440	469
EC speed control Sensor for speed control	1 pc(s).	3235.450	3235.450	469
Thermostat	1 pc(s).	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	467
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	466
Hygrostat	1 pc(s).	3118.000	3118.000	468
Hygrostat with strain relief	1 pc(s).	3118.100	3118.100	468

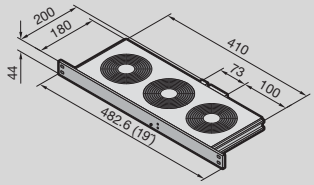
Rack-mounted fans for 482.6 mm (19")



Accessories for climate control Page 454

Supply includes:
- Fully wired unit ready for connection
- Terminal strip and assembly parts

Approvals:
Available on the Internet



Air throughput, unimpeded air flow 320 – 480 m³/h

Model No.	Packs of	**3340.230**	**3341.115**	**3341.230**	**3342.024**	**3342.230**	**3342.500**	Page
With monitoring		–	–	–	–	–	■	
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	230, 1~, 50/60	24 (DC)	230, 1~, 50/60	115 - 230, 1~, 50/60 24 (DC)	
Air throughput, unimpeded air flow m³/h		**320**	**480**	**480**	**480**	**480**	**480**	
No. of fans		2	3	3	3	3	3	
Distance between axes mm		85	85	85	105	105	105	
Rated current A		0.24 / 0.22	0.69 / 0.69	0.36 / 0.33	0.74	0.36 / 0.33	0.85	
Pre-fuse A		6	6	6	6	6	6	
Width mm		482.6	482.6	482.6	482.6	482.6	482.6	
Height mm		44	44	44	44	44	44	
Depth mm		200	200	200	200	200	200	
Operating temperature range		-10°C...+55°C	-10°C...+55°C	-10°C...+55°C	-10°C...+55°C	-10°C...+55°C	-10°C...+55°C	
Noise level dB(A)		51	52	51	51	51	51	
Weight kg		2.24	2.0	2.74	1.86	2.78	2.0	
Accessories								
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	466
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	3110.100	3110.100	3110.100	467
Speed control	1 pc(s).	3120.200	3120.200	3120.200	–	3120.200	–	470

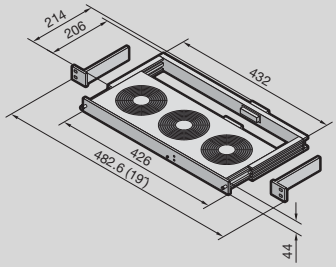
Vario rack-mounted fans for 482.6 mm (19")



Accessories for climate control Page 454

Supply includes:
- Fully wired unit ready for connection
- Terminal strip and assembly parts

Approvals:
Available on the Internet



Air throughput, unimpeded air flow 320 – 480 m³/h

Model No.	Packs of	**3350.230**	**3351.230**	**3352.230**	**3352.500**	Page
With monitoring		–	–	–	■	
Rated operating voltage V, ~, Hz		230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	115 - 230, 1~, 50/60 24 (DC)	
Air throughput, unimpeded air flow m³/h		**320**	**480**	**480**	**480**	
No. of fans		2	3	3	3	
Distance between axes mm		85	85	105	105	
Rated current A		0.24 / 0.22	0.36 / 0.33	0.36 / 0.33	0.85 / 0.85	
Pre-fuse A		6	6	6	6	
Width mm		482.6	482.6	482.6	482.6	
Height mm		44	44	44	44	
Depth mm		200	200	200	200	
Operating temperature range		-10°C...+55°C	-10°C...+55°C	-10°C...+55°C	-10°C...+55°C	
Noise level dB(A)		51	51	51	51	
Weight kg		2.0	2.7	2.78	2.04	
Also required						
Guide frame	1 pc(s).	3355.100	3355.100	3355.100	3357.100	
Accessories						
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	466
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	3110.100	467
Speed control	1 pc(s).	3120.200	3120.200	3120.200	–	470

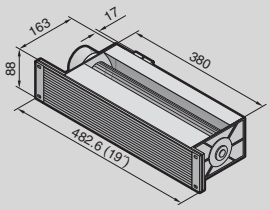
Tangential fans for 482.6 mm (19")



Accessories for climate control Page 454

Supply includes:
– Fully wired unit ready for connection
– Filter mat

Approvals:
Available on the Internet



Air throughput, unimpeded air flow 320 m^3/h

Model No.	Packs of	**3144.000**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	
Air throughput, unimpeded air flow m^3/h		**320**	
Rated current A		0.16	
Power consumption W		37	
Width mm		482.6	
Height mm		88	
Depth mm		158	
Operating temperature range		-10°C...+55°C	
Noise level dB(A)		52	
Speed rpm		2245	
Maximum static pressure difference Pa		65 - 70	
Weight kg		2.02	
Accessories			
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	466
Thermostat	1 pc(s).	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	467
Filter mats	5 pc(s).	3177.000	454
Front outlet grille 2 U	1 pc(s).	3176.000	459
Speed control	1 pc(s).	3120.200	470

TopTherm air/air heat exchanger



Accessories for climate control Page 454

Temperature control:
– Electronic control with digital display (factory setting +35°C)

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– Internal circuit IP 54

Supply includes:
– Complete unit ready for connection
– Plug-in terminal strip
– Floating fault signal contact in case of overtemperature

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Specific thermal output 17.5 – 90 W/K, wall-mounted with controller

Model No.	Packs of	**3126.100**	**3127.100**	**3128.100**	**3129.100**	**3130.100**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Specific thermal output W/K		**17.5**	**30**	**45**	**60**	**90**	
Max. rated current per fan A		0.11 / 0.13	0.28 / 0.34	0.3 / 0.4	0.38 / 0.4	0.67 / 0.88	
Pre-fuse A		2	2	2	2	4	
Output per fan W		23 / 27	60 / 75	70 / 90	85 / 90	150 / 200	
Air throughput of fans (unimpeded air flow), external circuit m^3/h		265 / 315	480 / 525	600 / 625	860 / 900	850 / 945	
Air throughput of fans (unimpeded air flow), internal circuit m^3/h		265 / 315	480 / 525	600 / 625	860 / 900	850 / 945	
Width mm		280	400	400	400	400	
Height mm		550	950	950	950	1580	
Depth mm		150	205	205	225	215	
Operating temperature range		-5°C...+55°C	-5°C...+55°C	-5°C...+55°C	-5°C...+55°C	-5°C...+55°C	
Weight kg		10.0	18.0	19.0	21.0	34.0	
Accessories							
Filter mats	3 pc(s).	3286.300	3286.400	3286.400	3286.400	3286.400	454
Metal filters	1 pc(s).	3286.310	3286.410	3286.410	3286.410	3286.410	455

Air/air heat exchanger



Accessories for climate control Page 454 **Therm software** Page 474

Colour:
– RAL 7035
– RAL 9005

Protection category IP to IEC 60 529:
– Internal circuit IP 54

Supply includes:
– Complete unit ready for connection
– The fans are connected via two 3-wire connection cables, with wire end ferrules

Note:
– For precise temperature control inside the enclosure, we recommend the enclosure internal thermostat, the digital enclosure internal temperature display and thermostat or the speed control

Specific thermal output 66 W/K, roof-mounted

Model No.	Packs of	**3248.000**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	
Specific thermal output W/K		**66**	
No. of fans		2	
Max. rated current per fan A		0.45 / 0.55	
Pre-fuse A		4	
Output per fan W		75	
Air throughput of fans (unimpeded air flow), external circuit m^3/h		965	
Air throughput of fans (unimpeded air flow), internal circuit m^3/h		965	
Width mm		595	
Height mm		362	
Depth mm		440	
Operating temperature range		-5°C...+55°C	
Type of electrical connection		Connection cable	
Weight kg		16.8	
Accessories			
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	466
Thermostat	1 pc(s).	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	467
Hygrostat	1 pc(s).	3118.000	468
Hygrostat with strain relief	1 pc(s).	3118.100	468
Speed control	1 pc(s).	3120.200	470

Rittal – The System.

Faster – better – everywhere.

Roof-mounted fans – Simple assembly and a high protection category



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Cooling units

Thermoelectric coolers

Thermoelectric coolers ..... 100 W 412

Wall-mounted cooling units

TopTherm, horizontal format ..... 300 W 413
TopTherm ..... 300 W 414
TopTherm Blue e ..... 500 W 415
TopTherm Blue e ..... 750 W 416
TopTherm Blue e ..... 1000 W 417
TopTherm Blue e ..... 1500 W 418
TopTherm Blue e ..... 2000 W 419
TopTherm Blue e ..... 2500 W 420
TopTherm Blue e ..... 4000 W 420
TopTherm Blue e, slimline ..... 1500 W 421
Blue e+ ..... 2000 – 6000 W 426
TopTherm Blue e, NEMA 4X ..... 500 – 1500 W 428
TopTherm Blue e, NEMA 4X ..... 2000 – 2500 W 429

Roof-mounted cooling units

TopTherm Blue e ..... 500 W 430
TopTherm Blue e ..... 750 W 431
TopTherm Blue e ..... 1000 W 431
TopTherm Blue e ..... 1100 – 1500 W 432
TopTherm Blue e ..... 2000 W 432
TopTherm Blue e ..... 3000 – 4000 W 433

Modular climate control concept

Cooling module Blue e ..... 1500 – 2500 W 434
Section doors for installing cooling modules 435



World's first
The world's most efficient range of cooling units – Blue e+

The e+ principle:

- **Efficient –** Energy savings of up to 75% due to speed-regulated components and heat pipe technology
- **Versatile –** Unique multi-voltage capability supports global use
- **Safe –** Longer service life of all components inside the enclosure and the cooling unit due to component-friendly cooling
- **User-friendly –** Touch display and intelligent interfaces support intuitive operation

Thermoelectric cooler



Accessories for climate control Page 454 **Therm software** Page 474

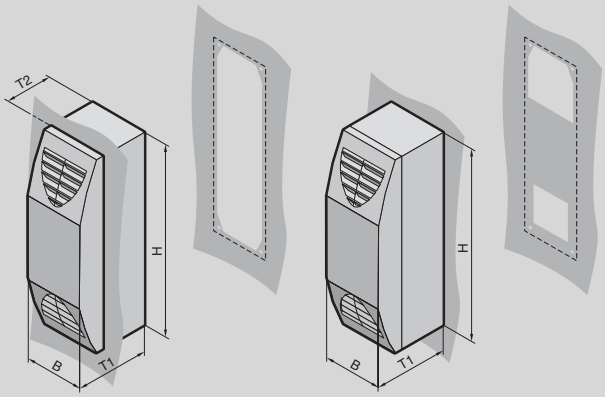
Material:
– Device: Aluminium, anodised

Colour:
– Colour of cover: RAL 7024

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Thermoelectric climate control unit
– Fully wired ready for connection (plug-in terminal strip)
– Mounting accessories
– Parameterisation software

Performance diagrams:
Available on the Internet



Total cooling/heating output 100 W

Model No.	Packs of	**3201.200**	**3201.300**	Page
Rated operating voltage V, ~, Hz		100 - 240, 1~, 50/60	24 (DC)	
Total cooling output L35 L35 W		**100 / 100**	**100**	
Thermal output W		**100**	**100**	
Width (B) mm		125	125	
Height (H) mm		400	400	
Depth (T1) mm		155	155	
Installation depth (T2) mm		100	100	
Pre-fuse A		4	10	
Operating temperature range		-30°C...+55°C	-30°C...+60°C	
Setting range, cooling		+5°C...+55°C	+5°C...+55°C	
Setting range, heating		-10°C...+20°C	-10°C...+20°C	
Refrigeration factor/COP		1	1.2	
Power pack integrated		■	–	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h		45 / 45	45 / 45	
Weight kg		3.0	2.4	
Accessories				
Spare filter mats	5 pc(s).	3201.050	3201.050	456
Master/slave adaptor	1 pc(s).	3201.070	3201.070	471
Condensate hose	1 pc(s).	3301.606	3301.606	464

TopTherm wall-mounted cooling units, horizontal format



Accessories for climate control Page 454 **Therm software** Page 474

Temperature control:
– Basic controller (factory setting +35°C)

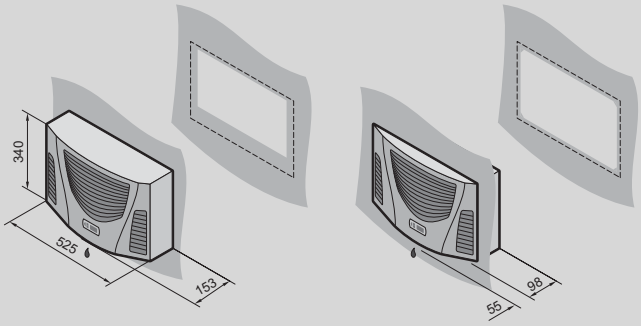
Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Output class 300 W

Model No.		Packs of	**3302.300**	**3302.310**	Page
Material	Sheet steel		■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**0.36**	–	
Total cooling output 50/60 Hz L35 L35 kW			0.36 / 0.38	0.38	
Total cooling output 50/60 Hz L35 L50 kW			0.21 / 0.22	0.23	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 60	
Width mm			525	525	
Height mm			340	340	
Depth mm			153	153	
Rated current max. A			1.6 / 1.7	4	
Start-up current A			4.3 / 5.3	12	
Pre-fuse A			10	10	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.27 / 0.29	0.32	
Power consumption P_{el} 50/60 Hz L35 L50 kW			0.31 / 0.33	0.37	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	
Setting range			+30°C...+55°C	+30°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			1.3	1.18	
Refrigerant g			R134a, 100	R134a, 95	
Permissible operating pressure (p. max.) bar			25	25	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			310 / 310	300 / 300	
Weight kg			13.0	13.0	
Accessories					
Filter mats		3 pc(s).	3286.110	3286.110	454
Metal filters		1 pc(s).	3286.120	3286.120	455
Door-operated switch		1 pc(s).	4127.010	4127.010	755
Condensate hose		1 pc(s).	3301.608	3301.608	464

TopTherm wall-mounted cooling units



Accessories for climate control Page 454 **Therm software** Page 474

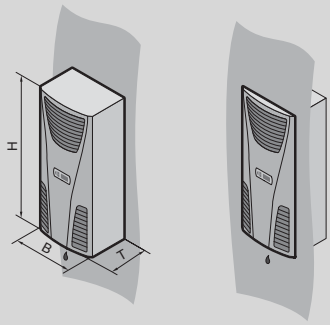
Temperature control:
– Basic controller (factory setting +35°C)

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Output class 300 W

Model No.		Packs of	**3302.100**	**3302.110**	**3302.200**	Page
Material	Sheet steel		■	■	–	
	Stainless steel		–	–	■	
Colour	RAL 7035		■	■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**0.36**	–	**0.36**	
Total cooling output 50/60 Hz L35 L35 kW			0.36 / 0.38	0.38	0.36 / 0.38	
Total cooling output 50/60 Hz L35 L50 kW			0.21 / 0.23	0.23	0.21 / 0.23	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 60	230, 1~, 50/60	
Width (B) mm			280	280	280	
Height (H) mm			550	550	550	
Depth (T) mm			140	140	140	
Rated current max. A			1.6 / 1.7	3.3	1.6 / 1.7	
Start-up current A			3 / 3.4	8	3 / 3.4	
Pre-fuse A			10	10	10	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.27 / 0.28	0.32	0.27 / 0.28	
Power consumption P_{el} 50/60 Hz L35 L50 kW			0.28 / 0.3	0.37	0.28 / 0.3	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Setting range			+30°C...+55°C	+30°C...+55°C	+30°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			1.3	1.18	1.3	
Refrigerant g			R134a, 100	R134a, 100	R134a, 100	
Permissible operating pressure (p. max.) bar			25	25	25	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			345 / 310	345 / 310	345 / 310	
Weight kg			13.0	13.0	13.0	
Accessories						
Filter mats		3 pc(s).	3286.300	3286.300	3286.300	454
Metal filters		1 pc(s).	3286.310	3286.310	3286.310	455
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	755
Condensate hose		1 pc(s).	3301.608	3301.608	3301.608	464

TopTherm wall-mounted cooling units "Blue e"



Accessories for climate control Page 454 **Therm software** Page 474 **RiDiag software** Page 474

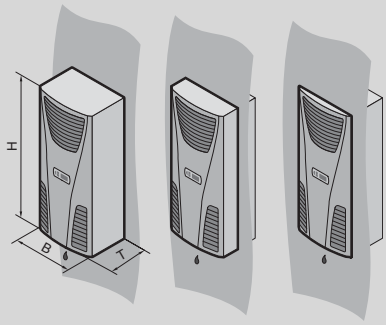
Temperature control:
– e-Comfort controller (factory setting +35°C)

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Output class 500 W

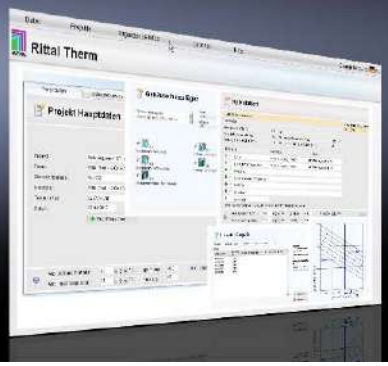
Model No.		Packs of	**3303.500**	**3303.510**	**3303.600**	Page
Material	Sheet steel		■	■	–	
	Stainless steel		–	–	■	
Colour	RAL 7035		■	■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**0.55**	–	**0.55**	
Total cooling output 50/60 Hz L35 L35 kW			0.55 / 0.66	0.66	0.55 / 0.66	
Total cooling output 50/60 Hz L35 L50 kW			0.33 / 0.4	0.4	0.33 / 0.4	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 60	230, 1~, 50/60	
Width (B) mm			280	280	280	
Height (H) mm			550	550	550	
Depth (T) mm			210	210	210	
Rated current max. A			2.6 / 2.6	5.7	2.6 / 2.6	
Start-up current A			5.1 / 6.4	11.5	5.1 / 6.4	
Pre-fuse A			10	10	10	
Transformer circuit-breaker			–	–	–	
Toroidal transformer (external) Ø x D			–	–	–	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.39 / 0.41	0.5	0.39 / 0.41	
Power consumption P_{el} 50/60 Hz L35 L50 kW			0.45 / 0.42	0.53	0.45 / 0.42	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Operating temperature (max.) 60 Hz			–	–	–	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			1.4	1.4	1.4	
Refrigerant g			R134a, 170	R134a, 170	R134a, 170	
Permissible operating pressure (p. max.) bar			28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			265 / 315	280 / 345	265 / 315	
Weight kg			17.0	17.0	17.0	
Accessories						
Filter mats		3 pc(s).	3286.300	3286.300	3286.300	454
Metal filters		1 pc(s).	3286.310	3286.310	3286.310	455
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	755
Interface board		1 pc(s).	3124.200	3124.200	3124.200	470

TopTherm wall-mounted cooling units "Blue e"

Output class 750 W

Model No.		Packs of	**3361.500**	**3361.510**	**3361.540**	**3361.600**	Page
Material	Sheet steel		■	■	■	–	
	Stainless steel		–	–	–	■	
Colour	RAL 7035		■	■	■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**0.85**	–	**0.85**	**0.85**	
Total cooling output 50/60 Hz L35 L35 kW			0.85 / 0.89	0.89	0.85 / 0.89	0.85 / 0.89	
Total cooling output 50/60 Hz L35 L50 kW			0.67 / 0.67	0.67	0.67 / 0.67	0.67 / 0.67	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 60	400, 2~, 50/60	230, 1~, 50/60	
Width (B) mm			280	280	280	280	
Height (H) mm			550	550	550	550	
Depth (T) mm			280	280	280	280	
Rated current max. A			2.7 / 2.7	5.3	1.2 / 1.4	2.7 / 2.7	
Start-up current A			6 / 9.6	12	3.1 / 3.3	6 / 9.6	
Pre-fuse A			10	10	–	10	
Transformer circuit-breaker A			–	–	6.3...10	–	
Toroidal transformer (external) Ø x D mm			–	–	126 x 65	–	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.4 / 0.43	0.55	0.4 / 0.43	0.4 / 0.43	
Power consumption P_{el} 50/60 Hz L35 L50 kW			0.47 / 0.5	0.66	0.47 / 0.5	0.47 / 0.5	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Operating temperature (max.) 60 Hz			+53°C	+52°C	+53°C	+53°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			2.08	1.59	2.08	2.08	
Refrigerant g			R134a, 280	R134a, 260	R134a, 280	R134a, 280	
Permissible operating pressure (p. max.) bar			28	28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			230 / 550	230 / 625	230 / 550	230 / 550	
Weight kg			22.0	22.0	22.0	22.0	
Accessories							
Filter mats		3 pc(s).	3286.300	3286.300	3286.300	3286.300	454
Metal filters		1 pc(s).	3286.310	3286.310	3286.310	3286.310	455
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	755
Interface board		1 pc(s).	3124.200	3124.200	3124.200	3124.200	470

Accessories



Therm software

see page 474

TopTherm wall-mounted cooling units "Blue e"



Accessories for climate control Page 454 **Therm software** Page 474 **RiDiag software** Page 474

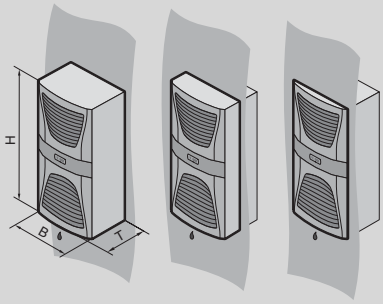
Temperature control:
– e-Comfort controller (factory setting +35°C)

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Integral electric condensate evaporation
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Output class 1000 W

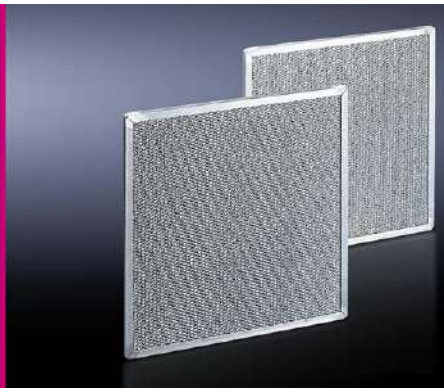
Model No.		Packs of	**3304.500**	**3304.510**	**3304.540**	**3304.600**	**3304.640**	Page
Material	Sheet steel		■	■	■	–	–	
	Stainless steel		–	–	–	■	■	
Colour	RAL 7035		■	■	■	–	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**1.1**	**1.1**	**1.1**	**1.1**	**1.1**	
Total cooling output 50/60 Hz L35 L35 kW			1.1 / 1.25	1.1 / 1.25	1.1 / 1.25	1.1 / 1.25	1.1 / 1.25	
Total cooling output 50/60 Hz L35 L50 kW			0.91 / 0.9	0.91 / 0.9	0.98 / 0.9	0.91 / 0.9	0.98 / 0.9	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 50/60	400, 3~, 50 460, 3~, 60	230, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Width (B) mm			400	400	400	400	400	
Height (H) mm			950	950	950	950	950	
Depth (T) mm			260	260	260	260	260	
Rated current max. A			3.9 / 4.3	8 / 8.8	2.2 / 2.1	5.4 / 5	2.8 / 2.4	
Start-up current A			12 / 14	26 / 28	11.5 / 12.7	12 / 14	11.5 / 12.7	
Pre-fuse A			10	–	–	10	–	
Transformer circuit-breaker A			–	11...16	–	–	–	
Motor circuit-breaker A			–	–	6.3...10	–	6.3...10	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.64 / 0.68	0.64 / 0.68	0.64 / 0.79	0.64 / 0.68	0.64 / 0.79	
Power consumption P_{el} 50/60 Hz L35 L50 kW			0.71 / 0.81	0.71 / 0.81	0.73 / 0.9	0.71 / 0.81	0.73 / 0.9	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			1.83	1.83	1.72	1.83	1.72	
Refrigerant g			R134a, 325	R134a, 325	R134a, 325	R134a, 325	R134a, 325	
Permissible operating pressure (p. max.) bar			28	28	28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			600 / 900	600 / 900	600 / 900	600 / 900	600 / 900	
Weight kg			39.0	44.0	40.0	39.0	40.0	
Accessories								
Filter mats		3 pc(s).	3286.400	3286.400	3286.400	3286.400	3286.400	454
Metal filters		1 pc(s).	3286.410	3286.410	3286.410	3286.410	3286.410	455
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	4127.010	755

TopTherm wall-mounted cooling units "Blue e"

Output class 1500 W

Model No.		Packs of	**3305.500**	**3305.510**	**3305.540**	**3305.600**	**3305.640**	Page
Material	Sheet steel		■	■	■	–	–	
	Stainless steel		–	–	–	■	■	
Colour	RAL 7035		■	■	■	–	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**1.6**	**1.6**	**1.6**	**1.6**	**1.6**	
Total cooling output 50/60 Hz L35 L35 kW			1.6 / 1.76	1.6 / 1.76	1.6 / 1.61	1.6 / 1.76	1.6 / 1.61	
Total cooling output 50/60 Hz L35 L50 kW			1.25 / 1.37	1.25 / 1.37	1.33 / 1.35	1.25 / 1.37	1.33 / 1.35	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 50/60	400, 3~, 50 460, 3~, 60	230, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Width (B) mm			400	400	400	400	400	
Height (H) mm			950	950	950	950	950	
Depth (T) mm			260	260	260	260	260	
Rated current max. A			5.5 / 5.8	11.5 / 12.5	2.5 / 2.8	5.5 / 5.8	2.5 / 2.8	
Start-up current A			12 / 14	26 / 28	12.2 / 11.3	12 / 14	12.2 / 11.3	
Pre-fuse A			16	–	–	16	–	
Transformer circuit-breaker A			–	14...20	–	–	–	
Motor circuit-breaker A			–	–	6.3...10	–	6.3...10	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.87 / 0.98	0.87 / 0.98	0.9 / 1.08	0.87 / 0.98	0.9 / 1.08	
Power consumption P_{el} 50/60 Hz L35 L50 kW			1.03 / 1.15	1.03 / 1.15	1.06 / 1.25	1.03 / 1.15	1.06 / 1.25	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			1.83	1.83	1.83	1.83	1.83	
Refrigerant g			R134a, 500	R134a, 500	R134a, 500	R134a, 500	R134a, 500	
Permissible operating pressure (p. max.) bar			28	28	28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			800 / 900	800 / 900	800 / 900	800 / 900	800 / 900	
Weight kg			41.0	46.0	42.0	41.0	42.0	
Accessories								
Filter mats		3 pc(s).	3286.400	3286.400	3286.400	3286.400	3286.400	454
Metal filters		1 pc(s).	3286.410	3286.410	3286.410	3286.410	3286.410	455
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	4127.010	755

Accessories



Metal filters

see page 455

TopTherm wall-mounted cooling units "Blue e"



Accessories for climate control Page 454 **Therm software** Page 474 **RiDiag software** Page 474

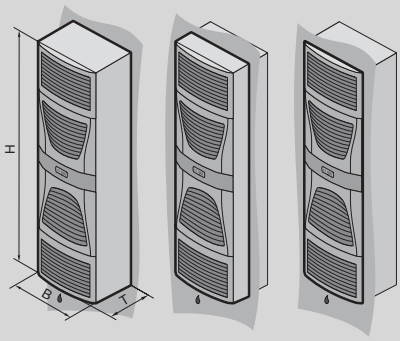
Temperature control:
– e-Comfort controller (factory setting +35°C)

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Integral electric condensate evaporation
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Output class 2000 W

Model No.		Packs of	**3328.500**	**3328.510**	**3328.540**	**3328.600**	**3328.640**	Page
Material	Sheet steel		■	■	■	–	–	
	Stainless steel		–	–	–	■	■	
Colour	RAL 7035		■	■	■	–	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**2.2**	**2.2**	**2.2**	**2.2**	**2.2**	
Total cooling output 50/60 Hz L35 L35 kW			2.2 / 2.56	2.2 / 2.56	2.2 / 2.55	2.2 / 2.56	2.2 / 2.55	
Total cooling output 50/60 Hz L35 L50 kW			1.82 / 1.95	1.82 / 1.95	1.65 / 1.89	1.82 / 1.95	1.65 / 1.89	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 50/60	400, 3~, 50 460, 3~, 60	230, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Width (B) mm			400	400	400	400	400	
Height (H) mm			1580	1580	1580	1580	1580	
Depth (T) mm			295	295	295	295	295	
Rated current max. A			6.1 / 6.6	13.4 / 14.8	2.8 / 3.3	6.1 / 6.6	2.8 / 3.3	
Start-up current A			20 / 22	40 / 38	6.8 / 7.8	20 / 22	6.8 / 7.8	
Pre-fuse A			16	–	–	16	–	
Transformer circuit-breaker A			–	18...25	–	–	–	
Motor circuit-breaker A			–	–	6.3...10	–	6.3...10	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.91 / 1.03	0.91 / 1.03	0.92 / 1.15	0.91 / 1.03	0.92 / 1.15	
Power consumption P_{el} 50/60 Hz L35 L50 kW			1.06 / 1.23	1.06 / 1.23	1.15 / 1.4	1.06 / 1.23	1.15 / 1.4	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			2.4	2.4	2.4	2.4	2.4	
Refrigerant g			R134a, 950	R134a, 950	R134a, 950	R134a, 950	R134a, 950	
Permissible operating pressure (p. max.) bar			28	28	28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			980 / 980	980 / 980	900 / 900	980 / 980	900 / 900	
Weight kg			66.0	73.0	67.0	66.0	67.0	
Accessories								
Filter mats		3 pc(s).	3286.400	3286.400	3286.400	3286.400	3286.400	454
Metal filters		1 pc(s).	3286.410	3286.410	3286.410	3286.410	3286.410	455

TopTherm wall-mounted cooling units "Blue e"

Output class 2500 W

Model No.		Packs of	**3329.500**	**3329.510**	**3329.540**	**3329.600**	**3329.640**	Page
Material	Sheet steel		■	■	■	–	–	
	Stainless steel		–	–	–	■	■	
Colour	RAL 7035		■	■	■	–	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**2.55**	**2.55**	**2.55**	**2.55**	**2.55**	
Total cooling output 50/60 Hz L35 L35 kW			2.55 / 2.71	2.55 / 2.71	2.55 / 2.75	2.55 / 2.71	2.55 / 2.75	
Total cooling output 50/60 Hz L35 L50 kW			1.89 / 1.97	1.89 / 1.97	1.95 / 2	1.89 / 1.97	1.95 / 2	
Rated operating voltage V, ~, Hz			230, 1~, 50/ 60	115, 1~, 50/ 60	400, 3~, 50 460, 3~, 60	230, 1~, 50/ 60	400, 3~, 50 460, 3~, 60	
Width (B) mm			400	400	400	400	400	
Height (H) mm			1580	1580	1580	1580	1580	
Depth (T) mm			295	295	295	295	295	
Rated current max. A			8.2 / 9.3	17 / 22	3.7 / 3.8	8.2 / 9.3	3.7 / 3.8	
Start-up current A			20 / 24	44 / 42	6.8 / 7.6	20 / 24	6.8 / 7.6	
Pre-fuse A			16	–	–	16	–	
Transformer circuit-breaker A			–	18...25	–	–	–	
Motor circuit-breaker A			–	–	6.3...10	–	6.3...10	
Power consumption P_{el} 50/60 Hz L35 L35 kW			1.21 / 1.35	1.21 / 1.35	1.19 / 1.39	1.21 / 1.35	1.19 / 1.39	
Power consumption P_{el} 50/60 Hz L35 L50 kW			1.41 / 1.64	1.41 / 1.64	1.45 / 1.75	1.41 / 1.64	1.45 / 1.75	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			2.11	2.11	2.11	2.11	2.11	
Refrigerant g			R134a, 950	R134a, 950	R134a, 950	R134a, 950	R134a, 950	
Permissible operating pressure (p. max.) bar			28	28	28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			1230 / 1230	1230 / 1230	1200 / 1200	1230 / 1230	1200 / 1200	
Weight kg			69.0	76.0	70.0	69.0	70.0	
Accessories								
Filter mats		3 pc(s).	3286.400	3286.400	3286.400	3286.400	3286.400	454
Metal filters		1 pc(s).	3286.410	3286.410	3286.410	3286.410	3286.410	455

Output class 4000 W

Model No.		Packs of	**3332.540**	**3332.640**	Page
Material	Sheet steel		■	–	
	Stainless steel		–	■	
Colour	RAL 7035		■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**3.95**	**3.95**	
Total cooling output 50/60 Hz L35 L35 kW			3.95 / 4.35	3.95 / 4.35	
Total cooling output 50/60 Hz L35 L50 kW			3.02 / 3.52	3.02 / 3.52	
Rated operating voltage V, ~, Hz			400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	
Width (B) mm			500	500	
Height (H) mm			1580	1580	
Depth (T) mm			340	340	
Rated current max. A			4.2 / 4.2	4.2 / 4.2	
Start-up current A			9.2 / 11	9.2 / 11	
Pre-fuse			–	–	
Transformer circuit-breaker			–	–	
Motor circuit-breaker A			6.3...10	6.3...10	
Power consumption P_{el} 50/60 Hz L35 L35 kW			1.6 / 2	1.6 / 2	
Power consumption P_{el} 50/60 Hz L35 L50 kW			1.87 / 2.34	1.87 / 2.34	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	
Setting range			+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			2.47	2.47	
Refrigerant g			R134a, 2995	R134a, 2995	
Permissible operating pressure (p. max.) bar			28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			1500 / 2000	1500 / 2000	
Weight kg			91.0	91.0	
Accessories					
Filter mats		3 pc(s).	3286.400	3286.400	454
Metal filters		1 pc(s).	3286.410	3286.410	455

TopTherm wall-mounted cooling units "Blue e", slimline



Accessories for climate control Page 454 **Therm software** Page 474 **RiDiag software** Page 474

Temperature control:
– e-Comfort controller (factory setting +35°C)

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Integral electric condensate evaporation
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 1500 W

Model No.		Packs of	**3366.500**	**3366.540**	Page
Material	Sheet steel		■	■	
Colour	RAL 7035		■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**1.6**	**1.6**	
Total cooling output 50/60 Hz L35 L35 kW			1.6 / 1.6	1.6 / 1.6	
Total cooling output 50/60 Hz L35 L50 W			1.15 / 1.2	1.08 / 1.18	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Width mm			435	435	
Height mm			1590	1590	
Depth mm			205	205	
Rated current max. A			6.7 / 6.9	2.7 / 2.9	
Start-up current A			22 / 24	8 / 8.8	
Pre-fuse A			10	–	
Transformer circuit-breaker			–	–	
Motor circuit-breaker A			–	6.3...10	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.84 / 0.97	0.9 / 1.05	
Power consumption P_{el} 50/60 Hz L35 L50 kW			1.02 / 1.13	1.08 / 1.25	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	
Setting range			+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			1.9	1.9	
Refrigerant g			R134a, 700	R134a, 700	
Permissible operating pressure (p. max.) bar			28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			860 / 910	860 / 910	
Weight kg			45.0	46.0	
Accessories					
Filter mats		3 pc(s).	3286.400	3286.400	454
Metal filters		1 pc(s).	3286.410	3286.410	455
Door-operated switch		1 pc(s).	4127.010	4127.010	755
Condensate hose		1 pc(s).	3301.612	3301.612	464

Wall-mounted cooling units Blue e+



Get information faster

- Fast device analysis with RiDiag software via the USB interface
- Remote monitoring via Ethernet



Blue e+ app

- Contactless information exchange and rapid, direct on-site analysis via an NFC interface
- Send simple repair, maintenance and spare parts enquiries directly from your smartphone
- Save device data directly on the device



Easier to operate

- Fast parameterisation, data reading and plain-text system messages on the intelligent, multi-lingual, industrial-grade display



Wall-mounted cooling units Blue e+



Assembly made easy

- One version for external mounting, partial internal mounting and full internal mounting
- One mounting cut-out for external mounting, partial internal mounting and full internal mounting in multiple output categories
- Maintenance-friendly, tool-free filter mat replacement



Fast assembly

- Handle serves as both carrying and positioning aid
- Mounting clip as a securing aid
- Eyebolts for easy mounting



Maximum versatility with unique multi-voltage capability

- One device for all voltages and networks, suitable for worldwide use thanks to inverter technology:
  – 110 – 240 V, 1~, 50 – 60 Hz
  – 380 – 480 V, 3~, 50 – 60 Hz
- International approvals and certifications:
  – cULus Listed
  – EAC
  – TÜV Nord GS
  – TÜV Nord tested output measurement



Wall-mounted cooling units Blue e+



Accessories for climate control Page 454 **Therm software** Page 474 **RiDiag software** Page 474

Benefits:
- Up to 75% energy saved due to speed-regulated components and heat pipe technology
- Suitable for international use due to a unique multi-voltage capability
- Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- Intuitive operation due to touch display and intelligent interfaces

Temperature control:
- e+ controller (factory setting +35°C)

Material:
- Sheet steel

Colour:
- RAL 7035

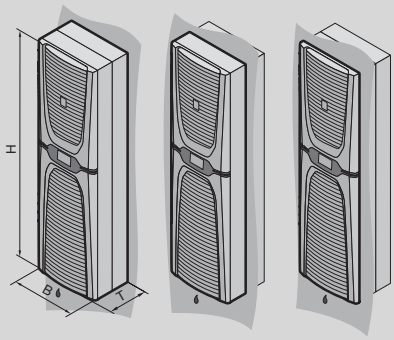
Protection category IP to IEC 60 529:
- Internal circuit IP 55

Supply includes:
- Assembly parts
- Fully wired ready for connection (plug-in terminal strip)

Note:
- Please observe the mounting instructions.

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Output class 2000 – 6000 W

Model No.	Packs of	**3186.930**	**3187.930**	**3188.940**	**3189.940**	Page
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW		**2**	**2.6**	**4.2**	**5.8**	
Total cooling output 50/60 Hz L35 L35 kW		2 / 2	2.6 / 2.6	4.2 / 4.2	5.8 / 5.8	
Total cooling output 50/60 Hz L35 L50 kW		1.29 / 1.29	1.82 / 1.82	3.02 / 3.02	4.2 / 4.2	
Rated operating voltage V, ~, Hz		110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	
Width (B) mm		450	450	450	450	
Height (H) mm		1600	1600	1600	1600	
Depth (T) mm		294	294	393	393	
Rated output kW		0.73	1.05	1.3	2.2	
Power consumption P_{el} 50/60 Hz L35 L35 kW		0.57 / 0.57	0.99 / 0.99	1.21 / 1.21	2.2 / 2.2	
Power consumption P_{el} 50/60 Hz L35 L50 kW		0.6 / 0.6	0.94 / 0.94	1.28 / 1.28	2.2 / 2.2	
Operating temperature range		-20°C...+60°C	-20°C...+60°C	-20°C...+60°C	-20°C...+60°C	
Setting range		+20°C...+50°C	+20°C...+50°C	+20°C...+50°C	+20°C...+50°C	
Storage temperature range		-40°C...+70°C	-40°C...+70°C	-40°C...+70°C	-40°C...+70°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511		3.5	2.63	3.46	2.64	
Seasonal energy efficiency ratio (SEER) 50/60 Hz L35 L35		8.1	6.2	8.1	6.2	
Refrigerant g		R134a, 1150	R134a, 1150	R134a, 1750	R134a, 1750	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h		1250 / 1250	1250 / 1250	2300 / 2300	2300 / 2300	
Weight kg		55.2	55.2	72.4	72.4	
Note on Model No.		–	–	Full installation not possible	Full installation not possible	
Accessories						
Filter mats	3 pc(s).	3285.900	3285.900	3285.900	3285.900	454
Metal filters	1 pc(s).	3285.910	3285.910	3285.910	3285.910	455

Revolutionary energy efficiency with innovative hybrid technology



Unbelievably efficient

- Let hybrid technology take your cooling units' energy efficiency to a whole new level
- Active cooling circuit with speed-regulated components for demand-based cooling
- Integral heat pipe for passive cooling dissipates heat from the enclosure as soon as the ambient temperature falls below the setpoint

Transparent efficiency comparisons

- Energy Efficiency Ratio: The standard KPI
- Seasonal Energy Efficiency Ratio: Reflecting actual consumption

Amazingly economical

- Energy savings of up to 75%
- Component-friendly cooling for a longer service life
- A constant temperature inside the enclosure is ensured – with three control modes
- High operational reliability

TopTherm wall-mounted cooling units "Blue e", NEMA 4X



Accessories for climate control Page 454 **Therm software** Page 474 **RiDiag software** Page 474

Temperature control:
– e-Comfort controller (factory setting +35°C)

Protection category NEMA:
– NEMA 4X

Supply includes:
– Nano-coated condenser
– Integral electric condensate evaporation
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Note:
– 3303.XXX without integral condensate evaporation

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 500 – 1500 W

Model No.	Packs of	**3303.504**	**3303.514**	**3304.504**	**3304.544**	**3305.504**	**3305.544**	Page
Material: Stainless steel 1.4404 (AISI 316L)		■	■	■	■	■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW		**0.55**	–	**1.1**	**1.1**	**1.6**	**1.6**	
Total cooling output 50/60 Hz L35 L35 kW		0.55 / 0.66	0.66	1.1 / 1.25	1.1 / 1.26	1.6 / 1.76	1.6 / 1.61	
Total cooling output 50/60 Hz L35 L50 kW		0.33 / 0.4	0.4	0.91 / 0.9	0.98 / 0.91	1.25 / 1.37	1.33 / 1.35	
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 60	230, 1~, 50/60	400, 3~, 50 460, 3~, 60	230, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Width mm		285	285	405	405	405	405	
Height mm		620	620	1020	1020	1020	1020	
Depth mm		298	298	358	358	358	358	
Rated current max. A		2.6 / 2.6	5.7	3.9 / 4.3	2.2 / 2.1	5.5 / 5.8	2.5 / 2.8	
Start-up current A		5.1 / 6.4	11.5	12 / 14	11.5 / 12.7	12 / 14	12.2 / 11.3	
Pre-fuse A		10	10	10	–	16	–	
Transformer circuit-breaker		–	–	–	–	–	–	
Motor circuit-breaker A		–	–	–	6.3...10	–	6.3...10	
Power consumption P_{el} 50/60 Hz L35 L35 kW		0.39 / 0.41	0.47	0.64 / 0.68	0.64 / 0.79	0.87 / 0.98	0.9 / 1.08	
Power consumption P_{el} 50/60 Hz L35 L50 kW		0.42 / 0.39	0.5	0.71 / 0.81	0.73 / 0.93	0.9 / 1.15	1.06 / 1.25	
Operating temperature range		+10°C...+50°C	+10°C...+50°C	+10°C...+50°C	+10°C...+50°C	+10°C...+50°C	+10°C...+50°C	
Setting range		+20°C...+50°C	+20°C...+50°C	+20°C...+50°C	+20°C...+50°C	+20°C...+50°C	+20°C...+50°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511		1.4	1.31	1.83	1.83	1.83	1.83	
Refrigerant g		R134a, 170	R134a, 170	R134a, 325	R134a, 325	R134a, 600	R134a, 600	
Permissible operating pressure (p. max.) bar		28	28	28	28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h		265 / 315	280 / 345	600 / 900	600 / 900	800 / 900	800 / 900	
Weight kg		25.0	25.0	49.0	50.0	51.0	52.0	
Accessories								
Door-operated switch	1 pc(s).	4127.010	4127.010	4127.010	4127.010	4127.010	4127.010	755

TopTherm wall-mounted cooling units "Blue e", NEMA 4X

Output class 2000 – 2500 W

Model No.		Packs of	**3328.504**	**3328.544**	**3329.504**	**3329.544**	Page
Material	Stainless steel 1.4404 (AISI 316L)		■	■	■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**2.2**	**2.2**	**2.55**	**2.55**	
Total cooling output 50/60 Hz L35 L35 kW			2.2 / 2.56	2.2 / 2.55	2.55 / 2.71	2.55 / 2.75	
Total cooling output 50/60 Hz L35 L50 kW			1.62 / 1.75	1.45 / 1.69	1.84 / 1.92	1.9 / 1.95	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	400, 3~, 50 460, 3~, 60	230, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Width mm			405	405	405	405	
Height mm			1650	1650	1650	1650	
Depth mm			388	388	388	388	
Rated current max. A			6.1 / 6.6	2.8 / 3.3	8.2 / 9.3	3.7 / 3.8	
Start-up current A			20 / 22	6.8 / 7.8	20 / 24	6.8 / 7.6	
Pre-fuse A			16	–	16	–	
Transformer circuit-breaker			–	–	–	–	
Motor circuit-breaker A			–	6.3...10	–	6.3...10	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.91 / 1.03	0.92 / 1.15	1.21 / 1.35	1.19 / 1.39	
Power consumption P_{el} 50/60 Hz L35 L50 kW			1.06 / 1.25	1.15 / 1.4	1.41 / 1.64	1.44 / 1.75	
Operating temperature range			+10°C...+50°C	+10°C...+50°C	+10°C...+50°C	+10°C...+50°C	
Setting range			+20°C...+50°C	+20°C...+50°C	+20°C...+50°C	+20°C...+50°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			2.4	2.4	2.11	2.11	
Refrigerant g			R134a, 900	R134a, 900	R134a, 900	R134a, 900	
Permissible operating pressure (p. max.) bar			28	28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			980 / 980	900 / 900	1230 / 1230	1200 / 1200	
Weight kg			80.0	81.0	83.0	84.0	
Accessories							
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	755



TopTherm roof-mounted cooling units "Blue e"



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Temperature control:
– e-Comfort controller (factory setting +35°C)

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Integral electric condensate evaporation
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Note:
– The roof-mounted cooling unit 3273.500 is also suitable for office applications, thanks to its low noise level.

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 500 W

Model No.		Packs of	**3382.500**	**3382.510**	**3382.600**	Page
Material	Sheet steel		■	■	–	
	Stainless steel		–	–	■	
Colour	RAL 7035		■	■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**0.55**	**0.55**	**0.55**	
Total cooling output 50/60 Hz L35 L35 kW			0.55 / 0.62	0.55 / 0.62	0.55 / 0.62	
Total cooling output 50/60 Hz L35 L50 kW			0.42 / 0.48	0.42 / 0.48	0.42 / 0.48	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 50/60	230, 1~, 50/60	
Width mm			597	597	597	
Height mm			417	417	417	
Depth mm			380	380	380	
Rated current max. A			2.3 / 2.6	4.7 / 5.4	2.3 / 2.6	
Start-up current A			9.1 / 8.8	18.2 / 15.9	9.1 / 8.8	
Pre-fuse A			10	–	10	
Transformer circuit-breaker A			–	6.3...10	–	
Motor circuit-breaker			–	–	–	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.27 / 0.31	0.27 / 0.31	0.27 / 0.32	
Power consumption P_{el} 50/60 Hz L35 L50 kW			0.31 / 0.37	0.31 / 0.37	0.31 / 0.37	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			2.04	2.04	2.04	
Refrigerant g			R134a, 300	R134a, 300	R134a, 300	
Permissible operating pressure (p. max.) bar			28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			170 / 800	170 / 800	170 / 800	
Weight kg			30.0	35.0	30.0	
Accessories						
Filter mats		3 pc(s).	3286.500	3286.500	3286.500	454
Metal filters		1 pc(s).	3286.510	3286.510	3286.510	455
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	755
Air duct system		1 pc(s).	3286.870	3286.870	3286.870	461

TopTherm roof-mounted cooling units "Blue e"

Output class 750 W

Model No.		Packs of	**3359.500**	**3359.510**	**3359.540**	**3359.600**	Page
Material	Sheet steel		■	■	■	–	
	Stainless steel		–	–	–	■	
Colour	RAL 7035		■	■	■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**0.77**	**0.77**	**0.77**	**0.77**	
Total cooling output 50/60 Hz L35 L35 kW			0.77 / 0.79	0.77 / 0.79	0.77 / 0.79	0.77 / 0.79	
Total cooling output 50/60 Hz L35 L50 kW			0.52 / 0.47	0.52 / 0.47	0.52 / 0.47	0.52 / 0.47	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 50/60	400, 2~, 50/60	230, 1~, 50/60	
Width mm			597	597	597	597	
Height mm			417	417	417	417	
Depth mm			380	380	380	380	
Rated current max. A			2.8 / 3.7	5.6 / 7.4	1.6 / 2.1	2.8 / 3.7	
Start-up current A			9.2 / 9	18.4 / 18	5.4 / 5.2	9.2 / 9	
Pre-fuse A			10	–	–	10	
Transformer circuit-breaker A			–	11...16	6.3...10	–	
Motor circuit-breaker			–	–	–	–	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.33 / 0.43	0.33 / 0.43	0.33 / 0.43	0.33 / 0.43	
Power consumption P_{el} 50/60 Hz L35 L50 kW			0.49 / 0.42	0.49 / 0.42	0.49 / 0.42	0.49 / 0.42	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			2.28	2.28	2.28	2.28	
Refrigerant g			R134a, 400	R134a, 400	R134a, 400	R134a, 400	
Permissible operating pressure (p. max.) bar			28	28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			585 / 800	440 / 910	585 / 800	585 / 800	
Weight kg			32.0	37.0	37.0	32.0	
Accessories							
Filter mats		3 pc(s).	3286.500	3286.500	3286.500	3286.500	454
Metal filters		1 pc(s).	3286.510	3286.510	3286.510	3286.510	455
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	755
Air duct system		1 pc(s).	3286.870	3286.870	3286.870	3286.870	461

Output class 1000 W

Model No.		Packs of	**3383.500**	**3383.510**	**3383.540**	**3383.600**	Page
Material	Sheet steel		■	■	■	–	
	Stainless steel		–	–	–	■	
Colour	RAL 7035		■	■	■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**1**	**1**	**1**	**1**	
Total cooling output 50/60 Hz L35 L35 kW			1 / 1.09	1 / 1.09	1 / 1.09	1 / 1.09	
Total cooling output 50/60 Hz L35 L50 kW			0.71 / 0.81	0.71 / 0.81	0.71 / 0.81	0.71 / 0.81	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 50/60	400, 2~, 50/60	230, 1~, 50/60	
Width mm			597	597	597	597	
Height mm			417	417	417	417	
Depth mm			475	475	475	475	
Rated current max. A			2.9 / 3.9	6.2 / 8.4	1.7 / 2.2	2.9 / 3.9	
Start-up current A			8.8 / 10.1	14.4 / 15.8	4.6 / 5.7	8.8 / 10.1	
Pre-fuse A			10	–	–	10	
Transformer circuit-breaker A			–	11...16	6.3...10	–	
Motor circuit-breaker			–	–	–	–	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.38 / 0.47	0.38 / 0.45	0.38 / 0.45	0.38 / 0.47	
Power consumption P_{el} 50/60 Hz L35 L50 kW			0.45 / 0.57	0.43 / 0.54	0.42 / 0.54	0.43 / 0.55	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			2.58	2.58	2.58	2.58	
Refrigerant g			R134a, 650	R134a, 650	R134a, 650	R134a, 650	
Permissible operating pressure (p. max.) bar			28	28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			491 / 1600	491 / 1600	491 / 1600	491 / 1600	
Weight kg			40.0	46.0	46.0	40.0	
Accessories							
Filter mats		3 pc(s).	3286.500	3286.500	3286.500	3286.500	454
Metal filters		1 pc(s).	3286.510	3286.510	3286.510	3286.510	455
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	755
Air duct system		1 pc(s).	3286.870	3286.870	3286.870	3286.870	461

TopTherm roof-mounted cooling units "Blue e"

Output class 1100 – 1500 W

Model No.		Packs of	**3273.500**	**3384.500**	**3384.510**	**3384.540**	**3384.600**	Page
Material	Sheet steel		■	■	■	■	–	
	Stainless steel		–	–	–	–	■	
Colour	RAL 7035		■	■	■	■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**1.1**	**1.5**	**1.5**	**1.5**	**1.5**	
Total cooling output 50/60 Hz L35 L35 kW			1.1 / 1.2	1.5 / 1.65	1.5 / 1.65	1.5 / 1.65	1.5 / 1.65	
Total cooling output 50/60 Hz L35 L50 kW			0.85 / 0.87	1.15 / 1.3	1.15 / 1.3	1.15 / 1.3	1.15 / 1.3	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	115, 1~, 50/60	400, 2~, 50/60	230, 1~, 50/60	
Width mm			597	597	597	597	597	
Height mm			417	417	417	417	417	
Depth mm			475	475	475	475	475	
Rated current max. A			5.2 / 5.4	4.2 / 4.9	8.7 / 10.1	2.5 / 2.9	4.2 / 4.9	
Start-up current A			15.5 / 16.5	14.7 / 13.6	27.2 / 23.2	8.7 / 7.6	14.7 / 13.6	
Pre-fuse A			10	10	–	–	10	
Transformer circuit-breaker A			–	–	14...20	6.3...10	–	
Motor circuit-breaker			–	–	–	–	–	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.51 / 0.53	0.67 / 0.77	0.67 / 0.76	0.67 / 0.76	0.67 / 0.77	
Power consumption P_{el} 50/60 Hz L35 L50 kW			0.59 / 0.73	0.79 / 0.91	0.8 / 0.93	0.79 / 0.93	0.79 / 0.91	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			2.12	2.24	2.24	2.24	2.24	
Refrigerant g			R134a, 700	R134a, 700	R134a, 700	R134a, 700	R134a, 700	
Permissible operating pressure (p. max.) bar			28	28	28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			440 / 1760	491 / 1600	491 / 1600	491 / 1600	491 / 1600	
Weight kg			42.0	41.0	47.0	47.0	41.0	
Accessories								
Filter mats		3 pc(s).	3286.500	3286.500	3286.500	3286.500	3286.500	454
Metal filters		1 pc(s).	3286.510	3286.510	3286.510	3286.510	3286.510	455
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	4127.010	755
Air duct system		1 pc(s).	3286.870	3286.870	3286.870	3286.870	3286.870	461

Output class 2000 W

Model No.		Packs of	**3385.500**	**3385.510**	**3385.540**	**3385.600**	**3385.640**	Page
Material	Sheet steel		■	■	■	–	–	
	Stainless steel		–	–	–	■	■	
Colour	RAL 7035		■	■	■	–	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**2**	**2**	**2**	**2**	**2**	
Total cooling output 50/60 Hz L35 L35 kW			2 / 2.14	2 / 2.14	2 / 2.14	2 / 2.14	2 / 2.14	
Total cooling output 50/60 Hz L35 L50 kW			1.41 / 1.51	1.41 / 1.51	1.41 / 1.51	1.41 / 1.51	1.41 / 1.51	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 50/60	400, 2~, 50/60	230, 1~, 50/60	400, 2~, 50/60	
Width mm			597	597	597	597	597	
Height mm			417	417	417	417	417	
Depth mm			475	475	475	475	475	
Rated current max. A			5.9 / 6.3	13.3 / 13.5	3.5 / 3.7	5.9 / 6.3	3.5 / 3.7	
Start-up current A			19.7 / 17.9	42.2 / 31.1	11.7 / 11.7	19.7 / 17.9	11.7 / 11.7	
Pre-fuse A			10	–	–	10	–	
Transformer circuit-breaker A			–	14...20	6.3...10	–	6.3...10	
Motor circuit-breaker			–	–	–	–	–	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.95 / 1.14	0.95 / 1.17	0.95 / 1.17	0.95 / 1.14	0.96 / 1.17	
Power consumption P_{el} 50/60 Hz L35 L50 kW			1.07 / 1.23	1.07 / 1.24	1.07 / 1.24	1.07 / 1.23	1.07 / 1.24	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			2.09	2.09	2.09	2.09	2.09	
Refrigerant g			R134a, 900	R134a, 900	R134a, 900	R134a, 900	R134a, 900	
Permissible operating pressure (p. max.) bar			28	28	28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			470 / 1760	470 / 1760	470 / 1760	470 / 1760	470 / 1760	
Weight kg			42.0	48.0	48.0	42.0	48.0	
Accessories								
Filter mats		3 pc(s).	3286.500	3286.500	3286.500	3286.500	3286.500	454
Metal filters		1 pc(s).	3286.510	3286.510	3286.510	3286.510	3286.510	455
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	4127.010	755
Air duct system		1 pc(s).	3286.870	3286.870	3286.870	3286.870	3286.870	461

TopTherm roof-mounted cooling units "Blue e"

Output class 3000 – 4000 W

Model No.		Packs of	**3386.540**	**3386.640**	**3387.540**	**3387.640**	Page
Material	Sheet steel		■	–	■	–	
	Stainless steel		–	■	–	■	
Colour	RAL 7035		■	–	■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**3**	**3**	**3.8**	**3.8**	
Total cooling output 50/60 Hz L35 L35 kW			3 / 3.3	3 / 3.3	3.8 / 4	3.8 / 4	
Total cooling output 50/60 Hz L35 L50 kW			2.2 / 2.5	2.2 / 2.5	3.05 / 3.3	3.05 / 3.3	
Rated operating voltage V, ~, Hz			400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	
Width mm			796	796	796	796	
Height mm			470	470	470	470	
Depth mm			580	580	580	580	
Rated current max. A			3.4 / 3.4	3.4 / 3.4	3.9 / 3.9	3.9 / 3.9	
Start-up current A			8 / 9	8 / 9	17 / 19	17 / 19	
Pre-fuse			–	–	–	–	
Transformer circuit-breaker			–	–	–	–	
Motor circuit-breaker A			6.3...10	6.3...10	6.3...10	6.3...10	
Power consumption P_{el} 50/60 Hz L35 L35 kW			1.17 / 1.48	1.17 / 1.48	1.59 / 2.03	1.59 / 2.03	
Power consumption P_{el} 50/60 Hz L35 L50 kW			1.42 / 1.76	1.42 / 1.76	1.84 / 2.31	1.84 / 2.31	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			2.56	2.56	2.38	2.38	
Refrigerant g			R134a, 1600	R134a, 1600	R134a, 1800	R134a, 1800	
Permissible operating pressure (p. max.) bar			28	28	28	28	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			1280 / 3450	1280 / 3450	1420 / 3870	1420 / 3870	
Weight kg			70.0	70.0	77.0	77.0	
Accessories							
Filter mats		3 pc(s).	3286.600	3286.600	3286.600	3286.600	454
Metal filters		1 pc(s).	3286.610	3286.610	3286.610	3286.610	455
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	755
Air duct system		1 pc(s).	3286.970	3286.970	3286.970	3286.970	461



Modular climate control concept - Cooling module "Blue e"



Accessories for climate control Page 454 **TS 8 enclosures** Page 74 **Therm software** Page 474 **RiDiag software** Page 474

All cooling modules can be combined individually with every section door.

Temperature control:
– e-Comfort controller (factory setting +35°C)

Material:
– Sheet steel

Colour:
– RAL 7035

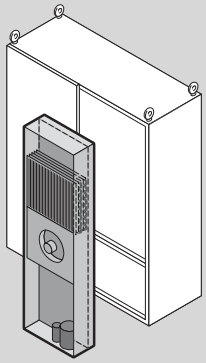
Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Cooling module prepared for installation in section door
– Nano-coated condenser
– Integral electric condensate evaporation
– Fully wired ready for connection (plug-in terminal strip)

Note:
– A base/plinth with a height of 100 or 200 mm is required for efficient operation

Approvals:
Available on the Internet

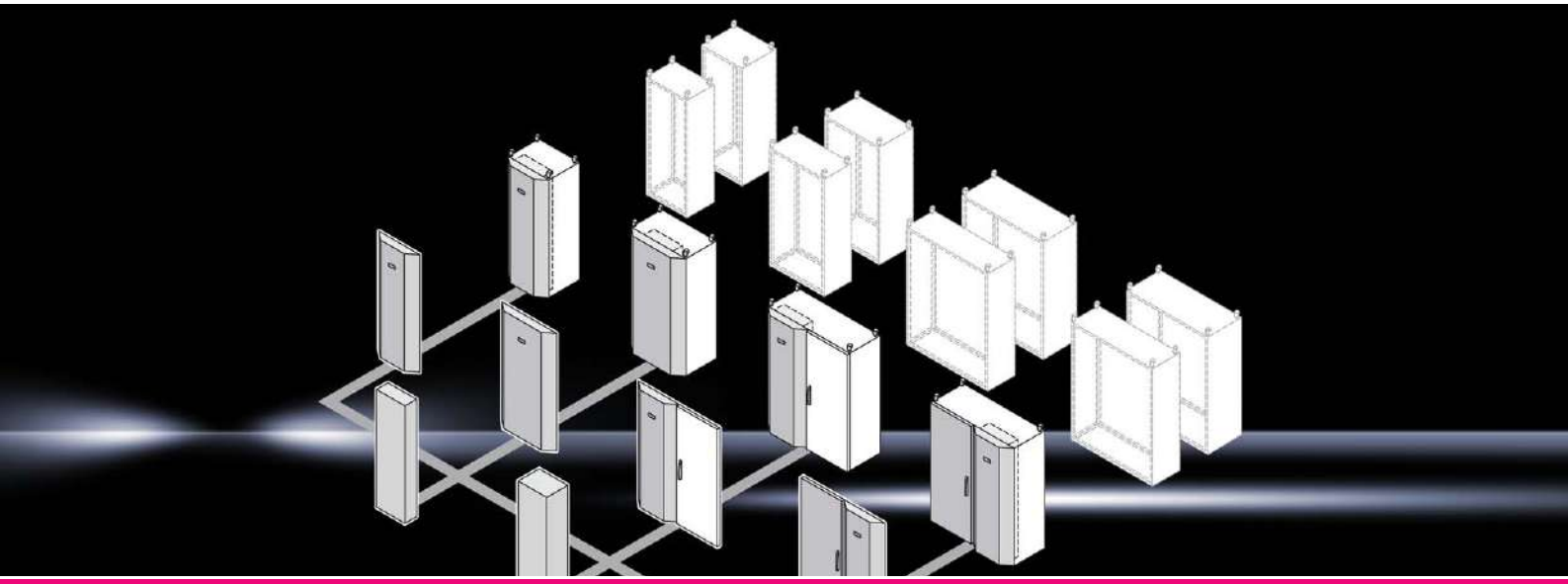
Performance diagrams:
Available on the Internet



Output class 1500 – 2500 W

Model No.		Packs of	**3307.700**	**3307.740**	**3310.700**	**3310.740**	Page
Material	Sheet steel		■	■	■	■	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	400, 3~, 50 460, 3~, 60	230, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Total cooling output 50/60 Hz L35 L35 kW			**1.55 / 1.55**	**1.55 / 1.55**	**2.5 / 2.52**	**2.5 / 2.5**	
Total cooling output 50/60 Hz L35 L50 kW			0.85 / 0.9	0.93 / 0.95	1.62 / 1.76	1.76 / 1.8	
Rated current max. A			6 / 6.1	2.5 / 2.7	7.6 / 9.4	3.5 / 3.7	
Start-up current A			22 / 24	8.5 / 9.2	22 / 24	13 / 14	
Pre-fuse A			16	–	16	–	
Motor circuit-breaker A			–	6.3...10	–	6.3...10	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.85 / 1.05	0.79 / 1	1.31 / 1.52	1.13 / 1.48	
Power consumption P_{el} 50/60 Hz L35 L50 kW			1 / 1.15	0.9 / 1.1	1.48 / 1.85	1.4 / 1.75	
Operating temperature range			+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	+10°C...+55°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511			1.76	1.9	1.91	2.21	
Refrigerant g			R134a, 700	R134a, 700	R134a, 1175	R134a, 1175	
Permissible operating pressure (p. max.) bar			28	28	30	30	
Air throughput of fans (unimpeded air flow), internal circuit/external circuit m^3/h			600 / 1100	600 / 1100	1100 / 1100	1100 / 1100	
Weight kg			68.0	68.0	73.0	72.0	
Also required							
Modular climate control concept - Section doors			see page	see page	see page	see page	435
Accessories							
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	755
Master/slave cable		1 pc(s).	3124.100	3124.100	3124.100	3124.100	471
Interface board		1 pc(s).	3124.200	3124.200	3124.200	3124.200	470

Modular climate control concept - Section doors



Accessories for climate control Page 454 **TS 8 enclosures** Page 74 **Therm software** Page 474

Material:
– Sheet steel

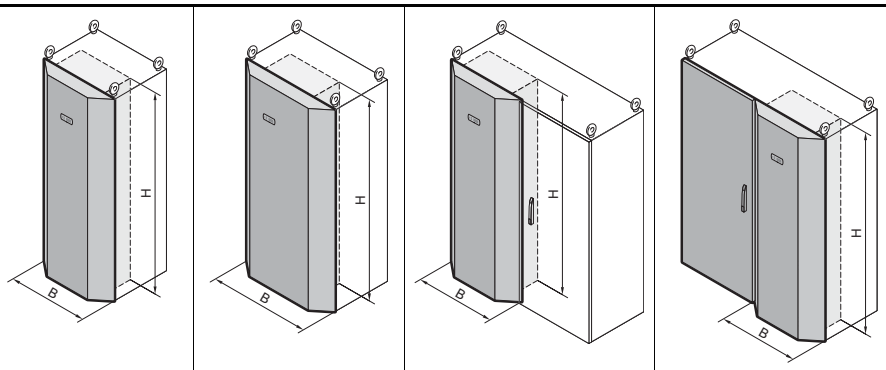
Colour:
– RAL 7035

Supply includes:
– Section door without preconfigured cooling module
– TS 8 hinges, door opening angle approx. 110°

Note:
– The following information applies to 1200 mm wide TS 8 enclosures
– With the unit positioned on the right, one pack consists of a section door for installing in the right-hand half of the enclosure plus a special lockable door for the left-hand half.
– With the unit positioned on the left, one pack consists of a section door for installing in the left-hand half of the enclosure. The existing lockable door on the right may be used.

Approvals:
Available on the Internet

for installing cooling modules



Model No.	Packs of	**3300.040**	**3300.050**	**3300.060**	**3300.070**	**3300.080**	**3300.090**	**3300.110**	**3300.120**	Page
Dimensions to fit enclosure type		TS 8	TS 8	TS 8	TS 8	TS 8	TS 8	TS 8	TS 8	
with height mm		1800	2000	1800	2000	1800	2000	1800	2000	
with width mm		600	600	800	800	1200	1200	1200	1200	
Unit positioned on the left		–	–	–	–	■	■	–	–	
Unit positioned on the right		–	–	–	–	–	–	■	■	
Weight kg		24.0	27.0	34.0	35.0	25.0	28.0	48.0	57.5	
Also required										
Modular climate control concept - Cooling module "Blue e"		see page	see page	see page	see page	see page	see page	see page	see page	434
Accessories										
Metal filters	1 pc(s).	3284.210	3284.210	3284.210	3284.210	3284.210	3284.210	3284.210	3284.210	455

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Liquid cooling

Air/water heat exchangers

Wall-mounted ..... 300 – 500 W 438
Wall-mounted ..... 600 – 1000 W 439
Wall-mounted ..... 1250 – 3000 W 440
Wall-mounted ..... 3000 – 5000 W 441
Wall-mounted ..... 7000 W 442
Wall-mounted HD ..... 600 – 1300 W 443
Roof-mounted ..... 1875 – 4000 W 444

Liquid Cooling Package

LCP Rack Industry ..... 10 kW 445

Chillers

TopTherm ..... 1000 – 1500 W 446
TopTherm ..... 3000 – 6000 W 447
TopTherm, wall-mounted ..... 1000 – 2500 W 448
TopTherm ..... 8000 – 16000 W 449
TopTherm ..... 20000 – 40000 W 450

Air/water heat exchangers



Accessories for climate control Page 454 **Chillers** Page 446 **Therm software** Page 474

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Cooling medium:
– Water (see Internet for specifications)

Supply includes:
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Sealing and assembly parts

Note:
– Integral non-return valve for version with e-Comfort controller

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 300 – 500 W, wall-mounted

Model No.		Packs of	**3212.024**	**3212.230**	**3363.100**	**3363.500**	Page
Design	Water-carrying parts, copper/brass (Cu/CuZn)		■	■	■	■	
Temperature control	Basic controller (factory setting +35°C)		–	–	■	–	
	e-Comfort controller (factory setting +35°C)		–	–	–	■	
Total cooling output L35 W10, 200 l/h kW			**0.3**	**0.3**	–	–	
Total cooling output L35 W10, 400 l/h kW			–	–	**0.5**	**0.5**	
Power consumption P_{el} 50/60 Hz W			26	23 / 27	37 / 38	37 / 38	
Rated operating voltage V			24 (DC)	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Width mm			150	150	280	280	
Height mm			300	300	550	550	
Depth mm			85	85	120	120	
Rated current max. A			1.2	0.11 / 0.13	0.18 / 0.18	0.18 / 0.18	
Pre-fuse A			2	2	4	4	
Operating temperature range			+1°C...+70°C	+1°C...+70°C	+1°C...+70°C	+1°C...+70°C	
Setting range			–	–	+20°C...+55°C	+20°C...+55°C	
Water inlet temperature			+1°C...+30°C	+1°C...+30°C	+1°C...+30°C	+1°C...+30°C	
Water connection	½" connector sleeve		–	–	■	■	
	G ⅜" external thread		–	–	■	■	
	⅜" connector sleeve		■	■	–	–	
Permissible operating pressure (p. max.) bar			1 - 10	1 - 10	1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), internal circuit 50/60 Hz m^3/h			250	280 / 310	290 / 345	290 / 345	
Weight kg			3.2	3.2	8.0	8.0	
Accessories							
Condensate hose		1 pc(s).	3301.610	3301.610	3301.612	3301.612	464
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	755
Toroidal transformer		1 pc(s).	–	3201.960	see page	see page	471
Fitting G ⅜"		2 pc(s).	–	–	3201.900	3201.900	465
Flow regulator valve			see page	see page	see page	see page	465
Connection set		1 pc(s).	–	–	3201.990	3201.990	465
Cooling medium (ready-mixed)			see page	see page	see page	see page	465
Master/slave cable		1 pc(s).	–	–	–	3124.100	471
Interface board		1 pc(s).	–	–	–	3124.200	470

Output class 600 – 1000 W, wall-mounted

Model No.		Packs of	**3214.100**	**3364.504**	**3364.100**	**3364.500**	Page
Design	Water-carrying parts, copper/brass (Cu/CuZn)		■	–	■	■	
	Water-carrying parts, stainless steel (1.4571)		–	■	–	–	
Temperature control	Basic controller (factory setting +35°C)		–	–	■	–	
	e-Comfort controller (factory setting +35°C)		–	■	–	■	
	Thermostat-controlled magnetic valve		■	–	–	–	
Total cooling output L35 W10, 200 l/h kW			**0.6**	–	–	–	
Total cooling output L35 W10, 400 l/h kW			**0.7**	**0.95**	**1**	**1**	
Power consumption P_{el} 50/60 Hz W			36 / 37	37 / 38	37 / 38	37 / 38	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Width mm			200	280	280	280	
Height mm			500	550	550	550	
Depth mm			100	120	120	120	
Rated current max. A			0.17 / 0.18	0.18 / 0.18	0.18 / 0.18	0.18 / 0.18	
Pre-fuse A			2	4	4	4	
Operating temperature range			+1°C...+70°C	+1°C...+70°C	+1°C...+70°C	+1°C...+70°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Water inlet temperature			+1°C...+30°C	+1°C...+30°C	+1°C...+30°C	+1°C...+30°C	
Water connection	½" connector sleeve		■	■	■	■	
	G ⅜" external thread		–	■	■	■	
Permissible operating pressure (p. max.) bar			1 - 10	1 - 10	1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), internal circuit 50/60 Hz m^3/h			280 / 310	290 / 345	290 / 345	290 / 345	
Weight kg			7.0	9.0	9.0	9.0	
Accessories							
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	3301.612	464
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	755
Toroidal transformer			see page	see page	see page	see page	471
Fitting G ⅜"		2 pc(s).	–	3201.900	3201.900	3201.900	465
Flow regulator valve			see page	see page	see page	see page	465
Connection set		1 pc(s).	–	3201.990	3201.990	3201.990	465
Cooling medium (ready-mixed)			see page	see page	see page	see page	465
Master/slave cable		1 pc(s).	–	3124.100	–	3124.100	471
Interface board		1 pc(s).	–	3124.200	–	3124.200	470



Air/water heat exchangers

Output class 1250 – 3000 W, wall-mounted

Model No.		Packs of	**3215.100**	**3373.100**	**3373.500**	**3374.504**	**3374.100**	Page
Design	Water-carrying parts, copper/brass (Cu/CuZn)		■	■	■	–	■	
	Water-carrying parts, stainless steel (1.4571)		–	–	–	■	–	
Temperature control	Basic controller (factory setting +35°C)		–	■	–	–	■	
	e-Comfort controller (factory setting +35°C)		–	–	■	■	–	
	Thermostat-controlled magnetic valve		■	–	–	–	–	
Total cooling output L35 W10, 200 l/h kW			**1.25**	–	–	–	–	
Total cooling output L35 W10, 400 l/h kW			**1.3**	**2**	**2**	**2.8**	**3**	
Power consumption P_{el} 50/60 Hz W			83 / 85	110 / 140	110 / 140	169 / 232	169 / 232	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Width mm			200	400	400	400	400	
Height mm			950	950	950	950	950	
Depth mm			100	145	145	145	145	
Rated current max. A			0.38 / 0.4	0.49 / 0.61	0.49 / 0.61	0.76 / 1.01	0.76 / 1.01	
Pre-fuse A			4	4	4	4	4	
Operating temperature range			+1°C...+70°C	+1°C...+70°C	+1°C...+70°C	+1°C...+70°C	+1°C...+70°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Water inlet temperature			+1°C...+30°C	+1°C...+30°C	+1°C...+30°C	+1°C...+30°C	+1°C...+30°C	
Water connection	½" connector sleeve		■	■	■	■	■	
	G ⅜" external thread		–	■	■	■	■	
Permissible operating pressure (p. max.) bar			1 - 10	1 - 10	1 - 10	1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), internal circuit 50/60 Hz m^3/h			680 / 735	880 / 950	880 / 950	1150 / 1300	1150 / 1300	
Weight kg			13.0	20.0	20.0	23.0	23.0	
Accessories								
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	3301.612	3301.612	464
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	4127.010	755
Toroidal transformer			see page	–	–	–	–	471
Fitting G ⅜"		2 pc(s).	–	3201.900	3201.900	3201.900	3201.900	465
Flow regulator valve			see page	see page	see page	see page	see page	465
Connection set		1 pc(s).	–	3201.990	3201.990	3201.990	3201.990	465
Cooling medium (ready-mixed)			see page	see page	see page	see page	see page	465
Master/slave cable		1 pc(s).	–	–	3124.100	3124.100	–	471
Interface board		1 pc(s).	–	–	3124.200	3124.200	–	470



Output class 3000 – 5000 W, wall-mounted

Model No.		Packs of	**3374.500**	**3375.504**	**3375.100**	**3375.500**	Page
Design	Copper/brass (Cu/CuZn)		–	–	–	■	
	Water-carrying parts, copper/brass (Cu/CuZn)		■	–	■	–	
	Water-carrying parts, stainless steel (1.4571)		–	■	–	–	
Temperature control	Basic controller (factory setting +35°C)		–	–	■	–	
	e-Comfort controller (factory setting +35°C)		■	■	–	■	
Total cooling output L35 W10, 200 l/h W			–	–	–	–	
Total cooling output L35 W10, 400 l/h kW			**3**	**4.5**	**5**	**5**	
Power consumption P_{el} 50/60 Hz W			169 / 232	170 / 170	170 / 170	170 / 170	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Width mm			400	450	450	450	
Height mm			950	1400	1400	1400	
Depth mm			145	220	220	220	
Rated current max. A			0.76 / 1.01	1.45 / 1.45	1.45 / 1.45	1.45 / 1.45	
Pre-fuse A			4	4	4	4	
Operating temperature range			+1°C...+70°C	+1°C...+70°C	+1°C...+70°C	+1°C...+70°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Water inlet temperature			+1°C...+30°C	+1°C...+30°C	+1°C...+30°C	+1°C...+30°C	
Water connection	½" connector sleeve		■	■	■	■	
	G ⅜" external thread		■	■	■	■	
Permissible operating pressure (p. max.) bar			1 - 10	1 - 10	1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), internal circuit 50/60 Hz m^3/h			1150 / 1300	1490 / 1660	1490 / 1660	1490 / 1660	
Weight kg			23.0	39.0	39.0	39.0	
Accessories							
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	3301.612	464
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	755
Toroidal transformer			–	–	–	–	
Fitting G ⅜"		2 pc(s).	3201.900	3201.900	3201.900	3201.900	465
Flow regulator valve			see page	see page	see page	see page	465
Connection set		1 pc(s).	3201.990	3201.990	3201.990	3201.990	465
Cooling medium (ready-mixed)			see page	see page	see page	see page	465
Master/slave cable		1 pc(s).	3124.100	3124.100	–	3124.100	471
Interface board		1 pc(s).	3124.200	3124.200	–	3124.200	470

Accessories



LCP –
Liquid Cooling Package

see page 445

Air/water heat exchangers



Accessories for climate control Page 454 **Chillers** Page 446 **Therm software** Page 474

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Cooling medium:
– Water (see Internet for specifications)

Supply includes:
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Sealing and assembly parts

Note:
– Use 3-pole miniature circuit-breaker

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 7000 W, wall-mounted

Model No.		Packs of	**3216.480**	Page
Temperature control	Thermostat-controlled magnetic valve		■	
Total cooling output L35 W10, 500 l/h kW			**7**	
Total cooling output L35 W20, 500 l/h kW			**4.5**	
Rated operating voltage V, ~, Hz			400, 3~, 50/60 480, 3~, 60	
Width mm			450	
Height mm			1800	
Depth mm			300	
Rated current max. A			1.4 / 1.6 1.2	
Pre-fuse A			4	
Operating temperature range			+1°C...+70°C	
Setting range			+20°C...+55°C	
Water inlet temperature			+1°C...+30°C	
Water connection	½" connector sleeve		■	
	G ⅜" external thread		■	
Permissible operating pressure (p. max.) bar			1 - 10	
Air throughput of fans (unimpeded air flow), internal circuit 50/60 Hz m^3/h			3630 / 4670	
Weight kg			79.0	
Accessories				
Door-operated switch		1 pc(s).	4127.010	755
Condensate hose		1 pc(s).	3301.612	464
Flow regulator valve			see page	465
Connection set		1 pc(s).	3201.990	465
Cooling medium (ready-mixed)			see page	465

Air/water heat exchangers



Accessories for climate control Page 454 **Chillers** Page 446 **Therm software** Page 474

Air/water heat exchanger for hygienically sensitive production zones in the food and consumables industry – the optimum addition to the Rittal Hygienic Design range. The cleaning-friendly design reduces the risk of contamination and ensures food safety.

Benefits:
- Easy-to-clean, hygienic design
- A roof tilt of 30° prevents objects from being deposited on it, and allows liquids to run off quickly.
- All-round external, replaceable silicone seal prevents the accumulation of dirt between the enclosure and the air/water heat exchanger.

Material:
- Enclosure: Stainless steel 1.4301 (AISI 304)

Surface finish:
- Enclosure: Brushed, grain 400, peak-to-valley height < 0.8 µm

Protection category IP to IEC 60 529:
- IP 56/59

Protection category NEMA:
- NEMA 4X

Cooling medium:
- Water (see Internet for specifications)

Supply includes:
- Fully wired ready for connection (plug-in terminal strip)
- Drilling template
- Sealing and assembly parts

Note:
- To achieve a protection category of IP 66/69 to IEC 60 529, the ingress of leakage air through the condensate discharge opening must be completely prevented.

Output class 600 – 1300 W, wall-mounted HD

Model No.		Packs of	**3214.700**	**3215.700**	Page
Temperature control	Thermostat-controlled magnetic valve		■	■	
Total cooling output L35 W10, 200 l/h kW			**0.6**	**1**	
Total cooling output L35 W10, 400 l/h kW			**0.65**	**1.2**	
Power consumption P_{el} 50/60 Hz W			36 / 37	83 / 85	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	
Width mm			220	215	
Height mm			526	982	
Depth mm			100	100	
Rated current max. A			0.16 / 0.14	0.38 / 0.47	
Pre-fuse A			2	4	
Operating temperature range			+1°C...+70°C	+1°C...+70°C	
Setting range			+20°C...+60°C	+20°C...+60°C	
Water inlet temperature			+1°C...+30°C	+1°C...+30°C	
Water connection	G ⅜" external thread		■	■	
Permissible operating pressure (p. max.) bar			1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), internal circuit 50/60 Hz m^3/h			280 / 310	680 / 735	
Weight kg			6.0	14.0	
Accessories					
Toroidal transformer			see page	see page	471
Cooling medium (ready-mixed)			see page	see page	465

Air/water heat exchangers



Accessories for climate control Page 454 **Chillers** Page 446 **Air routing** Page 461

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Cooling medium:
– Water (see Internet for specifications)

Supply includes:
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Sealing mat
– Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 1875 – 4000 W, roof-mounted

Model No.		Packs of	**3209.504**	**3209.100**	**3209.500**	**3210.504**	**3210.100**	**3210.500**	Page
Design	Water-carrying parts, copper/brass (Cu/CuZn)		–	■	■	–	■	■	
	Water-carrying parts, stainless steel (1.4571)		■	–	–	■	–	–	
Temperature control	Basic controller (factory setting +35°C)		–	■	–	–	■	–	
	e-Comfort controller (factory setting +35°C)		■	–	■	■	–	■	
Total cooling output L35 W10, 400 l/h kW			**1.88**	**2.5**	**2.5**	**3**	**4**	**4**	
Power consumption P_{el} 50/60 Hz W			95 / 110	95 / 110	95 / 110	98 / 115	98 / 115	98 / 115	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Width mm			597	597	597	597	597	597	
Height mm			417	417	417	417	417	417	
Depth mm			475	475	475	475	475	475	
Rated current max. A			0.4 / 0.48	0.4 / 0.48	0.4 / 0.48	0.44 / 0.5	0.44 / 0.5	0.44 / 0.5	
Pre-fuse A			4	4	4	4	4	4	
Operating temperature range			+1°C...+70°C	+1°C...+70°C	+1°C...+70°C	+1°C...+70°C	+1°C...+70°C	+1°C...+70°C	
Setting range			+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	+20°C...+55°C	
Water inlet temperature			+1°C...+30°C	+1°C...+30°C	+1°C...+30°C	+1°C...+30°C	+1°C...+30°C	+1°C...+30°C	
Water connection	½" connector sleeve		■	■	■	■	■	■	
	G ⅜" external thread		■	■	■	■	■	■	
Permissible operating pressure (p. max.) bar			1 - 10	1 - 10	1 - 10	1 - 10	1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), internal circuit 50/60 Hz m^3/h			925 / 1030	925 / 1030	925 / 1030	815 / 925	815 / 925	815 / 925	
Weight kg			23.5	23.5	23.5	25.5	25.5	25.5	
Accessories									
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	4127.010	4127.010	755
Master/slave cable		1 pc(s).	3124.100	–	3124.100	3124.100	–	3124.100	471
Interface board		1 pc(s).	3124.200	–	3124.200	3124.200	–	3124.200	470
Air duct system		1 pc(s).	3286.870	3286.870	3286.870	3286.870	3286.870	3286.870	461
Stoppers		2 pc(s).	3286.880	3286.880	3286.880	3286.880	3286.880	3286.880	463
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	3301.612	3301.612	3301.612	464
Flow regulator valve			see page	see page	see page	see page	see page	see page	465

Liquid Cooling Package



Accessories for climate control Page 454 **Chillers** Page 446 **Therm software** Page 474

Air/water heat exchangers in TS 8 baying system, to fit 600 or 800 mm deep and 2000 mm high TS 8 enclosures. Air outlet either with 5 kW on each side or 10 kW on one side only. Flexible water connection options on the top or bottom of the unit.

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Cooling medium:
– Water (see Internet for specifications)

Supply includes:
– Wiring on terminal strip
– Front door

Note:
– Bayable by screw-fastening at the sides

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Photo shows a configuration example with equipment not included in the scope of supply

Output class 10 kW, LCP rack industry

Model No.		Packs of	**3378.200**	**3378.280**	Page
Design	Water-carrying parts, copper/brass (Cu/CuZn)		■	■	
Total cooling output L35 W10, 2000 l/h kW			**9.5**	**9.5**	
Power consumption P_{el} 50/60 Hz W			350 / 350	350 / 350	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	
Width mm			300	300	
Height mm			2000	2000	
Depth mm			600	800	
Rated current max. A			2.65 / 2.62	2.65 / 2.62	
Pre-fuse A			4	4	
Operating temperature range			+5°C...+70°C	+5°C...+70°C	
Setting range			+20°C...+55°C	+20°C...+55°C	
Water inlet temperature			+7°C...+30°C	+7°C...+30°C	
Water connection	G ¾" internal thread		■	■	
Permissible operating pressure (p. max.) bar			1 - 6	1 - 6	
Air throughput of fans (unimpeded air flow), internal circuit 50/60 Hz m^3/h			1950 / 1950	1950 / 1950	
Weight kg			106.0	115.0	
Accessories					
Base/plinth components, front and rear, 100 mm		2 pc(s).	8601.915	8601.915	619
Base/plinth trim panels, side, 100 mm		2 pc(s).	8601.060	8601.080	620
Base/plinth components, front and rear, 200 mm		2 pc(s).	8602.915	8602.915	619
Base/plinth trim panels, side, 200 mm		2 pc(s).	8602.060	8602.080	620
Side panels, screw-fastened, sheet steel		2 pc(s).	8106.235	8108.235	643
Condensate hose		1 pc(s).	3301.612	3301.612	464
Master/slave cable		1 pc(s).	3124.100	3124.100	471

TopTherm chillers



Accessories for climate control Page 454 **Flow regulator valve** Page 465 **Chiller configurator** Page 475

Design:
- Compact, modular layout of the refrigeration components
- Nano-coated condenser
- Pump to convey the medium

Benefits:
- Precise temperature control, based on microprocessor technology
- Collective fault signal with floating contact
- One version for two frequencies = international compatibility

Temperature control:
- Microcontroller control (factory setting +20°C)

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 44 (electrics)

Supply includes:
- Complete unit ready for connection
- Multilingual documentation including functional diagram and wiring plans

Note:
- For 3334.660, two metal filters are required

Characteristic curves of pump:
Available on the Internet

Approvals:
Available on the Internet

Output class 1000 – 1500 W

Model No.	Packs of	**3318.600**	**3318.610**	**3319.600**	**3319.610**	Page
Total cooling output at T_w = 10°C/T_u = 32°C kW		0.8 / 0.9	0.8 / 0.9	1.2 / 1.3	1.2 / 1.3	
Total cooling output at T_w = 18°C/T_u = 32°C kW		**1 / 1.1**	**1 / 1.1**	**1.5 / 1.7**	**1.5 / 1.7**	
Power consumption P_{el} 50/60 Hz kW		0.69 / 1.07	0.69 / 1.07	0.86 / 0.99	0.86 / 0.99	
Rated operating voltage V, ~, Hz		230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Width mm		600	600	600	600	
Height mm		400	400	400	400	
Depth mm		430	430	430	430	
Rated current max. A		5.1 / 5.6	5.1 / 5.6	5.7 / 5.6	5.7 / 5.6	
Operating temperature range		+10°C...+43°C	+10°C...+43°C	+10°C...+43°C	+10°C...+43°C	
Refrigerant		R134a	R134a	R134a	R134a	
Water connection G ½" internal thread		■	■	■	■	
Temperature hysteresis		± 2 K	± 2 K	± 2 K	± 2 K	
Temperature of liquid		+10°C...+30°C	+10°C...+30°C	+10°C...+30°C	+10°C...+30°C	
Design		Pressure-sealed	Open	Pressure-sealed	Open	
Tank		–	PP plastic	–	PP plastic	
Tank capacity l		–	2.5	–	2.5	
Weight kg		48.0	48.0	51.0	51.0	
Accessories						
Metal filters	1 pc(s).	3286.510	3286.510	3286.510	3286.510	455
Levelling feet		–	–	–	–	
Twin castors		–	–	–	–	
Cooling medium (ready-mixed)		see page	see page	see page	see page	465

Output class 3000 – 6000 W

Model No.		Packs of	**3320.600**	**3334.600**	**3334.660**	Page
Total cooling output at T_w = 10°C/T_u = 32°C kW			2.7 / 3	3.9 / 4.7	4.8 / 5.2	
Total cooling output at T_w = 18°C/T_u = 32°C kW			**3 / 3.4**	**4.5 / 5.4**	**6.1 / 6.6**	
Power consumption P_{el} 50/60 Hz kW			2.03 / 2.67	2.88 / 3.24	3.98 / 5.32	
Rated operating voltage V, ~, Hz			400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	
Width mm			602	602	605	
Height mm			676	676	1034	
Depth mm			645	645	645	
Rated current max. A			4.05 / 4.35	5.6 / 6.15	8.2 / 8.5	
Operating temperature range			+10°C...+43°C	+10°C...+43°C	+10°C...+43°C	
Refrigerant			R134a	R134a	R134a	
Integral tank level display			■	■	■	
Water connection	G ½" internal thread		■	■	–	
	G ¾" internal thread		–	–	■	
Temperature hysteresis			± 2 K	± 2 K	± 2 K	
Temperature of liquid			+10°C...+30°C	+10°C...+30°C	+10°C...+30°C	
Design			Open	Open	Open	
Tank			PP plastic	PP plastic	PP plastic	
Tank capacity l			30	30	30	
Weight kg			88.0	94.0	125.0	
Accessories						
Metal filters		1 pc(s).	3286.520	3286.520	3286.510	455
Levelling feet		4 pc(s).	7493.100	7493.100	7493.100	628
Twin castors		1 pc(s).	6148.000	6148.000	6148.000	628
Cooling medium (ready-mixed)			see page	see page	see page	465



TopTherm chillers



Accessories for climate control Page 454 **Chiller configurator** Page 475

Design:
- Compact, modular layout of the refrigeration components
- Nano-coated condenser
- Pump to convey the medium
- Open system with tank

Benefits:
- Precise temperature control, based on microprocessor technology
- Collective fault signal with floating contact
- One version for two frequencies = international compatibility

Temperature control:
- Microcontroller control (factory setting +20°C)

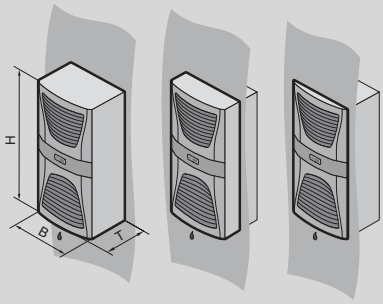
Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 44 (electrics)

Supply includes:
- Complete unit ready for connection
- Multilingual documentation including functional diagram and wiring plans

Characteristic curves of pump:
Available on the Internet

Approvals:
Available on the Internet



Output class 1000 – 2500 W, wall-mounted

Model No.		Packs of	**3360.100**	**3360.250**	Page
Total cooling output at T_w = 10°C/T_u = 32°C kW			0.8 / 0.9	2.1 / 2.3	
Total cooling output at T_w = 18°C/T_u = 32°C kW			**1 / 1.1**	**2.5 / 2.8**	
Power consumption P_{el} 50/60 Hz kW			1.16 / 1.21	2.2 / 2.5	
Rated operating voltage V, ~, Hz			400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	
Width (B) mm			400	400	
Height (H) mm			950	1580	
Depth (T) mm			310	290	
Rated current max. A			4.2 / 4	5.5 / 5.6	
Operating temperature range			+10°C...+43°C	+10°C...+43°C	
Refrigerant			R134a	R134a	
Water connection	Quick-release coupling (counterpart included in accessory bag)		■	■	
Temperature hysteresis			± 2 K	± 2 K	
Temperature of liquid			+10°C...+30°C	+10°C...+30°C	
Tank			PP plastic	PP plastic	
Tank capacity l			5	10	
Weight kg			47.0	78.0	
Accessories					
Metal filters		1 pc(s).	3286.410	3286.410	455
Flow regulator valve			see page	see page	465
Cooling medium (ready-mixed)			see page	see page	465



Accessories for climate control Page 454 **Base/plinth** Page 616 **Chiller configurator** Page 475

Benefits:
- Modular design
- Small footprint
- Convenient servicing
- High reliability thanks to icing protection
- One version for two frequencies = international compatibility
- Fast availability, because the basic platform is available off the shelf

Temperature control:
- Microcontroller control (factory setting +18°C, differential value control also possible)

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 44 (electrics)

Supply includes:
- Fully wired unit ready for connection with side panels and door
- Multilingual documentation including functional diagram and wiring plans

Note:
- For 3335.880 and 3335.890, two metal filters are required

Characteristic curves of pump:
Available on the Internet

Approvals:
Available on the Internet

Output class 8000 – 16000 W

Model No.	Packs of	**3335.790**	**3335.830**	**3335.840**	**3335.850**	Page
Total cooling output at T_w = 10°C/T_u = 32°C kW		6.5 / 7.5	6.5 / 7.5	10.3 / 11.3	13.8 / 15.2	
Total cooling output at T_w = 18°C/T_u = 32°C kW		**8 / 8.6**	**8 / 8.6**	**12 / 13.1**	**16 / 17.6**	
Power consumption P_{el} 50/60 Hz kW		4.37 / 5.21	4.37 / 5.21	6.6 / 7.76	7.3 / 9.2	
Rated operating voltage V, ~, Hz		400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	
Width mm		805	805	805	805	
Height mm		1700	2100	2140	2140	
Depth mm		605	605	605	605	
Rated current max. A		8.2 / 7.7	8.2 / 7.7	10 / 11.4	12.7 / 13.3	
Operating temperature range		+10°C...+43°C	+10°C...+43°C	+10°C...+43°C	+10°C...+43°C	
Refrigerant		R410a	R410a	R410a	R410a	
Water connection G 1" internal thread		■	■	■	■	
Temperature hysteresis		± 2 K	± 2 K	± 2 K	± 2 K	
Temperature of liquid		+10°C...+25°C	+10°C...+25°C	+10°C...+25°C	+10°C...+25°C	
Tank capacity l		75	75	75	75	
Weight kg		242.0	248.0	282.0	282.0	
Accessories						
Metal filters	1 pc(s).	3286.550	3286.550	3286.530	3286.530	455
Levelling feet	4 pc(s).	7493.100	7493.100	7493.100	7493.100	628
Flow regulator valve		see page	see page	see page	see page	465
Cooling medium (ready-mixed)		see page	see page	see page	see page	465
Twin castors	4 pc(s).	7495.000	7495.000	7495.000	7495.000	628

TopTherm chillers

Output class 20000 – 40000 W

Model No.		Packs of	**3335.860**	**3335.870**	**3335.880**	**3335.890**	Page
Total cooling output at T_w = 10°C/T_u = 32°C kW			16.6 / 18.7	20.8 / 23.8	27 / 30.4	32.5 / 37.5	
Total cooling output at T_w = 18°C/T_u = 32°C kW			**20 / 21.8**	**25 / 27.6**	**32 / 35.2**	**40 / 44**	
Power consumption P_{el} 50/60 Hz kW			9.2 / 12	11.4 / 13.9	14.95 / 17.6	17.91 / 23.1	
Rated operating voltage V, ~, Hz			400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	
Width mm			1205	1205	1605	2405	
Height mm			2140	2140	2140	2140	
Depth mm			605	605	605	605	
Rated current max. A			20.1 / 17.3	22.8 / 23.8	26.3 / 26.7	38.4 / 32.7	
Operating temperature range			+10°C...+43°C	+10°C...+43°C	+10°C...+43°C	+10°C...+43°C	
Refrigerant			R410a	R410a	R410a	R410a	
Water connection	G 1" internal thread		■	■	–	–	
	G 1¼" internal thread		–	–	■	■	
Temperature hysteresis			± 2 K	± 2 K	± 2 K	± 2 K	
Temperature of liquid			+10°C...+25°C	+10°C...+25°C	+10°C...+25°C	+10°C...+25°C	
Tank capacity l			150	150	75	150	
Weight kg			360.0	374.0	511.0	646.0	
Accessories							
Metal filters		1 pc(s).	3286.540	3286.540	3286.530	3286.540	455
Levelling feet		4 pc(s).	7493.100	7493.100	7493.100	7493.100	628
Flow regulator valve			see page	see page	see page	see page	465
Cooling medium (ready-mixed)			see page	see page	see page	see page	465
Twin castors		4 pc(s).	7495.000	7495.000	7495.000	7495.000	628



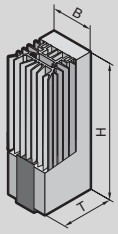


Accessories for climate control Page 454 **Therm software** Page 474

Supply includes:
- PTC heater
- Quick-connection terminal
- Assembly parts

Note:
- For precise temperature control inside the enclosure, we recommend the enclosure internal thermostat or the digital enclosure internal temperature display and thermostat.
- In order to prevent condensation on assemblies, a hygrostat is recommended to regulate heating.
- In larger enclosures, even heat distribution is best achieved by installing several low-output heaters.
- The installation of heaters is generally advisable, in order to prevent condensation.

Approvals:
Available on the Internet



Continuous thermal output 10 – 150 W, without fan

Model No.	Packs of	**3105.310**	**3105.320**	**3105.330**	**3105.340**	**3105.350**	**3105.360**	**3105.370**	Page
Width (B) mm		45	45	64	64	64	90	90	
Height (H) mm		120	120	155	155	230	165	180	
Depth (T) mm		46	46	56	56	56	75	75	
Continuous thermal output at T_u = 10°C W		**8 - 10**	**18 - 20**	**23 - 30**	**49 - 50**	**63 - 75**	**86 - 100**	**130 - 150**	
Rated operating voltage V, ~, Hz		110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	
Pre-fuse A		2	2	4	4	4	4	4	
Accessories									
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	3110.100	3110.100	3110.100	3110.100	467
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	3118.000	3118.000	3118.000	468
Hygrostat with strain relief	1 pc(s).	3118.100	3118.100	3118.100	3118.100	3118.100	3118.100	3118.100	468
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	466
Bottom-mounted adaptor	1 pc(s).	3110.200	3110.200	3110.200	3110.200	3110.200	3110.200	3110.200	469

Enclosure heaters

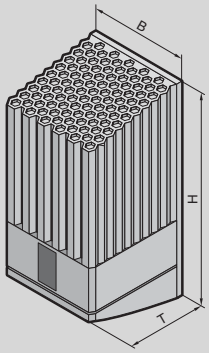


Accessories for climate control Page 454 **Therm software** Page 474

Supply includes:
- PTC heater with fan
- Quick-connection terminal
- Assembly parts

Note:
- For precise temperature control inside the enclosure, we recommend the enclosure internal thermostat or the digital enclosure internal temperature display and thermostat.
- In order to prevent condensation on assemblies, a hygrostat is recommended to regulate heating.
- In larger enclosures, even heat distribution is best achieved by installing several low-output heaters.
- The installation of heaters is generally advisable, in order to prevent condensation.

Approvals:
Available on the Internet



Continuous thermal output 235 – 800 W, with fan

Model No.	Packs of	**3105.410**	**3105.380**	**3105.420**	**3105.390**	**3105.430**	**3105.400**	Page
Width (B) mm		103	103	103	103	103	103	
Height (H) mm		200	200	200	200	200	200	
Depth (T) mm		103	103	103	103	103	103	
Continuous thermal output at T_u = 10°C 50/60 Hz W		**235 / 250**	**250 / 265**	**355 / 400**	**400 / 415**	**710 / 800**	**800 / 870**	
Rated operating voltage V, ~, Hz		115, 1~, 50/60	230, 1~, 50/60	115, 1~, 50/60	230, 1~, 50/60	115, 1~, 50/60	230, 1~, 50/60	
Pre-fuse A		4	4	6	6	10	6	
Accessories								
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	467
Thermostat with strain relief	1 pc(s).	3110.100	3110.100	3110.100	3110.100	3110.100	3110.100	467
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	3118.000	3118.000	468
Hygrostat with strain relief	1 pc(s).	3118.100	3118.100	3118.100	3118.100	3118.100	3118.100	468
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	466
Bottom-mounted adaptor	1 pc(s).	3110.200	3110.200	3110.200	3110.200	3110.200	3110.200	469

Rittal – The System.

Faster – better – everywhere.



Filter technology



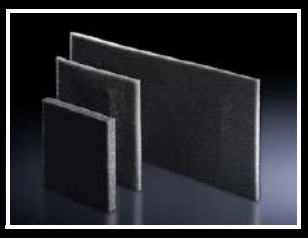
Filter mats

for tangential fans
Made of chopped-fibre mat with a progressive structure. Temperature-resistant to 100°C, self-extinguishing category F1 to DIN 53 438. Dust-laden air side: Open structure. Clean-air side: Closed structure. Reliable filtering of virtually all types of dust from a particle size of 10 µm.

Material:
– Chemical fibres

For tangential fans/front outlet grilles 2 U

To fit Model No.	W x H x D mm	Packs of	**Model No.**
3144.000/ 3145.000/ 3176.000	425 x 85 x 8	5 pc(s).	**3177.000**



Filter mats

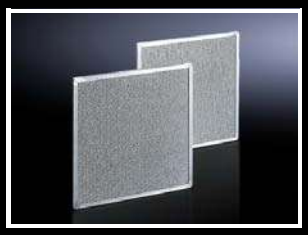
for cooling units and air/air heat exchangers
Rittal cooling units are low-maintenance and are supplied without filter mats. Filter mats may be used for extreme conditions.

Benefits:
– Temperature-resistant from -40°C...+80°C

Material:
– Open-celled polyurethane foamed plastic

To fit Model No.	for cooling units	for air/air heat exchangers	W x H x D mm	Packs of	**Model No.**
3302.300/3203.310	■	–	190 x 95 x 10	3 pc(s).	**3286.110**
3273..../3382..../3383..../3384..../ 3385..../3359....	■	–	530 x 255 x 10	3 pc(s).	**3286.500**
3386..../3387....	■	–	720 x 300 x 10	3 pc(s).	**3286.600**
3186.930/3187.930/3188.940/ 3189.940	■	–	380 x 358 x 10	3 pc(s).	**3285.900**
3302..../3303..../3361..../3126.100/ 3126.115	■	■	265 x 200 x 10	3 pc(s).	**3286.300**
3304..../3305..../3328..../3329..../ 3332..../3366..../3127.100/3127.115/ 3128.100/3128.115/3129.100/ 3129.115/3130.100/3130.115	■	■	344 x 268 x 10	3 pc(s).	**3286.400**

Metal filters



Particularly when cooling units are used in dusty and oily environments, it is advisable to use washable metal filters. If air or steam condenses on the metal surfaces, any particles present will adhere to the metal, and can easily be washed out with water or grease-dissolving detergents.

Material:
– Aluminium

Note:
– 2 metal filters are required for 3334.660, 3335.880 and 3335.890

To fit Model No.	for cooling units	for air/air heat exchangers	for chillers	for climate control door/ section door	W x H x D mm	Packs of	**Model No.**
3186.930/3187.930/ 3188.940/3189.940	■	–	–	–	380 x 358 x 10	1 pc(s).	**3285.910**
3300.040/3300.050/ 3300.060/3300.070/ 3300.080/3300.090/ 3300.110/3300.120	–	–	–	■	425 x 78 x 10	1 pc(s).	**3284.210**
3302.300/3302.310	■	–	–	–	190 x 95 x 10	1 pc(s).	**3286.120**
3302.100/3302.110/ 3302.200/3303..../ 3361..../3126.100/ 3126.115	■	■	–	–	265 x 200 x 10	1 pc(s).	**3286.310**
3304..../3305..../ 3328..../3329..../ 3332..../3366.../ 3127.100/3127.115/ 3128.100/3128.115/ 3129.100/3129.115/ 3130.100/3130.115/ 3360.100/3360.250	■	■	■	–	344 x 268 x 10	1 pc(s).	**3286.410**
3273..../3382..../ 3383..../3384..../ 3385..../3359..../ 3318.600/3318.610/ 3319.600/3319.610/ 3334.660	■	–	■	–	530 x 255 x 10	1 pc(s).	**3286.510**
3320.600/3334.600	–	–	■	–	500 x 558 x 8	1 pc(s).	**3286.520**
3386..../3387....	■	–	–	–	720 x 300 x 10	1 pc(s).	**3286.610**
3335.840/3335.850/ 3335.880	–	–	■	–	595 x 1030 x 20	1 pc(s).	**3286.530**
3335.860/3335.870/ 3335.890	–	–	■	–	1000 x 1035 x 20	1 pc(s).	**3286.540**
3335.790/3335.830	–	–	■	–	595 x 780 x 20	1 pc(s).	**3286.550**

Filter technology







Spare filter mats

Made of chopped-fibre mat with a progressive structure. Temperature-resistant to 100°C, self-extinguishing category F1 to DIN 53 438. Dust-laden air side: Open structure. Clean-air side: Closed structure. Reliable filtering of virtually all types of dust from a particle size of 10 µm.

For roof-mounted fan

To fit Model No.	Material	W x H x D mm	Filter class to DIN EN 779	Packs of	**Model No.**
3138..../3139..../3140....	Chemical fibre	264 x 95 x 17	G3	12 pc(s).	**3174.100**

For EMC fan-and-filter units

To fit Model No.	Material	W x H x D mm	Filter class to DIN EN 779	Packs of	**Model No.**
3237.6..	Copper-nickel-chrome coated chemical fibres	92 x 92 x 10	G2	5 pc(s).	**3237.066**
3238.6..	Copper-nickel-chrome coated chemical fibres	125 x 125 x 12	G2	5 pc(s).	**3238.066**
3239.6..	Copper-nickel-chrome coated chemical fibres	178 x 178 x 17	G3	5 pc(s).	**3239.066**
3240.6../3241.6..	Copper-nickel-chrome coated chemical fibres	226 x 226 x 17	G3	5 pc(s).	**3240.066**
3243.6../3244.6../ 3245.6..	Copper-nickel-chrome coated chemical fibres	294 x 294 x 17	G3	5 pc(s).	**3243.066**

For fan-and-filter units

To fit Model No.	Material	W x H x D mm	Filter class to DIN EN 779	Packs of	**Model No.**
3237....	Chemical fibres	89 x 89 x 10	G2	5 pc(s).	**3321.700**
3237....	Chemical fibres	89 x 89 x 10	G2	50 pc(s).	**3321.705**
3238....	Chemical fibres	120 x 120 x 12	G2	5 pc(s).	**3322.700**
3238....	Chemical fibres	120 x 120 x 12	G2	50 pc(s).	**3322.705**
3239....	Chemical fibres	173 x 173 x 17	G3	5 pc(s).	**3171.100**
3239....	Chemical fibres	173 x 173 x 17	G3	50 pc(s).	**3171.105**
3240..../3241....	Chemical fibres	221 x 221 x 17	G3	5 pc(s).	**3172.100**
3240..../3241....	Chemical fibres	221 x 221 x 17	G3	50 pc(s).	**3172.105**
3243..../3244..../3245....	Chemical fibres	289 x 289 x 17	G3	5 pc(s).	**3173.100**
3243..../3244..../3245....	Chemical fibres	289 x 289 x 17	G3	50 pc(s).	**3173.105**

For Thermoelectric coolers

To fit Model No.	Material	W x H x D mm	Filter class to DIN EN 779	Packs of	**Model No.**
3201.200/3201.300	Chemical fibre	90 x 106 x 8	G2	5 pc(s).	**3201.050**

Fine filter mats

for fan-and-filter units

Made of chopped-fibre mat with a progressive structure. Temperature-resistant to 100°C, self-extinguishing category F1 to DIN 53 438. Dust-laden air side: Open structure. Clean-air side: Closed structure. Reliable filtering of virtually all types of dust from a particle size of 10 µm.

Material:
– Chemical fibres



To fit Model No.	W x H x D mm	Filter class to DIN EN 779	Packs of	**Model No.**
3238....	120 x 120 x 12	F5/M5	5 pc(s).	**3238.055**
3239....	173 x 173 x 12	F5/M5	5 pc(s).	**3181.100**
3240..../3241....	221 x 221 x 12	F5/M5	5 pc(s).	**3182.100**
3243..../3244..../3245....	289 x 289 x 12	F5/M5	5 pc(s).	**3183.100**

Outlet filter

Standard

For ventilation by convection, an outlet filter can be installed in the upper and lower sections of the enclosure.

Material:
– ABS
– Material resistance to UL 94-5VA

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 54 including filter mat

Supply includes:
– Outlet filter
– Filter mat



Accessories:

– Spare filter mats, see page 456
– Fine filter mats, see page 457
– Hose-proof hood, see page 458
– Blanking cover, see page 459

W x H x D mm	Required cut-out, Width mm	Required cut-out, Height mm	Packs of	**Model No.**
116.5 x 116.5 x 16	92	92	1 pc(s).	**3237.200**
148.5 x 148.5 x 24	124	124	1 pc(s).	**3238.200**
204 x 204 x 24	177	177	1 pc(s).	**3239.200**
255 x 255 x 25	224	224	1 pc(s).	**3240.200**
323 x 323 x 25	292	292	1 pc(s).	**3243.200**

Filter technology



Outlet filter

EMC
For ventilation by convection, an outlet filter can be installed in the upper and lower sections of the enclosure.

Material:
– ABS
– Material resistance to UL 94-5VA

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 54 including filter mat

Supply includes:
– Outlet filter
– Filter mat

W x H x D mm	Required cut-out, Width mm	Required cut-out, Height mm	Packs of	**Model No.**
116.5 x 116.5 x 16	92	92	1 pc(s).	**3237.060**
148.5 x 148.5 x 24	124	124	1 pc(s).	**3238.060**
204 x 204 x 24	177	177	1 pc(s).	**3239.060**
255 x 255 x 25	224	224	1 pc(s).	**3240.060**
323 x 323 x 25	292	292	1 pc(s).	**3243.060**





Hose-proof hood

To increase the protection category
For fan-and-filter units/outlet filters. Easy cleaning thanks to exterior silicone coating approved for use with foodstuffs.

Material:
– Stainless steel
– Silicone

Protection category IP to IEC 60 529:
– IP 56 when fitted over fan-and-filter unit/outlet filter with filter mat

To fit Model No.	W x H x D mm	Protection category	Packs of	**Model No.**
3237....	150 x 230 x 40	NEMA 12	1 pc(s).	**3237.080**
3238....	176 x 245 x 55	NEMA 1 NEMA 12 NEMA 3 NEMA 4 NEMA 4X	1 pc(s).	**3238.080**
3239....	233 x 330 x 55	NEMA 1 NEMA 12 NEMA 3 NEMA 4 NEMA 4X	1 pc(s).	**3239.080**
3240..../3241....	282 x 390 x 85	NEMA 1 NEMA 12 NEMA 3 NEMA 4 NEMA 4X	1 pc(s).	**3240.080**
3243..../3244....	350 x 480 x 110	NEMA 1 NEMA 12 NEMA 3 NEMA 4 NEMA 4X	1 pc(s).	**3243.080**
3245....	350 x 480 x 160	NEMA 1 NEMA 12 NEMA 3R	1 pc(s).	**3245.080**

Blanking cover

for fan-and-filter units / outlet filters
If existing mounting cut-outs for fan-and-filter units/ outlet filters need to be closed to achieve a higher protection category, the filter mat of the fan-and-filter unit/outlet filter can simply be replaced with a blanking cover; welding or other mechanical modification of the enclosure is not necessary.

Material:
– Plastic

Colour:
– Anthracite

Protection category IP to IEC 60 529:
– IP 54

To fit Model No.	Packs of	Model No.
3237....	2 pc(s).	**3237.020**
3238....	2 pc(s).	**3238.020**
3239....	2 pc(s).	**3239.020**
3240..../3241....	2 pc(s).	**3240.020**
3243..../3244..../3245....	2 pc(s).	**3243.020**



Front outlet grille 2 U

for tangential fans
This front outlet grille is required if a 482.6 mm (19") cross-flow blower (SK 3144.000/SK 3145.000) is used in the lower section of the electronic enclosure and the hot air is to be expelled to the outside from the upper section of the enclosure. The design of the grille matches that of the intake grille in the cross-flow blower. These grilles can also be used as simple inflow and outflow grilles with natural convection.

Packs of	Model No.
1 pc(s).	**3176.000**

Accessories:
– Filter mats, see page 454



Enclosure internal fan

for TS
To prevent hot-spots and support the air routing of active enclosure climate control components. Adjustable in two axes. Attached to the TS 8 frame section. Several fans may be cascaded using the quick-release clamping strip.

Supply includes:
– Complete unit with radial fan ready for connection
– Snap-on pivot device
– Assembly parts



Air throughput (unimpeded air flow) m^3/h	Rated operating voltage V, ~, Hz	Power consumption W	Rated current A	Packs of	Model No.
160	230, 1~, 50/60	19 / 18	0.12 / 0.11	1 pc(s).	**3108.100**
160	115, 1~, 50/60	19 / 18	0.24 / 0.23	1 pc(s).	**3108.115**
160	24 (DC)	3.5	0.15	1 pc(s).	**3108.024**

Filter technology



Mini fan

Compact DC fan for enclosure and component cooling in enclosures.

Supply includes:
– Fan
– Assembly screws
– Contact hazard protection

W x H x D mm	Air throughput (unimpeded air flow) m^3/h	Rated operating voltage V	Power consumption W	Operating temperature range	Noise level dB(A)	Packs of	**Model No.**
60 x 60 x 25.4	21	24 (DC)	1	-20°C...+70°C	20	1 pc(s).	**3236.124**



Integrated louvres

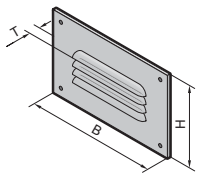
For ventilation by convection; easily retro-fitted using 4 screws.

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Assembly parts

W x H x D mm	Packs of	**Model No.**
160 x 110 x 8	4 pc(s).	**2541.235**
210 x 100 x 8	4 pc(s).	**2542.235**
330 x 110 x 8	4 pc(s).	**2543.235**



Air duct system

For roof-mounted cooling units and roof-mounted air/water heat exchangers
Cold air may be routed directly to specific areas of the enclosure using the air duct system. The risk of air short circuits due to self-ventilated installed devices is therefore eliminated.
The dimensions of the shallow duct are W x H x D 229 x 1500 x 29 mm, and can be shortened to the required length.

Material:
– Flame-resistant plastic to DIN 4102/B1

Colour:
– RAL 7035

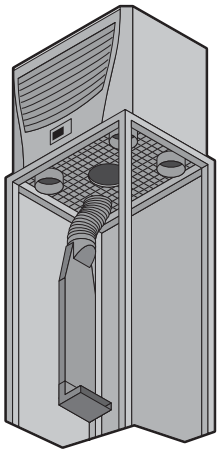
Supply includes:
– Shallow duct
– Compensating hose

Note:
– Do not direct cold air straight at active components.
– When using the ducting system, the performance of the cooling unit may be reduced, depending on the application in question.
– For devices 3359..../3382...., the air duct adaptor 3286.840 is additionally required.

To fit Model No.	Packs of	Model No.
3209..../3210..../3273..../3359..../3382..../3383..../3384..../3385....	1 pc(s).	**3286.870**
3386..../3387....	1 pc(s).	**3286.970**

Also required:
– Mounting bars, see page 685

Accessories:
– Deflector, 90°, see page 461
– Stoppers, see page 463
– Flat duct extension, see page 462







Air duct adaptor

for air duct system and shallow air duct system
The adaptor serves as a connection between the roof-mounted cooling unit (air inlet opening) and the air-duct system.

Material:
– ABS

Colour:
– RAL 9005

To fit Model No.	Packs of	Model No.
3359..../3382....	1 pc(s).	**3286.840**



Deflector, 90°

for air duct system
For targeted air deflection at the end of the shallow duct.

Material:
– Flame-resistant plastic to DIN 4102/B1

Colour:
– RAL 7035

Packs of	Model No.
1 pc(s).	**3286.990**



Air routing



Shallow air duct system

For roof-mounted cooling units and roof-mounted air/water heat exchangers
Cold air may be routed directly to specific areas of the enclosure using the air duct system. The risk of air short circuits due to self-ventilated installed devices is therefore eliminated.
The dimensions of the shallow duct are W x H x D 229 x 1500 x 29 mm, and can be shortened to the required length.

Applications:
– Suitable for TS 8 enclosures with widths of 800 mm or more and depths of 600 mm or more.

Material:
– Flame-resistant plastic to DIN 4102/B1

Colour:
– RAL 7035

Supply includes:
– Shallow duct
– Adaptor
– Compensating piece
– Deflector, 90°

Note:
– Do not direct cold air straight at active components.
– When using the ducting system, the performance of the cooling unit may be reduced, depending on the application in question.
– Not suitable for use in conjunction with quick-change frame.

To fit Model No.	Packs of	**Model No.**
3209..../3210..../3273..../3383..../3384..../3385..../3359..../3382....	1 pc(s).	**3286.850**

Also required:
– Air duct adaptor, see page 461
– Mounting bars, see page 685

Assembly instruction:
– For devices 3359.XXX and 3382.XXX, the air duct adaptor 3286.840 is required for mounting.

Accessories:
– Deflector, 90°, see page 461
– Stoppers, see page 463
– Flat duct extension, see page 462



Flat duct extension

Extension kit for shallow air duct system 3286.850 for length compensation in the width, depth or height in TS 8 enclosures.

Material:
– Flame-resistant plastic to DIN 4102/B1

Colour:
– RAL 7035

Supply includes:
– Shallow duct 1500 mm
– Connecting piece

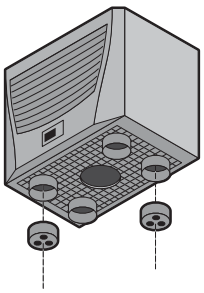
Packs of	**Model No.**
1 pc(s).	**3286.860**



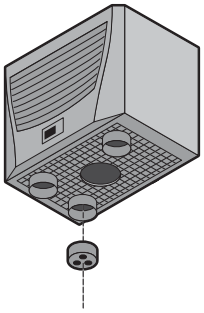
Stoppers

For roof-mounted cooling units and roof-mounted air/water heat exchangers
To cover any cold air outlets that are not required.

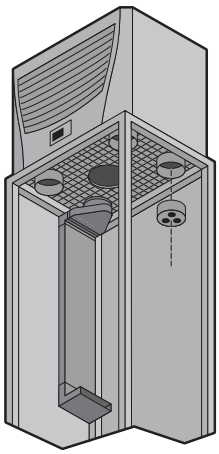
Material:
– Polyurethane foam



Max. 2 stoppers
for 3209.../3210.../3383.../
3384.../...3385.../3273...



Max. 1 stopper
for 3359.../3382.../3386.../
3387...



To fit Model No.	Ø mm	Max. no. of stoppers per unit	Packs of	**Model No.**
3359..../3382....	80	1	2 pc(s).	**3286.780**
3209..../3210..../3273..../ 3383..../3384..../3385....	100	2	2 pc(s).	**3286.880**
3386..../3387....	150	1	2 pc(s).	**3286.980**



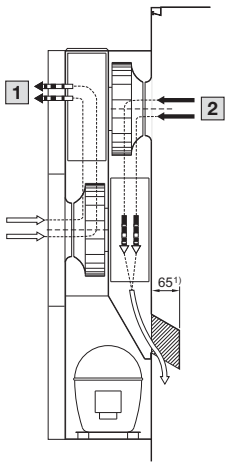
Air diverter

For use with wall-mounted cooling units. For targeted routing of cold air in a downward direction. Particularly well-suited for densely-packed electrical components in the lower section of the enclosure.

Material:
– Sheet steel

Colour:
– RAL 7035

To fit Model No.	Installation depth mm	Packs of	**Model No.**
3304..../3305....	65	1 pc(s).	**3213.310**
3328..../3329....	65	1 pc(s).	**3213.320**
3332....	115	1 pc(s).	**3213.330**



¹⁾ 115 mm for 3213.330
1 External air circuit
2 Internal air circuit

Water distribution





Electric condensate evaporator

For external mounting on the enclosure. For use with all enclosure cooling units and air/water heat exchangers (wall-mounted).

Benefits:
– Suitable for international use thanks to multi-voltage support

Colour:
– RAL 7035

Supply includes:
– Electric condensate evaporator, ready to connect.

W x H x D mm	Rated operating voltage V, ~, Hz	Operating temperature range	Evaporation performance	Packs of	**Model No.**
280 x 129 x 105	115 - 230, 1~, 50/60	+5°C...+60°C	230 V: 3,5 l/d 115 V: 3.0 l/d	1 pc(s).	**3301.500**
400 x 129 x 105	115 - 230, 1~, 50/60	+5°C...+60°C	230 V: 3,5 l/d 115 V: 3.0 l/d	1 pc(s).	**3301.505**

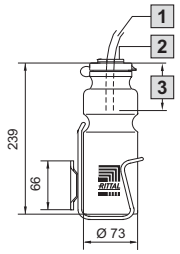


Condensate collecting bottle

For mounting on the enclosure. For use with all enclosure cooling units and air/water heat exchangers. Safety overflow at the side. Capacity approximately 0.75 l.

Supply includes:
– Condensate collecting bottle
– Bottle holder
– Assembly parts

Packs of	**Model No.**
1 pc(s).	**3301.600**



1 Condensate discharge tube
2 Membrane grommet
3 Max. 70 mm



Condensate hose

For discharging and transporting condensate. For connection to enclosure cooling units and air/water heat exchangers.

Material:
– PVC, transparent

To fit Model No.	Length m	Ø mm	Material thickness mm	Packs of	**Model No.**
3201....	5	6	1	1 pc(s).	**3301.606**
3202....	10	8	1.5	1 pc(s).	**3301.608**
3212..../3303..../3361....	10	10	1.5	1 pc(s).	**3301.610**
3209...3210/3214.100/3215.100/ 3216.480/3273..../3304...3305/ 3328...3329/3332..../3359..../ 3363...3364/3366..../3373...3375/ 3377...3378/3382...3385/3386...3387	10	12	2	1 pc(s).	**3301.612**

Connection set

for air/water heat exchangers
For professional laying of water connections and regulation of volumetric flow. The pressure hoses may be cut to length individually, depending on the application.

Material:
– Water-carrying parts EPDM/brass

Supply includes:
– Hose for water return
– Hose for water inlet including regulator valve for regulating the volumetric flow (setting range 3 to 12 l/min)
– Assembly parts



To fit Model No.	Length mm	Water connections	Permissible operating pressure (p. max.) bar	Packs of	**Model No.**
3209.XX0/3210.XX0/3216.480/ 3363.XX0/3364.XX0/3373.XX0/ 3374.XX0/3375.XX0	3600	G ⅜" internal thread	1 - 10	1 pc(s).	**3201.990**

Flow regulator valve

For use with air/water heat exchangers, especially if more than one heat exchanger (n > 1) is used in the water cooling circuit. The correctly set valve then ensures the same quantity of cooling medium for all equipment.

Applications:
– The valve is used for hydraulic balancing.

Material:
– Brass



Design	Setting range l/min	Packs of	**Model No.**
¾" x ½" for volumetric flow control	3 - 12	1 pc(s).	**3301.930**
¾" x ¾" for volumetric flow control	3 - 12	1 pc(s).	**3301.940**

Fitting G ⅜"

The G ⅜" internal threaded adaptor can be used to create fixed piping on the air/water heat exchanger for both the inlet and return.

Material:
– Brass



To fit Model No.	Packs of	**Model No.**
3209..../3210..../3363..../ 3364..../3373..../3374..../ 3375....	2 pc(s).	**3201.900**

Cooling medium (ready-mixed)

For chillers and air/water heat exchangers
As well as protecting against frost, this cooling medium also serves to inhibit bacterial growth and provide optimum corrosion protection.



Application	Antifreeze/water mixture	Container	Contents l	Operating temperature range	Packs of	**Model No.**
Outdoor	1 : 2	Canister	10	-20°C...+60°C	1 pc(s).	**3301.950**
Outdoor	1 : 2	Canister	25	-20°C...+60°C	1 pc(s).	**3301.955**
Standard	1 : 4	Canister	10	-10°C...+60°C	1 pc(s).	**3301.960**
Standard	1 : 4	Canister	25	-10°C...+60°C	1 pc(s).	**3301.965**

Control/regulation



Digital enclosure internal temperature display and thermostat

For installation in the enclosure door or wall.

Technical specifications:
– Three-digit, 7-segment display
– Option of switching between °C/°F
– Includes 1800 mm long NTC sensor
– Two relay outputs as change-over contact and normally open contact (max. contact load 230 V, 6 A)
– Freely selectable switching difference

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 54

Rated operating voltage V, ~, Hz	Installation depth mm	Setting range	Operating temperature range	Packs of	**Model No.**
100 - 230, 1~, 50/60 24 - 60 (DC)	100	+5°C...+55°C	+0°C...+50°C	1 pc(s).	**3114.200**



Digital enclosure internal temperature display and thermostat

integrated into a patch panel 1 U
Including cable attachment for connection cable and label holder.

Technical specifications:
– Three-digit, 7-segment display
– Option of switching between °C/°F
– Includes 1800 mm long NTC sensor
– Two relay outputs as change-over contact and normally open contact (max. contact load 230 V, 6 A)
– Freely selectable switching difference

Colour:
– RAL 7035

Rated operating voltage V, ~, Hz	Installation depth mm	Setting range	Packs of	**Model No.**
100 - 230, 1~, 50/60 24 - 60 (DC)	100	+5°C...+55°C	1 pc(s).	**7109.035**

Thermostat



Enclosure internal thermostat
Particularly suitable for controlling fans, heaters and heat exchangers, this thermostat can also be used as a signal generator for monitoring the enclosure internal temperature.

Benefits:
– Time-saving connection technique using a terminal strip with a screw connection from the outside
– Flexible mounting on a vertical or horizontal 35 mm support rail to EN 50 022, and snap fastening in the TS/SE enclosure section or on the mounting plate using the supplied adaptor

Technical specifications:
– Bi-metal controller as a temperature-sensitive element with thermal feedback
– Contact population: Single-pole change-over contact as a quick-break contact
– Permissible contact load: Category 5 – 3 (heating) AC 10 (4) A (inductive load at cos ϕ = 0.6)/ category 5- 4 (cooling): AC 5 (4) A (inductive load at cos ϕ = 0.6)/DC = max. 30 W
– Switching difference: approx. 1 K ± 0.8 K

Colour:
– RAL 7035

Accessories:
– Bottom-mounted adaptor, see page 469
– Mounting plates, see page 727

W x H x D mm	Rated operating voltage V, ~	Setting range	Packs of	**Model No.**
71 x 71 x 33.5	24 - 230, 1~ 24 - 60 (DC)	+5°C...+60°C	1 pc(s).	**3110.000**

Thermostat with strain relief



For controlling fan-and-filter units, roof-mounted fans, heaters and heat exchangers, and also as a signal generator for monitoring the enclosure internal temperature.

Design:
– Strain relief and contact hazard protection

Benefits:
– Flexible mounting on a vertical or horizontal 35 mm support rail to EN 50 022, and snap fastening in the TS/SE enclosure section or on the mounting plate

Technical specifications:
– Bi-metal controller as a temperature-sensitive element with thermal feedback
– Contact population: Single-pole change-over contact as a quick-break contact
– Permissible contact load: Category 5 – 3 (heating): AC 10 (4) A (inductive load at cos ϕ = 0.6)/ category 5- 4 (cooling): AC 5 (4) A (inductive load at cos ϕ = 0.6)
– Switching difference: approx. 1 K ± 0.8 K
– Connection: Screwless spring terminal with PE entry

Colour:
– RAL 7016

Protection category IP to IEC 60 529:
– IP 20

Rated operating voltage V, ~	Setting range	Operating temperature range	Storage temperature range	Packs of	**Model No.**
24 - 230, 1~	+5°C...+60°C	-40°C...+60°C	-45°C...+70°C	1 pc(s).	**3110.100**

Control/regulation



Hygrostat

The hygrostat switches on the heater and/or fan when a preset relative humidity in the enclosure is exceeded. In this way, the relative humidity is reduced, and condensation on assemblies or electronic components is avoided.

Benefits:
– Time-saving connection technique using a terminal strip with a screw connection from the outside
– Flexible mounting on a vertical or horizontal 35 mm support rail to EN 50 022, and snap fastening in the TS/SE enclosure section or on the mounting plate using the supplied adaptor

Technical specifications:
– Contact population: Single-pole change-over contact as a quick-break contact
– Permissible contact load: AC ~ 5 (0.2) A (inductive load at cos ϕ = 0.6)/DC = max. 20 W
– Setting range: 50 – 100% relative humidity
– Switching difference: approx. 4%

Colour:
– RAL 7035

W x H x D mm	Rated operating voltage V, ~	Packs of	**Model No.**
71 x 71 x 33.5	24 - 230, 1~ 12 - 75 (DC)	1 pc(s).	**3118.000**

Accessories:
– Bottom-mounted adaptor, see page 469
– Mounting plates, see page 727



Hygrostat with strain relief

Switches on the heater and/or fan when a preset relative humidity in the enclosure is exceeded. In this way, the relative humidity is reduced, and condensation on assemblies or electronic components is avoided.

Design:
– Strain relief and contact hazard protection

Benefits:
– Flexible mounting on a vertical or horizontal 35 mm support rail to EN 50 022, and snap fastening in the TS/SE enclosure section or on the mounting plate using the supplied adaptor

Technical specifications:
– Contact population: Single-pole change-over contact as a quick-break contact
– Permissible contact load: AC ~ 5 (0.2) A (inductive load at cos ϕ = 0.6)/DC = max. 20 W
– Setting range: 50 – 100% relative humidity
– Switching difference: approx. 4%

Colour:
– RAL 7016

Protection category IP to IEC 60 529:
– IP 20

Rated operating voltage V, ~	Operating temperature range	Storage temperature range	Packs of	**Model No.**
24 - 230, 1~ 12 - 75 (DC)	-40°C...+60°C	-45°C...+70°C	1 pc(s).	**3118.100**

Bottom-mounted adaptor

for enclosure internal thermostat and hygrostat

With mounting option for screwed cable glands, for targeted cable infeed from appropriate equipment such as SK fan-and-filter units and enclosure heaters. In conjunction with screwed cable glands, it also provides strain relief.

Colour:
– RAL 7035

To fit Model No.	Packs of	**Model No.**
3110.000/3118.000	1 pc(s).	**3110.200**



EC speed control

Control unit for EC fan

Temperature-dependent speed control for EC fans to reduce noise and save energy. The function of the fan can also be monitored.

Functions:
– Activation and monitoring of up to 4 EC fan-and-filter units
– For mounting on a 35 mm support rail EN 50 022
– External temperature sensor to record the actual temperature
– Status LED to display the operating status
– Alarm relay for reporting overtemperature, fan defect, cable break and sensor failure

Supply includes:
– Speed control
– NTC sensor, length 1.80 m



To fit Model No.	Rated operating voltage V	Setting range	Packs of	**Model No.**
3240.500/3241.500/3243.500/ 3244.500/3245.XXX/3140.500/ 3140.510	100 - 250	+5°C...+55°C	1 pc(s).	**3235.440**

EC speed control

Sensor for speed control

NTC sensor for temperature-dependent speed control of EC fans to reduce noise and save energy. Activation and power supply via an EC fan-and-filter unit.

Technical specifications:
– Control characteristic: fixed setpoint at 35°C, with linear control range between +35°C (maximum speed 100%) and +20°C (minimum speed 10%)

Protection category IP to IEC 60 529:
– IP 40

Supply includes:
– External sensor with connection cable (length 3 m)



To fit Model No.	Rated operating voltage V	Operating temperature range	Packs of	**Model No.**
3240.500/3241.500/3243.500/ 3244.500/3245.XXX/3140.500/ 3140.510	10 - 12 (DC)	-25°C...+80°C	1 pc(s).	**3235.450**

Control/regulation



Speed control

For fan-and-filter units and air/air heat exchangers
Temperature-dependent speed control to minimise noise and save energy in part-load operation.

Technical specifications:
– For mounting on a 35 mm support rail EN 50 022
– Phase cross-over with microcontroller
– Maximum fan output 300 W or 2 A

Supply includes:
– Speed control
– NTC sensor, length 1.80 m

Note:
– Only suitable for use with single-phase AC motors and equipment
– Not suitable for EC motors

Accessories:
– Mounting plates, see page 727

W x H x D mm	Rated operating voltage V	Setting range	Packs of	**Model No.**
105 x 90.5 x 60.2	100 - 230	+20°C...+55°C	1 pc(s).	**3120.200**



Temperature sensor

for Blue e+ cooling units
NTC sensor to regulate Blue e+ cooling units according to an individual measurement point within the enclosure (control based on an external sensor), and according to the cold air outlet from the cooling unit inside the enclosure (control based on outlet temperature).

Supply includes:
– External sensor with connection cable (length 2.5 m)

Packs of	**Model No.**
1 pc(s).	**3124.400**



Interface board

For equipment with e-Comfort controller
The interface board is an extension for equipment with e-Comfort controller. In this way it is possible, e.g. to monitor a master/slave combination of up to 10 cooling units. Control is achieved via standardised interfaces: RS232 (DB9) or RS485, one PLC interface (DB9). The extension board is built into a 1 U plastic housing. Power may be supplied externally using a Kycon connector.

Supply includes:
– Interface card integrated into plastic box
– Serial SUB-D cable, 1.5 m.

Note:
– Networking and monitoring plan may be found on the relevant product page on the Internet, under "Download".

W x H x D mm	Rated operating voltage V	Packs of	**Model No.**
136 x 44 x 129	24 (DC)	1 pc(s).	**3124.200**

Master/slave cable

for SK BUS system

The SK BUS system allows several cooling units and air/water heat exchangers with e-Comfort controller to communicate with one another Master-slave configuration for complex bayed enclosure systems, for optimum operating results.

Technical specifications:

– The master-slave layout facilitates common activation and deactivation via door limit switches, parallel activation and deactivation via a temperature setpoint, and common collective fault signals and temperature logging, eliminating the need for intricate wiring.

Supply includes:

– 3 m shielded interface cable
– Operating instructions on programming the cooling units

Note:

– $n_B = n_K - 1$
– n_B: Number of order units (SK BUS system)
– n_K: Number of cooling units to be linked

Packs of	**Model No.**
1 pc(s).	**3124.100**



Master/slave adaptor

for Thermoelectric Cooler

The master-slave adaptor for the Rittal thermoelectric cooler allows up to 5 thermoelectric coolers to communicate with one another (1 master and up to 4 slaves). In this way, e.g. in complex bayed enclosure systems, the master-slave configuration facilitates optimum climate control results.

Supply includes:

– Adaptor
– Connection cable

To fit Model No.	Packs of	**Model No.**
3201.200/3201.300	1 pc(s).	**3201.070**

Also required:

– CMC III CAN bus connection cable, see page 557



Toroidal transformer

Primary connection 115 V/400 V

For the power supply of wall-mounted 230 V air/water heat exchangers. Available with 115 V or 400 V primary connection.

Technical specifications:

– Output 110 VA
– Voltage tolerance ±10%
– Primary connection 3500 mm long
– Secondary connection 1500 mm long
– For mounting on a 35 mm support rail EN 50 022

Supply includes:

– Toroidal transformer
– Assembly parts



To fit Model No.	W x H x D mm	Rated operating voltage V, ~, Hz	Packs of	**Model No.**
3363.X0X/3364.X0X/3212.230/ 3214.100/3215.100	105 x 123 x 55	400 (primary), 2~, 50/60 230 (secondary), 1~, 50/60	1 pc(s).	**3201.960**
3363.X0X/3364.X0X/3214.100/ 3215.100	105 x 123 x 55	115 (primary), 1~, 50/60 230 (secondary), 1~, 50/60	1 pc(s).	**3201.970**

Mounting accessories



Roof plates TS

For mounting roof-mounted units, roof-mounted air/water heat exchangers, roof-mounted fans and vent attachment TS. The cut-outs in the roof plate are arranged so that the roof-mounted cooling units are positioned centrally on the enclosure.

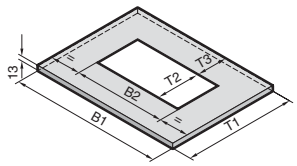
Benefits:
– Simple, fast assembly

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Note:
– When mounting cooling units on the roof plate 8801.310, there may be a collision with the enclosure eyebolts; for this reason, roof fastening screws are supplied loose with the roof plates.
– Attached to the roof plate 8801.340 from the inside using metal brackets and retaining clamps.



B1 = Width
T1 = Depth
B2 = Cut-out width
T2 = Cut-out depth
T3 = Distance from cut-out to the rear

To fit enclosure width/depth mm	To fit Model No.	W x H x D mm	Cut-out width mm	Cut-out depth mm	Distance from cut-out to the rear mm	Packs of	**Model No.**
600 x 600	3209..../3210..../3383..../3384..../3385..../3273..../8801.380	567.5 x 13 x 567.5	490	390	61.3	1 pc(s).	**8801.310**
800 x 600	3382..../3359..../3149.4../3149.8..	767.5 x 13 x 567.5	475	260	129.3	1 pc(s).	**8801.320**
800 x 600	3209..../3210..../3383..../3384..../3385..../3273..../8801.380	767.5 x 13 x 567.5	490	390	61.3	1 pc(s).	**8801.330**
800 x 600	3386..../3387....	767.5 x 13 x 567.5	692	392	57.8	1 pc(s).	**8801.340**
1200 x 600	3209..../3210..../3383..../3384..../3385..../3273..../8801.380	1167.5 x 13 x 567.5	490	390	61.3	1 pc(s).	**8801.350**



Trim frame

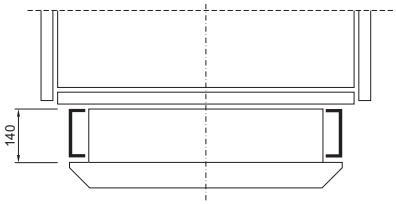
for slimline cooling units
Slimline cooling units can be internally or externally mounted on an enclosure door or wall. The trim frame presents a closed front for the cooling unit.

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Trim frame
– Sealing and assembly parts

To fit Model No.	Packs of	**Model No.**
3366....	1 pc(s).	**3377.000**



Quick-change frame

for roof-mounted cooling units

The quick-change frame is more than just an alternate frame. Together with the seal, the lower part of the frame is screw-fastened to the enclosure. In this way, it is possible to install and remove the connector-ready cooling unit with the upper part of the alternate frame previously mounted on the cooling unit with quick-release fasteners. During servicing work, this means shorter assembly times and hence minimised downtime. What is more, the quick-change frame offers effective protection against the ingress of oil into the enclosure in oily atmospheres, thanks to its integral drainage trough.

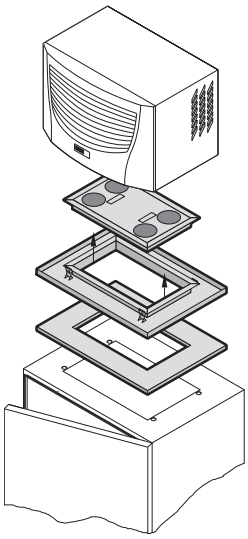
Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Quick-change frame
– Seal
– Quick-release fasteners

To fit Model No.	Packs of	**Model No.**
3359..../3382....	1 pc(s).	**3286.700**
3209..../3210..../ 3383..../3384..../ 3385....	1 pc(s).	**3286.800**
3386..../3387....	1 pc(s).	**3286.900**





Guide frame

for Vario rack-mounted fan

Supply includes:
– Guide frame
– Connector and fitted connection cable
– Mounting bracket for optional attachment to the 482.6 mm (19") mounting level
– Assembly parts



To fit Model No.	Suitable for rated operating voltage	Length of connection cable m	Packs of	**Model No.**
3350.230/3351.230/ 3352.230	110 V (DC) 230 V	3	1 pc(s).	**3355.100**
3352.500	24 V DC 115 - 230 V	3	1 pc(s).	**3357.100**



Therm software

Precise, efficient climate control
The Therm software takes care of the time-consuming calculation of the required cooling or heating output, and proposes a suitable selection of products.

Benefits:
- Fast, thorough determination of climate control requirements
- Determining the correct climate control measures leads to cost savings
- Easy calculation of the required actual cooling output, as well as any upgrades or enhancements to the switchgear.
- Detailed documentation is supplied with the calculation

Note:
– Download Therm for free at www.rittal.com



Therm app

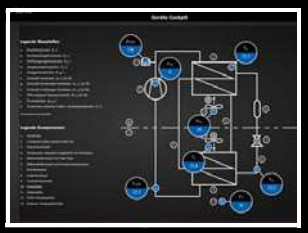
The Therm app for smartphones handles the time-consuming process of calculating climate control requirements for individual enclosure assemblies. With its fast selection feature, the app i a compact variant of the full software version "Therm".
The results can be sent quickly and easily as an email. An easy-to-use interface guides the user to the most suitable, correctly dimensioned climate control component using the typical smartphone controls.
All evaluations are closely based on the requirements of IEC/TR 60 890 AMD1/02.95 and EN 14 511 for enclosure cooling units.

Note:
– The Therm app can be downloaded for free from the App Store and from the Google Play Store



RiDiag II

For the diagnosis, maintenance and long-term data capture of TopTherm units with e-Comfort controller. RiDiag logs equipment data and prepares an error list. RiDiag also allows you to display and set the device's operating parameters. Logged measurement data can be tracked in real time in the form of a diagram.



RiDiag III

Diagnosis software for the analysis and parameterisation of of Blue e+ cooling units.
The following functions may be used in the device and efficiency cockpit:
- Quick analysis and setting of all parameters
- Display configuration: e.g. NFC, language, PIN
- Reading of historical data from the last two years
- Creation of service enquiries and selection of spare parts
- All parameters stored locally for reuse
- Software and firmware updates for devices

Note:
– Download RiDiag III for free at www.rittal.com

Chiller configurator

The chiller configurator is a cost-effective way of designing your required machine and process cooling. Cooling output, volumetric flow and refrigerant temperatures are precisely tailored to your required application.

Benefits:
- Calculate the heat loss, either mathematically or manually
- Comprehensive range of accessories
- Drawings downloadable in dwg, pdf, or 3D pdf format
- Downloadable specifications/tender texts
- Interactive performance diagram: Cooling output and pump capacity
- Add option packages and download bill of materials
- Transfer order list to shopping basket
- Send a quote request

Note:
– The chiller configurator is available at www.rittal.com



Chiller app

The Rittal Chiller app allows users to make their selections from a mobile device. Alongside the existing online version of the chiller configurator, the app also supports automated calculation of the required cooling output. The matching chiller may be selected interactively in just four steps, with outputs ranging from 1 to 40 kW.

Note:
– Download the Chiller app for free from the App Store



Blue e+ app

The Blue e+ app supports the contactless exchange of information as well as quick on-site analysis via the NFC interface.

Benefits:
- Saves time when reading the units
- Access restriction via PIN request (PIN of cooling unit)
- Superior operational reliability, thanks to improved fault and maintenance management
- Identical displays and menu prompting as on the Blue e+ device display
- Direct links to online shop and service team
- Simple repair, maintenance and spare parts enquiries may be sent directly via your smartphone

Note:
– Download the Blue e+ app for free from the App Store



Rittal – The System.

Faster – better – everywhere.



ENCLOSURES | POWER DISTRIBUTION | CLIMATE CONTROL

FRIEDHELM LOH GROUP



IT INFRASTRUCTURE

IT enclosure systems

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IT enclosures

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IT segment	IT enclosure systems/cases	IT power	
	The TS IT sets global standards in network and server enclosures. There's a reason for this: its ingenious design principle means that virtually every conceivable requirement of modern server and network architecture is met to perfection.	Put your faith in innovative IT power concepts for energy distribution and backup to meet all your redundancy, scalability and availability requirements.	
Product variants	161 enclosures, 6 distributor frames and 38 cases provide an unrivalled range in this sector, with a suitable solution for every requirement.	From a simple socket strip, to interlinked power distribution units (PDU) through to a complete UPS system, choose from over 100 products for a reliable power supply to your IT.	
Product characteristics	All enclosures are available off the shelf or with a short delivery time. All this plus a high load-bearing capacity of up to 15,000 N and a protection category of up to IP 55, allowing it to be used in tough industrial environments as well.	Optimum integration of the rack PDUs by mounting in the zero U space and professional monitoring by linking to standard DCIM software (such as RiZone). The voltage, current, active and apparent power and power factor may be transmitted directly.	
From page	481	483	



	IT cooling	IT monitoring	IT security solutions	Modular data centre solutions
	Climate control concepts from Rittal cover the full spectrum of applications, from cooling a single rack through to entire data centres. Security plus optimum energy and cost efficiency are paramount.	Today's IT landscape would be unthinkable without monitoring. It has become firmly established as a permanent feature of physical IT security, allowing modern IT infrastructures to be operated securely.	As well as security rooms, micro data centres provide optimum protection against potential physical threats. Modularity and extendibility offer a high level of diversity and protection of your investment.	Discover brand new opportunities in the IT world with standardised data centre modules. Just one Model Number, fully functional and available for immediate delivery.
	Demand-based cooling provides the basis for optimum energy efficiency in data centres, thanks to 45 units with cooling outputs ranging from 3 to 481 kW.	More than 80 different components ensure 360° monitoring of your complete IT infrastructure.	A flexible modular system allows you to configure a solution tailored to your requirements, for both security rooms and micro data centres.	A unique selling point: Rittal offers 10 complete data centres as standard products, including a range of option packages. There are also numerous variants that may be individually compiled using a configurator.
	Integral climate control concepts for rack, suite and room climate control help to minimise operating costs and ensure energy-efficient operation over a period of many years.	The CMC III monitoring system sets new standards in terms of configuration and reducing system complexity. It can communicate with a range of sensors and actuators via the integral CAN bus, and can be integrated into standard DCIM systems.	Protection from fire, flue gases, water and dust, as well as unauthorised access. Power supply, cooling, monitoring, fire alarm and extinguisher systems round out this security cover into a complete data centre.	The maximum possible protection from physical threats and optimum scaling options, even retrospectively, ensure a sound basis for your IT investment.
	513	543	565	581

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IT enclosure systems/cases

Network/server enclosures TS IT

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Wall-mounted enclosure EL, 3-part, with mounting plate & mounting angles 139
Wall-mounted enclosures AE with 482.6 mm (19") mounting angles 141
Small fibre-optic distributor with mounting plate & splicing cassette holder 142

Your benefits

Network/server enclosures

- Can be used individually for stand-alone installations and data centres
- Complete system solutions for small to large networks
- Maximum configuration diversity and protection for installed equipment.
- Investment protection and flexibility, thanks to simple conversions and use of our extensive modular system

Wall-mounted enclosures

- Choose from an extensive range of products – the right enclosure to suit all applications – up to protection category IP 66
- Wide choice of sizes available from 3 U to 21 U
- Wide choice of accessories with “Rittal – The System.”
- Fast assembly, modification and simple installation based on the modular principle

Sample applications

1 Wall-mounted enclosures EL, see page 137

2 VerticalBox, see page 134

3 Wall-mounted enclosures AE with 482.6 mm (19") mounting angles, see page 141

4 TS IT with glazed door for rack climate control, see page 100, base/plinth and installation accessories, see page 613

5 TS IT with vented door for room climate control, see page 100, bayed with base/plinth and installation accessories, see page 613

6 Small fibre-optic distributor, see page 142

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IT power

Power Distribution Rack

Power Distribution Rack PDR 485
Power Distribution Module PDM 485

Modular PDU (PSM)

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Power Distribution Unit

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Your benefits

- Holistic, systematic energy management concepts
- Comprehensive, complete solutions for power distribution and back-up, consistently modular, and flexibly extendible at any time
- Optimum energy and cost efficiency with maximum availability of the entire system
- Reduced installation, administration and manpower costs
- High level of investment security
- All from a single source

Sample applications

1 Power Distribution Rack PDR, see page 485

2 Power Distribution Module PDM, see page 485

3 Power Distribution Unit PDU, see page 502

4 Power distribution, see page 247

5 UPS (partner product)

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Rittal ABB UPS systems – The reliable power supply



ENCLOSURES | POWER DISTRIBUTION | CLIMATE CONTROL | IT INFRASTRUCTURE | SOFTWARE & SERVICES

FRIEDHELM LOH GROUP

Power Distribution Rack



Power Distribution Rack PDR
- To accommodate a maximum of 8 PDM
- Height 1.20 m for 4 PDMs and height 2 m for 8 PDMs
- PDM may be retrofitted whilst operational
- A maximum of 32 racks may be fitted to the sub-distributor
- Fully shock hazard-protected
- Master switch in various configurations:
  - Isolator switch
  - Fuse-switch disconnector
  - Circuit-breaker
  - RC circuit-breaker
- Low-voltage distribution up to 250 A

Material:
- Sheet steel

Surface finish:
- Enclosure frame: Dipcoat-primed
- Doors, roof and base/plinth: Dipcoat-primed, powder-coated
- Gland plates, punched sections with mounting flanges and mounting angles: Zinc-plated, clear chromated

Colour:
- RAL 7035

Supply includes:
- Enclosure frame with solid sheet steel door (without tubular door frame)
- Rear panel
- Side panels and roof plate
- Levelling feet incl. base/plinth adaptor
- Earthing of all enclosure panels
- Busbars shock-hazard-protected
- Integral master switch

Note:
- Observe the standards of the local electricity supply companies

Approvals:
- VDE

Power Distribution Module PDM
- Mechanically latchable in the PDR
- Scalable
- RC circuit-breaker optional
- Customer-specific configuration of the PDM module and other connection cable lengths available on request

Supply includes:
- 482.6 mm (19") module, 3 U
- Master switch
- 4 fused 3-phase outlets to the rack
- 3 x 230 V/16 A per outlet
- Connected load 400 V, 3 AC, max. 63 A

Photo shows a configuration example with equipment not included in the scope of supply

Power Distribution Rack PDR

	Packs of		
Possible number of PDM modules		4	8
Width mm		800	800
Height mm		1200	2000
Depth mm		500	500
Model No.	1 pc(s).	**7857.310**	**7857.300**
Accessories			
Flex-Block base/plinth system	see page 616		
TS base/plinth	see page 618		

Power Distribution Module PDM

U		Packs of	3
Design			4 outlets per 10 kW
Width mm			482.6 (19")
Height mm			133.4
Depth mm			350
Model No.		1 pc(s).	**7857.320**
Also required			
Plug & play connection cable for PSM busbar to the server enclosures.	Length 3 m	1 pc(s).	**7857.130**
	Length 5 m	1 pc(s).	**7857.150**
	Length 9 m	1 pc(s).	**7857.190**

Extremely flexible – The modular PDU



Modern IT equipment is constantly evolving, requiring permanent adjustments to the IT infrastructure. With a modern PDU, you can react flexibly at any time to changing requirements for the IT power supply in the server rack, even years later. You can change the slot configuration of the modular PDU (PSM) at any time, and even add completely new functions, without having to interrupt the power supply to the IT rack.

Flexible configuration

- Vertical, contactless busbar as the basic equipment for any IT rack
- Versatile, plug-in modules with a range of socket types for any application, may be exchanged while operational
- Supports a redundant power supply in a busbar
- Patented plug & play system for changing the modules while operational

Convincing functions

- Extensive power measurement and switching functions for each output slot, both individually and in groups
- Easily integrated into the CMC III monitoring system
- Single-phase or 3-phase infeed, up to 22 kW per busbar
- Support of all standard protocols in conjunction with CMC III

Top quality

- High-quality aluminium enclosure
- Ambient temperature up to 60°C
- High level of measurement accuracy
- Patented system for a reliable investment







PSM busbars and PSM socket modules

PSM busbars
The modular system facilitates basic configuration of the racks, thanks to a vertical support rail with single-/3-phase infeed. The various socket modules to supply the active components may be snap-fitted into the support rail. This can even be done whilst the system is operational, because the support section is shock hazard-protected.

PSM socket modules
The various modules, earthing pins, IEC 60 320 etc. may be inserted into the support rail in any combination. This is easily achieved, even by non-electricians, thanks to the shock hazard protected plug & play system.

Approvals:
Available on the Internet

Technical specifications/benefits:
- Each socket module picks off a phase on the support rail, either from infeed **A** or from the redundant infeed **B**, depending on the direction of connection
- Single-/3-phase construction with a maximum current of 2 x (3 x 16 A)
- 3-phase redundant infeed supported
- The redundant circuit is completely separate from the 3 phases of the support rail
- Modules may be retrofitted whilst operational
- Modules may be equipped with integral overcurrent protection, so that only the affected module is deactivated in the event of an excessively high current; the other modules remain operational
- Overvoltage protection may be integrated into the supply line
- Various modules also available with current measurement and switchable outputs



PSM busbars

	Model No.				
Type	**7856.005**	**7856.006**	**7856.008**	**7856.010**	**7856.020**
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Minimum height of rack (mm)	2000	2000	2200	1200	2000
Type of connection/length	fixed/3 m	fixed/3 m	WAGO jack	WAGO jack	WAGO jack
Connector	CEE	CEE	X-COM	X-COM	X-COM
No. of infeeds	1	2	2	2	2
No. of phases	3	3	3	3	3
Phase current (A)	16	16	16	16	16
Various connection cables, also for single-phase connection	–	–	■	■	■
No. of PSM module slots	7	7	8	4	7
Integral energy measurement of voltage, current, active power, apparent power, active energy, power factor, mains frequency	–	–	–	–	–
Measurement accuracy (U, I, f, P, S)	–	–	–	–	–
Measurement accuracy (E/kWh)	–	–	–	–	–
Graphic display to show the measurements (24 V DC required)	–	–	–	–	–
CAN bus interface for connecting to CMC III system	–	–	–	–	–
Web server (IPv4, IPv6, SNMP, SSH) via CMC III (PU 7030.000/PU Compact 7030.010)	–	–	–	–	–
E-mail forwarding for exceeded limits and alarms (CMC III required)	–	–	–	–	–
Operating temperature (°C)	5 – 45				
Ambient humidity % (non-condensing)	10 – 90				
Protection category IP (to IEC 60 529)	IP 20				
Approvals	CE	CE	CE	CE/VDE	CE/VDE

	Model No.			
Type	**7856.321**	**7856.323**	**7859.050**	**7859.053**
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Minimum height of rack (mm)	2000	2000	2000	2000
Type of connection/length	fixed/3 m	fixed/3 m	WAGO jack	fixed/3 m
Connector	CEE	CEE	X-COM	CEE
No. of infeeds	1	1	2	1
No. of phases	1	3	3	1
Phase current (A)	32	32	16	32
Various connection cables, also for single-phase connection	–	–	■	–
No. of PSM module slots	6	6	6	6
Integral energy measurement of voltage, current, active power, apparent power, active energy, power factor, mains frequency	–	–	■	■
Measurement accuracy (U, I, f, P, S)	–	–	2%	2%
Measurement accuracy (E/kWh)	–	–	1%	1%
Graphic display to show the measurements (24 V DC required)	–	–	■	■
CAN bus interface for connecting to CMC III system	–	–	■	■
Web server (IPv4, IPv6, SNMP, SSH) via CMC III (PU 7030.000/PU Compact 7030.010)	–	–	■	■
E-mail forwarding for exceeded limits and alarms (CMC III required)	–	–	■	■
Operating temperature (°C)	5 – 45			
Ambient humidity % (non-condensing)	10 – 90			
Protection category IP (to IEC 60 529)	IP 20			
Approvals	CE	CE	CE	CE









Also required:

– PSM socket modules, see page 491

Accessories:

– Mounting kit for PSM busbars, see page 494
– Connection cables, see page 494
– Cable lock, see page 495
– Overvoltage protection, see page 494



PSM measurement bar for CMC III

Measurement bars for direct connection to the CMC III system. With a PSM mounting kit, the measurement bar may be vertically mounted in a 2000 mm high TS 8 or in the TS IT rack. Display and monitoring of all major output parameters is supported, separated by phase and infeed. An integral display provides a local on-site display in the rack. Remote administration and network connectivity are created via the CMC III system.

Benefits:
- Modular extendible system
- For 16 A and 32 A phase current
- Various PSM connection modules (pin patterns)
- PSM modules may be connected with the system operational
- VDE-tested, shock hazard-protected system
- Easy to assemble
- CAN bus for connection to CMC III system
- Extensive management and monitoring functions (via CMC III)
- High-MTBF and measurement accuracy of 1%
- Energy-efficient electric design – minimal inherent power consumption
- High-quality aluminium housing, for flexible mounting

Measurement functions:
– Voltage (V), current (A), frequency (Hz)
– Active power (kW), active energy (kWh), apparent power (VA), apparent energy (kVAh)
– Power factor (cos phi)
– Zero conductor current measurement/load imbalance detection
– Measurement per phase or infeed
– Measurement accuracy 1% (kWh) to IEC 50 430-1

Material:
– Extruded aluminium section, anodised

Protection category IP to IEC 60 529:
– IP 20

Standards:
– EN 60 950
– EN 61 000-6-1
– EN 61 000-6-2
– EN 55 022

Low Voltage Directive:
– 2014/35/EU

EMC directive:
– 2014/30/EU

Approvals:
Available on the Internet

Photo shows a configuration example with equipment not included in the scope of supply

Model No.	**7859.050**	**7859.053**	Page
Packs of	1 pc(s).	1 pc(s).	
Version/rated current A (per phase)	16	32	
No. of infeeds (3-phase, 16 A/single-phase, 32 A)	2	1	
Connection cable, plug-in, various configurations	■	–	
Connection cable, fixed, 3 m, with CEE connector, 32 A, single-phase (IEC 60 309)	–	■	
Electromagnetic circuit-breaker (2 x 16 A, type C)	–	■	
Input voltage 230 V/400 V (50/60 Hz)	■	■	
Power supply via CMC III system (24 V DC)	■	■	
CAN bus for direct connection to CMC III system (RJ 45, 2 x sockets)	■	■	
Maximum no. of systems that may be connected to one CMC III PU	8	8	
Ambient conditions			
Operating temperature	0°C…+45°C		
Storage temperature	-25°C…+70°C		
Ambient humidity % (non-condensing)	10 – 95		
Accessories			
PSM connection cable, 3-phase, with CEE connectors (IEC 60 309), length 3 m (2 x required when using both infeeds)	7856.025	Fixed installation	494
PSM mounting kit for mounting on the TS IT enclosure frame, height 2000 mm	7856.029	7856.029	494
PSM module 4 x earthing-pin, black	7856.100	7856.100	491
PSM module 4 x earthing-pin, red	7856.240	7856.240	491
PSM module 6 x C13	7856.080	7856.080	491
PSM module 4 x C19	7856.230	7856.230	491
Other PSM socket modules	see page 491		

PSM socket modules

max. 16 A/3680 W per module

	Model No.							
	1							
Equipment	**7856.080**	**7856.082**	**7856.100**	**7856.240**	**7856.230**	**7856.070**	**7856.220**	**7856.090**
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Occupied slots in PSM busbar	1	1	1	1	1	1	1	1
Connector pattern (type)	IEC 60320 C13	IEC 60320 C13	Earthing-pin CEE7/3	Earthing-pin CEE7/3	IEC 60320 C19	IEC 60320 C13	IEC 60320 C13	Earthing-pin CEE7/3
Number of outputs	6	6	4	4	4	6	4	4
Colour of slots	black	red	black	red	black	black	black	black
Lockable connectors (optional)	■	■	–	–	–	–	–	–
Miniature fuse per output	–	–	–	–	–	–	■	–
Thermal overload protection	–	–	–	–	–	■	–	■
Optical LED display (total current)	–	–	–	–	–	–	–	–
Optical LED display (switching status/status)	–	–	–	–	–	–	–	–
Illuminated colour display (display of measurements/ alarms)	–	–	–	–	–	–	–	–
Switchable outputs (via CMC III)	–	–	–	–	–	–	–	–
Energy measurement per module (total values)	–	–	–	–	–	–	–	–
Dimensions (W x H x D) mm	52 x 250 x 45							
Operating temperature	5°C – 45°C							
Ambient humidity (non-condensing)	10% – 95%							
Material	Extruded aluminium section/plastic							
Approvals	CE	CE	CE/VDE	CE	CE	CE	CE	CE

	Model No.						
	2		3		4		
Equipment	**7856.120**	**7856.191**	**7859.120**	**7859.130**	**7859.410**	**7859.420**	**7859.430**
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Occupied slots in PSM busbar	1	1	1	1	2	2	2
Connector pattern (type)	UTE CEE7/5	Switzerland T23	IEC 60320 C13	IEC 60320 C19	IEC 60320 C13	IEC 60320 C19 (+ 2 C13)	Earthing-pin CEE7/3 (+ 2 C13)
Number of outputs	4	4	6	4	8	6	6
Colour of slots	black	black	black	black	black	black	black
Lockable connectors (optional)	–	–	■	–	■	■	–
Miniature fuse per output	–	–	–	–	–	–	–
Thermal overload protection	–	–	–	–	–	–	–
Optical LED display (total current)	–	–	■	■	–	–	–
Optical LED display (switching status/status)	–	–	–	–	■	■	■
Illuminated colour display (display of measurements/ alarms)	–	–	–	–	■	■	■
Switchable outputs (via CMC III)	–	–	–	–	■	■	■
Energy measurement per module (total values)	–	–	–	–	■	■	■
Dimensions (W x H x D) mm	52 x 250 x 45				52 x 505 x 45		
Operating temperature	5°C – 45°C				5°C – 60°C (at max 8 A per switch output)		
Ambient humidity (non-condensing)	10% – 95%						
Material	Extruded aluminium section/plastic						
Approvals	CE	CE	CE	CE	CE	CE	CE

Approvals:
Available on the Internet











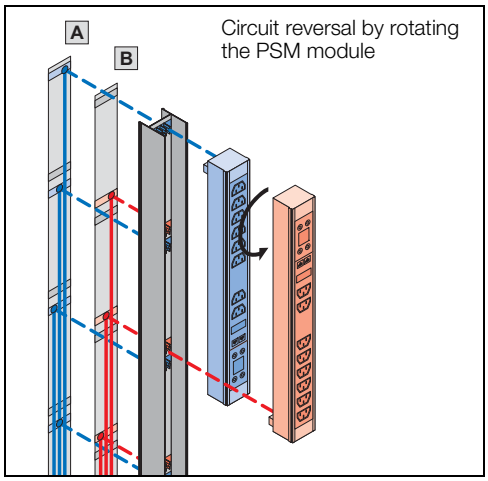




PSM measurement modules with CAN bus

for PSM busbars

A power meter and switching functions for the output slots can be added to any PSM busbar with these PSM plug-in modules. The modules are also suitable for upgrading existing PSM installations if it becomes necessary to record the power data or add a switching option for the connected equipment.
There are three variants available with different socket types. In the PSM busbar, the PSM modules occupy two module slots each. Measurements are displayed locally on a backlit LC display. For quick checks, the colour of the display backlight changes to red if current and power limits are exceeded.



Integration into the CMC III monitoring system

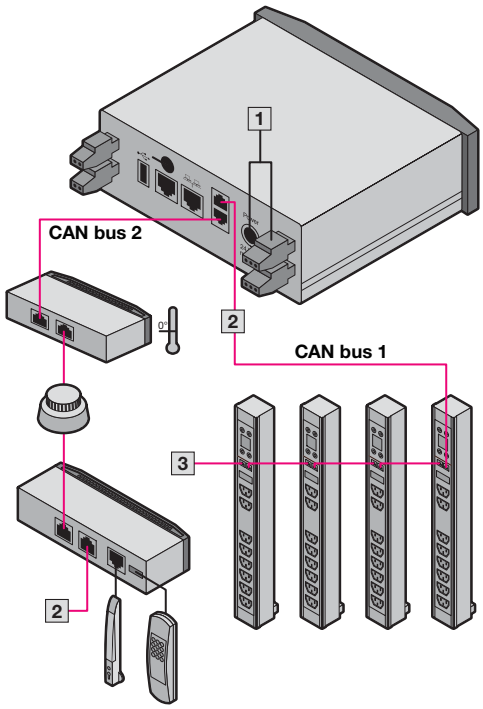
Multiple modules may be interconnected and linked directly to the CMC III enclosure monitoring system via the integral CAN bus interface. The PSM measurement module supports the configuration of an energy data management (EMS) system to ISO 50001. This may be combined with the CMC III. Using the CMC III, the individual output slots of the PSM modules may be switched individually or in groups via the network. Similarly, data logging, including diagrammatic representation, is also available via the CMC III website. Data is forwarded from the CMC III via an Ethernet interface with common protocols such as SNMPv3, Modbus/TCP and OPC-UA. The switch function is easily linked to other sensors connected to the CMC III monitoring system (e.g. CMC III temperature sensor, smoke alarm or DET-AC III extinguisher system). In larger installations, we recommend incorporating the CMC III PU with PSM modules into a DCIM software package (e.g. RiZone).

Additional functions:

- Alarm management via CMC III (e.g. e-mail or text message)
- Visualisation of the switching status on the CMC III website and RiZone
- Up to 16 PSM modules on one CMC III PU (per IP address)
- Rights management via CMC III (e.g. restriction of the switching function)

Functions:

- Simple, shock-hazard-protected, plug & play installation with the system operational
- Measurement of power consumption per module
- Output slots may be switched individually and in groups
- Blue LEDs per slot to visually indicate the switching status
- Status LEDs for CAN bus communication per module
- LC matrix display with multi-coloured backlight for local display
- Location sensor for correct display and Web view in 90° increments
- Adjustable limits for voltage, current and active power
- Configurable overload detection per module
- High level of measurement accuracy
- Alarm signalling via the display
- Facilitates the implementation of requirements to ISO 50001 and EN 50600-2-2
- Stable aluminium section with plastic socket inserts
- Supports universal connector locking of the IEC 60320, C13 and C19 slots
- Supports the closure of unneeded IEC 60320, C13 and C19 slots
- PSM module is easily fitted into and removed from the PSM busbar, allowing it to be used at changing locations
- Compatible with the European PSM busbar range
- Depending on the PSM busbar, up to four modules per bar may be fitted
- In redundant systems, the circuit may be switched over by rotating the module
- For ambient temperatures up to +60°C



1 Voltage supply 24 V (DC) and redundant voltage supply 24 V (DC)

2 Supports up to 16 sensors per CAN bus (depending on the power supply/connection combinations)

3 Supports up to 8 PSM modules per CAN bus

PSM measurement modules with CAN bus

for PSM busbars

Supply includes:
- PSM measurement module, depending on type
- CAN bus connection cable, 1 m long

Also required:
- PSM busbar and accessories, see page 489
- CMC III PU, see page 548
- CMC III accessories, see page 549

Accessories:
- Slot cover, see page 495
- Connector lock, see page 495
- Power pack, see page 494







Model No.	7859.410	7859.420	7859.430
Packs of	1 pc(s).	1 pc(s).	1 pc(s).
No. of IEC 60 320 C13 slots	8	2	2
No. of IEC 60 320 C19 slots	–	4	–
No. of earthing-pin slots (CEE 7/3 or type F)	–	–	4
Total no. of all switchable outputs	8	6	6
No. of slots required in the PSM busbar	2	2	2
Module dimensions (W x L x D) mm	53 x 500 x 45		
Section	Aluminium, anodised		
Plastic	PA 6		
Electrical			
No. of infeeds per module	1 pc(s).		
Input voltage	230 V AC		
Input voltage, tolerance	207 – 250 V AC		
Rated current	16 A		
Distribution power per module (at 230 V)	3680 W		
Power supply (via CMC III system, alternatively with power pack 7201.210)	18 – 24 V DC		
Relay type	Dual coil/bistable		
Relay switching load	4000 VA		
Measurement functions			
Voltage V, current A, frequency Hz	■		
Active power kW, active energy kWh	■		
Reactive power kVar, reactive energy kVarh	■		
Apparent power kVA, apparent energy kVAh	■		
Power factor cos ϕ, crest factor (amplitude factor)	■		
Operating hours meter d, h, min	■		
Measurement accuracy	±1%		
Resettable measurement functions/reset via software/interval measurement			
Active energy kWh	■		
Operating hours meter h	■		
Threshold values (warning/alarm) freely configurable	Voltage, current, active power		
Connectivity/management functions (in conjunction with CMC III)			
Maximum number of usable modules per CMC III Processing Unit	16 (2 x 8)		
Maximum number of usable modules per CMC III Processing Unit Compact	4		
CAN bus for direct linking to CMC III system	2 (RJ 45)		
Network functionality (only in conjunction with CMC III system)	IPv4, IPv6, SNMPv3, Modbus/TCP, OPC-UA		
Ambient conditions			
Operating temperature (at max. 8 A per output slot)	+5…+60°C		
Storage temperature	-20…+70°C		
Ambient humidity (non-condensing)	rel. humidity 10 – 90%		
Maximum operating altitude	2000 m		
Pollution degree	2		
Protection class (IEC 60 529)	IP 20		
Approvals and standards			
Approval	CE		
Standard (excerpt)	Low Voltage Directive 2014/35/EU, EMC Directive, 2014/30/EU, EN 50600-2-2, EN 60950		



Mounting kit

for PSM busbars

Without cable routing

For	Installation options	Packs of	Model No.
TE 8000	Static	2 pc(s).	**7000.684**
TS	Static	1 pc(s).	**7856.011**
TS IT	Plug & play	2 pc(s).	**7856.029**

With cable routing

For	Installation options	Packs of	Model No.
TS	Static	1 pc(s).	**7856.022**
	Adjustable, for freely accessible 482.6 mm (19") level	1 pc(s).	**7856.023**





Connection cable

for PSM busbar

Connection cable (3-phase)			
	Length m	Packs of	Model No.
CEE-conforming 5-pole/16 A	3	1 pc(s).	**7856.025**
Connection cable, single-phase			
CEE-conforming 3-pole/16 A	3	1 pc(s).	**7856.026**
Connection cable, UPS, single-phase			
C14/X-COM 10 A/UPS, 1 – 2 kVA	3	1 pc(s).	**7856.027**
C20/X-COM 16 A/UPS, 3 kVA	3	1 pc(s).	**7856.030**
Connection cable C19/C20			
16 A	2	1 pc(s).	**7200.217**
Connection cable C13/C14			
10 A	0.5	2 pc(s).	**7856.014**





Overvoltage protection PSM

Connected upstream of the busbar.

- 230/400 V, 16 A, 3-phase
- Fine fuse (type 3 arrester)
- Connection:
  - Jack Wago X-COM
  - Connector Wago X-COM

Overvoltage protection	Packs of	Model No.
With adaptor connector	1 pc(s).	**7856.170**

Note:
- With redundant infeed to the PSM busbar, 2 x this item is required!



Power pack

for PSM

For operating the PSM measurement modules (with switch and measurement function) or PSM measurement bars if no CMC III is used. The power pack has a connection cable with RJ45 connector, suitable for use with the PSM measurement modules and measurement bars.

Packs of	Model No.
1 pc(s).	**7201.210**

Technical specifications:
- Dimensions W x H x D: 60 x 30 x 135 mm
- Rated operating voltage: 100 V – 240 V, 1~, 50/60 Hz
- Ambient conditions:
  Operating temperature: +5°C...+45°C
  Operating humidity, non-condensing 10% – 90%
- Output voltage: 24 V DC
- Connections: Input: IEC/EN 60 320 C14
  Output: RJ 45
  Output cable: 1 m long

Cable lock PSM

for all modules with EN 60 320 C13 connector configurations
All terminal connection cables are therefore protected against unintentional disconnection of the power supply. Two bars are needed for two cables.

Type	Packs of	Model No.
Bar	20 pc(s).	**7856.013**

Accessories:

– Optimum locking function is only achieved with connection cable 7856.014, see page 494.



Connector lock

for C14 and C20 connectors
The universal lock can be used to latch IEC 60 320 C14 or C20 connectors in place to prevent accidental removal. Latching is adjustable and adapts to standard connector forms. This creates a reliable manufacturer-independent connection for most connection cables commonly available on the market.

Material:
– Plastic (PA 12)

Colour:
– RAL 9005

Packs of	Model No.
20 pc(s).	**7955.020**



Slot cover

for C13 and C19 slots
The slot cover is used to close open, unused IEC 60 320 C13 and C19 slots. This prevents accidental overloading of individual phases. The cover can be removed at any time using the enclosed release tool (or a slotted screwdriver).

Material:
– Plastic (PA 66)

Colour:
– RAL 9005

For slots	Packs of	Model No.
C13	10 pc(s).	**7955.010**
C19	10 pc(s).	**7955.015**





PDU mounting adaptor

for TE
For installing the power distribution unit PDU in the zero U space of the TE. The divider kit included with the supply of the PDU is required for mounting.

Material:
– Sheet steel, zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
2 pc(s).	**7000.688**



MID measurement module – Inline meter



CMC III monitoring system Page 544

The PSM 1 U MID measurement modules may be used for upgrading existing installations or for measuring individual 16 A/32 A equipment. These are readily integrated into the 482.6 mm (19") level or into the zero-U space of the rack, and connected using suitable connection cables. These measurement modules have an MID-compliant active energy meter and are therefore suitable for energy billing purposes.
MID stands for "Measurement Instruments Directive" and regulates 10 types of measurement equipment based on EU Directive 2004/22/EC. MID-approved equipment is authorised for use throughout the EU.

Benefits:
- For 16 A and 32 A phase current
- Easy to assemble
- Billable MID measurement units
- CAN bus for connection to CMC III system
- Extensive management and monitoring functions (via CMC III)
- High-MTBF and measurement accuracy of ±1%
- Energy-efficient electric design – minimal inherent power consumption
- 1 U, 482.6 mm (19") sheet steel enclosure, for flexible mounting

Measurement functions:
- Voltage (V), current (A), frequency (Hz)
- Active power (kW), active energy (kWh), apparent power (kVA), apparent energy (kVAh)
- Power factor (cos phi)
- Zero conductor current measurement/load imbalance detection
- Measurement per phase or infeed
- Measurement accuracy ± 1% (kWh) to IEC 50 430-1
- MID certification of the active energy meter, suitable for energy billing purposes

Material:
- Housing: Sheet steel

Colour:
- RAL 9005

Protection category IP to IEC 60 529:
- IP 51

Standards:
- EN 60 950
- EN 61 000-6-1
- EN 61 000-6-2
- EN 55 022

Low Voltage Directive:
- 2014/35/EU

EMC directive:
- 2014/30/EU

Photo shows a configuration example with equipment not included in the scope of supply

for CMC III

Model No.		**7859.312**	**7859.332**
	Packs of	1 pc(s).	1 pc(s).
Rated current A (per phase)		16	32
Sheet steel enclosure 1 U for 482.6 mm (19") mounting, approx. 200 mm deep		■	■
Assembly parts		■	■
Input voltage 230 V/400 V (50/60 Hz)		■	■
No. of infeeds (each 3-phase)		2	2
Power supply across all 3 phases (internal power pack)		■	■
Maximum no. of systems that may be connected to one CMC III PU		8	8
Ambient conditions			
Operating temperature		-25°C…+55°C	-25°C…+55°C
Storage temperature		-25°C…+70°C	-25°C…+70°C
Ambient humidity % (non-condensing)		20 – 90	20 – 90
Also required			
Connection cables, set: 1 x input 2 m/1 x output 2 m CEE (IEC 60 309 jack) (2 x required when using both infeeds)	1 pc(s).	**7859.315**	**7859.335**
Connection cables for PSM busbars: Input cable 3 m (with CEE connector)/ output cable 1.2 m (with Wago X-COM connector) (2 x required when using both infeeds)	1 pc(s).	**7859.316**	**–**

for CMC III

MID approval for energy billing purposes is valid for 8 years and can be extended for a further 8 years by recalibrating the MID measurement module. This measurement device is connected into the connection cable (infeed) of the equipment or the power distributor.

For connecting to PSM busbars with Wago X-COM connectors, a special preassembled connection cable set with CEE connector and/or coupling is required.
The Rittal CMC III is required for network functionality and data communication via SNMP.

Technical specifications		7859.312	7859.332
Input current		16 A	32 A
Number of phases per circuit		3	3
Number of circuits		2	2
Connection type		Industry plug connector	
Connectors, inputs / outputs		HARTING HAN Q4/2/IIme CQ 08V EN 60 309 – CEE 3L+N+PE 6h, IP 44	
Connection cable type		H07 RN-F (optional cable kits)	
Number of wires		5	
Cable cross-section		4 mm^2	
MID module, enclosure width		450 mm (19")	
MID module, enclosure depth		200 mm	
MID module, enclosure height		44.45 mm (1 U)	
PDU material		Sheet steel, spray finished in RAL 9005 (black)	
Measurement functions (input/phase or output slot)	Voltage measurement range	180 – 260 V	
	Voltage resolution	0.1 V	
	Voltage accuracy	2%	
	Current measurement range	0 – 35 A	
	Current resolution	0.1 A	
	Current accuracy	2%	
	Frequency accuracy	2%	
	Active power (kW) accuracy	2%	
	Apparent power (VA) accuracy	2%	
	Active energy (kWh) accuracy	1%	
	Apparent energy (kVAh) accuracy	2%	
	Power factor accuracy	2%	
	Freely settable limit values for warning/alarm	Yes	
	Zero conductor current measurement/ load imbalance detection	Yes	
Display		OLED monochrome / 2 lines	
Interface		RJ 45, CAN bus (CAN-Open)	
Protocols supported via optional CMC III		HTTP, HTTPS, SSL, SSH, NTP, Telnet, TCP/IP v4 and v6, DHCP, DNS, NTP, Syslog, SNMP v1, v2c and v3, XML, FTP/SFTP (update/file transfer), e-mail forwarding (SMTP), OPC-UA, Modbus/TCP	
Max. number of MID modules per CMC III PU Compact		4	
Max. number of MID modules per CMC III PU		8	
Installation position		Horizontally screw fastened in the 482.6 mm (19") level	
Assembly parts included with the supply		Cage nuts M5 (4 x), screws M5x14 (4 x)	
Conformity		CE	
MTBF (at 40°C)		200,000 hours	
Standards		EN 50 470-1, EN 50 470-3, MID Directive 2004/22/EG	
Safety		EN 60 950-1	
EMC		EN 61 000-6-2, EN 61 000-6-3, EN 55 022/B	
Protection category		3	
Contamination level		2	
Protection category		IP 51 (IEC 60 529)	
Storage temperature		-25°C…+70°C	
Ambient temperatures (operation)		-25°C…+55°C	
Ambient humidity		20% – 90%, non-condensing	





Connection cable

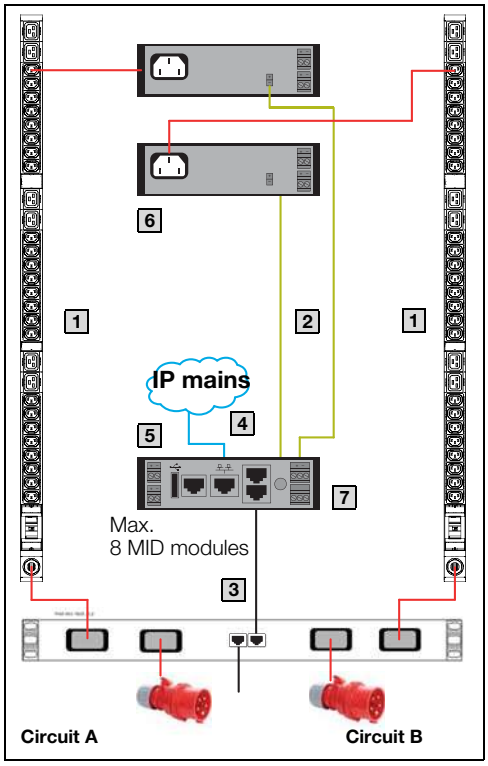
for MID measurement module/inline meter

What is MID?

MID stands for "Measurement Instruments Directive" and regulates 10 types of measurement equipment based on EU Directive 2004/22/EC.
The aim is to harmonise the approval of measurement equipment in the Member States. However, country-specific regulations (such as the Calibration Act in Germany) continue to apply.
MID regulates the entire manufacturing process, from development, to production, through to final testing of the measurement equipment. General and device-specific performance requirements are defined in the MID, which the manufacturer must comply with. Following successful testing, the MID-approved devices are labelled and may be sold throughout the EU.

Benefits:

- Easy to install active energy meter based on the plug & play system
- Variants for 16 A and 32 A phase current
- Two independent circuits in each case (3-phase)
- Pre-assembled connection cable with CEE connector/coupling
- Simple, flexible assembly
- Billable MID measurement units
- CAN bus for connection to CMC III system
- Extensive monitoring functions (via CMC III)
- High-MTBF and measurement accuracy of 1%
- Energy-efficient electric design – minimal inherent power consumption
- High quality sheet steel enclosure



Type of cabling:

1 230 V/400 V mains
2 24 V DC, buffered
3 CMC III CAN bus
4 Network/IP/SNMP
5 Serial connection
6 CMC III power pack (optional redundant design with 2 power packs supported)
7 CMC III PU/PU compact

	A	B	A
Model No.	**7859.315**	**7859.316**	**7859.335**
Packs of	1 pc(s).	1 pc(s).	1 pc(s).
Product-specific scope of supply			
Input & output cables for one circuit of the PSM MID module[1)]	■	■	■
Connector (type) input	CEE	CEE	CEE
Connector (type) output	CEE	Wago X-COM	CEE
Technical specifications			
Connector (type)	CEE 3L+N+PE 6h	CEE 3L+N+PE 6h	CEE 3L+N+PE 6h
Socket/jack (type)	CEE 3L+N+PE 6h	Wago X-COM	CEE 3L+N+PE 6h
Rated current (max.) A	16	16	32
Connection cable type	H07RN-F	H07RN-F	H07RN-F
Length of connection cable (input) m	2	3	2
Length of connection cable (output) m	2	1.2	2
No. of wires	5	5	5
Cross-section of connection cables mm^2	2.5	2.5	4
Operating temperature range	-25°C…+55°C	-25°C…+55°C	-25°C…+55°C

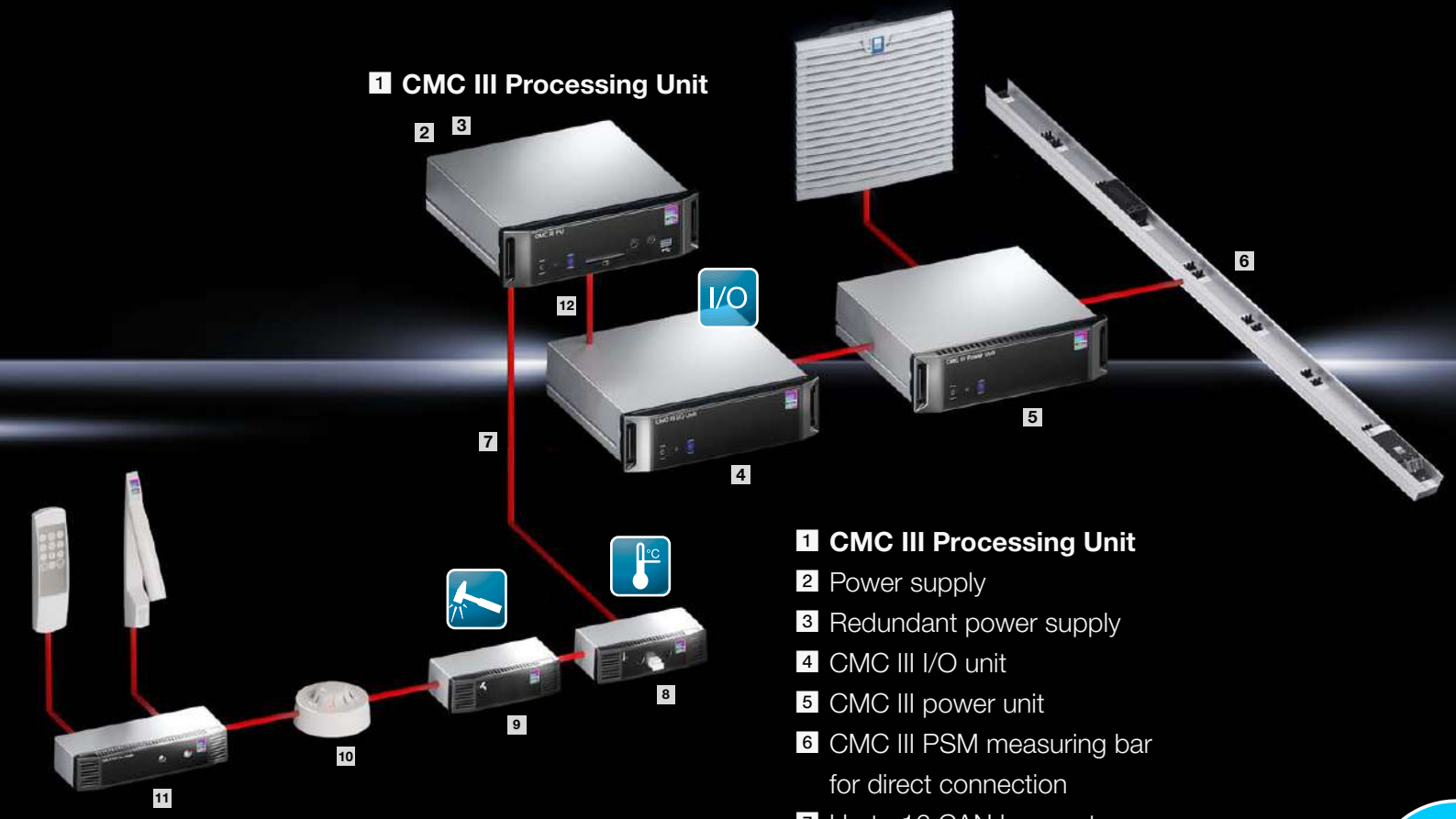
[1)] If both circuits of the MID module are used, this item must be ordered twice.

Rittal – The System.

Faster – better – everywhere.

CMC III – Monitoring system

Computer Multi Control (CMC) is an alarm system for network and server enclosures, standard enclosures, containers and rooms.



1 CMC III Processing Unit
2 Power supply
3 Redundant power supply
4 CMC III I/O unit
5 CMC III power unit
6 CMC III PSM measuring bar for direct connection
7 Up to 16 CAN bus systems may be connected
8 CMC III temperature sensor
9 CMC III vandalism sensor
10 CMC III smoke alarm
11 CMC III CAN bus access
12 Up to 16 CAN bus systems may be connected

Power Distribution Unit



Simple assembly

- Compact design
- Tool-free clip attachment in the TS IT
- Flexible mounting at the required height in the zero-U space
- Also suitable for individual installation on the enclosure frame
- Reliable protection against unauthorised access by covering any outputs that are not required
- Securely fitted connectors, thanks to connector lock



Versatile function

- Measurement of power, current, active and apparent power and power factor
- Measurement of energy consumption and neutral conductor current (with 3-phase PDUs)
- Measurement for any output is supported, depending on the PDU version
- Bistable relays ensure minimum inherent power consumption by the PDU
- Connection options for CMC III sensors (temperature, humidity, access)



Professional monitoring

- Powerful CPU and Linux Web server
- TCP/IP v4 and v6 plus SNMP
- Configuration of limits
- User administration, e-mail sent in case of alarm
- Easily connected to DCIM software (e.g. RiZone)

Power Distribution Unit



Configuration Page 505

Benefits:
- With the compact PDU, any IT rack is easily equipped with a professional power distribution system
- With the TS IT rack, assembly is tool-free
- Compact design
- Easy to assemble
- Power-saving design, minimal inherent consumption by the PDU itself, thanks to the use of bistable relays and OLED display with power-saving function
- Integral web server for direct network connection with extensive user administration (not PDU basic/slave PDU)
- Redundant power supply from all 3 phases and additionally via an existing PoE (Power over Ethernet) network
- Extensive range of management and monitoring functions
- High-MTBF and measurement accuracy of 1%
- CAN bus for connecting slave PDUs (not with PDU basic)
- Ambient monitoring with up to 4 CMC III sensors (temperature, humidity, access, vandalism)

PDU design variants:
PDU basic
Robust, compact basic power distributor for the IT environment

PDU metered
Energy measurement per phase, i.e. output requirement of an entire IT rack

PDU switched
Measurement function per phase and individually switchable output slots

PDU managed
High-end IT rack, power distribution with energy measurement and monitoring functions for each individual output slot

Material:
– Extruded aluminium section, anodised

Protection category IP to IEC 60 529:
– IP 20

Standards:
– EN 60 950
– EN 61 000-4
– EN 61 000-6
– EN 55 022

Low Voltage Directive:
– 2014/35/EU

EMC directive:
– 2014/30/EU

Photo shows a configuration example with equipment not included in the scope of supply

PDU international, basic version

Power			Pin patterns			Dimensions	PDU installed in rack/min. enclosure height mm				Model No.
No. of phases	Phase current A	Output kW	Input	Outputs C13	Outputs C19	PDU length mm	TS IT enclosure frame	TS IT 482.6 mm (19") mounting frame	TS IT 482.6 mm (19") mounting angles	TE 8000 482.6 mm (19") mounting frame	
1	16	3.6	CEE	24	4	970	1200	1200	1800	2000	**7955.110**
1	32	7.2	CEE	24	4	1115	1800	1800	1800	2000	**7955.111**
3	16	11	CEE	18	3	845	1200	1200	1200	1200	**7955.131**
3	16	11	CEE	24	6	1145	1800	1800	1800	2000	**7955.132**
3	32	22	CEE	24	6	1365	1800	1800	1800	2000	**7955.133**
3	32	22	CEE	36	6	1710	2000	2000	2000	–	**7955.134**
3	16	11	CEE	42	–	1405	1800	1800	1800	2000	**7955.135**

PDU international, metered version

Power			Pin patterns			Dimensions	PDU installed in rack/min. enclosure height mm				Model No.
No. of phases	Phase current A	Output kW	Input	Outputs C13	Outputs C19	PDU length mm	TS IT enclosure frame	TS IT 482.6 mm (19") mounting frame	TS IT 482.6 mm (19") mounting angles	TE 8000 482.6 mm (19") mounting frame	
1	16	3.6	C20	12	–	710	1200	1200	1200	1200	**7955.201**
1	16	3.6	CEE	24	4	1225	1800	1800	1800	2000	**7955.210**
1	32	7.2	CEE	24	4	1370	1800	1800	1800	2000	**7955.211**
3	16	11	CEE	18	3	1100	1200	1800	1800	1200	**7955.231**
3	16	11	CEE	24	6	1395	1800	1800	1800	2000	**7955.232**
3	32	22	CEE	24	6	1620	1800	2000	2000	2000	**7955.233**
3	32	22	CEE	36	6	1965	2200	2200	2200	–	**7955.234**
3	16	11	CEE	42	–	1660	1800	2000	2000	2000	**7955.235**
3	32	22	CEE	48	–	2050	2200	2200	–	–	**7955.236**
3	63	44	CEE	12	12	482.6 mm (19") / 3 U	–	–	–	–	**7955.238**

PDU international, switched version

Power			Pin patterns			Dimensions	PDU installed in rack/min. enclosure height mm				Model No.
No. of phases	Phase current A	Output kW	Input	Outputs C13	Outputs C19	PDU length mm	TS IT enclosure frame	TS IT 482.6 mm (19") mounting frame	TS IT 482.6 mm (19") mounting angles	TE 8000 482.6 mm (19") mounting frame	
1	16	3.6	C20	12	–	775	1200	1200	1200	1200	**7955.301**
1	16	3.6	CEE	24	4	1360	1800	1800	1800	2000	**7955.310**
1	32	7.2	CEE	24	4	1400	1800	1800	1800	2000	**7955.311**
3	16	11	CEE	18	3	1180	1800	1800	1800	2000	**7955.331**
3	16	11	CEE	24	6	1480	1800	1800	1800	2000	**7955.332**
3	32	22	CEE	24	6	1685	1800	2000	2000	2000	**7955.333**
3	32	22	CEE	36	6	2065	2200	2200	–	–	**7955.334**
3	16	11	CEE	42	–	1755	2000	2000	2200	–	**7955.335**
3	32	22	CEE	48	–	2110	2200	–	–	–	**7955.336**

PDU international, managed version

Power			Pin patterns			Dimensions	PDU installed in rack/min. enclosure height mm				Model No.
No. of phases	Phase current A	Output kW	Input	Outputs C13	Outputs C19	PDU length mm	TS IT enclosure frame	TS IT 482.6 mm (19") mounting frame	TS IT 482.6 mm (19") mounting angles	TE 8000 482.6 mm (19") mounting frame	
1	16	3.6	C20	12	–	775	1200	1200	1200	1200	**7955.401**
1	16	3.6	CEE	24	4	1360	1800	1800	1800	2000	**7955.410**
1	32	7.2	CEE	24	4	1400	1800	1800	1800	2000	**7955.411**
3	16	11	CEE	18	3	1180	1800	1800	1800	2000	**7955.431**
3	16	11	CEE	24	6	1480	1800	1800	1800	2000	**7955.432**
3	32	22	CEE	24	6	1685	1800	2000	2000	2000	**7955.433**
3	32	22	CEE	36	6	2065	2200	2200	2200	–	**7955.434**
3	16	11	CEE	42	–	1755	2000	2200	2000	–	**7955.435**
3	32	22	CEE	48	–	2110	2200	–	–	–	**7955.436**

Slave PDU international, managed version

Power			Pin patterns			Dimensions	PDU installed in rack/min. enclosure height mm				Model No.
No. of phases	Phase current A	Output kW	Input	Outputs C13	Outputs C19	PDU length mm	TS IT enclosure frame	TS IT 482.6 mm (19") mounting frame	TS IT 482.6 mm (19") mounting angles	TE 8000 482.6 mm (19") mounting frame	
1	16	3.6	C20	12	–	775	1200	1200	1200	1200	**7955.901**
1	16	3.6	CEE	24	4	1320	1800	1800	1800	2000	**7955.910**
1	32	7.2	CEE	24	4	1360	1800	1800	1800	2000	**7955.911**
3	16	11	CEE	18	3	1150	1800	1800	1800	2000	**7955.931**
3	16	11	CEE	24	6	1450	1800	1800	1800	2000	**7955.932**
3	32	22	CEE	24	6	1655	1800	2000	2000	2000	**7955.933**

Power Distribution Unit

PDU UK, basic version

Power			Pin patterns			Dimensions	PDU installed in rack/min. enclosure height mm				Model No.
No. of phases	Phase current A	Output kW	Input	Outputs C13	Outputs C19	PDU length mm	TS IT enclosure frame	TS IT 482.6 mm (19") mounting frame	TS IT 482.6 mm (19") mounting angles	TE 8000 482.6 mm (19") mounting frame	
1	13	3	UK	6	–	440	1200	1200	1200	1200	**7955.510**
1	13	3	UK	8	–	535	1200	1200	1200	1200	**7955.511**
1	13	3	UK	10	–	640	1200	1200	1200	1200	**7955.512**
1	13	3	UK	12	–	745	1200	1200	1200	1200	**7955.513**

PDU UK, metered version

Power			Pin patterns			Dimensions	PDU installed in rack/min. enclosure height mm				Model No.
No. of phases	Phase current A	Output kW	Input	Outputs C13	Outputs C19	PDU length mm	TS IT enclosure frame	TS IT 482.6 mm (19") mounting frame	TS IT 482.6 mm (19") mounting angles	TE 8000 482.6 mm (19") mounting frame	
1	13	3	UK	16	–	1210	1800	1800	1800	2000	**7955.520**
1	16	3.6	CEE	20	4	1590	1800	1800	2000	2000	**7955.521**
1	32	7.2	CEE	20	4	1730	2000	2000	2000	–	**7955.522**

PDU UK, switched version

Power			Pin patterns			Dimensions	PDU installed in rack/min. enclosure height mm				Model No.
No. of phases	Phase current A	Output kW	Input	Outputs C13	Outputs C19	PDU length mm	TS IT enclosure frame	TS IT 482.6 mm (19") mounting frame	TS IT 482.6 mm (19") mounting angles	TE 8000 482.6 mm (19") mounting frame	
1	13	3	UK	16	–	1280	1800	1800	1800	2000	**7955.530**
1	16	3.6	CEE	16	4	1515	1800	1800	1800	2000	**7955.531**
1	32	7.2	CEE	16	4	1540	1800	1800	1800	2000	**7955.532**

PDU UK, managed version

Power			Pin patterns			Dimensions	PDU installed in rack/min. enclosure height mm				Model No.
No. of phases	Phase current A	Output kW	Input	Outputs C13	Outputs C19	PDU length mm	TS IT enclosure frame	TS IT 482.6 mm (19") mounting frame	TS IT 482.6 mm (19") mounting angles	TE 8000 482.6 mm (19") mounting frame	
1	13	3	UK	16	–	1280	1800	1800	1800	2000	**7955.540**
1	16	3.6	CEE	16	4	1515	1800	1800	1800	2000	**7955.541**
1	32	7.2	CEE	16	4	1540	1800	1800	1800	2000	**7955.542**

Slave PDU UK, managed version

Power			Pin patterns			Dimensions	PDU installed in rack/min. enclosure height mm				Model No.
No. of phases	Phase current A	Output kW	Input	Outputs C13	Outputs C19	PDU length mm	TS IT enclosure frame	TS IT 482.6 mm (19") mounting frame	TS IT 482.6 mm (19") mounting angles	TE 8000 482.6 mm (19") mounting frame	
1	13	3	UK	16	–	1240	1800	1800	1800	2000	**7955.940**
1	16	3.6	CEE	16	4	1430	1800	1800	1800	2000	**7955.941**
1	32	7.2	CEE	16	4	1500	1800	1800	1800	2000	**7955.942**

PDU accessories

	Packs of	Model No.	Page
Slot cover for C13 jack, lockable	10 pc(s).	**7955.010**	495
Slot cover for C19 jack, lockable	10 pc(s).	**7955.015**	495
Connector lock for C14/C20 connector	20 pc(s).	**7955.020**	495
TE 7000/TE 8000 PDU mounting adaptor	2 pc(s).	**7000.688**	495

CMC III sensors

CMC III/PDU sensor type	Packs of	Model No.	Page
Temperature sensor	1 pc(s).	**7030.110**	550
Temperature/humidity sensor (combi-sensor)	1 pc(s).	**7030.111**	550
Infrared access sensor	1 pc(s).	**7030.120**	550
Vandalism sensor	1 pc(s).	**7030.130**	550
CMC III CAN bus connection cable RJ 45 (length: 1 m)	1 pc(s).	**7030.091**[1)]	557

[1)] Other cable lengths may be found under CMC III accessories on page 557

Configuration

PDU version	managed/ managed slave[1)]	switched	metered	basic
Mechanical				
May be fitted in the zero-U space in the 600 mm wide TS IT, tool-free	■	■	■	■
Colour coding of phases and fuse circuits (depending on PDU version)	■	■	■	■
Connection cable, static, 3 m, with CEE connector (IEC 60 309) or C20	■	■	■	■
Connector lock for C13 and C19 pin patterns (optional)	■	■	■	■
Lockable cover for unneeded slots (for C13/C19)	■	■	■	■
PDU slave version without display and Ethernet connection for use with PDU master and CMC III	■	–	–	–
Electrical				
Power supply 110 V – 230 V/400 V, inherent power consumption approx. 6 – 14 W depending on product variant	■	■	■	–
Rated current 16/32 A, single-phase/3-phase	■	■	■	■
Version additionally 63 A/3-phase (blade PDU, no Zero-U)	–	–	■	–
Electromagnetic circuit-breaker, 16 A, type C (only with 32/63 A PDU versions)	■	■	■	■
PDU with own power supply, no external power supply required	■	■	■	–
PDU power supply redundant across all phases (with 3-phase PDUs)	■	■	■	–
Emergency power supply to PDU web server via PoE (Power over Ethernet), remains accessible even in the event of a mains failure	■	■	–	–
Switching function per output slot	■	■	–	–
Sequential activation of the outputs once the power is resumed (avoids overload peaks)	■	■	–	–
Switching states are saved even in the event of a power failure	■	■	–	–
Bistable relays/minimal power consumption	■	■	–	–
Grouping (joint switching of several outputs)	■	■	–	–
Measurement functions				
Voltage (V), current (A), frequency (Hz)	■	■	■	–
Active power (kW), active energy (kWh), apparent power (kVA), apparent energy (kVAh)	■	■	■	–
Power factor	■	■	■	–
Zero conductor current measurement/load imbalance detection	■	■	■	–
Fuse monitoring (with 32/63 A versions)	■	■	■	–
Measurement per phase or infeed	–	■	■	–
Measurement per output slot	■	–	–	–
Measurement accuracy 1% (kWh) to IEC 50 430-1	■	■	■	–
Connectivity/management functions				
Powerful 400 MHz CPU and Linux operating system (not with slave versions)	■	■	■	–
Graphic OLED display 128 x 128 pixels (RGB) with back-lighting and energy-saving mode (display of output data and basic IP configuration)	■	■	■	–
Position sensor for display rotation (and correct visualisation in the RiZone DCIM software)	■	■	■	–
Multi-colour LEDs (green/red) to indicate switching states per individual output slot	–	■	–	–
Multi-colour LEDs (green/red) to indicate switching states and limits per individual output slot	■	–	–	–
Settable limits (warning/alarm)	■	■	■	–
Operating hours meter, total and cyclical (resettable)	■	■	■	–
Ethernet connection (RJ 45)	■	■	■	–
USB A-port for firmware update and data logging functions	■	■	■	–
CAN bus interface (RJ 45)	■	■	■	–
Web server (HTTP, HTTPS, SSL, SSH) NTP, Telnet	■	■	■	–
TCP/IP v4 and v6, DHCP	■	■	■	–
SNMP v1, v2c and v3, OPC-UA server, Modbus/TCP	■	■	■	–
FTP/SFTP (update/file transfer)	■	■	■	–
E-mail forwarding in case of alarm (SMTP)	■	■	■	–
User administration including rights management	■	■	■	–
LDAP(S)/Radius/Active Directory connection	■	■	■	–
Syslog server connection (max. 4 servers)	■	■	■	–
Plug & play drivers in the Rittal RiZone DCIM software	■	■	■	–
MIB for linking into 3rd party software	■	■	■	–
Suitable for connection to Rittal CMC III system (Slave PDU)	■	–	–	–
CMC III CAN bus sensors may be connected for ambient monitoring (max. 4 sensors)	■	■	■	–
CMC III sensors that may be used: Temperature sensor, temperature/humidity sensor, infrared access sensor, vandalism sensor	■	■	■	–
Ambient conditions				
Operating temperature	0°C...+45°C	0°C...+45°C	0°C...+45°C	0°C...+45°C
Storage temperature	-25°C...+70°C	-25°C...+70°C	-25°C...+70°C	-25°C...+70°C
Ambient humidity % (non-condensing)	10 – 95	10 – 95	10 – 95	10 – 95
Protection category IP to IEC 60 529	IP 20	IP 20	IP 20	IP 20

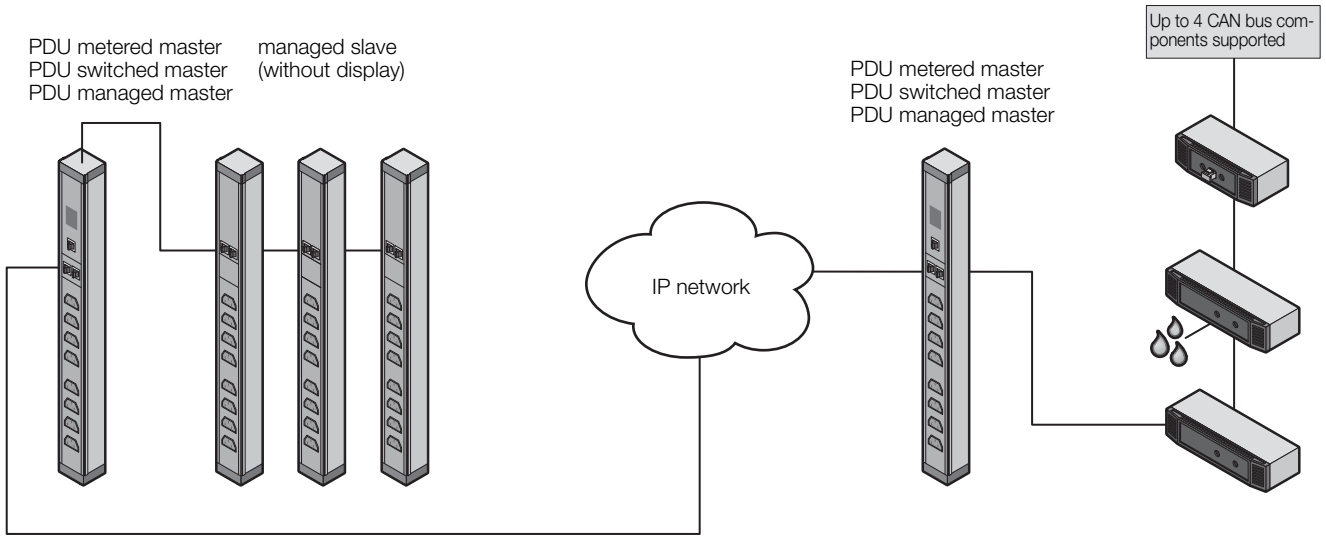
[1)] managed slave without display/network

Power Distribution Unit

Power Distribution Unit, sample applications

Master/slave principle
Up to 3 slave PDUs may be connected to one PDU.

Connection of CAN bus sensors
Up to 4 additional CMC III CAN bus sensors may be connected to the PDU master for ambient monitoring (temperature, humidity, access, vandalism).



Power Distribution Unit, allocation of fuses, phases, slots

Model No.	Infeed PDU	Fuse (type C16 A)	Phase 1		Phase 2		Phase 3	
			String 1 (F1)	String 1 (F2)	String 2 (F1)	String 2 (F2)	String 3 (F1)	String 3 (F2)
7955.X01	230 V/1~/16 A	–	12 x C13	–	–	–	–	–
7955.X10	230 V/1~/16 A	–	24 x C13 + 4 x C19	–	–	–	–	–
7955.X11	230 V/1~/32 A	2 x	12 x C13 + 2 x C19	12 x C13 + 2 x C19	–	–	–	–
7955.X31	400 V/3~/16 A	–	6 x C13 + 1 x C19	–	6 x C13 + 1 x C19	–	6 x C13 + 1 x C19	–
7955.X32	400 V/3~/16 A	–	8 x C13 + 2 x C19	–	8 x C13 + 2 x C19	–	8 x C13 + 2 x C19	–
7955.X33	400 V/3~/32 A	6 x	8x C13	2 x C19	8 x C13	2 x C19	8 x C13	2 x C19
7955.X34	400 V/3~/32 A	6 x	6 x C13 + 1 x C19	6 x C13 + 1 x C19	6 x C13 + 1 x C19	6 x C13 + 1 x C19	6 x C13 + 1 x C19	6 x C13 + 1 x C19
7955.X35	400 V/3~/16 A	–	14 x C13	–	14 x C13	–	14 x C13	–
7955.X36	400 V/3~/32 A	6 x	8 x C13	8 x C13	8 x C13	8 x C13	8 x C13	8 x C13

Power Distribution Unit international

Technical specifications		
Standards	Safety	EN 60 950-1
	EMC	EN 55 022/B, EN 61 000-4-2, EN 61 000-4-3, EN 61 000-6-2, EN 61 000-6-3
Low Voltage Directive		2014/35/EU
EMC Directive		2014/30/EU
MTBF (at 40°C)		70,000 hours
Protection category		IP 20 (IEC 60 529)
Protection category		3
Contamination level		2
Overvoltage category		II
Environmental properties		RoHS
Storage temperature		-25°C to +70°C
Ambient temperatures		0°C to +45°C
Ambient humidity		10 – 95% rel. humidity (non-condensing)
Connector latch C13 and C19		1 x (further optional DK 7955.020)
C13 covers included with supply		8 x (further optional DK 7955.010)
C19 covers included with supply		2 x (further optional DK 7955.015)
Warranty		24 months (from the date of manufacture)

Power Distribution Unit international

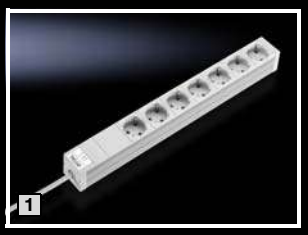
Compact power distributor for use in IT servers and network enclosures. Please observe the relevant product dimensions and check whether the PDU can be installed in your preferred rack. The PDU dimensions and the minimum rack height required may be found in the ordering table in the Rittal Catalogue. The technical specifications listed below apply wholly or partially to the following PDU products:

- PDU metered (power measurement at the infeed or per phase. Without switching function)
- PDU switched (power measurement at the infeed or per phase. With switching function)
- PDU managed (power measurement per individual outgoing slot. With switching function)
- Slave PDU managed (like PDU managed, but without display and network interface, with CAN bus for connecting to CMC III or PDU metered/switched/managed)

Technical specifications apply to the following product variants:
PDU metered 7955.2XX, PDU switched 7955.3XX, PDU managed 7955.4XX

Technical specifications		
Input voltage range (L – N)		90 V – 260 (400) V AC, 50 – 60 Hz
Input current		16 A/32 A/63 A (depending on variant)
No. of phases		1 or 3 depending on PDU variant
PDU inherent supply		Integral long-range SMPS, error-tolerant from all phases
PDU power consumption		approx. 15 W
Redundant power supply via PoE		Yes (with PDU switched, PDU managed)
Marking of phases (3-phase PDUs only: L1, L2, L3)		Brown, black, grey
Slots type EN 60 320/C13		Quantity depends on version, see Catalogue
Slots type EN 60 320/C19		Quantity depends on version, see Catalogue
No. of circuit-breakers		2 (single-phase) or 6 (3-phase) with 32 A version, 12 (3-phase) with 63 A version
Electromagnetic circuit-breaker		16 A type C
Slots individually switchable		Yes, only for PDU switched, PDU managed (bistable relay, minimal inherent consumption)
Connector, PDU input		EN 60 309/CEE (depending on PDU version), EN 60 320-C20 for DK 7955.201/.301/.401
Length of connection cable		3 m
Connection cable type		H05-VV
No. of wires		3/5 (single-phase/3-phase PDU)
Cable cross-section		2.5 mm^2/4.0 mm^2 (for 16 A/32 A versions)
PDU enclosure width		44 mm (1 U) not for DK 7955.238
PDU enclosure depth		62 mm/85 mm depending on product variant
PDU enclosure height (length)		Depends on product variant
PDU material		Aluminium, anodised in RAL 9005 (black)
PDU mounting adaptor		Plastic, black
Measurement functions (input/phase or output slot)	Values recorded	Voltage (V), current (A), frequency (Hz), active power (kW), active energy (kWh), apparent power (VA), power factor, neutral-conductor measurement/load imbalance detection, fuse monitoring (with 32 A/63 A versions)
	Voltage measurement range	90 V – 260 V
	Voltage resolution	0.1 V
	Voltage accuracy	2%
	Current measurement range	0 – 16/32/63 A (depending on PDU variant)
	Current resolution	0.1 A
	Current accuracy	2%
	Frequency accuracy	2%
	Active power (kW) accuracy	2%
	Apparent power (VA) accuracy	2%
	Active energy (kWh) accuracy	1%
	Power factor accuracy	2%
	Freely settable limit values for warning/alarm	Yes
Operating hours meter		Yes
Display		OLED, RGB 128 x 128 pixels, LED per slot (for PDU switched, PDU managed)
Network interface		RJ 45, integral Web server
Supported protocols		HTTP, HTTPS, SSL, SSH, NTP, Telnet, TCP/IP v4 and v6, DHCP, DNS, NTP, Syslog, SNMP v1, v2c and v3, XML, FTP/SFTP (update/file transfer), e-mail forwarding (SMTP), OPC-UA server, Modbus/TCP
User administration including rights management		Yes
LDAP(S)/Radius/Active Directory connection		Yes
USB port for firmware update and data logging functions		Yes
CAN bus interface		RJ 45, for connecting sensors
CAN sensor types		Temperature, temperature/humidity (combined), infrared access sensor, vandalism sensor
Max. number of sensors per PDU		4, sensor configuration freely selectable, including 4 of the same type
Plug & play drivers in the Rittal RiZone DCIM software		Yes
Conformity		CE, UL, FCC Part 15

We reserve the right to make technical modifications









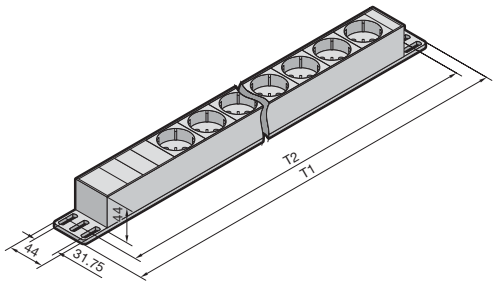




Socket strips

in an aluminium duct

The socket strips in the aluminium duct are available in various lengths with different functional elements. Special attention has been devoted to practical, universal fastening:
Variable attachment facilities have been created with an angle bracket which may be inserted in four positions. Hence, for example, the 482 mm long socket strip may optionally be mounted on 482.6mm (19") mounting angles, the 482.6 mm (19") mounting frame, on the enclosure frame, or in the rear section of the wall-mounted distributor. Without additional mounting accessories, the socket strip may be inserted into all sections with a 25 mm hole pattern. This makes selection much easier, as well as providing additional flexibility and saving on warehousing. Provision has also been made for cable routing of the infeed, and when mounting in the 482.6 mm (19") section there is adequate space to route the infeed between the socket strip and the profile rail without kinks.
The arrangement of the IEC 320 sockets at a 45° angle allows unrestricted use of angular connectors.



Technical specifications:
Earthing-pin socket strips:
– Connector type F (CEE 7/3)
– Rated operating voltage: 250 V
– Connection cable: 2 m long H05VV-F3G1.5 without connector, 5 with connector

Belgium/France (UTE) socket strips:
– Connector type E (CEE 7/5)
– Rated operating voltage: 250 V
– Connection cable: 2 m long H05VV-F3G1.5 with wire end ferrules

Equipment connector strips (IEC 60 320-1/C13) socket strips:
– Rated operating voltage: 250 V
– Input: With C14 connector (H05VV-F3G1.0) or without connector (H05VV-F3G1.5), depending on the variant

Material:
– Aluminium section: Natural anodised
– Socket inserts: Polycarbonate

Supply includes:
– Socket strip
– Two mounting brackets
– Assembly parts

Standards:
– Earthing-pin socket: DIN 49 440
– IEC 320 socket: EN 60 320-2-2
– Overvoltage protection: DIN EN 61 643-11 (VDE 0675 Part 6-11)

Approvals:
– CE
– RoHS

Note:
– Depending on the application, we recommend use of a charging current reserve to prevent incorrect activation due to starting-current spikes

Earthing-pin connector type

Version	Rated current A	Connection	No. of sockets	Attachment: Frame	Attachment: Wall-mounted distributor, horizontal	Attachment: 482.6 mm (19") level	Length (T1) mm	Mounting dimension (T2) mm[1]	Packs of	Model No.
1 Without rocker switch	16	Cable	3	■	–	–	262.6	232.5	1 pc(s).	**7240.110**
			7	■	■	■	482.6	452.5	1 pc(s).	**7240.210**
			12	■	–	–	658.6	628.5	1 pc(s).	**7240.310**
2 With rocker switch	16	Cable	3	■	–	–	306.6	276.5	1 pc(s).	**7240.120**
			7	■	■	■	482.6	452.5	1 pc(s).	**7240.220**
3 Overvoltage protection, type 3 and interference suppressor filter	16	Cable	5	■	■	■	482.6	452.5	1 pc(s).	**7240.230**
			9	■	–	–	658.6	628.5	1 pc(s).	**7240.330**
4 Circuit-breaker, type B, 16 A, 2-pole	16	Cable	5	■	■	■	482.6	452.5	1 pc(s).	**7240.240**
5 UPS strip, connection cable with 10 A IEC 320 connector, type E, with G fuse, 10 A	10	C14	7	■	■	■	482.6	452.5	1 pc(s).	**7240.260**
6 RC circuit-breaker, 0.03 A, 2-pole, type A	16	Cable	5	■	■	■	482.6	452.5	1 pc(s).	**7240.280**
UTE sockets, type E with earthing pin (Belgium/France)	16	Cable	7	■	■	■	482.6	452.5	1 pc(s).	**7240.510**

[1] Variable attachment distance within a range of 25 mm, the distance given is hole centre – hole centre of mounting bracket

C13 connector type

Version	Rated current A	Connection	No. of sockets	Attachment: Frame	Attachment: Wall-mounted distributor, horizontal	Attachment: 482.6 mm (19") level	Length (T1) mm	Mounting dimension (T2) mm[1]	Packs of	Model No.
For IEC 320 connectors	16	Cable	12	■	■	■	482.6	452.5	1 pc(s).	**7240.200**
For IEC 320 connectors with IEC 320 input	10	C14	9	■	■	■	482.6	452.5	1 pc(s).	**7240.201**

[1] Variable attachment distance within a range of 25 mm, the distance given is hole centre – hole centre of mounting bracket

Socket strip

Earthing-pin, with plastic housing

Robust 8-way earthing-pin socket strip in a plastic housing. The strip may be mounted vertically on the enclosure frame or in the 482.6 mm (19") section. 2.5 U are required for 482.6 mm (19") installation The earthing-pin inserts are arranged at an angle of 45° so that angular connectors are also easily used. The connection cable is attached to a terminal connection (behind a removable cover) in the socket strip. The socket strip has a terminal for an external earthing connection.

Technical specifications:
- Connector type F (CEE 7/3)
- Rated operating voltage: 230 V
- Rated current: 16 A
- Connection cable: Type H05VV-F3G1.5 (black) with wire end ferrules
- Length: 2 m
- Dimensions: W x H x D: 483 x 74 x 45 mm

Socket strip	Packs of	**Model No.**
8-way, earthing-pin	1 pc(s).	**7000.630**



Supply includes:
- 1 socket strip
- Assembly parts

Material:
- Plastic (grey/black)

Approvals:
- CE
- RoHS

Socket strip

with power measurement

The socket strip 7x CEE 7/3 (type F - earthing-pin socket) with integrated display measures the power consumed by all connected equipment. The 482.6 mm (19") long socket strip may optionally be mounted on the 482.6 mm (19") mounting frame, on the enclosure frame or in the rear section of wall-mounted distributors. The installation bracket may be mounted in four different positions for variable mounting. Without additional mounting accessories, the socket strip may be inserted into all sections with a 25 mm hole pattern.

Installation options:
- Components with a 25 mm pitch pattern
- 482.6 mm (19") level
- Enclosure frame
- IT wall-mounted distributor, at the rear, horizontal (adequate width provided)

Benefits:
- Measurement accuracy of ± 5%



Functions:
- Measurement of current, voltage, frequency, active power, active energy and phase shift

Material:
- Aluminium section: Natural anodised
- Socket inserts: Polycarbonate

Colour:
- Socket RAL 7035

Supply includes:
- 1 socket strip
- 2 mounting brackets
- Assembly parts
- Operating instructions
- 3 m connection cable with wire end ferrules

Version	No. of sockets	Socket/jack (type)	Height mm	Length mm	Depth mm	Mounting dimension mm	Rated voltage	Phase current A	Packs of	**Model No.**
With display	7	D, earthing-pin (type F, CEE 7/3)	45	482.6	50	464.1	230 V AC	16	1 pc(s).	**7240.301**

Socket strips



Junction box

with multi-functional bracket
The angle bracket can be installed in all network enclosures in a system-compatible design. The junction box serves as a transfer point for the power supply to all equipment (fans, lights and socket strips). As well as being used as a junction box or interchange point, the bracket can also accommodate the enclosure internal thermostat 3110.000 or the hygrostat 3118.000, thanks to its integral holes.

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– 1 junction box
– 1 bracket
– 6 m connection cable 3 x 1.5 mm^2 (flexible)

Packs of	**Model No.**
1 pc(s).	**7280.035**



Socket

- For mounting on support rails TS 35/7.5 and TS35/15 to EN 60 715
- Uniform screw terminals from one side
- Enclosure width 45 mm

Technical specifications:
– Rated voltage: 250 V
– Rated current: 16 A

Material:
– Polyamide

Colour:
– Grey

Standards:
– DIN VDE 0620-1
– DIN 49 440-1

Version	Packs of	**Model No.**
Earthing-pin/CEE 7/3	2 pc(s).	**2506.100**





Service socket

for enclosure frame attachment/16 A
Integration of a service socket within a separate supply circuit, independently of the IT network and UPS.
Simple installation via an angle bracket for attaching to the enclosure frame.

Type: Earthing contact/CEE 7/3

Material:
– Angle bracket: Sheet steel
– Socket: Plastic

Surface finish:
– Angle bracket: Zinc-plated

Supply includes:
– 1 angle bracket
– 1 damp-proof socket (IP 44)
– Assembly parts

Packs of	**Model No.**
1 pc(s).	**7280.100**

Energy-Box, 3 U, 482.6 mm (19")

Technical specifications:
- Depth-adjustable top hat rail for installed equipment to DIN 43 880, sizes 1 – 3 (e.g. to accommodate built-in sockets, circuit-breakers etc.)
- Cable clamping at the rear, one N and one PE rail on an insulated plinth
- Plastic hood including extension cover (UL94-V0)
- Maximum accommodation capacity of 22 HP (22 x 18 mm = 396 mm)
- Enclosure height: 3 U
- Enclosure depth: 155 mm
- Overall installation depth with C rail: 155 mm
- Dimensions: W x H x D: 483 x 132.5 x 155 mm

Colour:
- RAL 7035

Supply includes:
- 1 Energy-Box with fitted N and PE rails and brush strip
- 4 connection clamps, 35 mm^2
- 18 connection clamps, 16 mm^2
- 2 blanking covers
- 12 clips for cable strain relief
- Identification strips, self-adhesive

U	Packs of	**Model No.**
3	1 pc(s).	**7480.035**

Photo shows a configuration example with equipment not included in the scope of supply



Energy-Box, 3 U, 482.6 mm (19")

Pull-out

Technical specifications:
- Depth-adjustable top hat rail for snap-in attachment of installed equipment to DIN 43 880 in sizes 1 – 3 (e.g. to accommodate built-in sockets, circuit-breakers etc.) or entire installation assemblies.
- Cable clamping at rear
- Two power distribution rails with connection clamps on insulated base/plinth
- Plastic hood including extension cover
- Maximum accommodation capacity of 22 HP (22 x 18 mm = 396 mm).
- Enclosure height: 3 U
- Enclosure depth: 223 mm
- Maximum extension: 220 mm
- Dimensions: W x H x D: 483.5 x 132 x 223 mm

Colour:
- RAL 7035

Supply includes:
- 1 Energy-Box with fitted N and PE rails and brush strip
- 4 connection clamps, 35 mm^2
- 18 connection clamps, 16 mm^2
- 2 blanking covers
- 12 clips for cable strain relief
- Identification strips, self-adhesive

U	Packs of	**Model No.**
3	1 pc(s).	**7480.300**

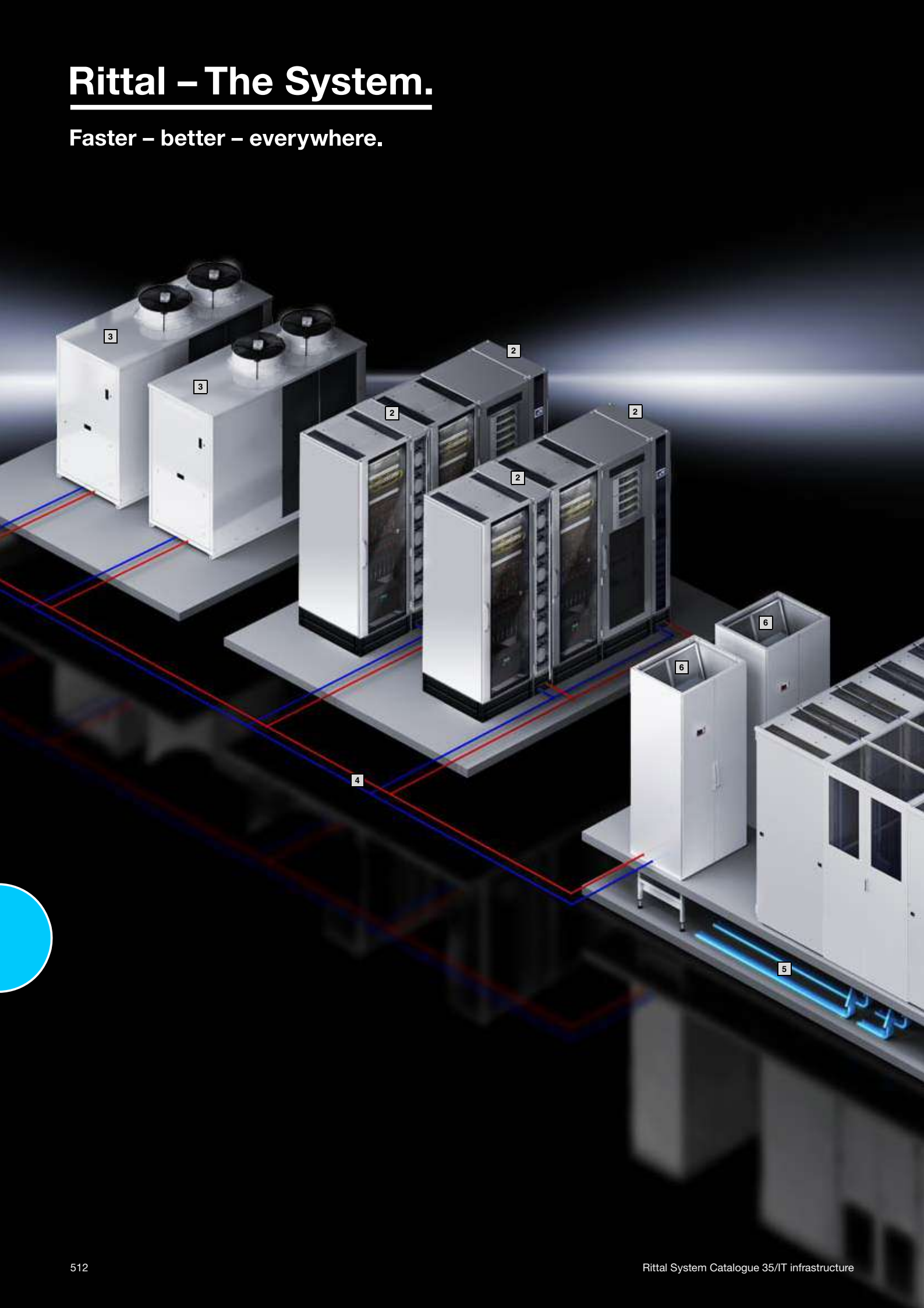
Photo shows a configuration example with equipment not included in the scope of supply





Rittal – The System.

Faster – better – everywhere.



IT cooling



Liquid Cooling Unit/Package

LCU DX, single 518
LCU DX, redundant 520
LCP Rack DX 522
LCP Inline DX....523
LCP Rack CW 524
LCP Inline CW 525
Accessories for LCP/LCU 526

Aisle containment

Aisle containment 529

Roof-mounted cooling units

For cooling IT equipment 530

Small cooling units

Roof-mounted fan for the office sector....531
Fan mounting plate for TS IT, TE....532
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Fan expansion kit....533
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Fan expansion kit for fan cross member 534
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Vent cover 535

Precision climate control equipment

Computer Room Air Conditioner CRAC DX/CW 537

Chillers for IT cooling

Overall cooling output 15 – 67 kW 538
Overall cooling output 77 – 261 kW 539
Overall cooling output 291 – 481 kW 540

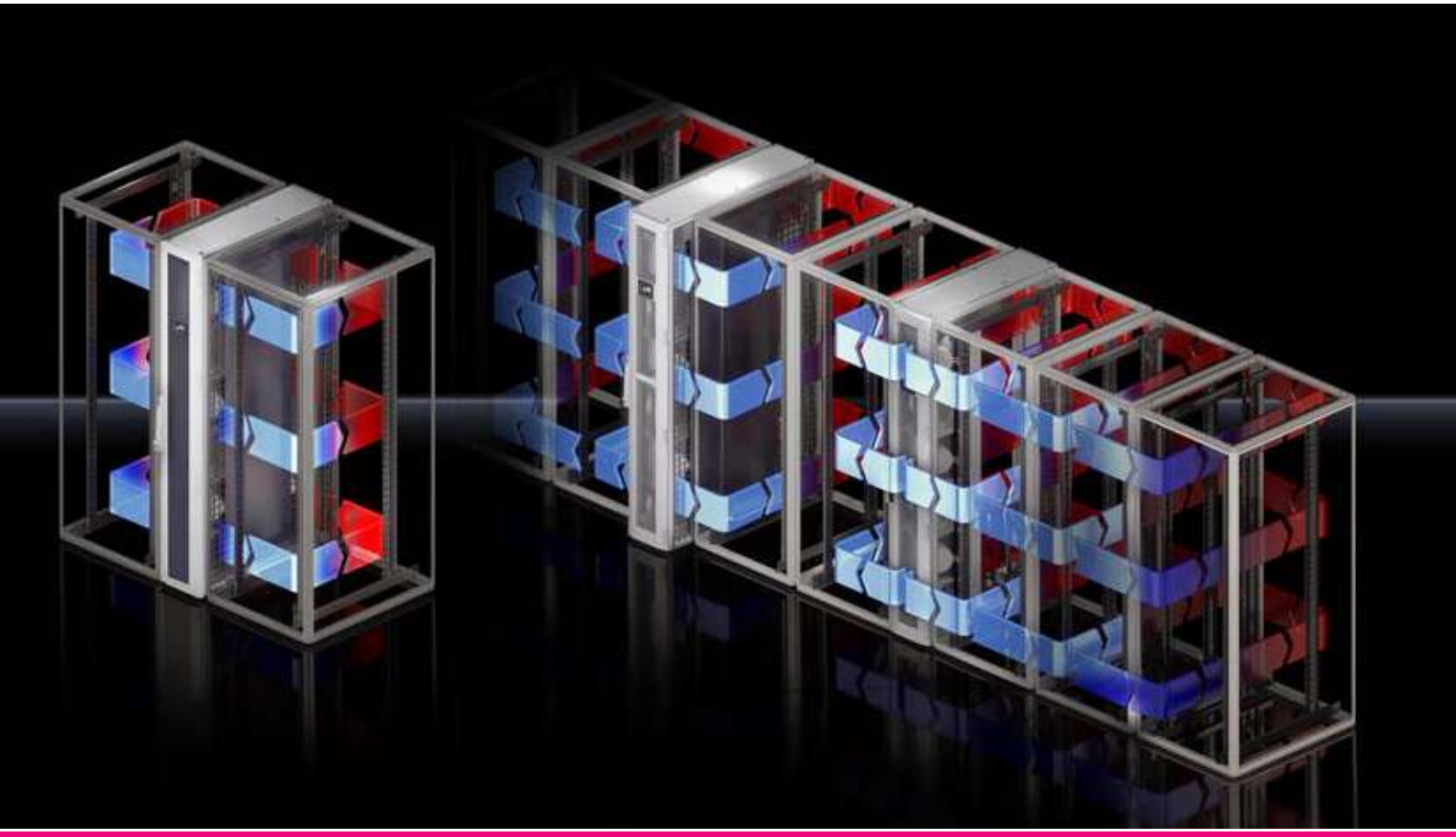
Your benefits

- State-of-the-art climate control technology, from cooling a single rack through to entire data centres
- Individual climate control concepts for rack, suite and room cooling
- Enhanced security plus superior energy and cost efficiency
- Optimisation with aisle containment and cross-system control concepts
- Energy-efficient cooling using IT chillers
- Minimisation of operating costs with free cooling
- Environmentally friendly, thanks to resource savings and reduced CO_2 emissions
- Planning, assembly, commissioning and servicing – all from a single source!

Sample applications

1 Aisle containment, see page 529
2 Liquid Cooling Package LCP, see page 514
3 IT chiller with integral free cooling, see page 538
4 Pipework
5 Raised floor for cold air supply
6 CRAC (partner product)

Overview of LCP/LCU



Rack cooling
Water-based

Data centres support corporate processes at ever-higher outputs. The packing density in computer systems is increasing, and processor capacity is growing. This leads to a continuous rise in heat development.
Keep temperatures at a constant level with the highly efficient Rittal Liquid Cooling Packages (LCP). With optimised operating costs, our LCPs precisely and effortlessly dissipate heat losses of up to 55 kW per enclosure.

LCP Rack CW

- Cooling output from 10 kW to 55 kW
- Energy saving with high water inlet temperatures (more free cooling)
- Minimised operating costs with efficient EC fan technology
- Spatial separation of cooling and server rack
- Integral condensate and leak management
- Sophisticated control concept including online connection
- Optional cooling of one or two server racks
- Simple representation of redundancies
- Assembly- and service-friendly
- Integration into RiZone (data centre management software)

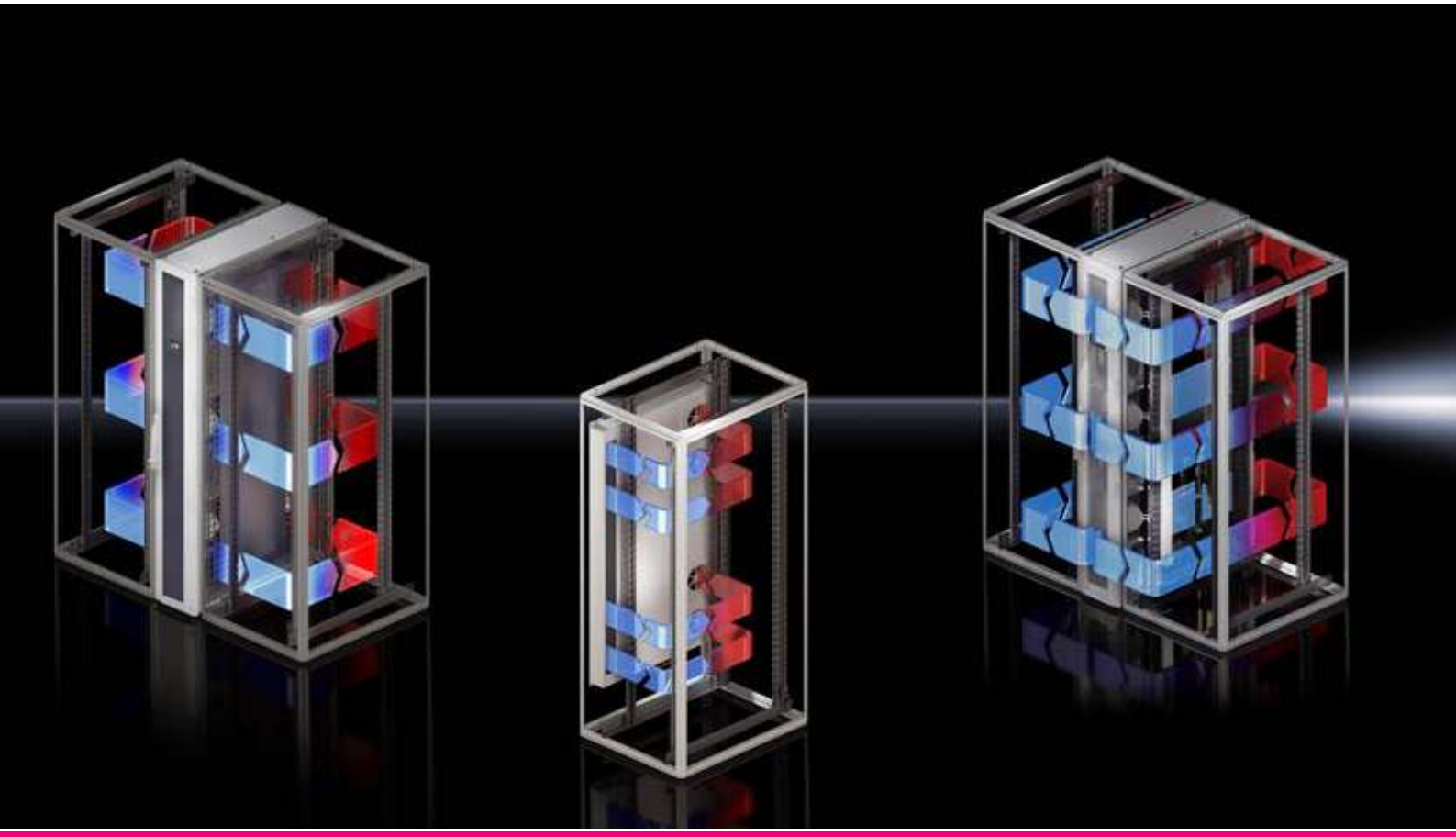
Bayed suite cooling
Water-based

Rittal bayed suite cooling with the LCP Inline CW is extremely powerful, and the ideal climate control solution for exceptionally high cooling demands, particularly when server racks cannot be cooled via the room air-conditioning.
Alternatively, bayed suite cooling can be used to support the existing air-conditioning system in the room or for transforming existing structures into server rooms. A raised floor is not necessary for the operation of bayed suite cooling.

LCP Inline CW

- Cooling output from 10 kW to 55 kW
- Cooling of several server racks
- Energy saving with high water inlet temperatures (more free cooling)
- Minimised operating costs with efficient EC fan technology
- Spatial separation of cooling and server rack
- Integral condensate and leak management
- Sophisticated control concept including online connection
- Assembly- and service-friendly
- Increased performance and efficiency in conjunction with Rittal aisle containment
- Integration into RiZone (data centre management software)
- Set-forward variant for ideal air distribution (cold air curtain)
- Flush variant for confined spaces (narrow cold aisle)

Overview of LCP/LCU



Rack cooling
Refrigerant-based

The ideal cooling solution for small to medium IT installations.
Up to 6.5 kW heat load can be dissipated with the inverter-controlled LCU DX split cooling unit. The LCP rack DX has a cooling output of 12 kW and is capable of cooling up to 2 server racks. Both units allow IT-compatible cooling and regulate the server inlet air temperature.
The external unit dissipates thermal energy directly to the exterior air, thereby preventing the server rack installation location from heating up.

LCP Rack DX

- Cooling output 12 kW
- Refrigerant R410a
- Minimised operating costs with efficient EC fan technology
- Spatial separation of cooling and server rack
- Integral condensate and leak management
- Sophisticated control concept including online connection
- Optional cooling of one or two server racks
- Simple representation of redundancies
- Assembly- and service-friendly
- Integration into RiZone (data centre management software)
- Cost-effective installation by laying small-diameter refrigerant lines

LCU DX

- Cooling output 3 kW and 6.5 kW
- Single and redundant version
- Refrigerant R410a
- Maximum energy efficiency due to EC fan technology and output-regulated compressor
- Space-saving installation of the internal unit (evaporator coil) in the server rack

Bayed suite cooling
Refrigerant-based

Both the LCP Inline DX and the LCP Inline CW support the cooling of bayed enclosure suites. A raised floor is not required for the LCP Inline DX. The cooling output is 12 kW. The Inline units are generally used in combination with aisle containment.

LCP Inline DX

- Cooling output 12 kW
- Cooling of several server racks
- Refrigerant R410a
- Minimised operating costs with efficient EC fan technology
- Spatial separation of cooling and server rack
- Integral condensate and leak management
- Sophisticated control concept including online connection
- Assembly- and service-friendly
- Increased performance and efficiency in conjunction with Rittal aisle containment
- Integration into RiZone (data centre management software)

Efficient cooling with no loss of space



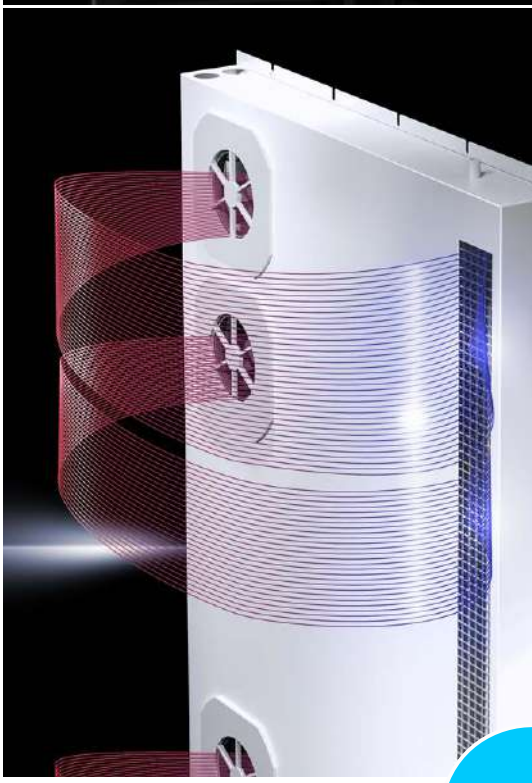
The benefits

- Cooling of TS IT racks and Micro Data Centers
- Space-saving installation of the internal unit between the 482.6 mm (19") level and side panel
- External unit is sited outside the building
- Maximum energy efficiency by cooling the individual rack, rather than the whole room
- Efficient operation thanks to EC fan technology
- High availability designed for continuous, 24/7 operation



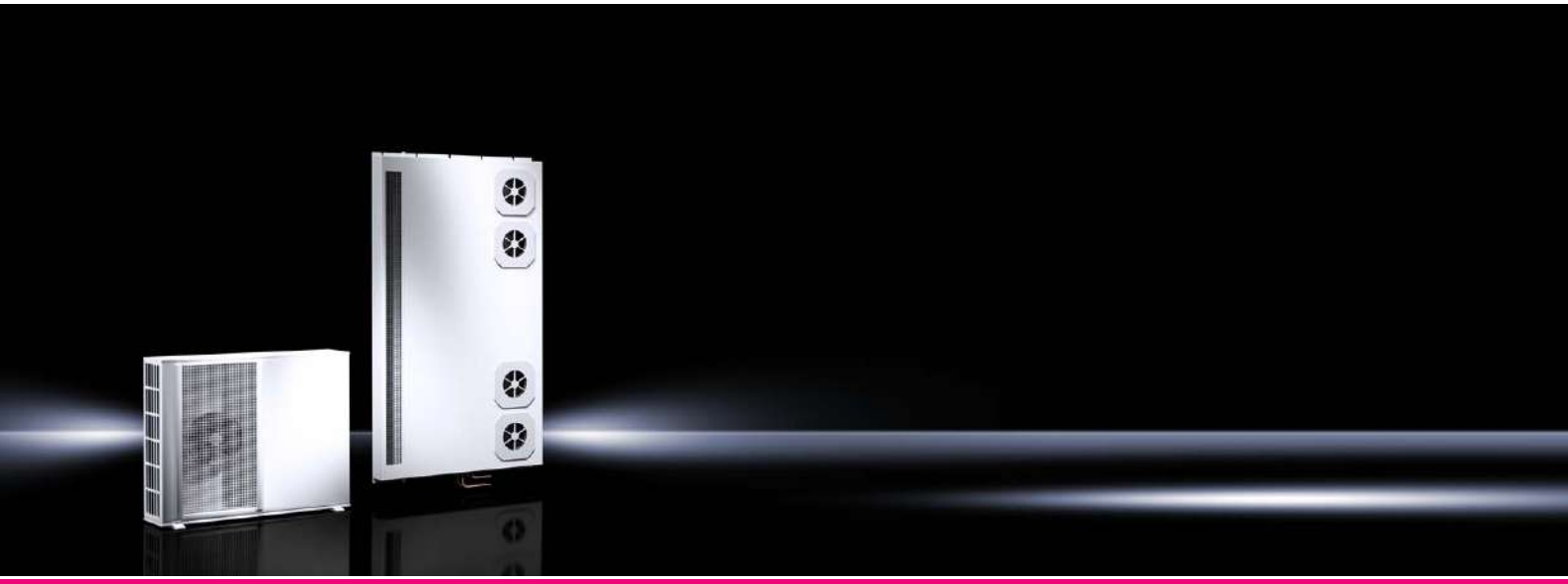
Technology

- Refrigerant-based split cooling unit comprised of an internal unit (evaporator coil) and an external unit with integral compressor (inverter-controlled)
- Optimum support of IT-compatible, “front-to-back” air routing
- Optimum adaptation of the compressor output to the current heat load of the IT rack with inverter control
- The internal and external unit are connected with refrigerant, data and supply lines
- Absorbed thermal energy is emitted via the external unit directly to the ambient air
- Control of the server air inlet temperature
- High level of fail-safeness thanks to availability of single and redundant variant
- Ultimate security with optional alarm forwarding via CMC III





Liquid Cooling Unit



Network/server enclosures TS IT Page 100 **Micro Data Center** Page 566

Applications:
- Cooling unit for TS IT server enclosures and for Micro Data Center

Benefits:
- Space-saving solution by installing the internal unit in the TS IT server enclosure or the Micro Data Center
- Maximum energy efficiency due to EC fan technology and IT-based control
- Control of the server inlet temperature
- The inverter-controlled compressor adapts the cooling output to the current heat loss inside the enclosure
- Absorbed thermal energy is emitted directly to the ambient air at the (inverter-controlled) external unit's location, without heating up the installation room

Functions:
- The device supports front-to-back air routing typical of IT applications, and regulates the server inlet temperature to the set value

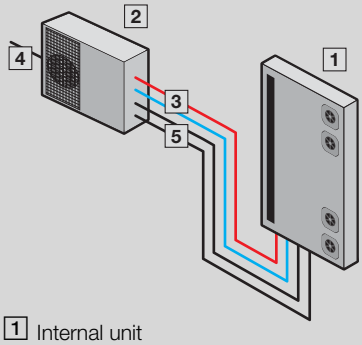
Colour:
- Internal unit: RAL 7035
- External unit: white

Protection category IP to IEC 60 529:
- Internal unit IP 20
- External unit IP X4

Supply includes:
- Internal unit (evaporator coil)
- External unit (inverter-controlled)
- 482.6 mm (19") mounting trim panel with display and control components
- Condensate hose

Note:
- Below the operating limit, fluctuations in the air inlet temperature are possible
- The electrical connection is made on the external unit. The internal unit is supplied by the external unit.

Installation in TS IT:
- 482.6 mm (19") levels must be designed as mounting angles and offset in the width by 50 mm off-centre
- The front distance between the 482.6 mm (19") mounting angles and the front edge of the TS frame must be at least 100 mm
- Not suitable for combination with 482.6 mm (19") mounting frame
- Two punched sections with mounting flanges are required for attachment on the inner mounting level
- To separate the hot/cold zones within an enclosure, an air baffle plate for TS IT is required
- A Flex-Block base/plinth is required to route the cable downwards



1 Internal unit
2 External unit
3 Refrigerant lines
4 Power supply
5 Data cable

LCU DX, single

Model No.	Packs of	**3311.490**	**3311.492**	Page
Useful cooling output L22 L35 kW		**3**	**6.5**	
Modulation range kW		1 - 3	3 - 6.5	
For enclosure width mm		800	800	
For enclosure height mm		≥ 1800	≥ 1800	
For enclosure depth mm		≥ 1000	≥ 1000	
External unit, W x H x D mm		810 x 558 x 310	845 x 700 x 320	
Internal unit, W x H x D mm		105 x 1550 x 820	105 x 1550 x 820	
Type of electrical connection		Connection clamp	Connection clamp	
Rated operating voltage V, ~, Hz		230, 1~, 50	230, 1~, 50	
Rated current (max.) A		7	15.9	
Pre-fuse A		16	20	
Duty cycle %		100	100	
Cooling medium		R410a	R410a	
Sound pressure level at a distance of 10 m (external unit) dB(A)		40	40	
Operating temperature range (external unit)		-20°C...+45°C	-20°C...+45°C	
Weight as delivered kg		116.0	126.0	
Accessories				
Refrigerant lines	1 pc(s).	3311.495	3311.496	526

Rittal Service

Any questions about our services or maintenance agreements?

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Our service specialists will be happy to assist you. Please direct enquiries to the local Rittal Service organisation, either by e-mail or phone. www.rittal.com/contact



- Manufacturers' warranty
- Configuration and assembly
- Inspection
- Climate control pipework
- Commissioning
- Leak test
- Modernisation
- Maintenance
- Service agreements
- Spare parts
- Response time
- Wearing parts

Liquid Cooling Unit



Network/server enclosures TS IT Page 100 **Micro Data Center** Page 566

Applications:
- Cooling unit for TS IT server enclosures and for Micro Data Center in a redundant design

Benefits:
- Space-saving solution by installing the redundantly designed internal unit in the TS IT server enclosure or the Micro Data Center
- Maximum energy efficiency due to EC fan technology and IT-based control
- Control of the server inlet temperature
- The inverter-controlled compressor adapts the cooling output to the current heat loss inside the enclosure
- Absorbed thermal energy is emitted directly to the ambient air at the (inverter-controlled) external unit's location, without heating up the installation room

Functions:
- The redundant variants have two cooling circuits and controllers inside the internal unit, plus two inverter-regulated external units. The fault and operating hours changeover allows regular switching between the two external units, and ensures automatic changeover in the event of a malfunction or failure.
- The device supports front-to-back air routing typical of IT applications, and regulates the server inlet temperature to the set value

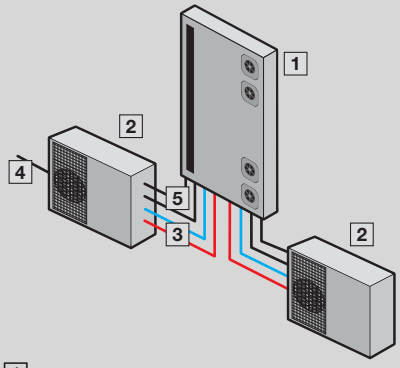
Colour:
- Internal unit: RAL 7035
- External unit: white

Protection category IP to IEC 60 529:
- Internal unit IP 20
- External unit IP X4

Supply includes:
- Internal unit (evaporator coil)
- 2 external units (inverter-controlled)
- 482.6 mm (19") mounting trim panel with display and control components
- Condensate hose

Note:
- Below the operating limit, fluctuations in the air inlet temperature are possible
- The electrical connection is made on the external unit. The internal unit is supplied by the external unit.
- A separate power supply may be needed, depending on the external unit

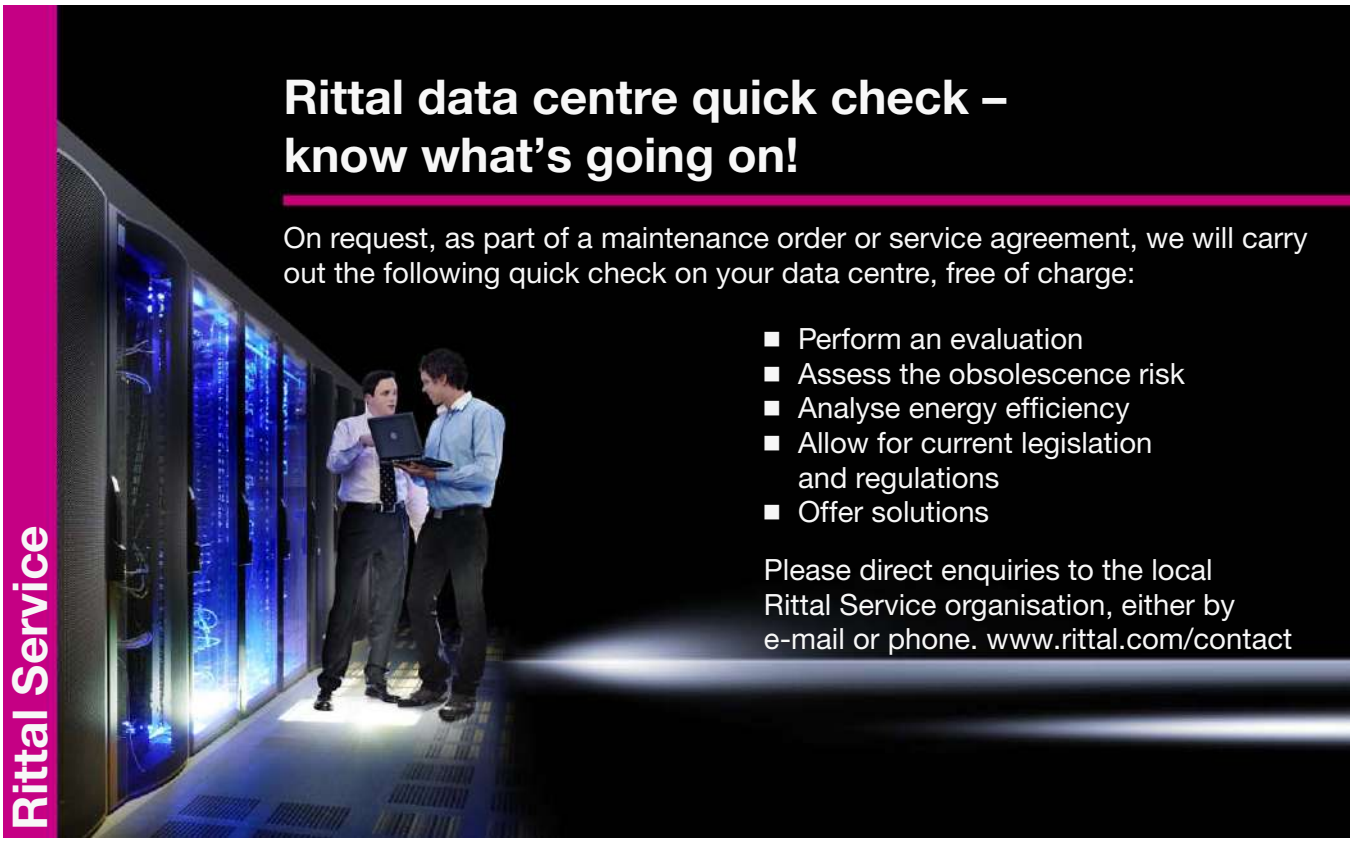
Installation in TS IT:
- 482.6 mm (19") levels must be designed as mounting angles and offset in the width by 50 mm off-centre
- The front distance between the 482.6 mm (19") mounting angles and the front edge of the TS frame must be at least 100 mm
- Not suitable for combination with 482.6 mm (19") mounting frame
- Two punched sections with mounting flanges are required for attachment on the inner mounting level
- To separate the hot/cold zones within an enclosure, an air baffle plate for TS IT is required
- A Flex-Block base/plinth is required to route the cable downwards



1 Internal unit
2 External unit
3 Refrigerant lines
4 Power supply
5 Data cable

LCU DX, redundant

Model No.	Packs of	**3311.491**	**3311.493**	Page
Useful cooling output L22 L35 kW		**3**	**6.5**	
Modulation range kW		1 - 3	3 - 6.5	
For enclosure width mm		800	800	
For enclosure height mm		≥ 1800	≥ 1800	
For enclosure depth mm		≥ 1000	≥ 1000	
External unit, W x H x D mm		810 x 558 x 310	845 x 700 x 320	
Internal unit, W x H x D mm		105 x 1550 x 820	105 x 1550 x 820	
Type of electrical connection		Connection clamp	Connection clamp	
Rated operating voltage V, ~, Hz		230, 1~, 50	230, 1~, 50	
Rated current (max.) A		7	15.9	
Pre-fuse A		16	20	
Duty cycle %		100	100	
Cooling medium		R410a	R410a	
Sound pressure level at a distance of 10 m (external unit) dB(A)		40	40	
Operating temperature range (external unit)		-20°C...+45°C	-20°C...+45°C	
Weight as delivered kg		154.0	174.0	
Accessories				
Refrigerant lines	1 pc(s).	3311.495	3311.496	526



Liquid Cooling Package



Accessories for LCP Page 526 **Network/server enclosures TS IT** Page 100 **System accessories** Page 613

Benefits:
- Maximum energy efficiency due to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Control of the server inlet temperature
- Thanks to the speed-regulated compressor, the cooling output is ideally adapted to actual requirements
- With redundant temperature sensor integrated at the air end as standard
- Specific maintenance of the LCP DX due to separation of cooling and server racks
- Absorbed thermal energy is emitted to the ambient air at the external condenser location, without heating up the installation room
- Ideal for IT cooling of small and medium-sized locations
- One or two racks can be cooled separately
- Direct connection of the unit via SNMP over Ethernet

Functions:
- The LCP draws in the air at the sides at the rear of the server enclosures, cools it using high-performance compact impellers, and blows the cooled air back into the front part of the server enclosure at the sides

Temperature control:
- Linear fan control
- Inverter-controlled compressor

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Cooling medium:
- R410a

Optional:
- Humidifier
- Reheater
- Condensate drain pump
- Higher cooling output
- Low-temperature/high-temperature condenser (-40°C / +55°C)

Note:
- Variant with UL approval available on request

Photo shows a configuration example with equipment not included in the scope of supply

LCP Rack DX

Model No.	Packs of	**3311.410**	**3311.420**	Page
Total cooling output/Number of fan modules required kW		**12 / 4**	**12 / 4**	
Width mm		300	300	
Height mm		2000	2000	
Depth mm		1000	1200	
Type of electrical connection		Connection clamp	Connection clamp	
Installation in bayed enclosure suite		Flush	Flush	
Rated operating voltage V, ~, Hz		400, 3~, 50 380 - 480, 3~, 60	400, 3~, 50 380 - 480, 3~, 60	
Pre-fuse (T) A		20	20	
Air throughput at max. cooling output m^3/h		4800	4800	
Fans may be exchanged with the system operational		■	■	
EC fan		■	■	
Rated current max. A		7.5	7.5	
Duty cycle %		100	100	
Operating temperature range		+15°C...+35°C	+15°C...+35°C	
Weight as delivered kg		207.0	227.0	
Also required				
Condenser unit	1 pc(s).	3311.360	3311.360	526

Liquid Cooling Package



Accessories for LCP Page 526 **Network/server enclosures TS IT** Page 100 **Aisle containment** Page 529

Benefits:
- Maximum energy efficiency due to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Temperature monitoring and control
- With redundant temperature sensor integrated at the air end as standard
- Minimal area load due to low weight
- Absorbed thermal energy is emitted to the ambient air at the external condenser location, without heating up the installation room
- Ideal for IT cooling of small and medium-sized locations
- One or two racks can be cooled separately
- Thanks to the speed-regulated compressor, the cooling output is ideally adapted to actual requirements
- Specific maintenance of the LCP DX due to separation of cooling and server racks
- Direct connection of the unit via SNMP over Ethernet

Functions:
- The LCP is designed for siting within a bayed enclosure suite. Hot air is drawn in from the aisle at the rear of the device, cooled by the high-capacity compact impellers, and blown back into the room or cold aisle after cooling

Temperature control:
- Linear fan control
- Inverter-controlled compressor

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Cooling medium:
- R410a

Optional:
- Humidifier
- Reheater
- Condensate drain pump
- Higher cooling output
- Air filter
- Low-temperature/high-temperature condenser (-40°C / +55°C)

Note:
- Variant with UL approval available on request

Photo shows a configuration example with equipment not included in the scope of supply

LCP Inline DX

Model No.	Packs of	**3311.430**	**3311.440**	Page
Total cooling output/Number of fan modules required kW		**12 / 4**	**12 / 4**	
Width mm		300	300	
Height mm		2000	2000	
Depth mm		1000	1200	
Type of electrical connection		Connection clamp	Connection clamp	
Installation in bayed enclosure suite		Flush	Flush	
Rated operating voltage V, ~, Hz		400, 3~, 50 380 - 480, 3~, 60	400, 3~, 50 380 - 480, 3~, 60	
Pre-fuse (T) A		20	20	
Air throughput at max. cooling output m^3/h		4800	4800	
Fans may be exchanged with the system operational		■	■	
EC fan		■	■	
Rated current max. A		7.5	7.5	
Duty cycle %		100	100	
Operating temperature range		+15°C...+35°C	+15°C...+35°C	
Weight as delivered kg		208.0	233.5	
Also required				
Condenser unit	1 pc(s).	3311.360	3311.360	526

Liquid Cooling Package



Accessories for LCP Page 526 **Chillers for IT cooling** Page 538 **Network/server enclosures TS IT** Page 100

Benefits:
- Maximum energy efficiency due to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Control of the server inlet temperature
- With redundant temperature sensor integrated at the air end as standard
- Optimum adaptability due to dynamic, continuous control of the cold water volume flow
- By using high water inlet temperatures, the proportion of indirect free cooling is increased, which in turn reduces operating costs
- Targeted cooling output due to modular fan units
- Fan modules configurable as n+1 redundancy
- Standard 3-phase connection for electrical redundancy
- The separation of cooling and enclosure prevents the ingress of water into the server enclosure
- Up to 55 kW cooling output on a footprint of just 0.36 m^2
- Minimal area load due to low weight

Functions:
- The LCP draws in the air at the sides at the rear of the server enclosures, cools it using high-performance compact impellers, and blows the cooled air back into the front part of the server enclosure at the sides

IT monitoring:
- Monitoring of all system-relevant parameters such as server air intake temperature, server waste air temperature, water inlet/return temperature, water flow, cooling output, fan speed, leakage
- Direct connection of the unit via SNMP over Ethernet

Temperature control:
- Linear fan control
- Two-way control valve

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Cooling medium:
- Water

Optional:
- Fully integrated fire detection and extinguisher system
- Automatic server enclosure door opening
- Various sensors
- Racks 2200 mm high

Photo shows a configuration example with equipment not included in the scope of supply

LCP Rack CW

Model No.	Packs of	**3311.130**	**3311.230**	**3311.260**	Page
Total cooling output/Number of fan modules required kW		**10 / 1 20 / 2 30 / 3**	**10 / 1 20 / 2 30 / 3**	**40 / 4 45 / 5 55 / 6**	
Number of fan modules in supplied state		1	1	4	
Width mm		300	300	300	
Height mm		2000	2000	2000	
Depth mm		1000	1200	1200	
Type of electrical connection		Connector	Connector	Connector	
Installation in bayed enclosure suite		Flush	Flush	Flush	
Rated operating voltage V, ~, Hz		230, 1~, 50/60 400, 3~, 50/60	230, 1~, 50/60 400, 3~, 50/60	230, 1~, 50/60 400, 3~, 50/60	
Air throughput at max. cooling output m^3/h		4800	4800	8000	
Fans may be exchanged with the system operational		■	■	■	
EC fan		■	■	■	
Water inlet temperature °C		15	15	15	
Permissible operating pressure (p. max.) bar		6	6	6	
Duty cycle %		100	100	100	
Water connection		DN 40 (G 1½" external thread)	DN 40 (G 1½" external thread)	DN 40 (G 1½" external thread)	
Weight as delivered kg		194.0	210.0	235.0	
Accessories					
Fan module	1 pc(s).	3311.011	3311.011	3311.011	528
Touchscreen display, colour	1 pc(s).	3311.030	3311.030	3311.030	526
Connection hose	2 pc(s).	3311.040	3311.040	3311.040	527

Liquid Cooling Package



Accessories for LCP Page 526 **Chillers for IT cooling** Page 538 **Network/server enclosures TS IT** Page 100

Benefits:
- Maximum energy efficiency due to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Optimum adaptability due to dynamic, continuous control of the cold water volume flow
- By using high water inlet temperatures, the proportion of indirect free cooling is increased, which in turn reduces operating costs
- Targeted cooling output due to modular fan units
- Fan modules configurable as n+1 redundancy
- Standard 3-phase connection for electrical redundancy
- With redundant temperature sensor integrated at the air end as standard
- The separation of cooling and enclosure prevents the ingress of water into the server enclosure
- Minimal area load due to low weight

Functions:
- The hot air is drawn in from the room or hot aisle at the rear of the device and expelled at the front into the cold aisle after cooling. With this product, a raised floor is not necessary

IT monitoring:
- Monitoring of all system-relevant parameters such as server air intake temperature, server waste air temperature, water inlet/return temperature, water flow, cooling output, fan speed, leakage
- Direct connection of the unit via SNMP over Ethernet
- Integration into RiZone

Temperature control:
- Linear fan control
- Two-way control valve

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Cooling medium:
- Water

Optional:
- Various sensors
- Racks 2200 mm high

Photo shows a configuration example with equipment not included in the scope of supply

LCP Inline CW

Model No.	Packs of	**3311.530**	**3311.540**	**3311.560**	Page
Total cooling output/Number of fan modules required kW		**10 / 1 20 / 2 30 / 3**	**18 / 2 27 / 3 30 / 4**	**40 / 4 45 / 5 55 / 6**	
Number of fan modules in supplied state		1	2	4	
Width mm		300	300	300	
Height mm		2000	2000	2000	
Depth mm		1200	1200	1200	
Type of electrical connection		Connector	Connector	Connector	
Installation in bayed enclosure suite		Set forward	Flush	Set forward	
Rated operating voltage V, ~, Hz		230, 1~, 50/60 400, 3~, 50/60	230, 1~, 50/60 400, 3~, 50/60	230, 1~, 50/60 400, 3~, 50/60	
Air throughput at max. cooling output m^3/h		4800	4800	8000	
Fans may be exchanged with the system operational		■	■	■	
EC fan		■	■	■	
Permissible operating pressure (p. max.) bar		6	6	6	
Duty cycle %		100	100	100	
Water connection		DN 40 (G 1½" external thread)	DN 40 (G 1½" external thread)	DN 40 (G 1½" external thread)	
Water inlet temperature °C		15	15	15	
Weight as delivered kg		216.0	235.0	236.0	
Accessories					
Fan module	1 pc(s).	3311.011	3311.011	3311.011	528
Touchscreen display, colour	1 pc(s).	3311.030	3311.030	3311.030	526
Connection hose	2 pc(s).	3311.040	3311.040	3311.040	527
Rear adaptor	1 pc(s).	3311.080	–	3311.080	527

Accessories



Refrigerant lines

for LCU DX

For connecting the internal and external unit of the LCU DX. Consisting of intake gas line and liquid line. The refrigerant lines are insulated.

Design	Length m	Product-specific scope of supply	Packs of	Model No.
LCU DX 3 kW	20	Intake gas line ½" Liquid line ¼"	1 pc(s).	**3311.495**
LCU DX 6.5 kW	20	Intake gas line ⅝" Liquid line ⅜"	1 pc(s).	**3311.496**



Touchscreen display, colour

for LCP Rack/Inline CW

The display offers the opportunity of directly monitoring key functions of the LCP, and implementing settings.

Packs of	Model No.
1 pc(s).	**3311.030**



Condenser unit

for LCP DX

The condenser unit is needed to operate the refrigerant-based LCPs, and comprises the external condenser and fan. The unit is designed for two separate door systems.

Supply includes:
– Assembly parts

W x H x D mm	Temperature control	Number of fans	Rated operating voltage V, ~, Hz	Refrigerant	Weight kg	Packs of	Model No.
1303 x 578 x 510	Speed-controlled fan	2	230, 1~, 50/60	R410a	34.0	1 pc(s).	**3311.360**



Vertical shielding

for TS IT

To block the airflow on the left and right of the 482.6 mm (19") level, for enclosure height 2000 mm.

Design:
– Self-adhesive on one side

Material:
– Cellular PU foam
– Flame-inhibiting to UL 94 (HF1)

Sealing between	W x H x D mm	For enclosure width mm	Packs of	Model No.
LCP and 482.6 mm (19") level	210 x 1915 x 110	800	1 pc(s).	**3301.320**
LCP and 482.6 mm (19") level	110 x 1915 x 110	600	1 pc(s).	**3301.370**
Side panel and 482.6 mm (19") level	84 x 1910 x 84	600	1 pc(s).	**3301.380**
Side panel and 482.6 mm (19") level	184 x 1910 x 84	800	1 pc(s).	**3301.390**

Connection hose

for LCP Rack/Inline CW

Flexible connection hose at the bottom or top, may be cut to required length, including union nuts on both ends for connecting the LCP to existing pipework.

Length m	Water connections	Packs of	Model No.
1.8	1½"	2 pc(s).	**3311.040**



Rear adaptor

for LCP Inline CW

May be positioned to the rear of the set forward LCP Inline CW to close the existing gap to the rear section.

Packs of	Model No.
1 pc(s).	**3311.080**



Filter mat holder

for LCP Inline CW

The filter mat holder is comprised of a metal frame, into which the open-pore filter mat is inserted. The filter mat is fixed in the frame with additional metal brackets. The filter mat holder itself is secured in the perforated rear door of the LCP Inline CW using magnets.

Supply includes:
- Filter mat holder
- Filter mat
- Assembly parts

Filter class to DIN EN 779	Packs of	Model No.
G1	1 pc(s).	**3311.042**

Accessories:

- Filter mat, see page 527



Filter mat

for LCP Inline CW

Matching, open-pore spare filter mat for the filter mat holder in the LCP Inline CW.

Colour:
- Dark grey

Filter class to DIN EN 779	Packs of	Model No.
G1	3 pc(s).	**3311.043**



Accessories

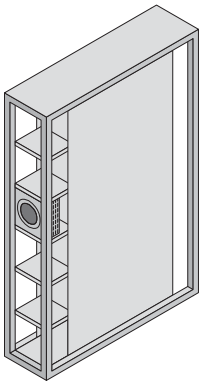


Fan module

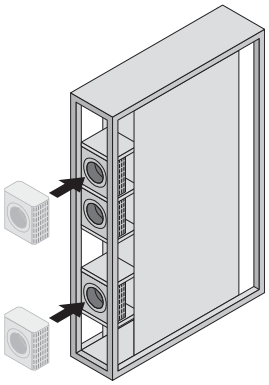
for LCP Rack/Inline CW

To increase the cooling output, individual fan modules may be retro-fitted into the LCPs. Additional integration can also achieve redundancy or reduce the electric power consumption of the LCP.

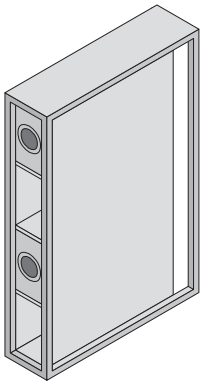
Packs of	Model No.
1 pc(s).	**3311.011**



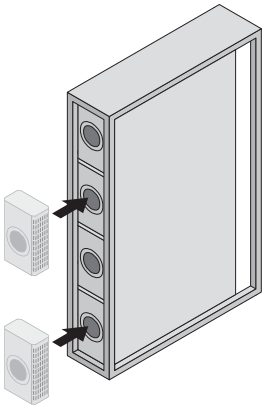
The LCP 3311.130/.230/.530 (max. 30 kW) is supplied with one fan module as standard.



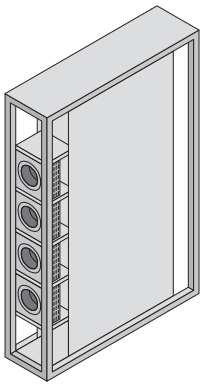
To achieve the max. cooling output of 30 kW, the customer/service should install two additional fan modules.



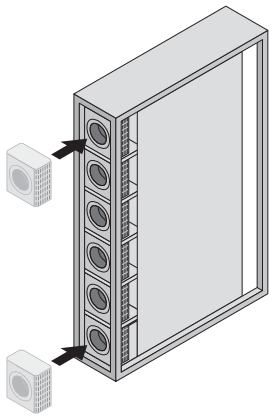
The LCP 3311.540 (max. 30 kW) is supplied with two fan modules as standard.



To achieve the max. cooling output of 30 kW, the customer/service should install two additional fan modules.



The LCP 3311.260/.560 (max. 55 kW) is supplied with four fan modules as standard.



To achieve the max. cooling output of 55 kW, the customer/service should install two additional fan modules.

Aisle containment



Liquid Cooling Package Page 523 **Network/server enclosures TS IT** Page 100

Slimline door element with viewing window and sliding door. Stable roof elements in a composite material with a high level of light permeability. Where required, safety glass may also be used. The aisle width is 1,200 mm.

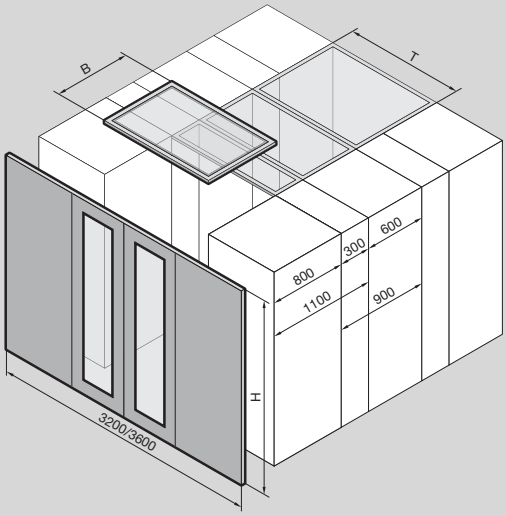
Applications:
– Depending on the application, aisle containment may be used with CRAC systems or LCP Inline as hot or cold aisle containment.

Benefits:
– Increased energy efficiency and performance capability of climate control.
– Easily installed and retrofitted, as it is fully compatible with the TS IT enclosure system.
– An inexpensive way to boost the performance of your existing installation, lengthening the investment cycle until a replacement needs to be purchased.

Functions:
– Aisle containment is a combination of door and roof components which facilitate consistent separation of the hot and cold air in the data centre. Such separation is pivotal to saving energy and increasing the efficiency of the available climate control technology.

Colour:
– RAL 7035

Photo shows a configuration example with equipment not included in the scope of supply



Design	Packs of	Door element	Door element	Roof element centre	Roof element centre	Roof element centre	Roof element centre	Roof element centre	Roof element start/end	Roof element start/end	Page
Model No.	1 pc(s).	**3311.161**	**3311.163**	**3311.170**	**3311.180**	**3311.190**	**3311.200**	**3311.210**	**3311.270**	**3311.280**	
For enclosure depth mm		1000	1200	–	–	–	–	–	–	–	
Width (B) mm		3200	3600	600	800	300	900	1100	600	800	
Height (H) mm		2000	2000	–	–	–	–	–	–	–	
Depth (T) mm		–	–	1200	1200	1200	1200	1200	1200	1200	
Weight as delivered kg		120.0	150.0	30.0	35.0	20.0	30.0	33.0	30.0	28.0	

Roof-mounted cooling units



Accessories for climate control Page 454

Applications:
– Cooling of IT equipment in IT enclosures sited as stand-alone units in secondary rooms

Benefits:
– Even air distribution in front of the 482.6 mm (19") level

Functions:
– The device supports front-to-back air routing typical of IT applications, and regulates the server inlet temperature to the set value
– The hot waste air from the IT equipment is drawn into the device at the rear of the IT enclosure, cooled, and the cooled air blown back in front of the 482.6 mm (19") level
– It is mounted on the roof of the IT enclosure, and cools the air volume inside the enclosure

IT monitoring:
– Monitoring of incoming air temperature

Temperature control:
– Control of the server inlet temperature

Material:
– Sheet steel

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Integral electric condensate evaporation
– Fully wired ready for connection
– Drilling template
– Air baffle plate
– Assembly parts

Note:
– A roof plate with cut-out to match the enclosure dimensions is required

For cooling IT equipment

Model No.	Packs of	**3301.800**	Page
Total cooling output L25 L35 W		**3000**	
Total cooling output L35 L45 W		**3200**	
Width mm		597	
Height mm		417	
Depth mm		895	
Type of electrical connection		Plug-in terminal strip	
Rated operating voltage V, ~, Hz		230, 1~, 50	
Start-up current max. A		36	
Pre-fuse (T) A		16	
Rated current max. A		9.2	
Refrigerant g		R134a, 700	
Permissible operating pressure (p. max.) bar		25	
Duty cycle %		100	
Operating temperature range		+10°C...+45°C	
Setting range		+20°C...+22°C	
Weight as delivered kg		97.0	
Accessories			
Condensate hose	1 pc(s).	3301.612	464
Door-operated switch	1 pc(s).	4127.010	755
Air baffle plates for TS IT 482.6 mm (19") mounting angles		see page	812
Filter mats	3 pc(s).	3286.500	454

Roof-mounted fans

for TS, TS IT, for the office sector

This roof ventilation concept offers a wealth of performance, assembly and cost benefits associated with the use of integrated ventilation systems. This roof-mounted fan may be ordered with and without a roof plate. For the version with roof plate, the roof-mounted fan is pre-installed. Another outstanding feature is the enormous volumetric flow in proportion to exceptionally low noise levels, making it ideal for use in sensitive office areas.

Benefits:
- Easy assembly, the roof plate variant eliminates the need to create mounting cut-outs
- Fully wired ready for connection

Colour:
- RAL 7035

Supply includes:
- Roof-mounted fans
- Assembly parts

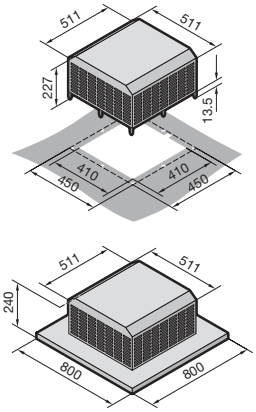
Note:
- Reduction in the specified air throughput to 800 m^3/h at 40 Pa counterpressure using two vented base/plinth trim panels 8100.802 in the Flex-Block base/plinth system

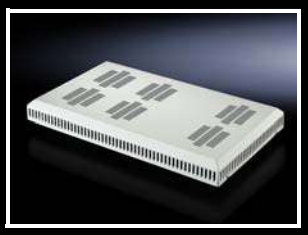
Model No.	3164.230	3164.620
Packs of	1 pc(s).	1 pc(s).
Rated operating voltage V, ~, Hz	230, 1~, 50/60	230, 1~, 50/60
Air throughput, unimpeded air flow m^3/h	**1500**	**1500**
Design	without roof plate	with roof plate
Rated current A	0.3 / 0.35	0.3 / 0.35
Power consumption W	68 / 81	68 / 81
Width mm	511	800
Height mm	227	240
Depth mm	511	800
Required mounting cut-out mm	410 x 410	–
Fan	Radial	Radial
Operating temperature range	+20°C...+55°C	+20°C...+55°C
Noise level dB(A)	40	40
Weight kg	19.5	30.0





Accessories:
- Digital enclosure internal temperature display and thermostat integrated into a patch panel 1 U, see page 466
- Digital enclosure internal temperature display and thermostat , see page 466
- Thermostat, see page 467
- Thermostat with strain relief, see page 467
- Speed control, see page 470







Fan mounting plate

for TS IT, TE

For active ventilation. The unit may optionally be extended with additional fans.

Applications:
- For use in the cut-out integrated into the roof plate

Colour:
- RAL 7035

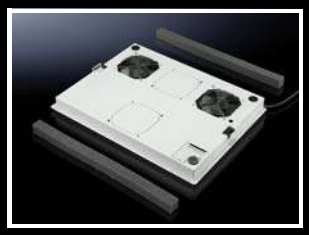
Supply includes:
- 1 fan unit
- 2 fans
- 1 thermostat
- Connection cable, open-ended
- Assembly parts

Note:
- The noise level given refers to the first fan
- Connection via distributor box or country-specific connector

Accessories:
- Fan expansion kit, see page 533

To fit enclosure width/depth mm	W x H x D mm	Number of fans	Number of fans (max.)	Air through-put per fan m^3/h	Output per fan W	Rated operating voltage V, ~, Hz	Operating tempera-ture range	Noise level per fan dB(A)	Packs of	**Model No.**
800 x 600 600 x 1000 600 x 1200 600 x 600 600 x 800	200 x 59 x 550	2	3	160 / 180	15 / 14	230, 1~, 50/60	+5°C... +55°C	37	1 pc(s).	**5502.010**
800 x 800 800 x 1000 800 x 1200	340 x 54 x 550	2	6	160 / 180	15 / 14	230, 1~, 50/60	+5°C... +55°C	37	1 pc(s).	**5502.020**

Fan mounting plate



For upgrading existing DK-TS applications. The plate is mounted at the front of the enclosure, whilst the rear section is left free for cable entry. A rubber cable clamp strip is supplied loose for optional sealing at the rear.

Installation options:
- In a solid roof plate raised with 20 or 50 mm roof spacers
- In a roof plate for cable entry raised with 20 or 50 mm roof spacers
- In a vented roof plate for cable entry

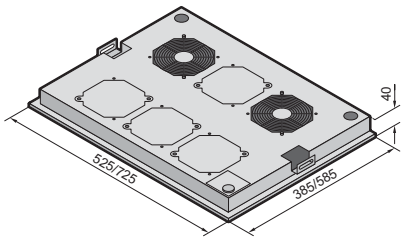
Colour:
- RAL 7035

Supply includes:
- 2 fans
- Additional cut-outs to install further fans
- 1 thermostat
- Foam rubber cable clamp strip
- Thermostat and fan fully wired to connection cable (3.5 m)

Note:
- Not suitable for crane transportation
- In combination with the swing frame, large, or roof plate for cable entry at the rear, the fan mounting plate should be selected as follows: Fan mounting plate = enclosure depth – 200 mm
- Not suitable in combination with 482.6 mm (19") mounting frame
- The air throughput can be increased with fan expansion kit 7980.000
- The noise level given refers to the first fan

Assembly instruction:
- Rubber cable clamp strip 2573.000 is required for sealing the sides and for targeted air routing when bayed

Accessories:
- Fan expansion kit, see page 533



To fit enclosure width/depth mm	Number of fans	Number of fans (max.)	Air throughput per fan m^3/h	Output per fan W	Rated operating voltage V, ~, Hz	Operating temperature range	Noise level per fan dB(A)	Packs of	**Model No.**
600 x 600	2	4	160 / 180	15 / 14	230, 1~, 50/60	+5°C... +55°C	37	1 pc(s).	**7966.035**
600 x 800 600 x 1000 600 x 1200	2	6	160 / 180	15 / 14	230, 1~, 50/60	+5°C... +55°C	37	1 pc(s).	**7968.035**
800 x 600	2	6	160 / 180	15 / 14	230, 1~, 50/60	+5°C... +55°C	37	1 pc(s).	**7986.035**
800 x 800 800 x 1000 800 x 1200	2	6	160 / 180	15 / 14	230, 1~, 50/60	+5°C... +55°C	37	1 pc(s).	**7988.035**

Fan expansion kit



For use as a stand-alone fan, and for upgrading various fan units or to supplement the fan mounting plate.

Supply includes:
- Fan
- Connection cable (0.61 m)
- Assembly parts

W x H x D mm	Air throughput (unimpeded air flow) m^3/h	Rated operating voltage V, ~, Hz	Power consumption W	Operating temperature range	Noise level dB(A)	Packs of	**Model No.**
119 x 119 x 38	160 / 180	230, 1~, 50/60	15 / 14	-10°C...+55°C	37 / 37	1 pc(s).	**7980.000**
119 x 119 x 25	108 / 120	230, 1~, 50/60	14 / 12	-20°C...+70°C	34 / 34	1 pc(s).	**7980.100**
119 x 119 x 38	184	48 (DC)	7.7	-20°C...+70°C	43	1 pc(s).	**7980.148**



Door-mounted fan

For upgrading existing DK-TS applications. Designed especially for installing in one-piece perforated sheet steel doors. The growing packaging density in server and network enclosures makes active, direct ventilation of the enclosure essential. The fan cross member, which is attached to the tubular door frame of the rear or front door, supports horizontal air routing via the servers to enable faster heat dissipation from active components.

Benefits:
- By adding two fan expansion kits, the air throughput is increased to 1200 m^3/h
- The direction of air flow is easily reversed by rotating the fan
- Several units may be positioned in a cascade arrangement
- Simple mounting on the tubular door frame
- Fully wired ready for connection

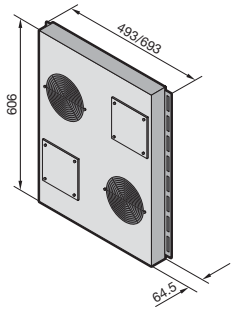
Colour:
- RAL 7035

Supply includes:
- 2 fans
- Connection cable (2.5 m)
- Assembly parts

Note:
- Only for mounting on the tubular door frame!

Model No.	3165.630	3165.830
Packs of	1 pc(s).	1 pc(s).
Rated operating voltage V, ~, Hz	230, 1~, 50/60	230, 1~, 50/60
Air throughput, unimpeded air flow m^3/h	**600**	**600**
Rated current A	0.38 / 0.36	0.38 / 0.36
Power consumption W	70 / 70	70 / 70
Width mm	493	693
Height mm	606	606
Depth mm	64.5	64.5
To fit width mm	600	800
Operating temperature range	+20°C...+55°C	+20°C...+55°C
Noise level dB(A)	55	55
Weight kg	9.3	12.7

Accessories:
- Fan expansion kit, see page 534
- Digital enclosure internal temperature display and thermostat, see page 466
- Thermostat, see page 467
- Thermostat with strain relief, see page 467





Fan expansion kit

for door-mounted fan

To increase the air throughput of the door-mounted fan.

To fit Model No.	Packs of	Model No.
3165.630/3165.830	1 pc(s).	**3165.230**

Cover plates for fan panels

for FlatBox
To cover unused fan panels when using fans in the FlatBox.

Material:
– Sheet steel

Surface finish:
– Powder-coated

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Packs of	**Model No.**
6 pc(s).	**7507.760**



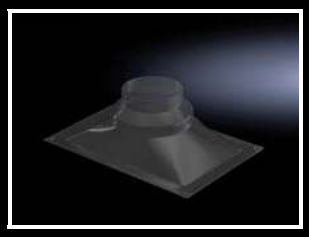
Vent cover

The ideal addition for incorporating sealed racks into an existing central climate control system. The stepped connection is suitable for standard pipe diameters, thereby ensuring effective cooling thanks to targeted air exchange inside the rack.

Material:
– PET-G, transparent

Supply includes:
– Assembly parts





W x H x D mm	Required cut-out in the roof plate (WxD) mm	Diameter of hose connection mm	Weight kg	Packs of	**Model No.**
450 x 144 x 300	380 x 230	150/200	0.96	1 pc(s).	**7826.750**

Precision climate control units for data centres





The technology – Simply efficient

Precision climate control units from Rittal ensure optimum climatic conditions in data centres that are exposed to high thermal loads. By precisely regulating the temperature and humidity, these climate control units guarantee optimum ambient conditions for your valuable IT equipment. Waste heat is dissipated according to requirements. Redundant solutions offer a high degree of fail-safeness and energy-efficient use.

CRAC DX precision climate control units for direct evaporation with external air-cooled condenser unit

- Upflow, downflow, displacement
- AC fan or optionally EC fan
- Available with electronic expansion valve, electric heater, steam humidifier, additional heat exchanger for cooling with cold water instead of direct evaporation or internal water-cooled condenser unit
- Complete set of optional accessories: Network protocol cards, filter, plenum space, base frame

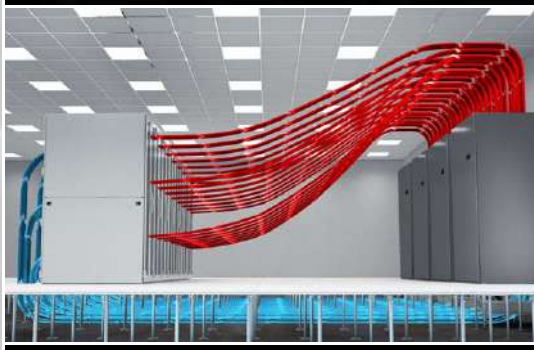
CRAC DX precision climate control units for direct evaporation with inverter-controlled compressor and external air-cooled condenser unit

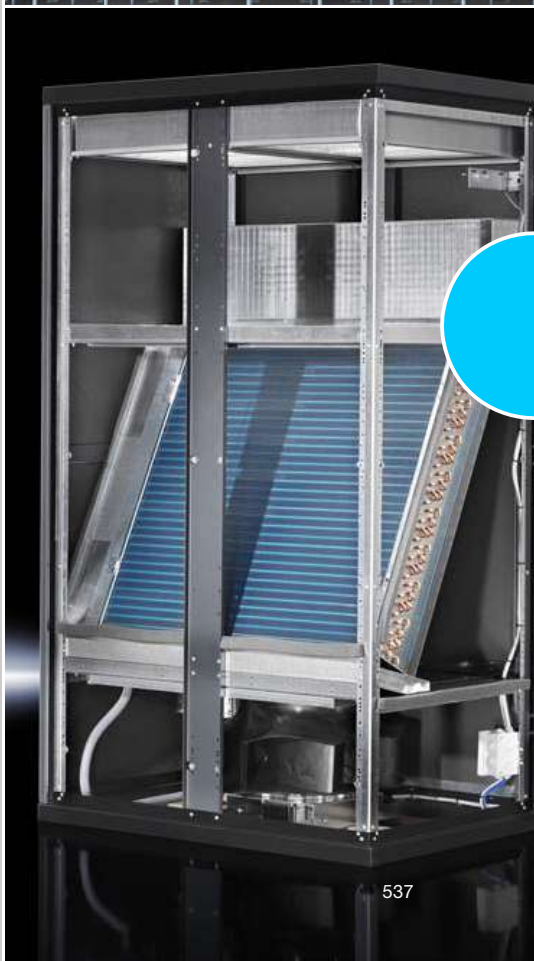
- Upflow, downflow, displacement
- EC fan
- Available with electric heater, steam humidifier, additional heat exchanger for cooling with cold water instead of direct evaporation or internal water-cooled condenser unit
- Complete set of optional accessories: Network protocol cards, filter, plenum space, base frame

CRAC CW precision climate control units for cold water operation

- Upflow, downflow, displacement
- Fans positioned in the device or in the raised floor (downflow only)
- EC fan
- Available with electric heater, steam humidifier
- Complete set of optional accessories: Network protocol cards, filter, plenum space, base frame







Chillers for IT cooling



Applications:
– Especially for cooling IT applications, such as LCP or air/water heat exchangers. Safety-relevant features such as redundant speed-controlled pumps, compressors or buffer stores are the distinguishing features of these atmospherically sealed systems

Technical specifications:
– Compact design with control components in the front and air intake via both side panels, air outlet upwards
– Pressure-sealed system
– Digital thermostat for temperature control with setpoint and actual value display
– Controller with networking capability, compatible with the SNMP protocol
– Integral bypass

Temperature control:
– Electronic control with digital display (factory setting +15°C)

Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Chiller wired ready for connection
– Multi-lingual documentation
– Functional diagram and wiring plans

Optional:
– Free cooling may be integrated from 15 kW. Please follow the instructions
– Buffer store for separate siting
– Emergency cooling with mains water infeed
– Special voltages

Note:
– Technical deviations in terms of cooling output, dimensions or weight are possible for unit types with free cooling
– The performance data varies according to the option package chosen, and should be taken from the IT chiller configurator. We reserve the right to make technical modifications
– Pump and tank are available as options with IT chillers. If these configuration options are required, their technical data applies

Total cooling output 15 – 67 kW

Model No.	Packs of	**3232.701**	**3232.711**	**3232.721**	**3232.731**	**3232.741**	Page
Total cooling output kW		**15**	**24**	**36**	**48**	**67**	
Width mm		810	810	810	1000	1100	
Height mm		1542	1542	1542	1780	1606	
Depth mm		1800	1800	1800	2300	3240	
Rated operating voltage V, ~, Hz		400, 3~, 50	400, 3~, 50	400, 3~, 50	400, 3~, 50	400, 3~, 50	
Air throughput at max. cooling output m^3/h		10880	10880	14000	18000	22000	
Power consumption kW		6.9	9.7	14.6	21	21	
Rated current max. A		23	25	37	46.5	52.2	
Refrigerant		R407c	R407c	R407c	R407c	R410a	
Permissible operating pressure (p. max.) bar		28	28	28	28	45	
Operating temperature range		-20°C...+43°C	-20°C...+43°C	-20°C...+43°C	-20°C...+43°C	-20°C...+43°C	
Temperature of liquid		+5°C...+15°C	+5°C...+15°C	+5°C...+15°C	+5°C...+15°C	+5°C...+15°C	
Pump capacity l/min		60	60	120	120	240	
Pump pressure bar		2.5	2.5	2.5	2.5	2.5	
Number of cooling circuits		1	1	1	1	2	
Steel tank, with 10 mm condensate insulation		■	■	■	■	■	
Tank capacity l		48	48	48	100	200	
Water connection		G 1½" internal thread	G 1½" internal thread	G 1½" internal thread	G 1½" internal thread	G 2½" internal thread	
Weight as delivered kg		400.0	415.0	505.0	710.0	896.0	
Operating weight kg		448.0	463.0	553.0	810.0	1096.0	
Colour		RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 9002	

Total cooling output 77 – 124 kW

Model No.	Packs of	**3232.751**	**3232.761**	**3232.771**	**3232.781**	**3232.791**	Page
Total cooling output kW		**77**	**88**	**99**	**117**	**124**	
Width mm		1100	1100	1100	1100	1100	
Height mm		1606	1606	1606	1875	1875	
Depth mm		3240	3240	3240	3240	3240	
Rated operating voltage V, ~, Hz		400, 3~, 50	400, 3~, 50	400, 3~, 50	400, 3~, 50	400, 3~, 50	
Air throughput at max. cooling output m^3/h		22000	27000	27000	34100	34100	
Power consumption kW		24	26	29	36	41	
Rated current max. A		59.2	64.2	69.2	84.1	89.1	
Refrigerant		R410a	R410a	R410a	R410a	R410a	
Permissible operating pressure (p. max.) bar		45	45	45	45	45	
Operating temperature range		-20°C...+43°C	-20°C...+43°C	-20°C...+43°C	-20°C...+43°C	-20°C...+43°C	
Temperature of liquid		+5°C...+15°C	+5°C...+15°C	+5°C...+15°C	+5°C...+15°C	+5°C...+15°C	
Pump capacity l/min		240	240	240	470	470	
Pump pressure bar		2.5	2.5	2.5	2.5	2.5	
Number of cooling circuits		2	2	2	2	2	
Steel tank, with 10 mm condensate insulation		■	■	■	■	■	
Tank capacity l		200	200	200	300	300	
Water connection		G 2½" internal thread	G 2½" internal thread	G 2½" internal thread	G 2½" internal thread	G 2½" internal thread	
Weight as delivered kg		896.0	906.0	912.0	1000.0	1000.0	
Operating weight kg		1096.0	1106.0	1112.0	1300.0	1300.0	
Colour		RAL 9002	RAL 9002	RAL 9002	RAL 9005	RAL 9005	

Total cooling output 155 – 261 kW

Model No.	Packs of	**3232.801**	**3232.811**	**3232.821**	**3232.891**	**3232.831**	Page
Total cooling output kW		**155**	**172**	**196**	**235**	**261**	
Width mm		1100	1100	1100	1500	2200	
Height mm		1875	1875	1875	1975	2450	
Depth mm		3240	3240	4240	4350	3400	
Rated operating voltage V, ~, Hz		400, 3~, 50	400, 3~, 50	400, 3~, 50	400, 3~, 50	400, 3~, 50	
Air throughput at max. cooling output m^3/h		32600	32600	50000	49000	72800	
Power consumption kW		47	52	60	70	80	
Rated current max. A		108	120	127	149	181	
Refrigerant		R410a	R410a	R410a	R410a	R410a	
Permissible operating pressure (p. max.) bar		45	45	45	45	45	
Operating temperature range		-20°C...+43°C	-20°C...+43°C	-20°C...+43°C	-20°C...+43°C	-20°C...+43°C	
Temperature of liquid		+5°C...+15°C	+5°C...+15°C	+5°C...+15°C	+5°C...+15°C	+5°C...+15°C	
Pump capacity l/min		500	500	500	500	810	
Pump pressure bar		2.5	2.5	2.5	2.5	2.5	
Number of cooling circuits		2	2	2	2	2	
Steel tank, with 10 mm condensate insulation		■	■	■	■	■	
Tank capacity l		300	300	300	300	700	
Water connection		G 2½" internal thread	G 2½" internal thread	G 2½" internal thread	G 2½" internal thread	G 3" internal thread	
Weight as delivered kg		1000.0	1000.0	1000.0	1900.0	2500.0	
Operating weight kg		1300.0	1300.0	1300.0	2200.0	3200.0	
Colour		RAL 9002	RAL 9002	RAL 9002	RAL 9002	RAL 9002	

Chillers for IT cooling

Total cooling output 291 – 481 kW

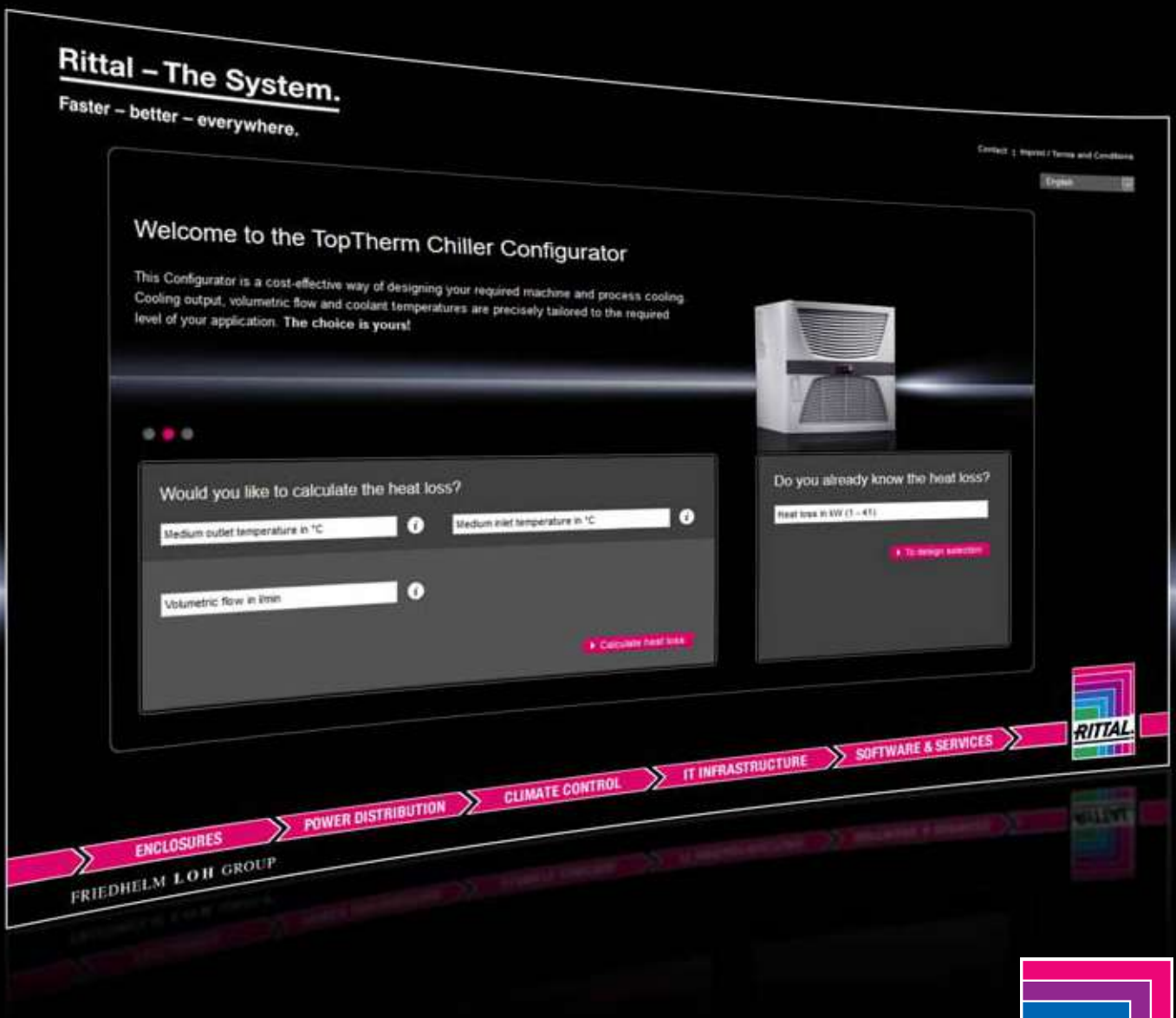
Model No.	Packs of	**3232.841**	**3232.851**	**3232.861**	**3232.871**	**3232.881**	Page
Total cooling output kW		**291**	**326**	**387**	**430**	**481**	
Width mm		2200	2200	2200	2200	2200	
Height mm		2450	2450	2450	2450	2450	
Depth mm		3400	3400	4250	4250	4250	
Rated operating voltage V, ~, Hz		400, 3~, 50	400, 3~, 50	400, 3~, 50	400, 3~, 50	400, 3~, 50	
Air throughput at max. cooling output m^3/h		71500	70200	106200	104100	102000	
Power consumption kW		93	106	121	141	159	
Rated current max. A		203	225	293	307	336	
Refrigerant		R410a	R410a	R410a	R410a	R410a	
Permissible operating pressure (p. max.) bar		45	45	45	45	45	
Operating temperature range		-20°C...+43°C	-20°C...+43°C	-20°C...+43°C	-20°C...+43°C	-20°C...+43°C	
Temperature of liquid		+5°C...+15°C	+5°C...+15°C	+5°C...+15°C	+5°C...+15°C	+5°C...+15°C	
Pump capacity l/min		810	810	1200	1200	1200	
Pump pressure bar		2.5	2.5	2.5	2.5	2.5	
Number of cooling circuits		2	2	2	2	2	
Steel tank, with 10 mm condensate insulation		■	■	■	■	■	
Tank capacity l		700	700	700	700	700	
Water connection		G 3" internal thread	G 3" internal thread	G 4" internal thread	G 4" internal thread	G 4" internal thread	
Weight as delivered kg		2700.0	2800.0	3100.0	3000.0	3600.0	
Operating weight kg		3400.0	3500.0	3800.0	3700.0	4300.0	
Colour		RAL 9002	RAL 9002	RAL 9002	RAL 9002	RAL 9002	



Rittal – The System.

Faster – better – everywhere.

Chiller Configurator – Simple calculation of output



Rittal – The System.

Faster – better – everywhere.





IT monitoring

CMC III – Monitoring system

CMC III system representation 544
CMC III Processing Unit / Compact system overview 546
CMC III Processing Unit / Compact 548

CMC III sensors/accessories

Control units for CMC III Processing Unit 549
Sensors for direct connection 550
Interface for CMC-TC sensors 551
Products with CAN bus interface for direct connection 552
Access system 553

CMC III door control system

Door control system DCS 554
Door control module 555
Door kit 555
Door kit extension 556
Door comfort handle 556
Door switch 556

CMC III accessories

Power supply unit 557
Programming cable 557
CAN bus connection cable 557
Connection cable/extension 558
Extension cable RJ 12 558
Mounting unit, 1 U 558
Cable clamp strap 558
Mounting unit 559
CMC III GSM unit 559
Interference suppressor for fans 559

Dynamic Rack Control

RFID aerial 561
RFID tags 561
RFID controller 561
CMC III CAN bus DRC 561

Management software

RiZone 562
Server shutdown software 562

Monitor/keyboard unit

Monitor/keyboard unit, 1 U 563
KVM switch 563

Your benefits

- A better overview of your IT infrastructure
- Enhanced security
- Automated processes
- Exceptional cost efficiency
- Huge energy savings
- Simple project management
- Fast installation
- Flexible, individual solutions using standard products from Rittal
- High standard of quality with coordinated standard products

Sample applications

1 CMC III, see page 547

2 Liquid Cooling Package LCP, see page 522

3 Monitor/keyboard unit, see page 563

4 Electric comfort handle TS 8, see page 553

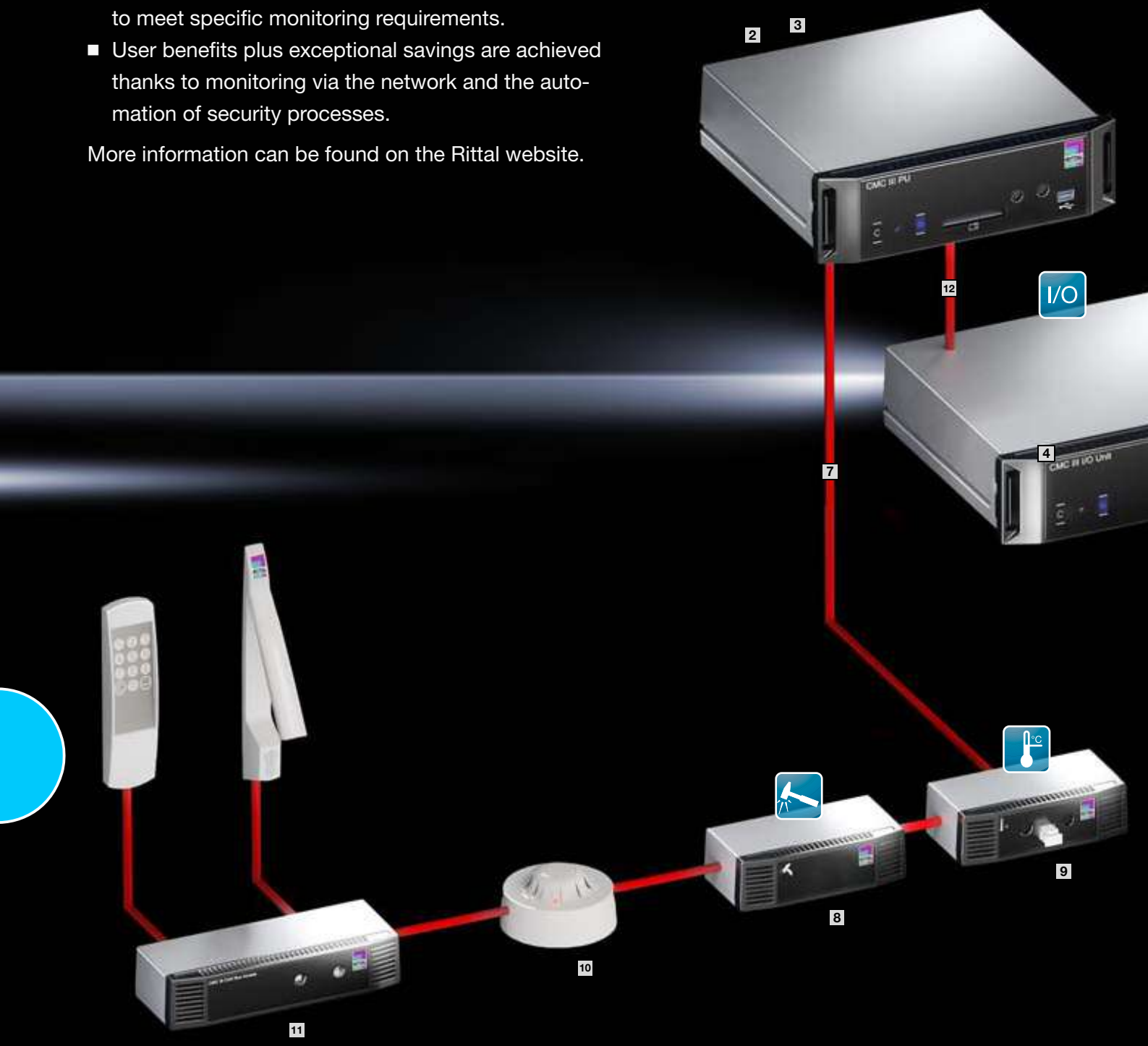
CMC III – Monitoring system

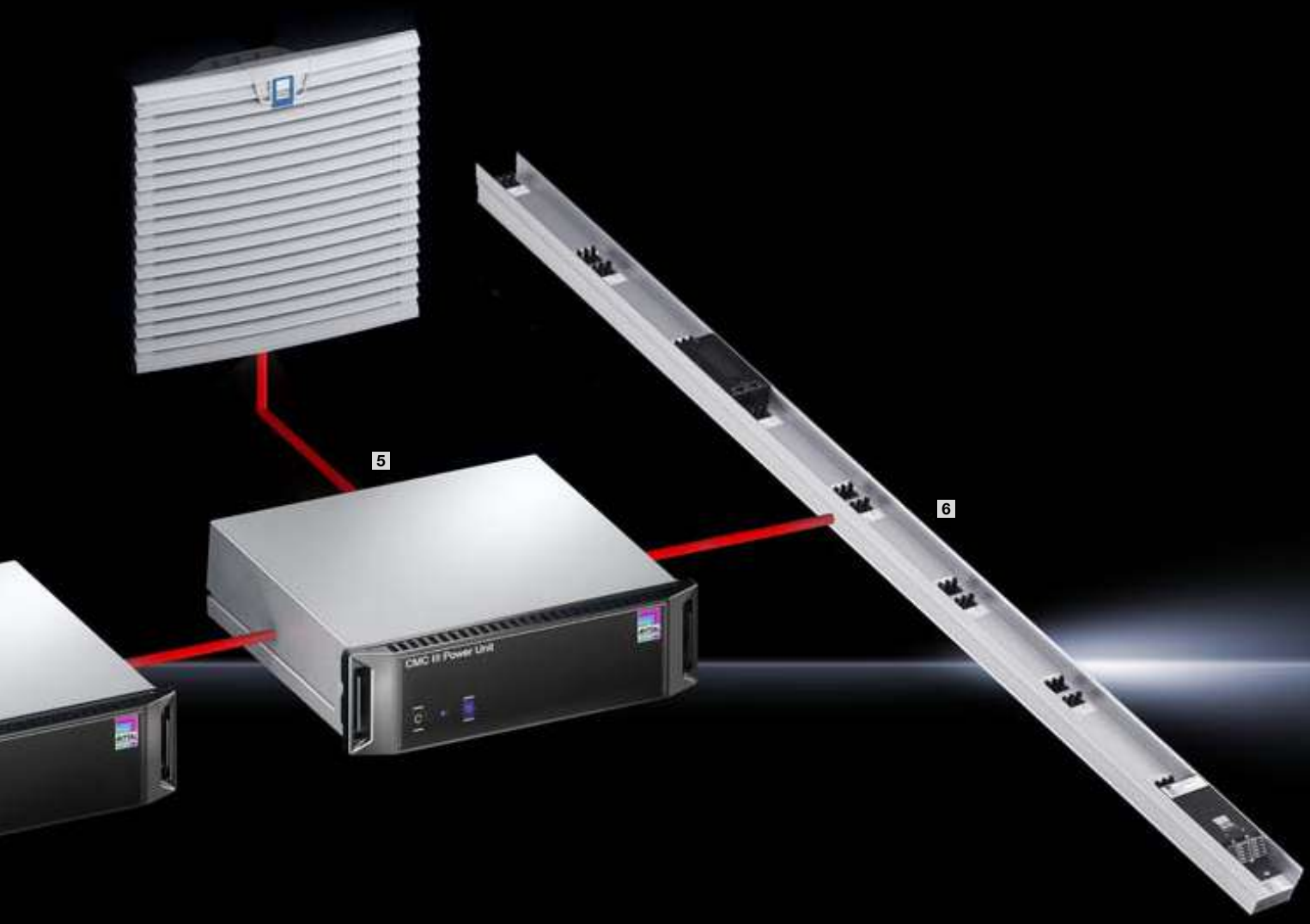
Computer Multi Control (CMC) is an alarm system for network and server enclosures, standard enclosures, containers and rooms.

- It monitors temperatures, humidity, access, fumes, energy and many other physical ambient parameters.
- The system is modular and can be flexibly adapted to meet specific monitoring requirements.
- User benefits plus exceptional savings are achieved thanks to monitoring via the network and the automation of security processes.

More information can be found on the Rittal website.

1 CMC III Processing Unit





1 **CMC III Processing Unit,** see page
2 Power supply
3 Redundant power supply
4 CMC III I/O unit
5 CMC III power unit
6 CMC III PSM measuring bar for direct connection
7 Up to 16 CAN bus systems may be connected
8 CMC III vandalism sensor
9 CMC III temperature sensor
10 CMC III smoke alarm
11 CMC III CAN bus access
12 Up to 16 CAN bus systems may be connected

CMC III Processing Unit Compact

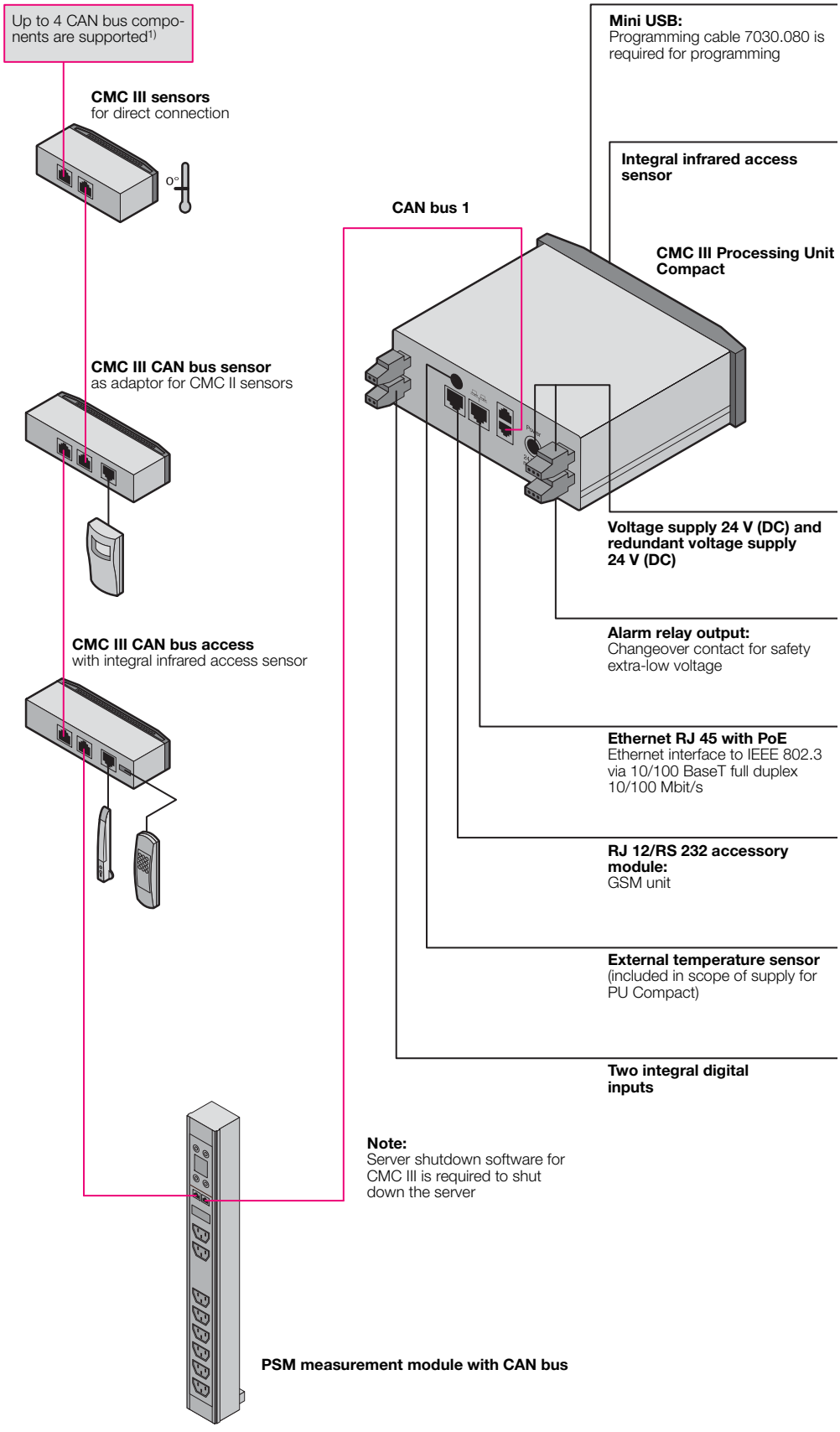
System overview





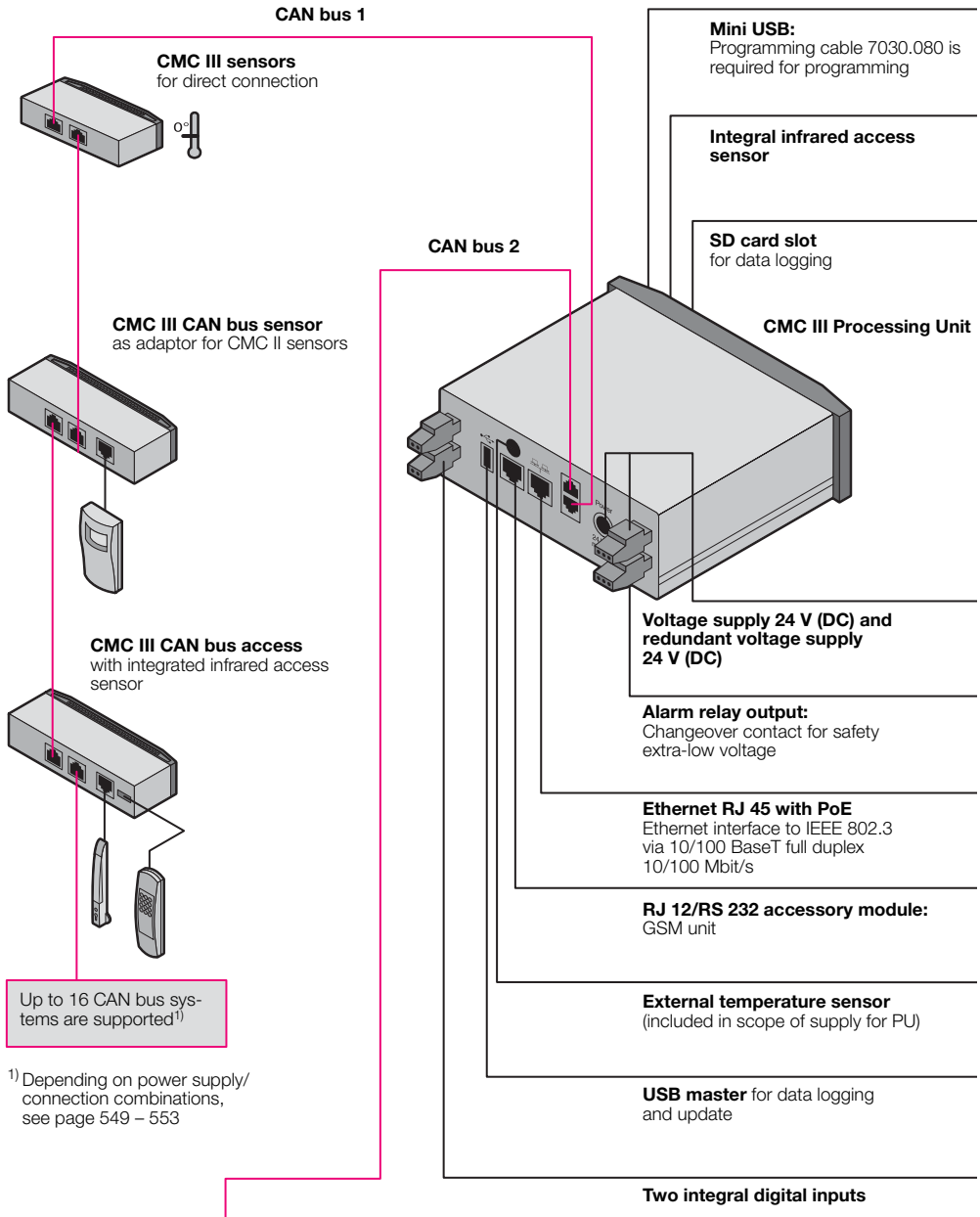


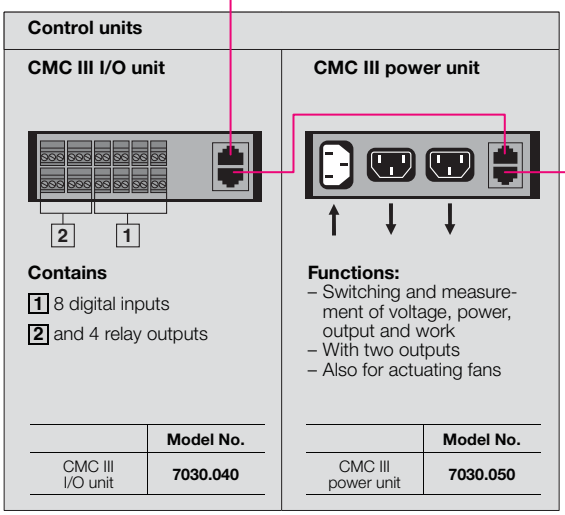


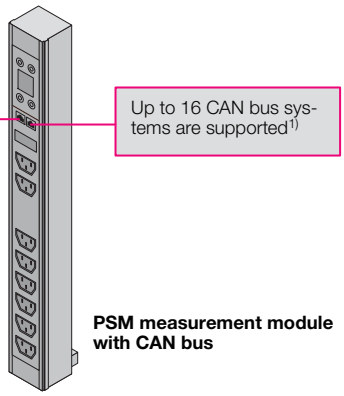


[1)] Depending on power supply/ connection combinations, see page 549 – 553

System overview

















CMC III Processing Unit / Compact



System overview Page 546/547 **Basic modules and connection accessories** from page 549

- Redundant voltage supply, plus Power over Ethernet (PoE)
- Simple wiring with CAN bus connection system (RJ 45)
- Connection to control room systems via OPC-UA

Material:
– Plastic

Surface finish:
– Front: Smooth
– Enclosure: Textured

Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Protection category IP to IEC 60 529:
– IP 30

Supply includes:
– Basic system
– Quick-start instructions
– 4 mounting feet

Note:
– Unencrypted protocols may be deactivated for enhanced network security

Approvals:
– cULus

Photo shows a configuration example with equipment not included in the scope of supply

		CMC III Processing Unit	CMC III Processing Unit Compact
W x H x D mm		138 x 40 (1 U) x 120 + 12 (front assembly)	138 x 40 (1 U) x 120 + 12 (front assembly)
Operating temperature range		0°C…+45°C	0°C…+45°C
Operating humidity range		5 – 95% relative humidity, non-condensing	5 – 95% relative humidity, non-condensing
Sensors/CAN bus connection units		max. 32	max. 4
Max. overall cable length for CAN bus		2 x 50 m	1 x 50 m
Model No.	Packs of 1	**7030.000**	**7030.010**
Interfaces	Network interface (RJ 45)	Ethernet to IEEE 802.3 via 10/100BaseT with PoE	Ethernet to IEEE 802.3 via 10/100BaseT with PoE
	Front USB interface	Mini USB for system setting	Mini USB for system setting
	Front USB interface	for USB stick for data recording up to 32 GB	–
	Front SD-HC slot	1 x up to 32 GB for data recording	–
	Rear serial RS232 (RJ 12)	1 x for connecting GSM unit	1 x for connecting GSM unit
	CAN bus (RJ 45)	2 x for max. 16 sensors each = 32 sensors in total (quantity restriction, see page 549 – 553)	1 x for max. 4 sensors (quantity restriction, see page 549 – 553)
Inputs and outputs	Digital inputs (terminal)	2	2
	Relay output (terminal)	Changeover contact max. 24 V (DC), 1 A	Changeover contact max. 24 V (DC), 1 A
Operation/ signals	Switch/concealed reset button	1 x acknowledgement button/1 x service button	1 x acknowledgement button/1 x service button
	Piezo signal generator	1	1
	LED display	1 x multi-colour OK/warning/alarm	1 x multi-colour OK/warning/alarm
	Rear LED	1 x for the network status	1 x for the network status
Protocols	Ethernet	TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, (S)FTP, HTTP(S), NTP, DHCP, DNS, SMTP(S), Syslog	TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, (S)FTP, HTTP(S), NTP, DHCP, DNS, SMTP(S), Syslog
Redundant power supply	Input 24 V DC (jack)	1 x for connecting CMC III power pack	1 x for connecting CMC III power pack
	Input 24 V DC (terminals)	1 x for direct connection or for connecting CMC III power pack	1 x for direct connection or for connecting CMC III power pack
	Power over Ethernet PoE	1 x 15.4 W	1 x 15.4 W
Functions	Time function	Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP	Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP
	User administration	Local, LDAP(S), Radius	Local, LDAP(S), Radius
	User interface	Integral Web server with flexible dashboard and mobile view	Integral Web server with flexible dashboard and mobile view
	Control room connection	Integral OPC-UA server, Modbus/TCP	Integral OPC-UA server, Modbus/TCP
	Video monitoring	Incorporation of 1 x network camera	–
Integral sensors	Temperature sensor	NTC sensor with cable, supplied loose	NTC sensor with cable, supplied loose
	Access sensor	Infrared technology in the enclosure front	Infrared technology in the enclosure front



Control units for CMC III Processing Unit

Dimensions:
– W x H x D:
138 x 40 x 120 + 12 mm front frame

Material:
– Plastic

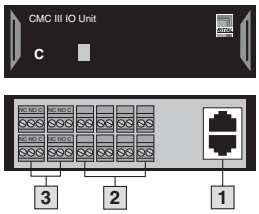
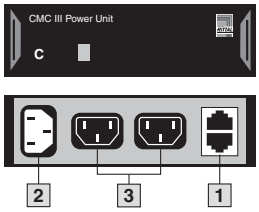
Surface finish:
– Front: Smooth
– Enclosure: Textured

Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Protection category IP to IEC 60 529:
– IP 30

Supply includes:
– Basic system
– Quick-start instructions
– 4 mounting feet

Also required:
– CAN bus connection cable 7030.090/.095, see page 557
– Mounting unit, 1 U, 7030.070, see page 558

		1 Connection RJ 45 2 x CAN bus	2 Inputs	3 Outputs	Model No. Packs of 1	PU Compact Maximum quantity	PU Maximum quantity
	**CMC III I/O unit** The relays can be linked to measured values in the software so that they are actuated under certain circumstances. This system can be used to monitor devices and forward messages. Cannot be operated with the Processing Unit Compact. – Inputs for potential-free signals – Relay output (changeover contact) can handle loads of up to max. 24 V (DC)/1 A	■	8 x digital	4 x relays	**7030.040**	–	16
	**CMC III Power Unit** The input is switched to the outputs via two relays. In this way, the outputs can be linked to measured values and therefore can be switched automatically. Examples of potential applications include fan regulation. Manual switching via the CMC III operating interface is likewise supported. Each output is monitored individually, and various values are measured. Cannot be operated with the Processing Unit Compact. – Switches 2 outputs – Measures voltage, current, power, work – Application: Controlling and switching fans, heaters, equipment	■	1 x C14 110 – 230 V 50/60 Hz	2 x C13 Aggregate current max. 10 A	**7030.050**	–	16

Accessories



CMC III sensors for direct connection

CMC III sensors are used for monitoring the physical environment and can be connected directly to the PU via a CAN bus connection cable RJ 45. The sensors may also be linked together to form a bus.

Dimensions:
- 7030.110/.111/.120/.130
  W x H x D: 80 x 28 x 40 mm
- 7030.140/.150/.190/.430/.440
  W x H x D: 110 x 30 x 40 mm
- 7030.400
  Ø x H: 100 x 60 mm

Material:
- Plastic

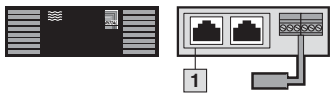
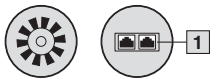
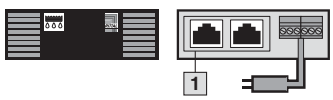
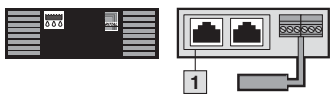
Surface finish:
- Front: Smooth
- Enclosure: Textured

Colour:
- Front: RAL 9005
- Enclosure: RAL 7035
- Smoke detector: White

Protection category IP to IEC 60 529:
- IP 30

Supply includes:
- Sensor
- Mounting bracket
- Assembly parts
- Instructions

Also required:
- CAN bus connection cable 7030.090/.095, see page 557

		1 Connection RJ 45 2 x CAN bus	2 Inputs	Model No. Packs of 1	PU Compact Maximum quantity	PU Maximum quantity
	**Temperature sensor** – External NTC sensor, 2 m cable – Measurement range for external sensors: -40°C…+80°C	■	–	**7030.110**	4	32
	**Temperature/humidity sensor** Measurement range: 0°C…+55°C/ 5% rel. humidity ... 95% rel. humidity	■	–	**7030.111**	4	32
	**Infrared access sensor** Monitoring with reflector on the door, spacing adjustable	■	–	**7030.120**	4	32
	**Vandalism sensor** – Axis: x, y, z – Acceleration limits: -7...7 g, adjustable	■	–	**7030.130**	4	32
	**Analog airflow sensor** – External airflow sensor: 4 – 20 mA – Measurement range: 0.5 – 15 m/s – Application: Fans, filters, climate control devices	■	–	**7030.140**	4	10[1]
	**Analog differential pressure sensor** – Two pressure measuring points (infeed via hose) – Measurement range: -500 m Pa – +500 m Pa – Application: Cold aisle encapsulation, raised floor	■	–	**7030.150**	4	32
	**Universal sensor** Choice of digital inputs for an application: – Potential-free signals – S_0 input for energy measurement systems – 1 Wiegand interface (external access systems)	■	2 x digital may be switched over to pulse input S_0 or a Wiegand interface 1 x analog 4 – 20 mA	**7030.190**	4	32
	**Smoke detector** – Monitors the room air for smoke particles using an optical component	■	–	**7030.400**	4	32
	**Leak sensor** – Monitors a given point on the floor of the data centre or enclosure for liquids. The external sensor probe allows free selection of the point to be monitored.	■	–	**7030.430**	4	32
	**Leak sensor, 15 m** – Monitors a larger floor area for liquids using the 15 metre long detection cable. The sensor additionally indicates the section of cable where a leak has been detected.	■	–	**7030.440**	4	32

[1] Max. 5 pieces for power supply with PoE



Interface for CMC-TC sensors

The CMC III CAN bus sensor supports the connection of selected sensors from the CMC-TC system to the new CMC III, allowing old applications to be upgraded with the CMC III Processing Unit / Compact. As well as the two CAN bus connections, the unit also has another connection for one of the CMC-TC sensors. In this way, the unit functions as an interface between the CMC-TC sensor and the new processing unit, and adapts the sensor data to the CAN bus protocol.

Dimensions:
– W x H x D:
110 x 30 x 40 mm

Material:
– Plastic

Surface finish:
– Front: Smooth
– Enclosure: Textured

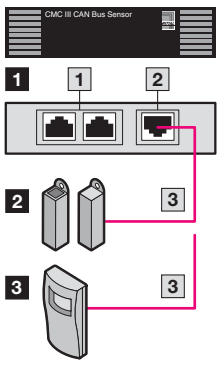
Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Protection category IP to IEC 60 529:
– IP 30

Supply includes:
– Sensor
– Mounting bracket
– Assembly parts
– Instructions

The following CMC-TC access sensors may connected to the CMC III CAN bus sensor:
– 1 x temperature sensor
– 1 x analog input 4 – 20 mA
– 5 x access sensors in series
– 1 x airflow sensor
– 1 x smoke detector
– 1 x motion detector
– 1 x digital input
– 1 x digital relay output
– 1 x voltage monitor
– 1 x 48 V voltage sensor
– 1 x leak sensor
– 1 x leak sensor, 15 m sensors
– 1 x door control unit (two connections)
– 1 x DET-AC Plus extinguisher system (three connections)
– 1 x DET-AC Plus early fire detection system (three connections)

Also required:
– CAN bus connection cable 7030.090/.095, see page 557

		1	2	3	Model No.	PU Compact	PU
		Connection RJ 45 2 x CAN bus	Input RJ 12	Output RJ 12	Packs of	Maximum quantity	
	**1 CMC III CAN bus sensor** For connecting one CMC-TC sensor	■	1 x	–	**7030.100** 1 pc(s).	4	32
	Connectable sensors (max. 1 sensor per CAN bus sensor)						
	2 CMC-TC access sensor – Sensor: Reed contact/magnet – Max. 5 reed contacts in series – 2 m cable included with the supply	–	–	1 x	**7320.530** 2 pc(s).	–	–
	3 CMC-TC motion detector – Sensor: Infrared – 2 m cable included with the supply	–	–	1 x	**7320.570** 1 pc(s).	–	–

Accessories

Products with CAN bus interface for direct connection

		Model No.	PU Compact	PU	Page
			Maximum quantity		
	PSM measurement bars 16 A, with 2 infeeds	7859.050	4	8	489
	PSM measurement bars 32 A, with 1 infeed	7859.053	4	8	489
	PSM measurement module with CAN bus, 8 x C13	7859.410	4	16	493
	PSM measurement module with CAN bus, 2 x C13, 4 x C19	7859.420	4	16	493
	PSM measurement module with CAN bus, 2 x C13, 4 x earthing-pin	7859.430	4	16	493
	PSM MID measuring module 16 A, with 2 infeeds	7859.312	4	8	496
	PSM MID measuring module 32 A, with 2 infeeds	7859.332	4	8	496
	Slave PDU international, managed, 16 A, 12 x C13	7955.901	3	6	503
	Slave PDU international, managed, 16 A, 24 x C13, 4 x C19	7955.910	3	6	503
	Slave PDU international, managed, 32 A, 24 x C13, 4 x C19	7955.911	3	6	503
	Slave PDU international, managed, 16 A, 18 x C13, 3 x C19	7955.931	3	6	503
	Slave PDU international, managed, 16 A, 24 x C13, 6 x C19	7955.932	3	6	503
	Slave PDU international, managed, 32 A, 24 x C13, 6 x C19	7955.933	3	6	503
	Slave PDU UK, managed, 13 A, 16 x UK	7955.940	3	6	504
	Slave PDU UK, managed, 16 A, 16 x UK, 4 x C19	7955.941	3	6	504
	Slave PDU UK, managed, 32 A, 16 x UK, 4 x C19	7955.942	3	6	504
	DET-AC III Master	7338.121	4	16	573
	DET-AC III Slave	7338.321	4	16	575
	EFD III	7338.221	4	16	574
	NH measurement module for NH fuse-switch disconnectors, size 00	9343.070	4	8	299
	NH measurement module for NH fuse-switch disconnectors, size 1	9343.170	4	8	299
	NH measurement module for NH fuse-switch disconnectors, size 2	9343.270	4	8	299
	NH measurement module for NH fuse-switch disconnectors, size 3	9343.370	4	8	299

Accessories:

– CAN bus connection cable 7030.090/.095,
see page 557



Access System

CMC III unit for controlling and monitoring access to enclosures. One handle and one reader unit may be connected to one CMC III CAN bus access. The handles can be linked to various numerical codes or RFID card numbers via the CMC III Processing Unit/ Compact website, which means that all the handles connected to a CMC III Processing Unit/Compact can be controlled with just one reader unit. The integral infrared sensor also ensures that the status of the controlled door (open/closed) is monitored.

Dimensions:
– W x H x D: 110 x 30 x 40 mm

Sample applications:
– Record of every access and each time the door is opened, with user information and time stamp
– One central reader unit per CMC III system is supported
– Fixed allocation between handles and reader units
– 4-eyes principle
– Central administration of access rights across systems and locations with RiZone

Material:
– Plastic

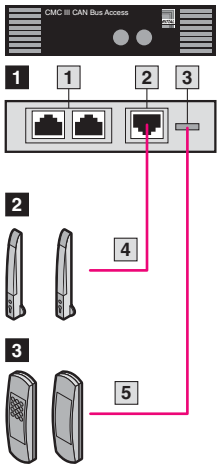
Surface finish:
– Front: Smooth
– Enclosure: Textured

Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Protection category IP to IEC 60 529:
– IP 30

Supply includes:
– CAN bus access
– Mounting bracket
– Assembly parts
– Instructions

Also required:
– CAN bus connection cable 7030.090/.095, see page 557



	Connection	Inputs		Outputs		Model No.	PU Compact	PU
	1	2	3	4	5			
	RJ 45 2 x CAN bus	RJ 12	Flat-pin connector	RJ 12	Flat-pin connector	Packs of 1	Maximum quantity	
1 CMC III CAN bus access – For connecting one handle and one reader unit to monitor a door – Integral IR access sensor	■	1 x	1 x	–	–	**7030.200**	2	16[1]
Connectable handles and reader units (max. 1 handle and max. 1 reader unit per CMC III CAN bus access)								
2 Handles **– TS 8 handle with master key function** – Handle monitoring – Rated voltage: 24 V (DC) – Connection cable: 0.5 m (fixed), 2.5 m (supplied loose)	–	–	–	1 x	–	**7320.721**	–	–
– Ergoform-S handle (electromagnetic, for TE 8000) – Handle monitoring – Rated voltage: 24 V (DC) – Connection cable: 3 m (fixed)	–	–	–	1 x	–	**7320.700**	–	–
3 CMC III reader units **– Coded lock** – Coded lock with up to 8 digits, freely selectable – 3 m cable included with the supply	–	–	–	–	1 x	**7030.220**	–	–
– Transponder reader – By contactlessly holding a transponder card in front of it, authorisation (UID of the card) is checked in the CMC III processing unit/compact, and the corresponding door(s) is/are released – Technology: Transponder 13.56 MHz – Tags: ISO 14443A, ISO 14443B, ISO 15693, ISO 18000-3 – 3 m cable included with the supply	–	–	–	–	1 x	**7030.230**	–	–

[1] Max. 5 pieces for power supply with PoE







Door Control System DCS

Consisting of:
– Door control module
– Door kit
For automatic opening of TS IT rack doors.

Sample applications:
- Overtemperature in the closed TS IT rack
- Extinguisher gas should be able to enter the rack from the room

Activated via the Door Control Module (DCM) control unit. One DCM activates one rack with 2 doors (front/rear door). We recommend the use of CMC III and access sensors.

Note:
The following door kits may be connected:
– 2 door kits (magnetic systems with dampers) 7030.240/.241/.250 (required for all applications, Model No. depending on door version)
– 2 door kits (spindle motor) 7030.261 (for applications with underpressure in the rack, e.g. LCP, powerful server fan motors etc.).
– All the power packs used must be connected to the same power supply as the servers, extinguisher systems or LCPs

Activation in case of alarm:
– CMC III task
– DCM, integral temperature sensor
– DCM, digital input

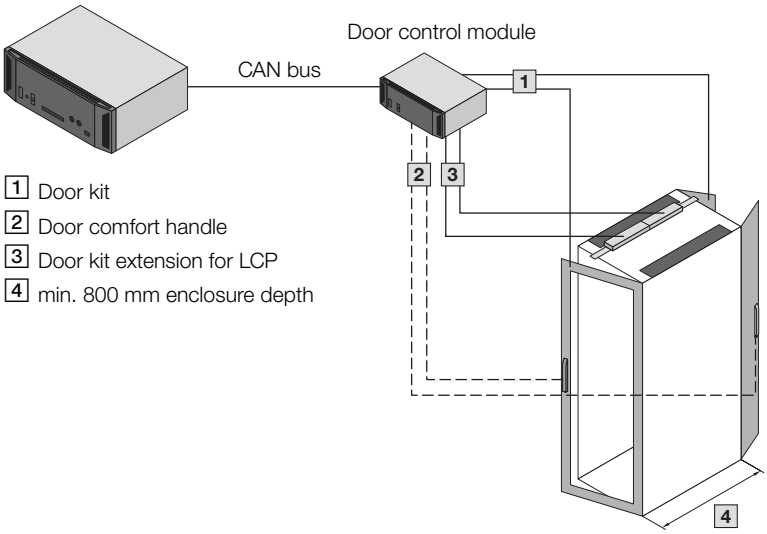
Activation for user access:
– One door switch/comfort handle 7320.793/.794 per door, see page 556
– Coded lock/transponder reader 7030.220/230, see page 553

Also required:
– Door control module DCM, see page 555
– Door kits, see page 555
– Power supply unit, see page 557
– Connection cable, see page 558
– Mounting unit, 1 U, see page 558

Accessories:
– CMC III Processing Unit/Compact with connection, power supply and mounting accessories, see from page 548
– Door switch/comfort handle, see page 556
– Coded lock/transponder reader, see page 553
– Access sensor, see from page 550

System diagram – Door Control System:
- A maximum of 16 door control modules per Processing Unit
- A maximum of 4 door control modules may be connected per Processing Unit Compact

CMC III
– Processing Unit
– Processing Unit Compact



1 Door kit
2 Door comfort handle
3 Door kit extension for LCP
4 min. 800 mm enclosure depth

Door control module

Control unit for automatic opening of TS IT rack doors. Designed for a rack with front and rear door. To fit CMC III system with CAN bus.

Material:
– Plastic

Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Supply includes:
– Basic system
– 4 mounting feet
– Quick-start instructions

Also required:
– Door kits, see page 555
– Power supply unit, see page 557
– Connection cable, see page 558
– Mounting unit, 1 U, see page 558

Accessories:
– CAN bus cable, see page 557
– Door switch/comfort handle, see page 556
– Coded lock/transponder reader, see page 553



Model No.	7030.500
Packs of	1 pc(s).
Maximum no. of PU/PU Compact	16/4
1st rated voltage	24 V (DC) Door Control Module via CMC III CAN bus, redundant to 2nd rated voltage
2nd rated voltage	24 V (DC) 7030.060 for door control module and magnet systems
3rd rated voltage	24 V (DC) 7030.060 for spindle motors only (protected by a UPS)
1 x temperature sensor input	NTC sensor (included with the supply)
3 x digital inputs	Alarm/front door/rear door
1 x input for reader units	Coded lock/transponder reader
2 x outputs for door kits	Magnetic system with damper
2 x outputs for door kits extension	Spindle motors
2 x CAN bus CMC III	RJ 45 for CAN bus cable

Door kit

for TS IT (magnetic system with damper)
To open the door in an emergency situation. Connection and activation via door control module, for standard TS IT doors. The doors are kept closed by a magnetic system. If the power supply to the magnets is interrupted, the gas pressure damper system pushes the door open.

Technical specifications:
– Rated voltage: 24 V DC
– Rated current 7030.240/241: 390 mA
– Rated current 7030.250: 520 mA

Material:
– Sheet steel

Surface finish:
– Zinc-plated

TS IT design	Packs of	Model No.
1-piece aluminium glazed door	1 pc(s).	**7030.240**
1-piece sheet steel door	1 pc(s).	**7030.241**
2-piece door	1 pc(s).	**7030.250**

Supply includes:
– Gas pressure damper
– Cable harness
– Magnetic system with damper
– Instructions
– Assembly parts

Also required:
– Door control module DCM, see page 555
– For 7030.250: Tubular door frame, see page 659







Door kit extension

for TS IT, LCP (spindle motor)
To open the door in an emergency situation.
For applications with underpressure in the rack, e.g. LCP, powerful server fan motors etc., this kit is required in addition to the magnetic lock.
The motor pushes the door open until the. underpressure is released. It is mounted on the roof.

Technical specifications:
- Rated current: 900 mA
- Push force: 1000 N
- Stroke length: max. 200 mm

Material:
- Sheet steel
- Aluminium
- Plastic

Packs of	Model No.
2 pc(s).	**7030.261**

Supply includes:
- 2 spindle motors
- 2 push frames
- Instructions
- Assembly parts

Also required:
- Door control module DCM, see page 555
- Door kits, see page 555
- Power supply unit (with UPS protection), see page 557



Door comfort handle

with door opener function
By actuating the lock mechanism, the door is released via the automatic door opening system.
Prepared for the installation of standard commercially available semi-cylinders, 40 mm, and lock and push-button inserts.
Length: 302 mm.

Technical specifications:
- Rated voltage: 24 V (DC)
- Rated current: max. 3 A
- Connection cable: Length 3 m
- Temperature application range: +5°C…+40°C

Colour:
- RAL 7035

Packs of	Model No.
1 pc(s).	**7320.794**

Also required:
- Handle adaptor for mounting on glazed door 8611.080, see page 659

Accessories:
- Lock and push-button inserts, see page 674



Door switch

Switch with normally-closed contact for door control module 7320.790, for manual door opening
It is mounted on the 25 mm pitch pattern of the TS IT frame section.

Technical specifications:
- Installation: Ø 16.2 mm
- 250 V/2 A

Packs of	Model No.
1 pc(s).	**7320.793**

Supply includes:
- 3 m connection cable
- Mounting bracket
- Assembly parts

Power supply unit

for PU, PU Compact, CAN bus unit, CAN bus DRC, Door Control System.
The power pack is specifically tailored to the CMC III design and may be positioned in a CMC III mounting unit. As well as a special connector for the CMC III Processing Unit/Compact, there are also two further terminals available as 24 V outputs.

Technical specifications:
– Input voltage: 100 – 240 V / 50/60 Hz
– Output voltage: 24 V (DC)/2,5 A
– Length of 24 V DC connection cable: 0.6 m

Dimensions:
– W x H x D: 138 x 40 x 120 + 12 mm front frame

Material:
– Plastic

Surface finish:
– Front: Smooth
– Enclosure: Textured

Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Supply includes:
– Assembly parts
– Instructions

Packs of	Model No.
1 pc(s).	**7030.060**

Also required:
– Connection cable, see page 558

Accessories:
– Mounting unit, see page 559



Programming cable

For first-time commissioning of the Processing Unit (PU) or PU Compact. During initial start-up, the programming cable connects the CMC III Processing Unit/Compact to the USB interface of a PC.
A driver for Windows systems is also included with the supply and must be installed on the PC.

Supply includes:
– CD with driver and system description

Packs of	Model No.
1 pc(s).	**7030.080**



CAN bus connection cable

This can be used to connect the PU to the CAN bus sensors III, units III and control units III as a bus. Also for cabling the CAN bus sensors III, units III and control units III together.
Because it is available in different lengths, the CMC III system can be adapted to various applications and built to a custom design.

CMC III CAN bus connection cable	Length m	Packs of	Model No.
RJ 45	0.5	1 pc(s).	**7030.090**
RJ 45	1	1 pc(s).	**7030.091**
RJ 45	1.5	1 pc(s).	**7030.092**
RJ 45	2	1 pc(s).	**7030.093**
RJ 45	3	1 pc(s).	**7030.480**
RJ 45	4	1 pc(s).	**7030.490**
RJ 45	5	1 pc(s).	**7030.094**
RJ 45	10	1 pc(s).	**7030.095**





Connection cable/extension

For connecting to:
- CMC III power pack C13
- CMC III power unit C13
- PDU C19

Technical specifications:
– PVC cable, 3-pole, with IEC 60 320 cable coupling (non-heating appliances) with contact protection CEE22
– Length: Minimum 1.8 m

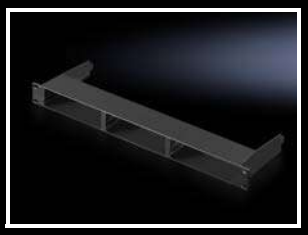
Country version	Voltage (V)	Packs of	Model No.
D/F/B/C13	230	1 pc(s).	**7200.210**
IEC 320 device extension C13/C14	230/115	1 pc(s).	**7200.215**
Connection cable D/C19	230/115	1 pc(s).	**7200.216**
Connection cable C19/C20	230/115	1 pc(s).	**7200.217**



Extension cable RJ 12

with RJ 12 connector/jack
To extend the cable connections to CMC-TC sensors.

Length m	Packs of	Model No.
1	2 pc(s).	**7320.814**



Mounting unit, 1 U

Makes it easier to install CMC III units in network and server enclosures.
The mounting unit can accommodate up to 3 units and is secured in the 482.6 mm (19") frame.

To accommodate
- PU
- PU Compact
- Control units
- CMC III CAN bus unit
- CMC III CAN bus DRC
- CMC III power pack
- CMC III GSM/ISDN unit
- CMC III door control module

Benefits:
- Fire protection: Self-extinguishing to UL 94-HB

Packs of	Model No.
1 pc(s).	**7030.088**

Material:
– Plastic

Colour:
– RAL 9005

Supply includes:
– 2 blanking covers
– Assembly parts

Accessories:
– Cable clamp strap 7030.087, see page 558



Cable clamp strap

For tool-free attachment to the rear of the CMC III 482.6 mm (19") mounting unit 7030.088. Enables tidy cable routing behind the built-in CMC III devices and can be used to attach cables for strain relief purposes. Cables are easily laid in a loop to allow the built-in CMC III devices to be removed from the mounting unit without the need for tools.

Applications:
- Cable management

Benefits:
- Cable support
- Fire protection: Self-extinguishing to UL 94-HB

Operating temperature range:
– +0°C...+55°C

Operating humidity range
– 5% – 95%

Packs of	Model No.
1 pc(s).	**7030.087**

Material:
– Plastic

Colour:
– RAL 9005

Supply includes:
– Assembly parts

Mounting unit

To accommodate one CMC III unit and for mounting on the enclosure frame

To accommodate
- PU
- PU Compact
- Control units
- CMC III CAN bus unit
- CMC III CAN bus DRC
- CMC III power pack
- CMC III GSM/ISDN unit
- CMC III door control module

Material:
Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
1 pc(s).	**7030.071**



CMC III GSM unit

For configuring a redundant transmission channel or, if there is no network infrastructure available, for alarm forwarding. The alarm signal is designed in text message format. Covering 4 GSM frequencies (quad-band): 850 MHz, 900 MHz, 1800 MHz and 1900 MHz. A standard, commercially available SIM card must be provided by the customer.

Material:
– Plastic

Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Supply includes:
– RJ 12 cable
– GSM aerial
– Assembly parts
– Instructions

Packs of	Model No.
1 pc(s).	**7030.570**



Interference suppressor for fans

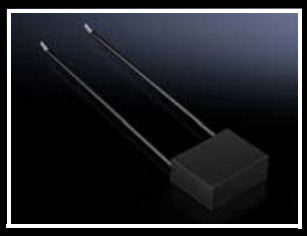
for CMC III
For connecting fans via the CMC III Power Unit 7030.050. The interference suppressor prevents excessive startup currents. One interference suppressor is required for each fan.

Material:
– Plastic

Colour:
– RAL 9005

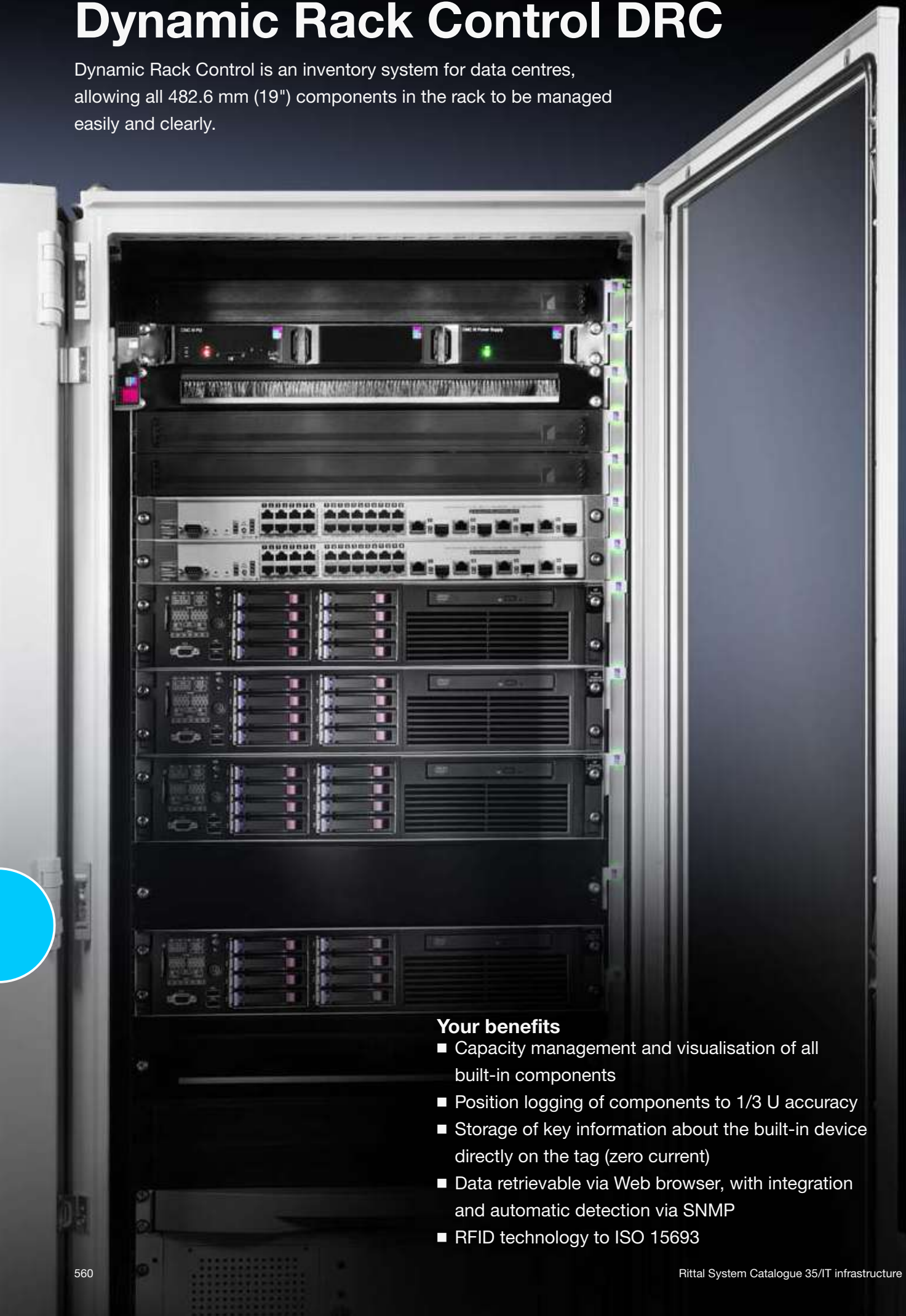
Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**7030.051**



Dynamic Rack Control DRC

Dynamic Rack Control is an inventory system for data centres, allowing all 482.6 mm (19") components in the rack to be managed easily and clearly.



Your benefits

- Capacity management and visualisation of all built-in components
- Position logging of components to 1/3 U accuracy
- Storage of key information about the built-in device directly on the tag (zero current)
- Data retrievable via Web browser, with integration and automatic detection via SNMP
- RFID technology to ISO 15693

RFID aerial

for TS IT
For insertion into the 482.6 mm (19") section of the TS IT.
Position detection of the components is accurate to within 1/3 U, therefore there are 3 aerial elements and signalling LEDs integrated into each U.
Reading and writing of the RFID tags is likewise signalled by one LED in each case.

Supply includes:
– Assembly parts

U	Packs of	Model No.
42	1 pc(s).	**7890.242**
47	1 pc(s).	**7890.247**

Also required:
– RFID controller 7890.500, see page 561
– RFID tags 7890.020, see page 561



RFID tags

1 RFID tag is required for each component. Each tag has a "Unique ID" (UID, not sequential), which cannot be altered; all other data is stored on the tag in conformity with ISO 15693. The tag is stuck to the inside right of the 482.6 mm (19") mounting bracket using its adhesive surface. The component is later screw-fastened to the 482.6 mm (19") level, including the tag.

Technical specifications:
– Type: passive, writable
– Frequency: 13.56 MHz

Packs of	Model No.
20 pc(s).	**7890.020**





RFID controller

Connects the RFID aerial to the CAN bus DRC. In this way, the CMC is able to notify automatic changes, graphically depict the enclosure with the built-in components, and list capacity management. One RFID controller is required for each rack/aerial.

Connections:
– RJ 45 jack for a maximum of one CAN bus DRC
– Mini-DIN for a maximum of one RFID aerial

Supply includes:
– Nylon tapes for attachment

Packs of	Model No.
1 pc(s).	**7890.500**

Also required:
– CAN bus connection cable, see page 557
– CMC III CAN bus DRC, see page 561
– Attachment



CMC III CAN bus DRC

For connecting an RFID controller 7890.500 to the PU/PU Compact.
4 CAN bus DRCs may be connected to the Processing Unit, or 2 to the Processing Unit Compact.

Packs of	Model No.
1 pc(s).	**7030.550**

Also required:
– CAN bus connection cable, see page 557
– Mounting unit, 1 U, see page 558
– Power supply unit 7030.060, see page 557





Rizone Appliance Standard

RiZone is supplied as a hardware or software appliance.

As a hardware appliance, RiZone is supplied with global support, installed on a powerful 1 U server. The software appliance is available as a virtual server in Open Virtualization Format (OVF) which is easily used on existing hardware in the data centre.

Note:
– Both appliances support communication with Rittal devices and devices from third-party manufacturers via an integral MIB browser

Also required:
– RiZone Appliance IP node licence according to the number of IP nodes available

Standard version	Model No.		
Hardware appliance[1)]	Server with Windows	RiZone software	RiZone graphics tool
	7990.101	**7990.201**	**7990.301**
Software appliance[1)]	Hard drive + Windows	RiZone software	RiZone graphics tool
	7990.103	**7990.203**	**7990.303**

[1)] All Model Nos. on the same line belong together, and must always be ordered together.



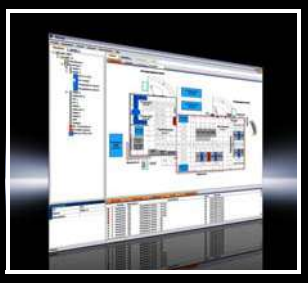
RiZone Appliance IP node licence

The flexible RiZone licence model allows optimum adaptation to any project size, while at the same time being capable of growing with the data centre.

The volume licences for the IP nodes are graduated with 25 and 100 nodes and may be adapted precisely to the size of the data centre. One node licence is required for each active component or other SNMP-compatible component to be covered.

For no. of IP nodes[1)]	Console licences included	Model No.	
		RiZone software	RiZone graphics tool
25	4	**7990.206**	**7990.306**
100	8	**7990.208**	**7990.308**

[1)] All Model Nos. on the same line belong together, and must always be ordered together.



DCIM – Data Centre Infrastructure Management

RiZone – Perfect support of IT infrastructure components.
A comprehensive description of RiZone functions may be found from page 604



Server shutdown software

for CMC III

Client software to control the server shutdown via CMC III. The software supports all common operating systems and versions (e.g. Windows 7, VISTA, XP, Server 2003/2008, UNIX/LINUX and VMWARE Sphere/ESX Server, CITRIX XEN etc).
One licence is required for each server to be shut down on an event-controlled basis.

Licences	Model No.
Single licence	**7857.421**

Note:
– Software updates and a complete list of currently supported operating systems may be found on the Internet

Monitor/keyboard unit, 1 U

With 17" TFT display and VGA/DVI connection

Main components:
– TFT monitor 17"
– Keyboard, German or English
– Touchpad

The unit is housed in a pull-out drawer. The monitor can be flipped up and the drawer latches into the end position. This means that the unit only requires 1 U in the 482.6 mm (19") rack.

Benefits:
- With digital and analog interfaces, VGA, DVI-D, PS/2, USB
- Simple one-person assembly
- Optionally with integrated KVM switch for up to 8 servers

Technical design:
– 432 mm / 17" TFT display
– Physical resolution: 1280 x 1024
– Format: 4 : 3
– Colours: 16.7 million
– Brightness approx. 350 cd/m² (typ.)
– Contrast ratio: approx. 1000 : 1
– Mains voltage: 100 – 240 V/50 – 60 Hz
– Ambient temperature: +5°C…+45°C (operation)
– Max. power consumption in operation, without optional KVM system: 32 W
– Max. power consumption with closed monitor unit, without optional KVM system: < 1 W
– Rear connections: Mains voltage, VGA, DVI, PS/2, USB, power supply for KVM
– Lockable at the front
– Cables are safely routed in the energy chain

Accessories:
– For connecting multiple servers: KVM switch, see page 563

Width	Height U	Depth mm	Installation depth mm	Colour	Keyboard	Packs of	Model No.
482.6 mm/ 19"	1	680	680 – 850	RAL 7035	German	1 pc(s).	**9055.310**
					English	1 pc(s).	**9055.312**
				RAL 9005	German	1 pc(s).	**9055.410**
					English	1 pc(s).	**9055.412**





KVM switch

SSC view 8 USB
For rear attachment on the monitor/keyboard unit. The SSC view 8 USB may be operated with up to 8 servers. It is operated via the monitor/keyboard unit with an OSD menu or hotkeys.

Technical specifications:
– Server/console connections
Video: VGA/HD15
Keyboard/mouse: PS/2 or USB
– Max. video resolution: 1280 x 1024 at 85 Hz
– Bandwidth: 200 MHz
– Power consumption: 10 W
– W x H x D: 482.6 x 44 x 140 mm
– Voltage supply: 12 V (DC) via monitor/keyboard unit

Protection category IP to IEC 60 529:
– IP 20

Colour:
– RAL 9006

	Packs of	Model No.
SSC view 8 USB	1 pc(s).	**7552.002**

Connection cable for server/VGA	Length m	Packs of	Model No.
PS/2	2	1 pc(s).	**7552.120**
PS/2	4	1 pc(s).	**7552.140**
USB	2	1 pc(s).	**7552.122**
USB	5	1 pc(s).	**7552.142**

Also required:
– Monitor/keyboard unit, see page 563







Rittal – The System.

Faster – better – everywhere.



IT security solutions

Micro Data Center

Level E 568
Level B 570
Compact cooling 572

Fire alarm and extinguisher system

Fire alarm and extinguisher system DET-AC III master 573
Early fire detection system EFD III 574
Additional unit DET-AC III slave 575
Accessories for DET-AC III/EFD III 576

Security rooms

Security rooms 578

Your benefits

- Simple, flexible integration into existing building structures
- Extendible for long-lasting cost-effectiveness and future-proof investments
- Optimum space utilisation, thanks to the flexible modular system
- System-tested protection from potential physical threats
- Compatible with cross-plant IT infrastructures

Sample applications

1 Micro Data Center, Level E with climate control, see page 568
2 Micro Data Center, Level B as compact data centre, see page 570

Micro Data Center



- Complete solution in a minimal space
- No need for expensive upgrades to existing premises

Level E – High level of protection for your IT

- Maximum security in the Micro Data Center product range
- Optimum protection concept for one or more server rack solutions for small and medium-sized enterprises
- Modular layout for installation in hard-to-access locations and for retrospective enclosure of existing IT structures
- Future-proof investment, thanks to the options of extendibility, dismantling and re-assembly
- System-tested security and a high level of protection; testing has been carried out by accredited institutes and confirmed with test reports
- Modified air baffle plates for optimum air routing, for efficient cooling of the Micro Data Centers

Usable U	42/47	
Usable interior depth mm	1000/1200	
Fire protection	Fire resistance class F 90 to DIN 4102 Part 2, compliance with limits ΔT < 50 K, rel. humidity < 85% over 30 minutes[1)]	
Burglar resistance	RC 2 tool attack analogous to DIN EN 1630/2011-09/RC 2[4)] RC 3 tool attack analogous to DIN EN 1630/2011-09/RC 3[3)] WK 4 tool attack analogous to DIN V ENV 1630/1999-04/WK 4[3)]	
Protection category	IP 56 to IEC 60 529[4)]	
Smoke protection	Based on DIN 18 095-2: 1991-03[4)]	
Modularity	■	
May be enclosed with the system operational	■	
Extendibility	■	

[1)] The Micro Data Centre was tested as a system
[2)] All critical connection points were tested as a system



Level B – Solid protection for your IT

- Optimum protection concept for a server rack
- Modular layout for installation in hard-to-access locations
- Form-fit connection with the stable TS 8 framework structure
- Front and rear 482.6 mm (19") level of the TS IT rack already included with the supply
- Lower weight than the Level E Micro Data Center
- Tested security – testing has been carried out by accredited institutes and confirmed with test reports

	42/47
	1000/1200
	Fire resistance class EI 90/F 90 to DIN EN 1363-1: 1999 / based on DIN 4102-2:1997[2)]
	RC 2 tool attack analogous to DIN EN 1630/2011-09/RC 2[3)]
	IP 56 to IEC 60 529[3)]
	Based on DIN EN 1634-3: 2005-01[3)]
	■
	–
	–

[3)] The safe for individual siting was tested as a system with single-leaf doors and mechanical lock
[4)] The safe for individual siting was tested as a system with one single-leaf door and one bifold door and mechanical lock

Micro Data Center



System accessories Page 613

Applications:
- A high level of protection against potential physical threats for IT components
- Targeted configuration components transform the safe into a complete Micro Data Center

Benefits:
- As well as facilitating installation in poorly accessible sites, the modular design also makes it possible to retrospectively enclose existing IT structures.
- Extendibility, dismantling and re-assembly mean targeted, future-safe investments
- Tested security – testing has been carried out by accredited institutes and confirmed with test reports

Protection standards:
- Fire protection category F 90 to DIN 4102 Part 2
- Compliance with limit values $\Delta T < 50$ K, rel. humidity < 85% over 30 minutes
- Burglary resistance RC 2, optionally RC 3, tool attack analogous to DIN EN 1630/2011-09 and optionally WK 4, tool attack analogous to DIN V ENV 1630/1999-04/WK 2
- Smoke protection based on DIN 18 095-2: 1991-03

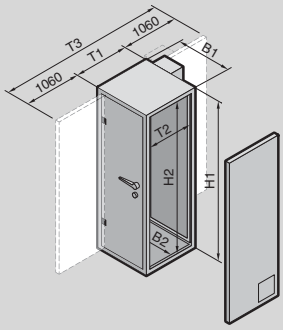
Material:
- Sheet steel, coated

Colour:
- Enclosure and service door: RAL 7035
- Operator door: RAL 9005

Protection category IP to IEC 60 529:
- IP 56

Supply includes:
- Micro data center with operator door and service door
- Cable entry in both side elements
- Both doors with key lock

Optional:
- Choice of door hinges
- Bifold doors
- Different cable entry systems
- Cable entry additionally in the top or base unit
- Different lock variants
- Supporting structure



Note:
- The Micro Data Center is configured on a project-specific basis

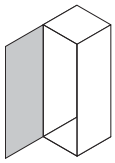
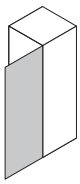
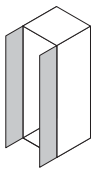
Level E

U		42	47	42	47	Page
External dimensions mm	Width (B1)	1100	1100	1100	1100	
	Height (H1)	2210	2410	2210	2410	
	Depth (T1)	1200	1200	1400	1400	
	Depth (T3)	3320	3320	3520	3520	
Internal dimensions mm	Width (B2)	920	920	920	920	
	Height (H2)	2030	2230	2030	2230	
	Depth (T2)	1000	1000	1200	1200	
Model No.		**7999.009**	**7999.009**	**7999.009**	**7999.009**	
Empty weight excluding cooling unit and excluding rack approx. kg		660	700	730	800	
Accessories						
Fire alarm and extinguisher system DET-AC/EFD III		see page	see page	see page	see page	573
CMC III monitoring system		see page	see page	see page	see page	544
PSM – Power System Module busbar		see page	see page	see page	see page	488
PDU – Power Distribution Unit		see page	see page	see page	see page	502
Compact split cooling unit		see page	see page	see page	see page	572
LCU – Liquid Cooling Unit		see page	see page	see page	see page	518

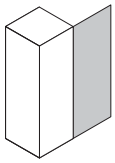
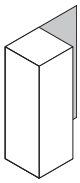
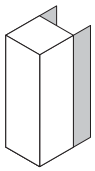
Standard protection from:

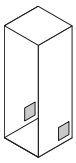
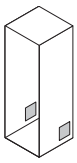
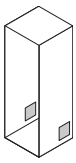
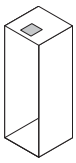
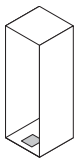


Level E, options

Operator door	L/h DIN door hinge	R/h DIN door hinge	Bifold door
			
	■	□	□



Service door	L/h DIN door hinge	R/h DIN door hinge	Bifold door
			
	■	□	□

Cable entry	Soft duct[1] in both side elements	Hard duct[2] in both side elements	Cable box[3] in both side elements	Hard duct[2] in top element	Hard duct[2] in base element
					
	■	□	□	□	□





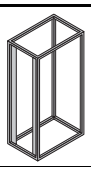
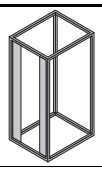
[1] Size of soft duct: approx. 267 x 165 mm.
For fire protection reasons, the duct may be configured up to a max. of 60% with a maximum cable diameter of 15 mm and a maximum conduit diameter of 18 mm.
[2] Size of hard duct: 2 panels each 120 x 120 mm.
Cables up to a diameter of 15 mm may be routed through the hard duct.
[3] Size of cable box: Field 1 approx. 210 x 44, field 2 approx. 210 x 25 mm.
Cables up to a diameter of 15 mm and hoses up to a diameter of 44 mm may be routed through the cable box.
No conduits may be routed through the cable box.

Locks	Key lock with 2 keys	Electronic combination lock[1]	Electronic combination lock for activation via an access control system supplied by the customer
	■	□	□

[1] First code, second code and double code allocation possible. Key-based opening for inspection purposes supported.





TS IT rack with air baffle plates								
Width mm	600				800			
Height mm	2000	2200	2000	2200	2000	2200	2000	2200
Depth mm	1000	1000	1200	1200	1000	1000	1200	1200
	□	□	□	□	□	□	□	□



Supporting structure	Steel supporting structure to compensate for the raised floor height when siting the modular safe on the bare floor. The height of the supporting structure is selectable between 100 mm and 1000 mm.	Steel supporting structure to compensate for the raised floor height when siting the modular safe on the bare floor. The supporting structure has a fire-proof covering. The height of the supporting structure is selectable between 100 mm and 1000 mm.
	□	□

■ Included with the supply □ Optional

Micro Data Center



System accessories Page 613

Applications:
- Basic protection against potential physical threats for IT components
- Targeted configuration components transform the safe into a complete Micro Data Center

Benefits:
- Modular layout for installation in hard-to-access locations
- Lower weight than the Level E Micro Data Center
- Tested security – testing has been carried out by accredited institutes and confirmed with test reports

Protection standards:
- Fire protection – fire resistance class EI 90/F 90 to DIN EN 1363-1: 1999 based on DIN EN 4102-2: 1997
- Burglar resistance RC 2 Tool attack analogous to DIN EN 1630/2011-09/RC 2
- Smoke protection based on DIN EN 18 1634-3: 2005-01

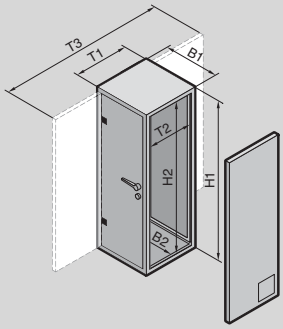
Material:
- Sheet steel, coated

Colour:
- Enclosure and service door: RAL 7035
- Operator door: RAL 9005

Protection category IP to IEC 60 529:
- IP 56

Supply includes:
- Security safe with integral TS 8 frame
- Front and rear 482.6 mm (19") level
- Adjusted air baffle plates
- Every side element is prepared for one cable entry at the bottom and one cable entry at the top
- Operator and service door with swing-lever handle and semi-cylinder

Optional:
- Choice of door hinges
- Bifold doors
- Different cable entry systems
- Cable entry additionally in the top and base element
- Different lock variants
- Supporting structure with fire protection



Note:
- The Micro Data Center is configured on a project-specific basis

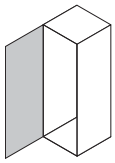
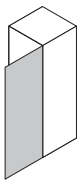
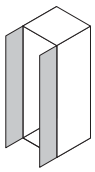
Level B

U		42	47	42	47	Page
External dimensions mm	Width (B1)	1115	1115	1115	1115	
	Height (H1)	2205	2405	2205	2405	
	Depth (T1)	1377	1377	1577	1577	
	Depth (T3)	3274	3274	3474	3474	
Internal dimensions mm	Width (B2)	905	905	905	905	
	Height (H2)	2000	2200	2000	2200	
	Depth (T2)	1060	1060	1260	1260	
Model No.		**7999.709**	**7999.709**	**7999.709**	**7999.709**	
Empty weight excluding cooling unit approx. kg		595	630	660	700	
Accessories						
Fire alarm and extinguisher system DET-AC/EFD III		see page	see page	see page	see page	573
CMC III monitoring system		see page	see page	see page	see page	544
PSM – Power System Module busbar		see page	see page	see page	see page	488
PDU – Power Distribution Unit		see page	see page	see page	see page	502
Compact split cooling unit		see page	see page	see page	see page	572
LCU – Liquid Cooling Unit		see page	see page	see page	see page	518

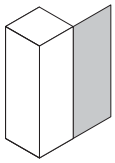
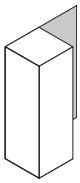
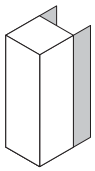
Standard protection from:

Fire · Extinguishing water · Corrosive gases · Vandalism · Unauthorised access · Dust · Theft/burglary

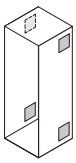
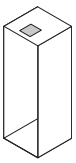
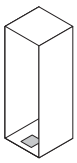
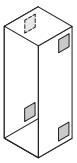
Level B, options

Operator door	L/h DIN door hinge	R/h DIN door hinge	Bifold door
			
	■	□	□



Service door	L/h DIN door hinge	R/h DIN door hinge	Bifold door
			
	■	□	□



Cable entry	Soft duct[1] in both side elements	Cable box[2] in top element	Cable box[2] in base element	Cable box[2] in both side elements
				
	■	□	□	□





[1] Size of soft duct: approx. 267 x 165 mm.
For fire protection reasons, the duct may be configured up to a max. of 60% with a maximum cable diameter of 15 mm and a maximum conduit diameter of 18 mm.
[2] Size of cable box: Field 1 approx. 210 x 44, field 2 approx. 210 x 25 mm.
Cables up to a diameter of 15 mm and hoses up to a diameter of 44 mm may be routed through the cable box.
No conduits may be routed through the cable box.

Locks	Swing lever handle with interchangeable semi-cylinder	Swing lever handle with electronic lock for external activation	Swing lever handle with electronic lock with combination code
	■	□	□







Supporting structure	Steel supporting structure to compensate for the raised floor height when siting the modular safe on the bare floor. The supporting structure has a fire-proof covering. The height of the supporting structure is selectable between 100 mm and 1000 mm.		
	□	□	□

■ Included with the supply □ Optional

Micro Data Center



System accessories Page 613

For cooling the Micro Data Center Level B and Level E. The split cooling unit is comprised of an internal unit (evaporator coil) and an external unit, whereby the internal unit is secured to the side panel on the inside of the Micro Data Center, and the external unit to the service door.

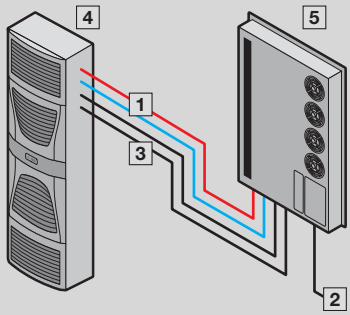
Benefits:
- Separate, hermetically sealed internal and external circuits
- Dust and flue gas are unable to ingress
- The internal and external unit are connected to one another via refrigerant lines and control cables, and shielded for fire protection
- Air routing in the Micro Data Center is horizontal. Modified air baffle plates ensure targeted air routing. By separating the "cold side" from the "hot side", air short-circuits are avoided, and the efficiency of cooling is enhanced.

Temperature control:
- Comfort controller (factory setting +25°C)

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 24

Supply includes:
- Internal unit (evaporator coil)
- External unit
- Refrigerant lines
- Data and supply cables



1 Flexible refrigerant lines inlet/return
2 Power supply
3 Data cable
4 External unit
5 Internal unit

Compact cooling for Micro Data Center

Model No.	**3126.230**
Weight kg	160.0
Dimensions W x H x D, external unit mm	500 x 1580 x 231
Dimensions W x H x D, internal unit mm	804 x 1544 x 100
Total cooling output 50/60 Hz L35 L35 W	2500/3090
Total cooling output 50/60 Hz L35 L50 W	2070/2300
Power consumption P_{el} 50/60 Hz L35 L35 W	1275/1615
Power consumption P_{el} 50/60 Hz L35 L50 W	1525/1920
Rated operating voltage V, ~, Hz	400, 3~, 50/ 460, 3~, 60
Rated max. current A	3.3/3.5
Start-up current A	14.2/14.7
Pre-fuse A	6.3/10.0
Motor circuit-breaker	■
Refrigeration factor $\varepsilon = \dot{Q}_K/P_{el}$ L35 L35	2
Refrigerant g	R134a,1500
Permissible operating pressure (p. max.) bar	28
Operating temperature range	+20°C…+35°C
Noise level max. dB(A)	70

Fire alarm and extinguisher system



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The active extinguisher system includes the smoke extraction system and the extinguisher unit. The smoke extraction system is identical to the smoke extraction system in the EFD III. The extinguishing process begins automatically when a main alarm is activated. For the extinguishing process, the tank is pressurised via a propellant cartridge. The extinguisher gas Novec™ 1230 evaporates at the extinguisher nozzle and is distributed in the server enclosure.

Benefits:
- Early fire detection
- Automatic extinguishing
- Innovative extinguisher Novec™ 1230: eco-friendly, non-critical for IT components, non-conductive
- 482.6 mm (19") rack mount with just 1 U
- Tested by VdS Schadenverhütung GmbH
- CAN bus interface to the CMC III monitoring system
- Floating relay outputs (pre-alarm/main alarm/ collective fault)

Material:
- Sheet steel

Colour:
- Enclosure: RAL 7035
- Front: RAL 9005

Protection category IP to IEC 60 529:
- IP 30

Note:
- This system is designed solely for use in closed, non-accessible enclosure systems with a maximum volume of 2.8 m^3.

DET-AC III master

Width mm	Packs of	482.6	Page
Height mm		44	
Depth mm		660	
Weight kg		21.5	
Model No.	1 pc(s).	**7338.121**	
Operating temperature range		+10°C...+40°C	
Storage temperature range without batteries		-20°C...+65°C	
Storage temperature range of batteries		-15°C...+40°C	
Ambient humidity (non-condensing) %		96	
Rated operating voltage V, ~, Hz		100 - 240, 1~, 50/60	
Emergency power supply		approx. 4 h	
Airflow monitoring		approx. ±10% of total airflow	
Interfaces		4x/3x relay outputs for alarms and faults (terminals/RJ12 jacks) 1x/1x input for door contact switch (terminal/RJ12 jack) 2 x CAN connections for master-slave networking 2 x connection (external alarm/manual triggering device) 1 x voltage output for DET-AC slave III (24 V DC max. 500 mA) 1 x USB 2 x CAN bus interfaces to CMC III (max. 16 on PU/4 on PU Compact)	
Sensors		Optical smoke detector (sensitivity: approx. 3.5%/m light obscuration) Optical smoke detector HS (sensitivity: approx. 0.25%/m light obscuration)	
Display		Plain-language display with 6 LEDs	
Technical specifications		Extinguisher is emitted via a propellant cartridge, with integral electrical activation unit Integral extinguisher monitoring (indication of >15% loss)	
Tank: Material/volume l		Aluminium / 2	
Extinguisher: Type/fill volume l		Novec™ 1230 / 1.8	
Also required			
CMC III sensors	2 pc(s).	7320.530	551
CMC III CAN bus connection cable	1 pc(s).	7030.091	504
Sealing kit for TS IT and LCP	1 pc(s).	7338.135	576
Pipe kit	1 pc(s).	7338.130	576
Slide rails, depth-variable	2 pc(s).	5501.480	807

Early fire detection system



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The EFD III early fire detection system includes the smoke extraction system in a 482.6 mm (19") subrack with just 1 U. An integral fan continuously extracts air from the area being protected via a system of pipes. The air drawn in passes two fire detectors. If smoke is detected, the highly sensitive detector will emit a pre-alarm, while the second detector will activate the main alarm. The fire detectors are permanently monitored for correct functioning by the evaluation and control electronics on the control card.

Benefits:
- Early fire detection
- 482.6 mm (19") rack mount with just 1 U
- Tested by VdS Schadenverhütung GmbH
- CAN bus interface to the CMC III monitoring system
- Floating relay outputs (pre-alarm/main alarm/collective fault)

Material:
- Sheet steel

Colour:
- Enclosure: RAL 7035
- Front: RAL 9005

Protection category IP to IEC 60 529:
- IP 30

Note:
- This system is designed solely for use in closed, non-accessible enclosure systems.

EFD III

Width mm	Packs of	482.6	Page
Height mm		44	
Depth mm		490	
Weight kg		15.0	
Model No.	1 pc(s).	**7338.221**	
Operating temperature range		+10°C...+40°C	
Storage temperature range without batteries		-20°C...+65°C	
Storage temperature range of batteries		-15°C...+40°C	
Ambient humidity (non-condensing) %		96	
Rated operating voltage V, ~, Hz		100 - 240, 1~, 50/60	
Emergency power supply		approx. 4 h	
Airflow monitoring		approx. ±10% of total airflow	
Interfaces		4x/3x relay outputs for alarms and faults (terminals/RJ12 jacks) 1x/1x input for door contact switch (terminal/RJ12 jack) 2 x CAN connections for master-slave networking 3 x connection (external alarm/manual call point/tank and fill level) 1 x voltage output for DET-AC slave III (24 V DC max. 500 mA) 1 x USB 2 x CAN bus interfaces to CMC III (max. 16 on PU/4 on PU Compact)	
Sensors		Optical smoke detector (sensitivity: approx. 3.5%/m light obscuration) Optical smoke detector HS (sensitivity: approx. 0.25%/m light obscuration)	
Display		Plain-language display with 6 LEDs	
Also required			
CMC III CAN bus connection cable	1 pc(s).	7030.091	504
Pipe kit	1 pc(s).	7338.130	576
Slide rails, depth-variable	2 pc(s).	5501.480	807

Add-on unit



System accessories Page 613 **Network/server enclosures TS IT** Page 100 **Micro Data Center** Page 566

This add-on unit to the DET AC III Master includes an additional extinguisher unit. In addition to the DET-AC III unit, a DET-AC III slave unit is used for each additional bayed enclosure and supplies the extinguishing agent for that enclosure. Detection occurs via the DET-AC III master system, even when multiple enclosures are bayed together. If a main alarm is reported, the DET-AC III Master will activate extinguishing in all systems simultaneously.

Benefits:
- Innovative extinguisher Novec™ 1230: eco-friendly, non-critical for IT components, non-conductive
- 482.6 mm (19") rack mount with just 1 U
- Tested by VdS Schadenverhütung GmbH
- CAN bus interface to the CMC III monitoring system
- In conjunction with the DET-AC III Master, extinguishes up to five racks in an enclosure suite
- May be used in combination with EFD III
- Floating relay outputs (pre-alarm/main alarm/ collective fault)

Material:
- Sheet steel

Colour:
- Enclosure: RAL 7035
- Front: RAL 9005

Protection category IP to IEC 60 529:
- IP 30

Note:
- This system is designed solely for use in closed, non-accessible enclosure systems with a maximum volume of 2.8 m^3.

DET-AC III slave

Width mm	Packs of	482.6	Page
Height mm		44	
Depth mm		660	
Weight kg		19.1	
Model No.	1 pc(s).	**7338.321**	
Operating temperature range		+10°C...+40°C	
Storage temperature range without batteries		-20°C...+65°C	
Storage temperature range of batteries		-15°C...+40°C	
Ambient humidity (non-condensing) %		96	
Rated operating voltage V		24 (DC)	
Emergency power supply		approx. 4 h	
Interfaces		4x/3x relay outputs for alarms and faults (terminals/RJ12 jacks) 1x/1x input for door contact switch (terminal/RJ12 jack) 2 x CAN connections for master-slave networking 2 x connection (external alarm/manual triggering device) 1 x voltage output for DET-AC slave III (24 V DC max. 500 mA) 1 x USB 2 x CAN bus interfaces to CMC III (max. 16 on PU/4 on PU Compact)	
Technical specifications		Extinguisher is emitted via a propellant cartridge, with integral electrical activation unit Integral extinguisher monitoring (indication of >15% loss)	
Tank: Material/volume l		Aluminium / 2	
Extinguisher: Type/fill volume l		Novec™ 1230 / 1.8	
Also required			
CMC III sensors	2 pc(s).	7320.530	551
Sealing kit for TS IT and LCP	1 pc(s).	7338.135	576
Pipe kit	1 pc(s).	7338.130	576
Slide rails, depth-variable	2 pc(s).	5501.480	807

Accessories



Pipe kit

for DET-AC III/EFD III

Non-adhesive plug-in system for connecting to the DET-AC III fire alarm and extinguisher system and the EFD III early fire detection system.

Functions:
– The system fans continuously draw air out of the protected area via this pipe system.

Technical specifications:
– Diameter of plastic pipe: 18 mm internal, 22 mm external

Colour:
– Black

Supply includes:
– 3 plastic pipes @ 1 m
– T-piece
– 2 connector pieces, straight
– 4 connection brackets, 90°
– 2 end caps
– Assembly parts

Packs of	Model No.
1 pc(s).	**7338.130**



Sealing kit for TS IT and LCP

In conjunction with DET-AC III master/slave

For closing openings in TS IT network/server enclosures and Liquid Cooling Packages when using a DET-AC III fire alarm and extinguisher system.

Applications:
– Closes 4 brush strips in the roof plate of the TS IT rack
– Closes 1 brush strip in the roof plate of the LCP
– Closes the opening in the base of the LCP CW/ LCP DX in the vicinity of the refrigerant/water lines

Benefits:
– Sealing of cable, hose and pipe glands in the roof and base section without impairing their function

Material:
– Polythene foam, self-adhesive on one side

Colour:
– Anthracite

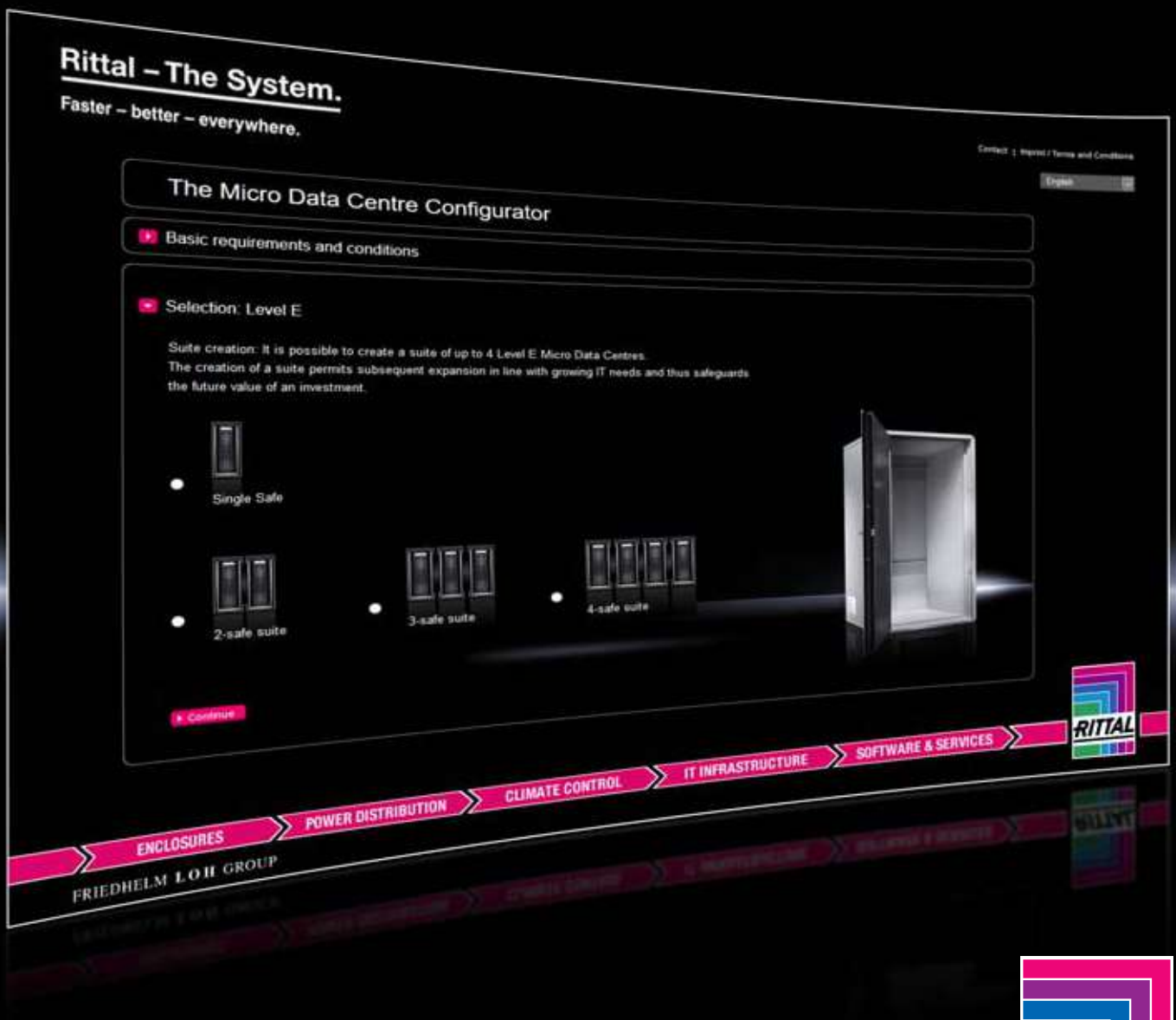
Supply includes:
– 4 blanks to fit two TS IT roof plates
– 1 blank for an LCP

Packs of	Model No.
1 pc(s).	**7338.135**

Rittal – The System.

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Micro Data Center configurator – For individual configuration of your security safe



Security rooms



IT power Page 483 **IT cooling** Page 513 **IT monitoring** Page 543

The basic protection room
The basic protection room provides a high-quality, system-tested solution. It is an optimum, modular room-within-a-room solution for protecting IT/infrastructure components such as extinguisher systems, uninterruptible power supplies and climate control. The flexible modular system means that it can be extended whilst the IT systems are operational.

The basic protection plus room
Alongside the features of the basic protection room, the basic protection plus room has a higher standard of fire protection and, optionally, a higher level of burglary resistance.
This means solid basic protection for your IT.

Benefits:
- System-tested protection levels
- Multi-functional risk coverage
- Dust- and noise-reduced installation
- Dismantling and reassembly plus extendibility = investment security
- May be bayed to other room systems, such as the High Availability room

Criterion	Standards	
System testing	Testing to the following standards as a complete system or construction	
Fire protection	ECB·S certification to EN 1047-2, 50 K temperature increase and 85% rel. humidity up to 24 hours (reheat period), 60 minutes flame impingement time	
	50 K temperature increase and 85% rel. humidity without reheat period, flame impingement time 30 minutes	
	F 120 to DIN 4102; EI 120 (wall) to EN 1363	
	F 90 to DIN 4102	
	EI 90 to EN 1363	
Corrosive fire gases	Acrid gas-tightness based on EN 18 095	
Falling debris	Impact test 200 kg from a drop height of 1.5 m with impact energy of 3,000 Nm	
Water	Protection category IP X6 to IEC 60 529	
	Protection from standing water	
Dust	Protection category IP 5X to IEC 60 529	
Unauthorised access	Resistance class RC IV, tool attack analogous to DIN/EN 1630, door system only	
	Resistance class RC III, tool attack analogous to DIN/EN 1630	
	Resistance class RC II, tool attack analogous to DIN/EN 1630	
Explosion	Detonation test	
EMC	Protection from high-frequency irradiation and radiation	

System-tested structures are tested as a complete construction, comprising the cell structure and built-in modules such as doors, cable shields or ventilation units. By contrast, generic component testing only refers to individual parts.

Conventional construction methods refer to room structures made of plasterboard, concrete and other standard construction materials which do not offer sufficient protection for data centre applications. Conventional construction methods are generally unsuitable for use as a fire wall and are therefore only subjected to component testing.

Security rooms



System accessories Page 613 **Network/server enclosures** Page 100

The High Availability room
The High Availability room offers maximum physical protection for data centres and IT system locations. The system was certified by ECB (European Certification Body GmbH) to ECB·S regulations.
This certification confirms that the High Availability room meets the requirements of EN 1047-2 without restriction. Moreover, the construction of the security room is subject to continuous quality monitoring by an independent agent.

Benefits:
- System-tested high availability protection
- Multi-functional risk coverage
- Dust- and noise-reduced installation
- Dismantling and reassembly plus extendibility = investment security
- ECB·S certification
- Independent quality monitoring
- May be bayed to other room systems, such as the basic protection room

	Basic protection room	Basic protection plus room	High availability room
	■	■	■
	–	–	■
	–	■	–
	–	–	■
	■	■	■
	■	■	–
	■	■	■
	■	■	■
	■	■	■
	–	–	■
	■	■	■
	–	–	■
	–	□	■
	■	■	■
	–	–	■
	□	□	□

■ Standard □ Optional



Modular data centre solutions

Edge Data Center
Configurator 583

RiMatrix S
RiMatrix S at a glance 584
Cooling station 587
Standard room 588
Standard security room 589
Standard container 590

Container solutions
Data Centre Container DCC 591
Balanced Cloud Center BCC 593
Lefdal Mine Datacenter 595

Your benefits

- Standardised data centre infrastructures based on data centre modules
- Tested, documented modules with outstanding efficiency
- Simplified planning with pre-configuration
- Available off the shelf
- Guaranteed efficiency ratings (PuE)
- Simplified service and administration processes
- Standard Container in ISO and non-ISO version from 20 ft – 40 ft



RiMatrix S app

Your selector for standardised data centres for SMEs, branch concepts and flexible cloud applications.
An intuitive user interface will guide you to your complete data centre in five easy steps.

Android app

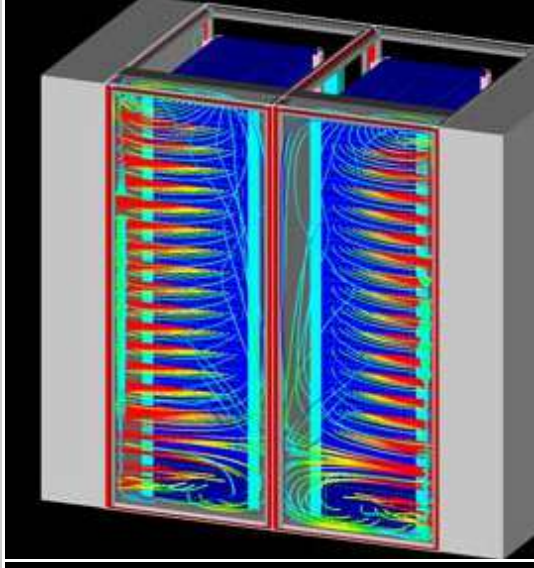
iPhone app

Edge Data Center configurator



Rittal has developed a data centre for small and medium businesses which allows them to configure complete, turnkey “private cloud” solutions very easily.

The configurator is designed for IT solutions from 2 to 6 racks and an IT load of 3 to 30 kW, and includes both the analysis and configuration of rack, climate control, power supply and security components.



Analysis

- Your data centre configuration in just a few steps
- Standardised solution
- CFD analyses for all configurations and load ranges
- Tested redundancy response



Climate control

- Output range from 3 to 30 kW
- Cooling: LCU DX or LCP DX

Power supply

- Power distribution: PDU, basic version 3 x 16 A (optional metered version)
- UPS: N+1 redundant ABB Upscale (optional)



Security

- Monitoring: CMC III Processing Unit with temperature measurement and access control (optional)
- Automatic door opening (optional)
- Rack-based extinguisher system (optional)

The configurator is available at:
www.rittal.com/edgedatacenter



RiMatrix S at a glance



Standard room

Integration of RiMatrix S modules into an existing property.

In order to achieve optimum air routing, precise-fit aisle containment is included with the supply.

Aisle containment is a combination of door and roof components which allow consistent separation of the hot and cold air.

- Enhanced energy efficiency
- Superior output density, due to guaranteed cold air supply
- Contact hazard protection and protection against the ingress of solid foreign bodies in the protected area above the raised floor IP 20 to IEC 60 529

	Single 6	Double 6	Single 9	Double 9
Model No.	**7998.106**	**7998.107**	**7998.406**	**7998.407**
Fire protection	–	–	–	–
Burglar resistance	–	–	–	–
Acrid gas-tightness	–	–	–	–
Dust- and water-tightness	–	–	–	–
Early fire detection	■	■	■	■
Room extinguisher system	optional	optional	optional	optional
Humidification and dehumidification system	optional	optional	optional	optional
Efficiency package	**7998.905**	**7998.906**	**7998.907**	**7998.908**
External dimensions				
Width mm	2807	4839	2807	4839
Height mm	2750	2750	2750	2750
Depth mm	7067	7070	7067	7070
Rack configuration				
Server enclosure (600 x 2000 x 1200 mm)	6 pc(s).	12 pc(s).	8 pc(s).	16 pc(s).
Combined network-server enclosure (800 x 2000 x 1200 mm)	1 pc(s).	2 pc(s).	1 pc(s).	2 pc(s).
Uninterruptible power supply (partner product)	60 kW + 20 kW	2 x (60 kW + 20 kW)	–	–

RiMatrix S at a glance



Security rooms

Standard security room

- Fire protection category EI 90 to EN 1363/F90 to DIN 4102
- Protection against external access – Resistance class II to DIN V ENV 1630
- Basic EMC protection
- Acrid gas-tightness based on DIN 18 095
- Shock test with 3,000 Nm energy after 30 minutes flame impingement over standard temperature curve
- Dust- and water-tight to IP 56 to IEC 60 529

Construction of the standard security room

- Element core made from thermally effective insulating material
- Robust, encapsulated sheet steel cassette panels
- Innovative connection system using patented profile technology
- Use of temperature- and humidity-resistant seals
- Use of climate control valves with electromagnetic drive
- Dismantling and reassembly are possible at any time

Container

Standard container

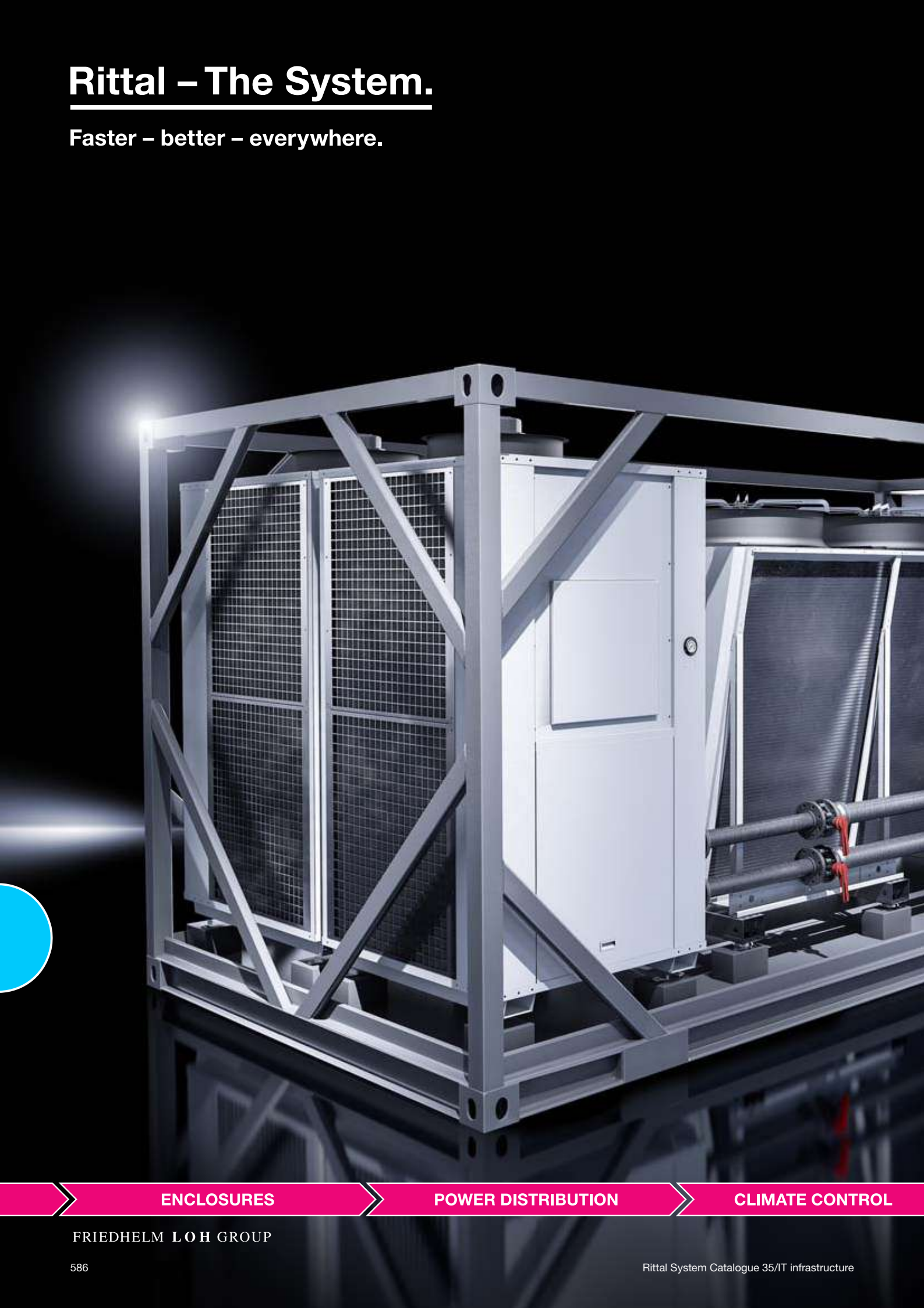
Robust sheet steel container specifically designed for IT applications. The reinforced frame structure allows optimum weight distribution. Encapsulated interior wall structure with thermal insulating materials.

- Vandal-proof interior to Resistance Class II to DIN EN 1630
- Basic EMC protection
- Dust- and water-tight IP 55 to IEC 60 529

	Single 6	Double 6	Single 9	Double 9	Single 6	Single 9
	7998.306	**7998.307**	**7998.606**	**7998.607**	**7998.206**	**7998.506**
	EI 90/F90	EI 90/F90	EI 90/F90	EI 90/F90	–	–
	WK II	WK II	WK II	WK II	RC II	RC II
	■	■	■	■	–	–
	IP 56	IP 56	IP 56	IP 56	IP 55	IP 55
	■	■	■	■	■	■
	optional	optional	optional	optional	optional	optional
	optional	optional	optional	optional	optional	optional
	7998.905	**7998.906**	**7998.907**	**7998.908**	**7998.905**	**7998.907**
	2950	4976	2950	4976	3000	3000
	2800	2800	2800	2800	3000	3000
	7420	7420	7420	7420	7250	7250
	6 pc(s).	12 pc(s).	8 pc(s).	16 pc(s).	6 pc(s).	8 pc(s).
	1 pc(s).	2 pc(s).	1 pc(s).	2 pc(s).	1 pc(s).	1 pc(s).
	60 kW + 20 kW	2 x (60 kW + 20 kW)	–	–	60 kW + 20 kW	–

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ENCLOSURES | POWER DISTRIBUTION | CLIMATE CONTROL

FRIEDHELM LOH GROUP

Turn the right cooling solution into a complete system



The RiMatrix S cooling station allows a data centre module to be connected to a cold water supply using the plug & play compatibility system. The cooling station is installed in a 20 ft high Cube container frame, and comprises the following components:

- Free cooler with EC fans
- Chiller, 1+1 redundant
- Hydraulic station with pumps and controller
- Pipework

Benefits of the plug & play solution:

- Co-ordinated system for fast commissioning
- System-tested software to control all components, including emergency mechanisms
- Integral control with TCP/IP interface
- Power-saving cooling with a high inlet temperature and extensive use of free cooling
- Overarching control system with maximum efficiency class and low PUE

RiMatrix S



The standardised data centre is assembled at your premises within the context of hot aisle / cold aisle containment.

Benefits:
- Enhanced energy efficiency
- Aisle containment is a combination of door and roof components which allow consistent separation of the hot and cold air

Protection category IP to IEC 60 529:
- IP 20 in the protected area above the raised floor

Supply includes:
- Advice and ROI calculation
- Delivery and integration into the customer infrastructure
- Commissioning and handover
- Documentation, training and instruction
- Hotline and service/service agreements
- Precise-fit aisle containment

Photo shows a configuration example with equipment not included in the scope of supply

Standard room

Design	Packs of	**Single 6**	**Double 6**	**Single 9**	**Double 9**	Page
External dimensions, width mm		2807	4839	2807	4839	
External dimensions, height mm		2750	2750	2750	2750	
External dimensions, depth mm		7067	7070	7067	7070	
Interior dimensions, width mm		2750	4774	2750	4774	
Interior dimensions, height mm		2722	2722	2722	2722	
Interior dimensions, depth mm		7000	7000	7000	7000	
Model No.	1 pc(s).	**7998.106**	**7998.107**	**7998.406**	**7998.407**	
Early fire detection		■	■	■	■	
Room extinguisher system		optional	optional	optional	optional	
Humidification and dehumidification system		optional	optional	optional	optional	
Server rack (600 x 2000 x 1200 mm)		6	12	8	16	
Combined network/server rack (800 x 2000 x 1200 mm)		1	2	1	2	
Uninterruptible power supply		60 kW + 20 kW n+1 redundant	2 x (60 kW + 20 kW) n+1 redundant	–	–	
Low-voltage main distributor		1	2	1	2	
PDU Basic		14	28	18	36	
Climate control (ZUCS)		60 kW + 10 kW n+1 redundant	120 kW + 20 kW n+2 redundant	90 kW + 10 kW n+1 redundant	180 kW + 20 kW n+2 redundant	



The standardised data centre at your premises is equipped with an additional security room (room-within-a-room) to provide additional protection from fire, water and smoke.

Protection standards:
- Fire resistance EI 90 to EN 1363/F 90 to DIN 4102
- Dust- and watertight IP 56 to IEC 60 529
- Protection from unauthorised access – Resistance class II
- EMC basic protection
- Acrid gas-tightness, based on EN 1634-3 (DIN 18095)
- Shock test with 3000 Nm energy after 30 minutes flame impingement over standard temperature curve

Material:
- Element core made of thermally effective insulation substance
- Robust, encapsulated sheet steel cassette panels
- Innovative connection technology using patented profile technology
- Use of temperature- and humidity-resistant seals
- Use of fire protection valves
- Dismantling and reassembly is possible at any time

Supply includes:
- Advice and ROI calculation
- Delivery and integration into the customer infrastructure
- Commissioning and handover
- Documentation, training and instruction
- Hotline and service/service agreements

Photo shows a configuration example with equipment not included in the scope of supply

Standard security room

Design	Packs of	**Single 6**	**Double 6**	**Single 9**	**Double 9**	Page
External dimensions, width mm		2950	4976	2950	4976	
External dimensions, height mm		2800	2800	2800	2800	
External dimensions, depth mm		7420	7420	7420	7420	
Interior dimensions, width mm		2750	4776	2750	4776	
Interior dimensions, height mm		2700	2700	2700	2700	
Interior dimensions, depth mm		7220	7220	7220	7220	
Model No.	1 pc(s).	**7998.306**	**7998.307**	**7998.606**	**7998.607**	
Fire protection		EI 90 to EN 1363 / F 90 to DIN 4102	EI 90 to EN 1363 / F 90 to DIN 4102	EI 90 to EN 1363 / F 90 to DIN 4102	EI 90 to EN 1363 / F 90 to DIN 4102	
Burglar resistance		WK II	WK II	WK II	WK II	
Early fire detection		■	■	■	■	
Room extinguisher system		optional	optional	optional	optional	
Humidification and dehumidification system		optional	optional	optional	optional	
Server rack (600 x 2000 x 1200 mm)		6	12	8	16	
Combined network/server rack (800 x 2000 x 1200 mm)		1	2	1	2	
Uninterruptible power supply		60 kW + 20 kW n+1 redundant	2 x (60 kW + 20 kW) n+1 redundant	–	–	
Low-voltage main distributor		1	2	1	2	
PDU Basic		14	28	18	36	
Climate control (ZUCS)		60 kW + 10 kW n+1 redundant	120 kW + 20 kW n+2 redundant	90 kW + 10 kW n+1 redundant	180 kW + 20 kW n+2 redundant	

RiMatrix S



The standardised data centre is implemented in a container solution and can therefore be sited outdoors if required.

Protection standards:
- Vandal-proof interior in accordance with Resistance Class II to DIN EN 1631
- EMC basic protection
- Dust- and watertight to IP 55 to IEC 60 529

Supply includes:
- Robust sheet steel container with reinforced frame structure for optimum weight distribution
- Housed interior wall structure with thermal insulating materials
- Advice and ROI calculation
- Delivery and integration into the customer infrastructure
- Documentation, training and instruction
- Hotline and service/service agreements

Photo shows a configuration example with equipment not included in the scope of supply

Standard container

Design	Packs of	**Single 6**	**Single 9**	Page
External dimensions, width mm		3000	3000	
External dimensions, height mm		3000	3000	
External dimensions, depth mm		7250	7250	
Interior dimensions, width mm		2750	2750	
Interior dimensions, height mm		2700	2700	
Interior dimensions, depth mm		7000	7000	
Model No.	1 pc(s).	**7998.206**	**7998.506**	
Early fire detection		■	■	
Room extinguisher system		optional	optional	
Humidification and dehumidification system		optional	optional	
Server rack (600 x 2000 x 1200 mm)		6	8	
Combined network/server rack (800 x 2000 x 1200 mm)		1	1	
Uninterruptible power supply		60 kW + 20 kW n+1 redundant	–	
Low-voltage main distributor		1	1	
PDU Basic		14	18	
Climate control (ZUCS)		60 kW + 10 kW n+1 redundant	90 kW + 10 kW n+1 redundant	

Data Centre Container



System accessories Page 613

Fire protection:
- Fire protection, internal panels: F30, optionally F90 based on DIN 4102/EN1363, component-tested

Duct system:
- Type: Hard duct DN200
- Dimensions of packing space: 120 x 120 mm
- Protected cable/tube entries

Raised floor:
- Optimised load distribution
- Equipped with cable/tube routing
- Variable ventilation panels with DFC

Climate control:
- Customised climate control variants
- Targeted cooling via aisle containment
- Energy-efficient DFC cooling (direct free cooling), with no additional external units
- Powerful LCP cooling (liquid cooling package), with minimal space requirements

Power distribution:
- Infeed: CEE connector 125 A, 3-phase/N/PE, 400 V/50 Hz
- Busbar system for rack-based power distribution

Customised solutions:
- Interlinked containers, other climate control variants

Optional:
- Fire alarm/extinguisher system (Novec 1230)
- Access systems, access door (keyboard, code card)
- Monitoring and management (CMC, RiZone) for monitoring alarm, maintenance messages and customer-specific parameters

Note:
- Standard range of models with pre-configured data centre types
- The data centre container is configured on a project-specific basis

Photo shows a configuration example with equipment not included in the scope of supply

Type	1	2	3	4	5	6	7	8	9
Width mm	3000								
Height mm	3250								
Depth mm	6058	8000	10000	11500	6058	8000	10000	11500	9500
Useful area m²	15.2	20.4	25.7	29.7	15.2	20.4	25.7	29.7	20.4
Model No.	**7857.998**								
Climate control, Direct Free Cooling/Liquid Cooling Packages	DFC	DFC	DFC	DFC	LCP	LCP	LCP	LCP	LCP
Max. cooling output kW	**20**	**20**	**50**	**50**	**20**	**40**	**80**	**100**	**40**
Redundancy cooling	n+1	n+1	n+1	n+1	n+1	n+1	n+1	n+1	n+1
Heavy-duty raised floor	■	■	■	■	■	■	■	■	■
Plug-and-play power distribution	■	■	■	■	■	■	■	■	■
Hard ducts DN200	3	3	4	4	4	5	5	5	5
Security door, resistance class 2	■	■	■	■	■	■	■	■	■
Optional fittings									
DET-AC XL fire alarm/extinguisher system	■	■	■	■	□	□	□	□	□
UPS (uninterruptible power supply)	□	□	□	□	□	□	□	□	□
Max. no. of racks 42 U (600 mm wide) without UPS	6	9	10	12	6	8	11	13	8
Max. no. of racks 42 U (800 mm wide) without UPS	4	6	7	9	4	6	8	9	6
Higher racks (47 U)	□	□	□	□	□	□	□	□	□
Rack power supply	□	□	□	□	□	□	□	□	□
Monitoring package (CMC III)	□	□	□	□	□	□	□	□	□
RiZone package	□	□	□	□	□	□	□	□	□
Security door, resistance class 3	□	□	□	□	□	□	□	□	□
Additional hard ducts for cable/pipe entry	□	□	□	□	□	□	□	□	□
Metal sun protection	□	□	□	□	□	□	□	□	□

■ Standard □ Option

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ENCLOSURES | POWER DISTRIBUTION | CLIMATE CONTROL

FRIEDHELM LOH GROUP

IT as a service – Simplify your IT

Rittal and iNNOVO Cloud GmbH have joined forces in a strategic partnership to market new infrastructure and cloud solutions. These are marketed flexibly based on the “IT as a service” model (ITaaS). The services are based on the jointly developed RiMatrix BCC (Balanced Cloud Center) platform, using Rittal containers or in-house solutions.
Customers get a turnkey cloud data centre in which components such as racks, climate control and power supply are available as predefined modules. The scope of supply optionally includes the server, network and storage. In addition, the established open source “OpenStack” framework is used as cloud management software. The result is a standardised, “virtual private” cloud data centre, suitable for standard applications in the ITaaS, as well as for highly demanding ones, such as high-performance computing (HPC), SAP Hana or “big data” applications.



Customers can choose to either buy a modular cloud data centre in its entirety, or to rent it (data centre as a service). Application areas include, in particular, the Industry 4.0 segment and the Internet of Things (IoT) requiring a certain degree of latency between computing systems and production, known as "edge data centres". Container-based data centres are also used for applications requiring a high level of scaling, as well as those with a high power density and efficiency.

For example, the BCC concept is being used in the Lefdal Mine Datacenter project. Both partners are still working on the development of a cloud park in Frankfurt, where Rittal BCC containers with an output of 200 kW each, equipped with hardware, are being installed. This offer is relevant for companies requiring powerful IT systems and who must source their cloud performance from a data centre located in Germany, for whatever reason.

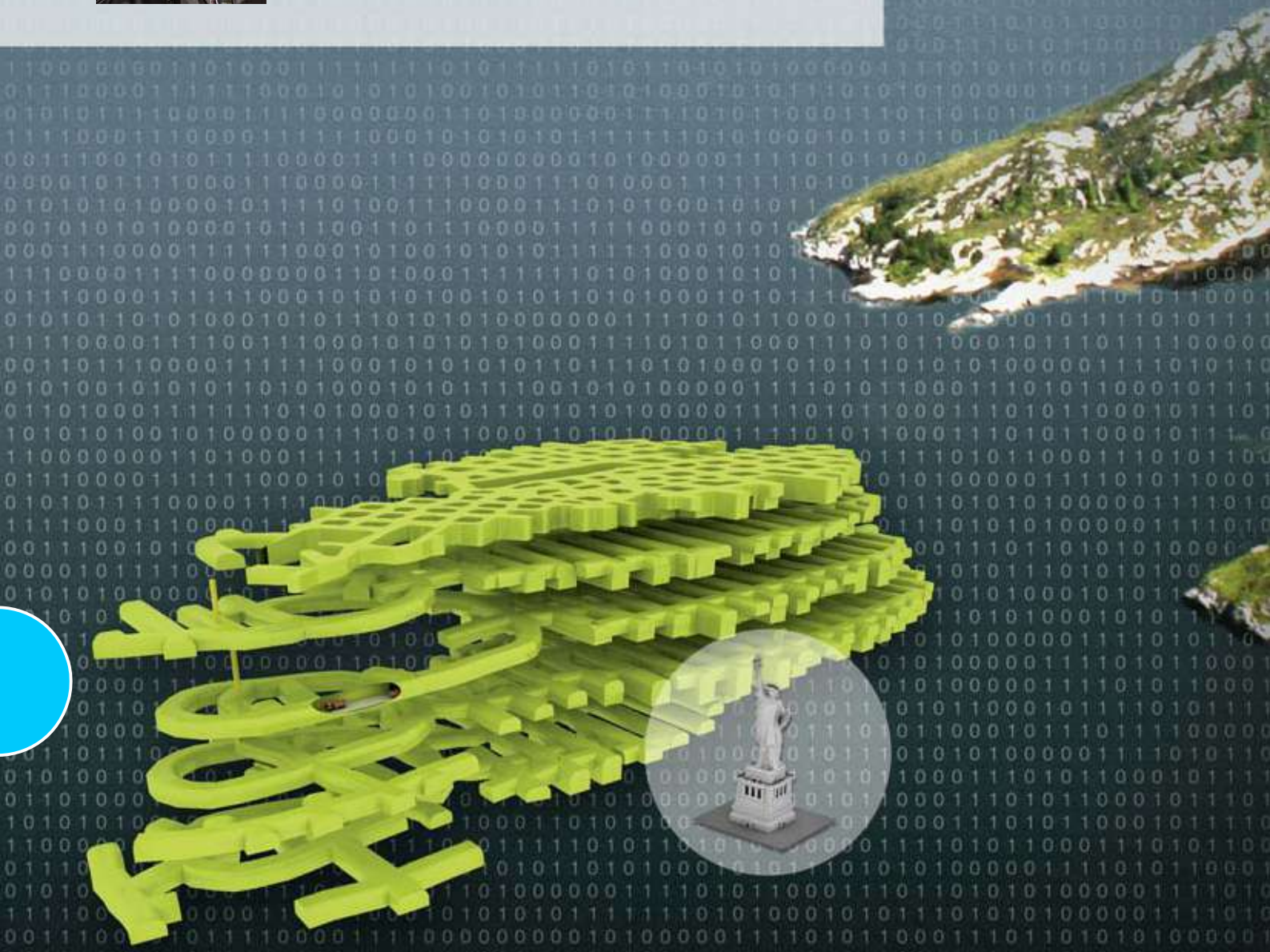
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Faster – better – everywhere.



"In today's world, data is the new raw material, and I can't imagine a better place to store it than at Lefdal."

Arne Norheim, Country General Manager, IBM



ENCLOSURES | POWER DISTRIBUTION | CLIMATE CONTROL

The future of IT is underground

On the west coast of Norway, one of the world's largest data centres is being built in a decommissioned mine at the Lefdal Mine Datacenter (LMD). The five-storey tunnel system with 75 chambers provides 120,000 square metres of space for an infrastructure with a potential total capacity of 200 MW. The ambitious target is to make the LMD the number one in Europe, with unsurpassed levels of cost-efficiency, security, flexibility and sustainability.

“The Lefdal Mine Datacenter will put everything else in the shade”, claims Andreas Keiger, Senior Vice President, European Sales at Rittal. Rittal is on board as a strategic technology partner. This project is setting new standards, not only in terms of efficiency, but also in the area of sustainability. Lefdal uses 100 percent renewable energies. Even the server cooling is “green”, by drawing on the water in the neighbouring fjord.

And when you consider the Total Costs of Ownership (TCO), the LMD is 40 percent cheaper than other data centres in Europe. This is partly due to standardised RiMatrix S data centre modules from Rittal, which score highly in terms of flexibility and cost efficiency. The preconfigured, space-saving modules are supplied in containers and comprise ten or twelve server racks. These are ready to use, complete with power distribution, climate control, and monitoring and IT infrastructure management software. The cooling solution is a Liquid Cooling Package. An LCP draws in waste air from the server, and cools it via the high-performance heat exchangers linked to the cold seawater circuit. EC fans blast the cool air in front of the IT equipment again. The entire system is connected to the 565 metre deep fjord, guaranteeing an unlimited supply of cold water, and reducing energy consumption to a minimum.

The underground data centre also has another inestimable benefit: Security! The system can only be accessed via one, well-protected entry point. The rock formation provides natural protection from electromagnetic pulses. Specially trained security staff patrol the entire installation around the clock, 365 days a year. A three-stage authentication process and intelligent camera systems provide additional security.

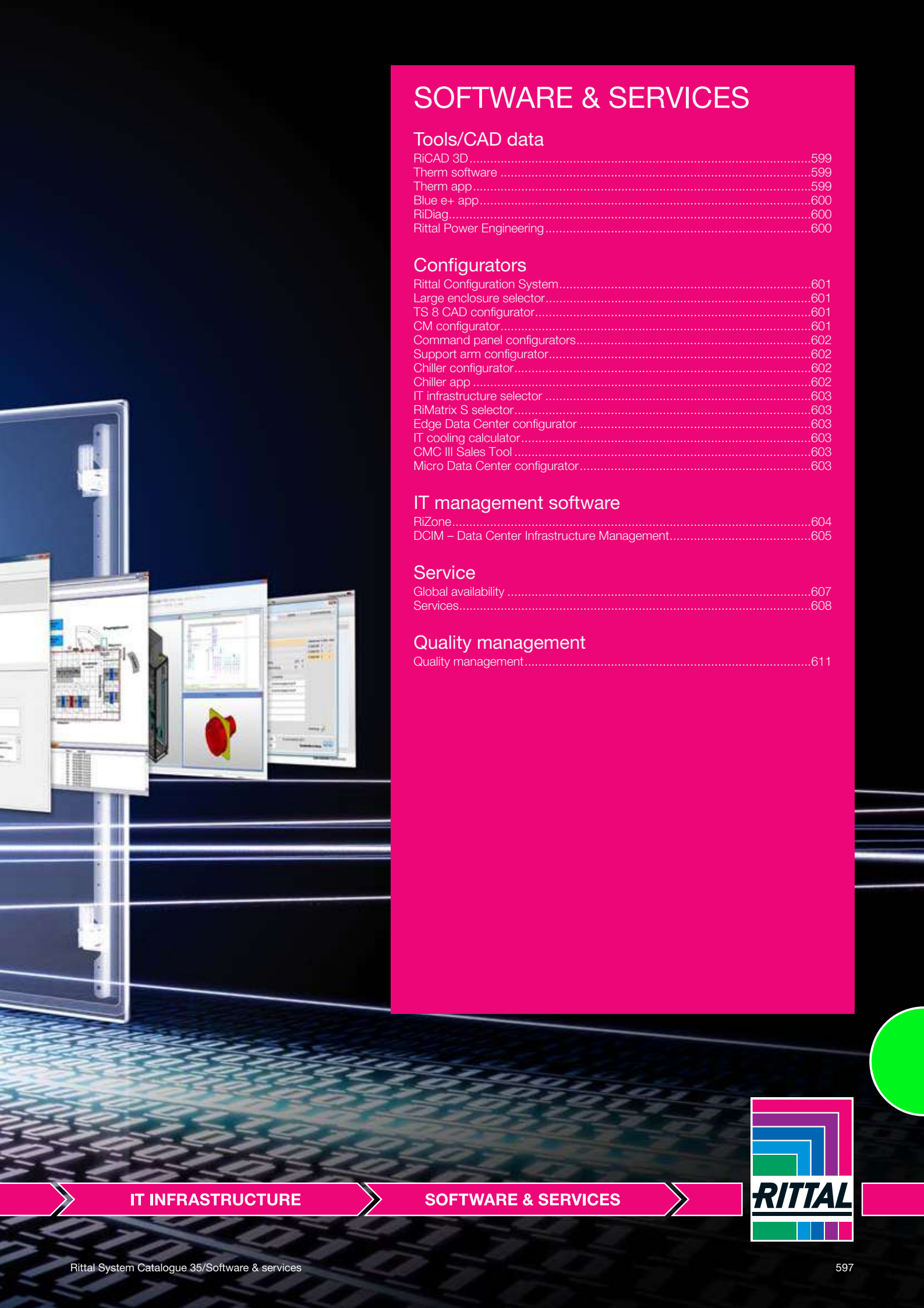
Rittal – The System.

Faster – better – everywhere.



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FRIEDHELM LOH GROUP



SOFTWARE & SERVICES

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Quality management 611



RiCAD 3D

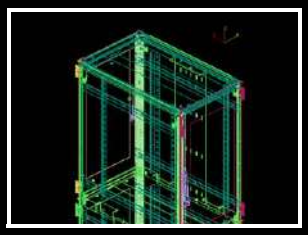
Greater efficiency in plant design
Whichever CAD system you use, RiCAD 3D helps you to maximise the efficiency and productivity of your plant design work.

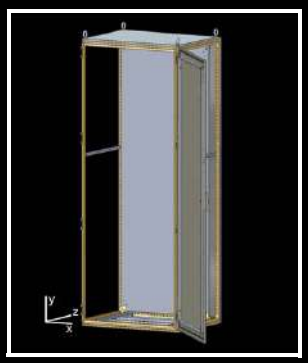
It includes both 2D and 3D drawings for virtually all Rittal products, together with an extensive range of system accessories.

Four options for retrieving the CAD data
- Online: Request data from the product page on the Rittal website
- Online: Retrieve data via the Web platform “PARTcommunity”
- Online: As an app
- Offline: RiCAD 3D as a database on your hard drive

Benefits for users of RiCAD 3D
- All CAD data may be transferred into any commercially available CAD system, thanks to the intelligent, native 2D/3D multiCAD-compatible format.
- The accurately detailed and validated drawings allow users to create design drawings with optimum planning confidence, in a fraction of the time taken for conventional design, by simply remodelling.
- Thanks to the freely selectable level of detail in CAD models, these may be represented in a greatly simplified format, enabling huge performance enhancements among users.

Fast online access to original data in all commercially available CAD formats with direct downloading facility available at: **www.rittal.com**





Therm software

Precise, efficient climate control
The Therm software takes care of the time-consuming calculation of the required cooling or heating output, and proposes a suitable selection of products.

Benefits:
- Fast, thorough determination of climate control requirements
- Cost savings by identifying the correct climate control measures
- Easy calculation of the required actual cooling output, as well as any upgrades or enhancements to the switchgear.
- Detailed documentation is supplied with the calculation

Note:
– Download Therm for free at www.rittal.com



Therm app

The Therm app for smartphones handles the time-consuming process of calculating climate control requirements for individual enclosure assemblies. With its fast selection feature, the app is a compact variant of the full “Therm” software version.
The results can be sent quickly and easily as an e-mail. A user-friendly interface guides the operator to the most suitable, correctly dimensioned climate control component using the typical control elements of a smartphone.
All evaluations are closely based on the requirements of IEC/TR 60 890 AMD 1/02.95 and DIN EN 14 511 for enclosure cooling units.

Note:
– The Therm app can be downloaded for free from the App Store and from the Google Play Store

Android app

iPhone app





Blue e+ app

The Blue e+ app supports the contactless exchange of information as well as quick on-site analysis via the NFC interface.

Benefits:

- Saves time when reading the units
- Access restriction via PIN request (PIN of cooling unit)
- Superior operational reliability, thanks to improved fault and maintenance management
- Identical displays and menu prompting as on the Blue e+ device display
- Direct links to online shop and service team
- Simple repair, maintenance and spare parts enquiries may be sent directly via your smartphone

Note:

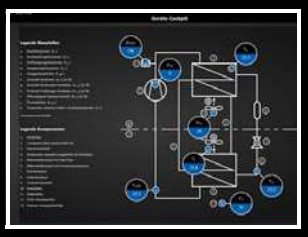
– Download the Blue e+ app for free from the Google Play Store

Android app



RiDiag II

For the diagnosis, maintenance and long-term data capture of TopTherm units with e-Comfort controller. RiDiag logs equipment data and prepares an error list. RiDiag also allows you to display and set the device's operating parameters. Logged measurement data can be tracked in real time in the form of a diagram.



RiDiag III

Diagnosis software for the analysis and parameterisation of of Blue e+ cooling units.
The following functions may be used in the device and efficiency cockpit:

- Quick analysis and setting of all parameters
- Display configuration: e.g. NFC, language, PIN
- Reading of historical data from the last two years
- Creation of service enquiries and selection of spare parts
- All parameters stored locally for reuse
- Software and firmware updates for devices

Note:

– Download RiDiag III for free at www.rittal.com





Rittal Power Engineering

Planning software for RiLine busbar systems and Ri4Power low-voltage switchgear with design certificate

The multi-lingual software package includes the following functions:

- Project handling, from the initial enquiry through to ordering
- Configuration of RiLine busbar systems in the TS enclosure, compact enclosure AE, CM, KS and free-standing enclosure SE
- Configuration of low-voltage switchgear with Ri4Power systems Form 1-4 and ISV
- Fully automated generation of complete parts lists and a calculation program for quote preparation
- Input and evaluation of assembly times to calculate man hours
- Access to the entire range of Rittal products
- Output of automatically generated system documentation with rated current and heat loss calculation
- Generation of special customer-configured fields with graphical processing in the CAD view

P. of	**Model No.**
1 pc(s).	**3020.500**

- Import/export interfaces for product and CAD data
- Export function for order and parts in Excel format
- Interface to Eplan Electric P8, for the export of CAD data and parts lists
- The extra benefit for engineering and planning offices: Output of detailed tender texts based on systems that were project-planned in Power Engineering in MS Word format
- Output of project-specific assembly plans together with field and plant definitions
- Integral configurator for the generation of drawings and parts lists to create connection kits for connecting air circuit-breakers (ACB)
- Simple generation of the design verification to IEC 61 439

Supply includes:

– DVD-ROM
Languages: German/English/French/Dutch/Danish/Swedish/Czech/Italian/Spanish/Polish/Russian/Chinese

Enclosures

Menu-prompted configurators will help you to select the right enclosure and matching standard accessories, providing you with the Rittal item numbers for your parts list definition.

Rittal Configuration System

Plausibility-checked system configuration
Small enclosure types KL and EB and compact enclosure systems AE are now easily configured with the system configurator Rittal Configuration System. You choose your preferred enclosure and the matching accessories, and position them directly in the enclosure. Cut-outs e.g. for fan-and-filter units, switches, connectors and cable entries are easily planned and positioned directly on the enclosure with the Rittal Configuration System. Parts lists, drawings and technical documents for your configuration are generated automatically.

Benefits:
- Plausibility-checked, error free enclosure and accessory configuration
- Control of the ongoing configuration status with 3D visualisation
- Simple planning of modifications and machining of enclosures and housings
- Direct data transfer of the configuration results into EPLAN Pro Panel

www.rittal.com



Large enclosure selector

For the baying system TS 8 and the system enclosure SE 8, the principal accessory components such as base/plinth, side panel or light are quickly selected to match the enclosure.

Benefits:
- Simple, menu-prompted selection of free-standing enclosures or bayed suites.
- Accessories for interior installation to match the enclosure are quickly selected.
- The end result is a plausibility-checked parts list for downloading, or you may request a quote for your current configuration.

www.rittal.com



TS 8 CAD configurator

A complete enclosure configured in just eight clicks, including parts list and 3D model.

Benefits:
- Easy menu-prompted configuration of a bayed TS 8 enclosure with base/plinth, side panels and the required handle system.
- Mounting rails and punched sections with mounting flanges can be pre-assembled for interior installation
- This will produce a 3D drawing that can be incorporated directly into the system design or integrated into the CAD system

www.rittal.com



CM configurator

Rittal CM compact system enclosures combine the advantages of the AE compact system enclosure with the configuration diversity of the TS 8 top enclosure system.

Benefits:
- Easy, menu-prompted selection of a CM enclosure including base/plinth and gland plates to meet the requirements
- Appropriate interior installation accessories can also be selected to match the chosen enclosure
- The end result will enable you to request a quote for your current configuration

www.rittal.com



Human/machine interface, climate control

Human/machine interface

Operation and monitoring play an increasingly vital role in mechanical and plant engineering. Rittal meets the exacting requirements placed on the "packaging" of the sensitive yet powerful electronics, with its integrated modular system at the human/machine interface.

Design, function and ergonomics are the distinguishing features of this product range.
Rittal provides free Internet planning tools to assist with planning and engineering of the command panels and support arm systems.
In this way, the right product for your customer application is achieved simply, quickly and reliably.



Command panel configurators

for aluminium command panels

The online configurators for Comfort Panel and Optipanel allow you to configure individual, perfectly coordinated panel solutions. Using a catalogue of questions, the configurators automatically guide you through the individual selection masks until you have compiled a complete system. The system also has a built-in smart consistency check to ensure that your configuration is complete and error-free.

Benefits:
- Select the enclosure to match the HMI panel used (the integral database contains a variety of commercial panels from various manufacturers)
- Navigate easily through the catalogue of questions
- Quickly compile the required features
- Request a quote based on the selected data records
- Request a 3D CAD model for integration into the system design

www.rittal.com



Support arm configurator

for CP 40/60/120/180

The tool will precisely define the correct support arm system using key user-specific parameters such as the jib length, enclosure weight or required cable cross-sections.

Benefits:
- Individual assembly tailored to the requirements of the application
- Built-in consistency check
- The outcome is a plausibility-checked parts list plus CAD data for the configured components
- Order directly from the online shop

www.rittal.com

Climate control

The right choice of climate control components has a decisive influence on the smooth functioning and cost-effective operation of your systems.

The following configurators will help you to select the optimum climate control component quickly and easily.



Chiller configurator

The chiller configurator is a cost-effective way of designing your required machine and process cooling. Cooling output, volumetric flow and refrigerant temperatures are precisely tailored to your required application.

Benefits:
- Calculate the heat loss, either mathematically or manually
- Comprehensive range of accessories
- Drawings downloadable in dwg, pdf, or 3D pdf format
- Downloadable specifications/tender texts
- Interactive performance diagram: Cooling output and pump capacity
- Add option packages and download bill of materials
- Transfer order list to shopping basket
- Send a quote request

Note:
– The chiller configurator is available at www.rittal.com



Chiller app

The Chiller app allows users to make their selections from a mobile device. Designed to complement the existing online version of the chiller configurator, the app also supports automated calculation of the required cooling output. See page 475.

Note:
– Download the Chiller app for free from the App Store

iPhone app

IT infrastructure selector

Supports you as partner, system integrator, system engineer or end customer in selecting the right IT products for your specific application.

Selector for:
- TS IT network/server enclosures
- Power Distribution Unit
- Liquid Cooling Package DX/CW
- Monitoring system CMC III
- Monitor/keyboard unit MTE
- Fire alarm and extinguisher system DET-AC III

Benefits:
- All product segments in the data centre at a glance: Network/server enclosures, solutions for IT cooling, IT power and IT monitoring
- For added value, suitable accessories are suggested in every segment
- The result is an individual IT infrastructure, ready for you to request a quote from Rittal

www.rittal.com



RiMatrix S selector

Your selector for standardised data centres for SMEs, branch concepts and flexible cloud applications.
Your solution is configured on the basis of standardised data centre modules.

Benefits:
- RiMatrix S at a glance
- Explanation of the option packages
- Efficiency calculation for your location
- As the outcome, you can save your compiled RiMatrix S solution as a PDF file

www.rittal.com

The selector is also available as an app.

Android app

iPhone app



Edge Data Center configurator

Data centre configurator for the simple configuration of complete, turnkey private cloud solutions, see also page 583.

Benefits:
- Your data centre configuration in just a few steps
- Standardised solution
- CFD analysis

www.rittal.com



IT cooling calculator

Simple selection of water-based Liquid Cooling Packages (LCP) for rack and suite cooling for your IT infrastructure.

Benefits:
- Calculation of the cooling output of LCPs
- Consideration of the various physical parameters
- Save your finished calculation as a PDF file

www.rittal.com



CMC III Sales Tool

Compile the monitoring components for your application with this tool. The required accessory components are selected automatically.

Benefits:
- Overview of all monitoring components
- Simple selection aid
- You will be provided with a list of all required Model Nos

www.rittal.com



Micro Data Center configurator

Configuration of your security safe, including a range of configuration components.

Benefits:
- Your complete micro data centre in just a few steps
- Individual selection of configuration components
- The end result will enable you to request a quote for your current configuration

www.rittal.com



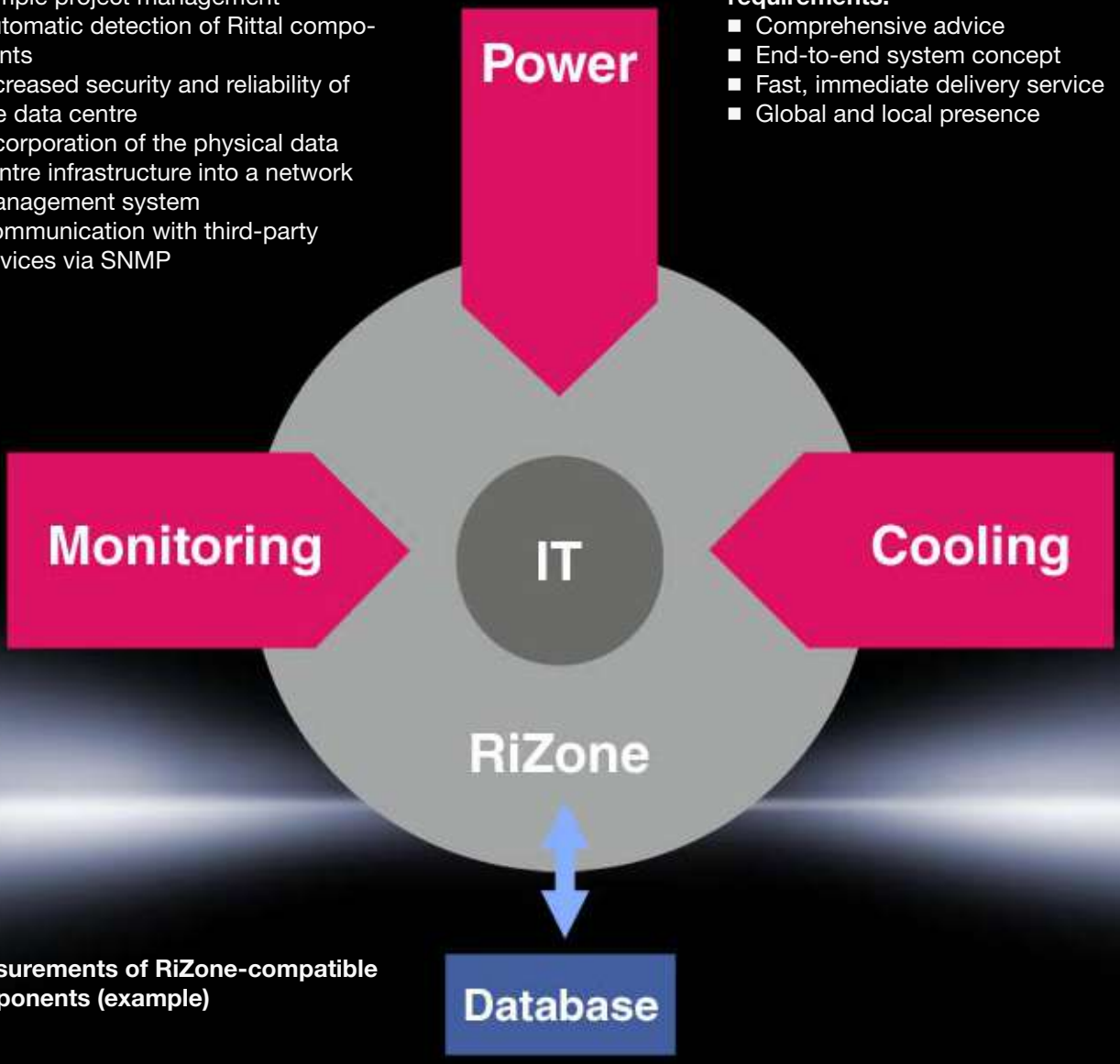
RiZone – Customer-focused, cost-efficient

Six good reasons to choose RiZone

- Energy optimisation throughout the entire data centre
- Simple project management
- Automatic detection of Rittal components
- Increased security and reliability of the data centre
- Incorporation of the physical data centre infrastructure into a network management system
- Communication with third-party devices via SNMP

Combine the sum total of all RiZone benefits with the particular benefits offered by Rittal, whatever your requirements.

- Comprehensive advice
- End-to-end system concept
- Fast, immediate delivery service
- Global and local presence



Measurements of RiZone-compatible components (example)

CMC

- Temperature
- Humidity
- Vandalism
- Airflow
- Differential pressure
- Early fire detection
- Fire extinguishing
- Leakage
- Access

Cooling/LCP

- Inlet temperature
- Setpoint (target value)
- Averaged intake temperature

Chillers

- Inlet and return temperature
- Pump speed
- Operating mode
- Power consumption

Ri4Power

- Current
- Voltage
- Energy
- Capacity

UPS

- Inverter status
- Status of primary network
- Battery status

PSM/PDU

- Current measurement of PSM bars
- Measurement of power consumption per socket with active PSM
- Switching of individual sockets

DCIM – Data Centre Infrastructure Management

RiZone – Perfect support of IT infrastructure components

Optional support of Rittal components – from server enclosures to power supply and climate control, through to security and monitoring technology – during integration and in the operational phase, with coordinated sensors and control systems.

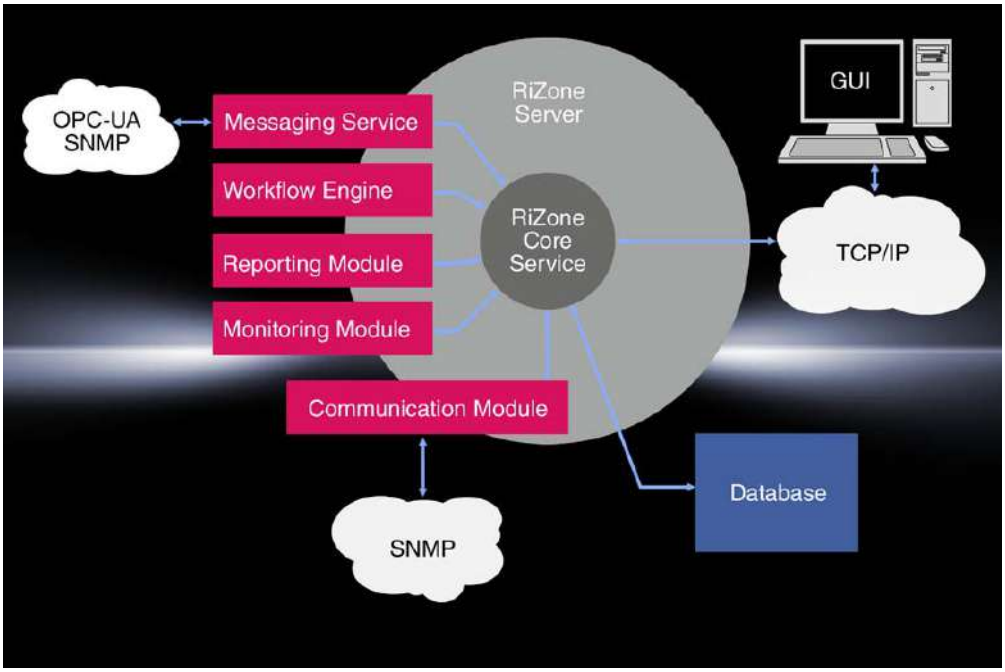
- The physical data centre infrastructure is incorporated into a data centre infrastructure management system.
- Simple configuration
- Automatic detection of Rittal components
- Workflow editor for user-defined scenarios (what happens if ...)
- Enhanced security and reliability
- Energy optimisation in the data centre
- Integration of SNMP-compatible third-party equipment
- **Autodiscovery**
  Detection of all SNMP-compatible IT infrastructure components
- **Database**
  In-house SQL database or link to external MS-SQL and Oracle databases
- **Capacity management**
  – Monitoring of capacities in the data centre
  – Graphical representation of the servers in the server enclosure
  – Redundancy monitoring of the climate control and power supply
  – Determination of optimum server installation positions
  – In conjunction with DRC, online reconciliation with the server enclosure and built-in components
- **Off-line project planning**
  – Pre-configuration of RiZone projects
  – Supports Rittal CMC III components as well as RiMatrix S
  – Components are easily replaced using drag and drop
- **Central access control**
  – Central administration of acess users and PINs
  – One-time PIN function
  – Emergency PIN function
  – 2-way authorisation
- **User administration**
  – Granular user administration within RiZone
  – Supports AD
- **Open Virtualization Format (OVF)**
  – The virtual RiZone appliance is supplied in the industry standard OVF
- **Active Directory**
  – The RiZone server may be a member of a directory service
  – RiZone user administration from directory service
- **CMC III access**
  – Central administration of access control by RiZone
  – Administration of transponder cards
  – Centralised administration of access data
  – Import function

RiZone plus Rittal components creates a system solution with maximum energy efficiency.

Note:
– RiZone Appliance Standard
– RiZone Appliance IP node licence
– Server shutdown software

see page 562







Always on hand, whenever you need us!



Whenever, wherever and however you need us, we are always on hand to assist you! Simply give us a call, send an e-mail or visit our website to get in touch. Fast, simple and reliable.

The benefits to you:
- International availability
- 24-hour service
- Communicate in your local language

Faster
- Short paths, fast communications – with regional service support points and service partners
- Perfect interplay between service and engineering

Better
- Individual service solutions from a single source
- High qualification standards among Rittal service technicians worldwide

Everywhere
- More than 150 service partners with over 1000 service technicians

Rittal service addresses worldwide

Germany
Tel. +49 (0) 2772 505-1855
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service@rittal-india.com

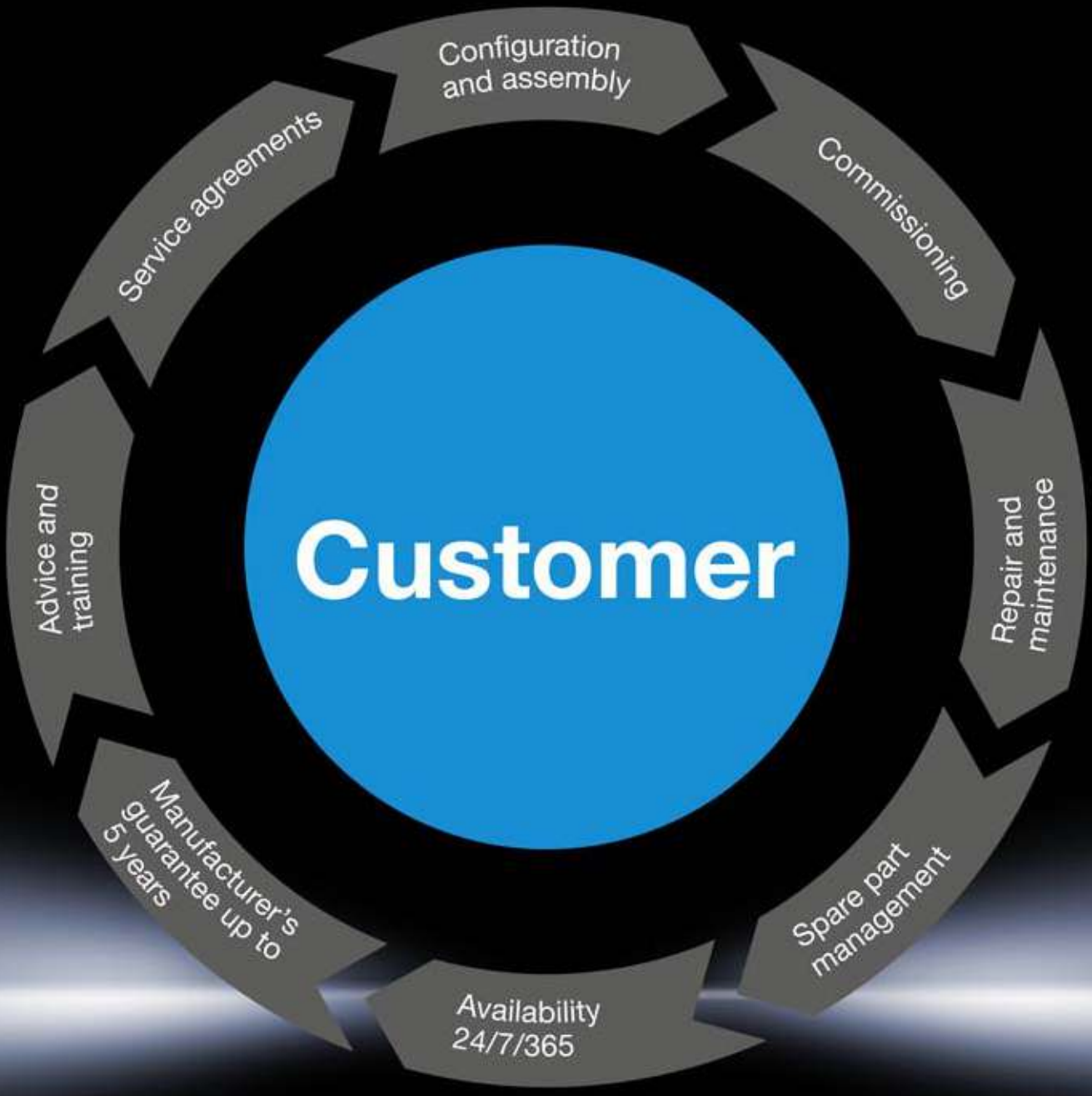
Brazil
Tel. +55 (11) 3622 2377
service@rittal.com.br

Individual services for the entire product lifecycle

With Rittal products, rest assured that your production process is in safe hands.

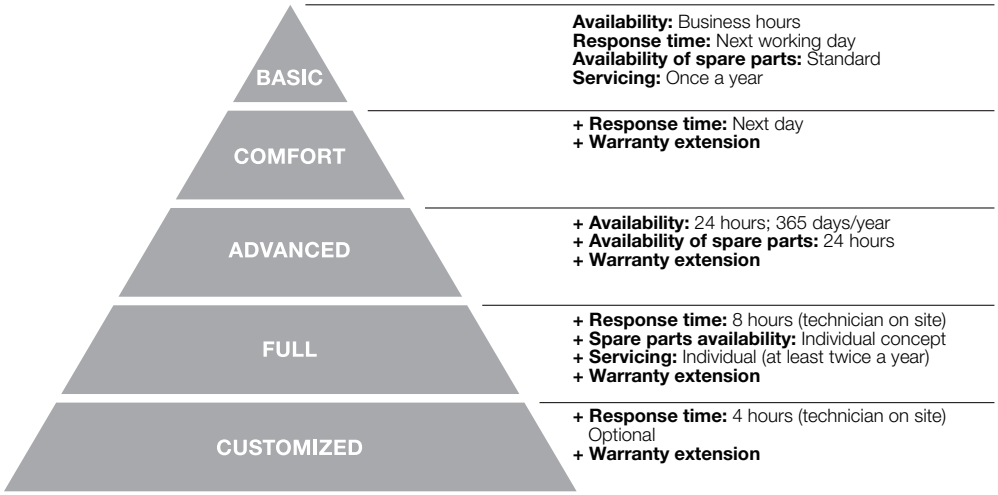
Rittal lifecycle management goes far beyond mere statutory liability for defects and voluntary manufacturer warranties. Rittal safeguards the long-term productivity of your systems. What is more, this service is tailored to your specific requirements, because you decide for yourself which service level best caters for your risk of production downtime.

The benefits for you:
- Preserve the value of your systems and equipment
- Reduce downtimes
- Long-term cost management


Configuration and assembly
Commissioning
Repair and maintenance
Spare part management
Availability 24/7/365
Manufacturer's guarantee up to 5 years
Advice and training
Service agreements
Customer

Flexible service contracts: The right solution to match your requirements

Features of our Rittal service packages at a glance:



The benefits for you:

- Short response times thanks to local technicians
- Preserve the value of your equipment
- Extended warranty up to 5 years
- Spare parts held in stock
- Cost transparency

5 years
Manufacturers' warranty

in conjunction with a signed service agreement



We are committed to perfection at every phase





Spare parts – any time, anywhere

Global availability of individual parts creates added value

Professional spare parts management guaranteeing maximum global availability of spare parts, and graduated service contracts matched precisely to your individual requirements: That is what you can expect from Rittal International Service. A service contract enables you to spell out many details, such the availability of spare parts, specifically for your equipment or system. International service: At your service, any time, anywhere.

The benefits for you:

- Customer-specific components are held in stock on the basis of individual service contracts
- Decentralised warehousing to ensure fast and reliable spare parts availability
- Approved original spare parts from the manufacturer





Quality management is a must. Quality philosophy is an attitude.



“Rittal – The System.” stands for consistent quality management and on-going refinements to products, services and internal processes.
Rittal quality management ensures that regulations and standards are observed, and individual customer requirements are met. In addition to this, we also define our exacting product quality demands in supplementary Rittal standards. The consistent Rittal quality philosophy guarantees perpetually high standards and ensures the global usability of all products with countless international approvals and licences.

Alongside product quality, we also focus on process and service quality.
All internal processes are continuously refined by quality control groups, and reviewed during in-house audits. Each year, our improvements and high standards are verified by countless successful external system and customer audits.

Rittal offers support from day one
- Project planning of technical specifications
- Prototype assembly, testing and simulations
- Manufacturing and assembly
- Warehousing service and on-time delivery
- Your own personal point of contact throughout the entire project

Accredited Rittal test laboratory
- Simulation of climatic conditions
- Dynamic and static load tests
- 3D measurement
- Testing of IP/IK protection categories and NEMA type ratings
- Corrosion testing
- Electrical safety and function tests
- Software tests
- Performance testing of chillers, cooling units and heat exchangers
- Material testing



CERTIFICATE OF PARTICIPATION
Issued by
Underwriters Laboratories Inc.

Rittal GmbH & Co. KG
Auf dem Stützelberg
Herborn, 35745 Germany

has been assessed and found to be eligible to participate in Underwriters Laboratories Inc.

Client Test Data Program (CTDP)



SQS Zertifikat

Die SQS bescheinigt hiermit, dass nachstehend genanntes Unternehmen über ein Managementsystem verfügt, welches den Anforderungen der aufgeführten normativen Grundlagen entspricht.

FRIEDHELM LOH GROUP
RITTAL GmbH & Co. KG
Auf dem Stützelberg
35745 Herborn
Deutschland

Zertifizierter Bereich

Ganzes Unternehmen
(gemäss Appendix)

Normative Grundlagen

ISO 9001:2008	Qualitätsmanagement-System
ISO 14001:2004	Umweltmanagement-System
OHSAS 18001:2007	Arbeitssicherheits- und Gesundheitsschutz-Managementsystem

Rittal – The System.

Faster – better – everywhere.





SYSTEM ACCESSORIES

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The Rittal Flex-Block base/plinth system



Save time

- Fast assembly by simply clipping together the base/plinth components
- Easily bayed with tool-free baying clip
- The enclosure is easily transported, both when empty and fully configured, by removing the base/plinth trim panel



Easy to assemble

- Tool-free assembly of all base/plinth components
- Tool-free mounting of accessories, e.g. baying and levelling feet
- Symmetrical enclosure widths and depths
- Combinations of 100 and 200 mm high trim panels may be used with the 200 mm high Flex-Block





Large mounting area

- Space-saving cable management in the base/plinth means more space for enclosure configuration
- Configuration with punched rail – clip into position from outside or inside
- Flexible configuration: Punched rail with 25 mm pitch pattern of holes



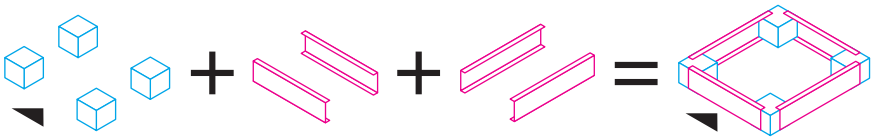
Flex-Block base/plinth system



The Rittal base/plinth system

Flex-Block
Freely combinable base/plinth system for virtually any application. Because the corner pieces and trim panels are packaged separately, it is possible to respond individually to any application.

The enclosure load rests on the corner pieces, so that the trim panels can be attached or removed at any time by using clips. The base/plinth trim panels are symmetrical and are readily exchanged in the width and depth. This creates unprecedented flexibility and great savings potential with base/plinth configuration.

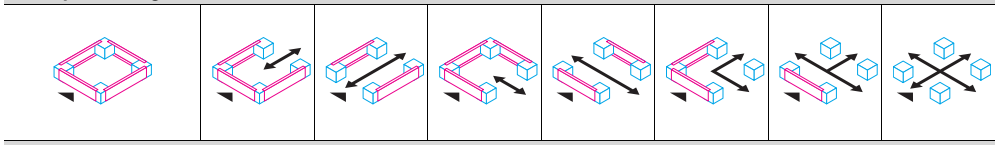
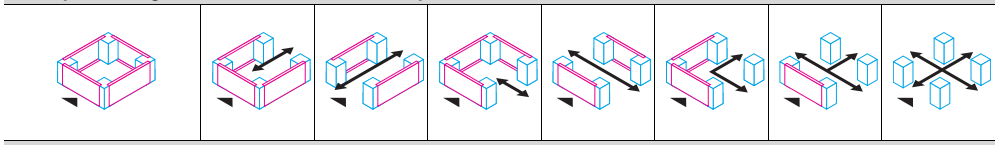
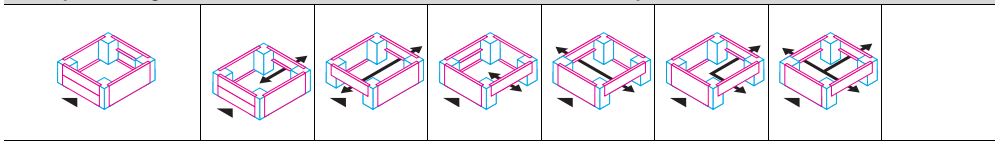


One Model No. for the **Flex-Block corner pieces** front and rear

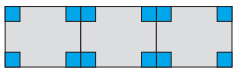
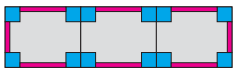
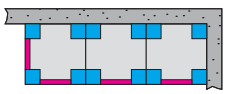
One Model No. for the **Flex-Block trim panels** front and rear

One Model No. for the **Flex-Block trim panels** at the sides

One complete **Flex-Block base/plinth**

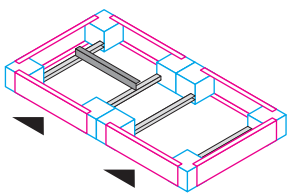
Base/plinth, height 100 mm

Base/plinth, height 200 mm with 200 mm trim panel

Base/plinth, height 200 mm. Combination of 100 mm and 200 mm trim panel


Functional and cost benefits

Order includes	Functional benefits	Potential savings with 100 mm high Flex-Block versus complete Flex-Block base/plinth
3 packs of Flex-Block corner pieces	The enclosures rest securely on the corner pieces. Transportation via forklift or lifting truck with free-standing enclosures is supported.	12 trim panels 
3 packs of Flex-Block corner pieces 4 packs of Flex-Block trim panels	Completely closed suite of base/plinths, no trim panels between the enclosure panels. This means more space for assembly and cable entry.	4 trim panels 
3 packs of Flex-Block corner pieces 2 packs of Flex-Block trim panels	Trim panels are only needed in the viewed area; there are no trim panels between the enclosures. This means more space for assembly and cable entry.	8 trim panels 

Other options:

- Cable clamp may be configured individually in every enclosure panel using system accessories
- With 200 mm Flex-Block corner pieces, either 100 mm high or 200 mm high trim panels may be used, depending on requirements



Flex-Block corner pieces

for TS, TS IT, SE, PC
High-strength plastic corner pieces for individual tool-free assembly with Flex-Block trim panels and accessories.

Material:
– Corner pieces: Fibreglass-reinforced plastic
– Cover caps: ABS

Colour:
– RAL 9005

Supply includes:
– 4 corner pieces
– 4 cover caps
– Assembly parts for mounting on the enclosure

Corner pieces height mm	Model No.
100	**8100.000**
200	**8200.000**

Accessories:

– Flex-Block trim panels, see page 617
– Punched rail 23 x 23 mm, see page 722
– Baying clip 8000.100, see page 617
– Adaptor sleeve 8000.500, see page 629
– Base mounting plate 2817.000, see page 622





Flex-Block trim panels

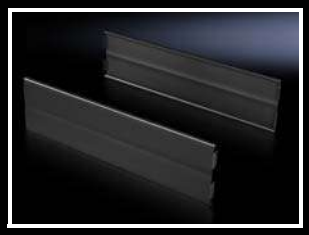
for Flex-Block corner pieces
For tool-free assembly. With symmetrical enclosure dimensions, trim panels are identical in the width and depth.

Material:
– Sheet steel

Colour:
– RAL 9005

Supply includes:
– 2 trim panels









100 mm high, solid

For enclosure width and depth in mm	Model No.
300	**8100.300**
400	**8100.400**
500	**8100.500**
600	**8100.600**
800	**8100.800**
1000	**8100.010**
1200	**8100.120**
1600	**8100.160**
1800	**8100.180**

200 mm high, solid

For enclosure width and depth in mm	Model No.
300	**8200.300**
400	**8200.400**
500	**8200.500**
600	**8200.600**
800	**8200.800**
1000	**8200.010**
1200	**8200.120**

100 mm high, with brush strip

For enclosure width and depth in mm	Model No.
600	**8100.605**
800	**8100.805**
1000	**8100.105**
1200	**8100.125**

100 mm high, vented

For enclosure width and depth in mm	Model No.
600	**8100.602**
800	**8100.802**

Accessories:

– Filter mats for trim panel, vented 7583.500, see page 623



Baying clip

for baying the Flex-Block corner pieces
Tool-free baying of Flex-Block base/plinths via a simple clip system.

Material:
– Fibreglass-reinforced plastic

Colour:
– RAL 9005

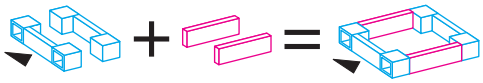
Packs of	Model No.
12 pc(s).	**8000.100**

Base/plinth TS

Modular base/plinth diversity

Regardless of the enclosure depth:
The base/plinth components at the front and rear, pre-configured with corner pieces, are always the same for the chosen width.
Only the side trim panels are selected according to the enclosure depth and the required base/plinth configuration. The modular concept produces exceptional advantages in terms of cost and function.

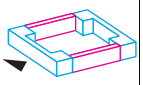
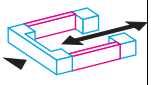
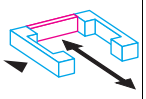
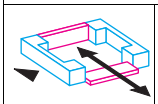
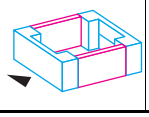
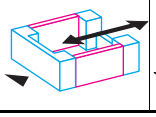
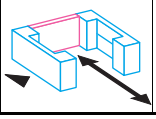
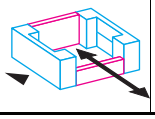
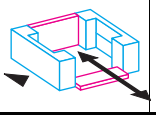
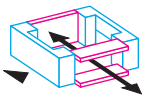
Mounting on the enclosure is conveniently carried out from the outside. The base/plinth interior offers diverse opportunities for cable management mounting levels.



One Model No. for the **base/plinth components** front and rear

One Model No. for the **base/plinth trim panels,** side

One complete **base/plinth TS**

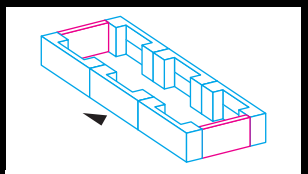
Base/ plinth height	Basic form	Cable entry options			Stabilisation of bayed base/plinths	
100 mm						
200 mm						

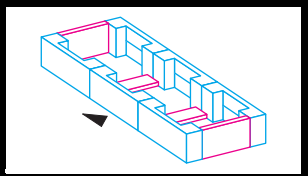
Functional and cost benefits

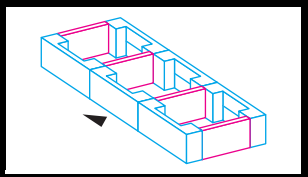
Fewer parts, more opportunities, lower purchasing, storage and assembly costs – this is the winning formula behind the modular base/plinth system.

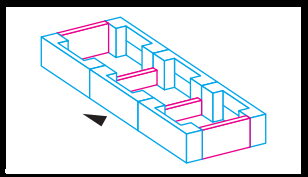
The following table shows five possible solutions using three bayed base/plinths in 200 mm height from the wide range of options available, together with the potential savings with trim panels compared with the previous 200 mm base/plinth system each with two trim panels of 100 mm height at the sides.

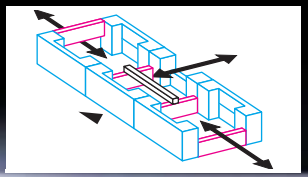
Order includes	Functional benefits	Potential savings versus twelve 100 mm trim panels
1 pack of base/plinth components, 1 pack of base/plinth trim panels 200 mm high	Continuous cable chamber	2 trim panels 200 mm
3 packs of base/plinth components 1 pack of base/plinth trim panels 200 mm high 1 pack of base/plinth trim panels 100 mm high 1 pack of base/plinth baying brackets 8601.100 (packs of 20) 4 pc(s). are required for this solution	Additional stabilisation for transportation purposes with base/plinth trim panels rotated through 90°	2 trim panels 200 mm 2 trim panels 100 mm
2 packs of base/plinth components 1 pack of base/plinth trim panels 200 mm high	Shielding of the base/plinths in relation to one another	4 trim panels 200 mm
3 packs of base/plinth components 1 pack of base/plinth trim panels 200 mm high 1 pack of base/plinth trim panels 100 mm high	Additional connection of the base/plinths	2 trim panels 200 mm 2 trim panels 100 mm











Other options:

- Cable entry at the side by mounting a 100 mm base/plinth trim panel (top or bottom)
- Cable entry from the rear by dismantling one or more trim panels of the base/plinth components
- Cable clamp rail fitted on the 100 mm high trim panel

Base/plinth components front and rear

Sheet steel
for TS, TS IT, SE, CM, TP, PC, IW
Base/plinth component consisting of one trim panel and two pre-configured corner pieces. In 200 mm high base/plinth components, one trim panel is divided into two for cable entry.

Material:
– Base/plinth components: Sheet steel
– Cover caps: Plastic

Surface finish:
– Spray-finished

Colour:
– Cover caps: RAL 9005/7035

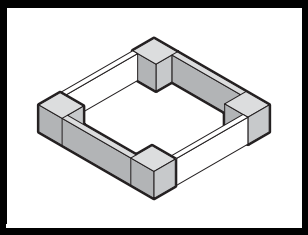
Supply includes:
– 2 base/plinth components, 4 cover caps, 4 screws and cage nuts M12 for mounting on the enclosure

Also required:
– Depending on the application/load, side base/plinth trim panels, see page 620

Accessories:
– Base mounting plate 2817.000, see page 622
– Filter mats for vented base/plinth trim panel, see page 623







100 mm high, colour: RAL 7022

For enclosure width mm	Version	Model No.
300	solid	**8601.915**
400	solid	**8601.400**
600	solid	**8601.600**
800	solid	**8601.800**
850	solid	**8601.850**
1000	solid	**8601.000**
1100	solid	**8601.300**
1200	solid	**8601.200**
1600	solid	**8601.920**
1800	solid	**8601.980**

200 mm high, colour: RAL 7022

For enclosure width mm	Version	Model No.
300	solid	**8602.915**
400	solid	**8602.400**
600	solid	**8602.600**
800	solid	**8602.800**
850	solid	**8602.850**
1000	solid	**8602.000**
1100	solid	**8602.100**
1200	solid	**8602.200**
1600	solid	**8602.920**
1800	solid	**8602.980**

100 mm high, colour: RAL 7035

For enclosure width mm	Version	Model No.
300	solid	**8601.905**
600	solid	**8601.605**
600	vented	**7825.601**
800	solid	**8601.805**
800	vented	**7825.801**

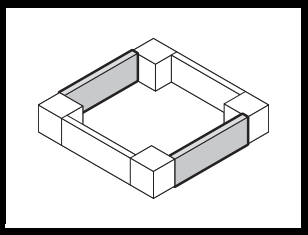
200 mm high, colour: RAL 7035

For enclosure width mm	Version	Model No.
300	solid	**8602.905**
600	solid	**8602.605**
800	solid	**8602.805**

Base/plinth TS







Base/plinth trim panels, sides

Sheet steel
for base/plinth components front and rear
For mounting between the base/plinth components. At 200 mm height, two 100 mm base/plinth trim panels may also be used. Base/plinth trim panels (100 mm high) may be installed rotated through 90° to stabilise bayed base/plinth components.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Supply includes:
– 2 base/plinth trim panels, including parts for attaching to the base/plinth components

Also required:
– Base/plinth baying brackets 8601.100, see page 620, when base/plinth trim panels are installed rotated through 90°

Accessories:
– Fastening bolts for base/plinth, see page 622

100 mm high, colour: RAL 7022

For enclosure depth mm	Model No.
300	**8601.030**
400	**8601.040**
500	**8601.050**
600	**8601.060**
800	**8601.080**

200 mm high, colour: RAL 7022

For enclosure depth mm	Model No.
300	**8602.030**
400	**8602.040**
500	**8602.050**
600	**8602.060**
800	**8602.080**

100 mm high, colour: RAL 7035

For enclosure depth mm	Model No.
600	**8601.065**
800	**8601.085**
1000	**8601.015**
1200	**8601.025**

200 mm high, colour: RAL 7035

For enclosure depth mm	Model No.
600	**8602.065**
800	**8602.085**
1000	**8602.015**
1200	**8602.025**





Base/plinth baying brackets

for TS base/plinth
Required if the trim panels are mounted rotated through 90° for additional stabilisation during the transportation of bayed enclosures.

Additional brackets required for each trim panel: 2 pc(s).

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Screws M8 x 16 mm

Packs of	Model No.
20 pc(s).	**8601.100**

Cable chamber

for TS, SE

With integral system punchings for individual system accessories.

Height: 200 mm

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Sheet steel trim panels front and rear
– Assembly parts for mounting on the enclosure

For enclosures		Model No.
Width mm	Depth mm	
400	500	**8600.455**
400	600	**8600.465**
600	500	**8600.655**
600	600	**8600.665**
800	500	**8600.855**
800	600	**8600.865**
1200	500	**8600.255**
1200	600	**8600.265**

Accessories:

– Side panels for cable chamber, see page 621



Side panels

for cable chamber

Height: 200 mm

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Assembly parts

For enclosure depth mm	Packs of	Model No.
500	2 pc(s).	**8600.510**
600	2 pc(s).	**8600.520**



Transport castors

for TS base/plinth

For locating onto the base/plinth corner piece 100 or 200 mm high.

Load capacity:
– Maximum permissible load per twin castor: Static 100 kg

Supply includes:
– 4 twin castors, 2 x with, 2 x without locks

Colour:
– RAL 7022

Floor clearance mm	Model No.
100	**8800.390**

Also required:

– Base/plinth trim panels, side, see page 620



Base/plinth TS





Base mounting plate

For
- **TS base/plinth**
- **Flex-Block base/plinth system**
- **Base/plinth, complete**

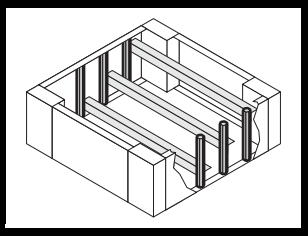
For fastening the base/plinth to the floor without moving the enclosure or bayed enclosure suite.
For assembly screws up to 12 mm Ø.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
10 pc(s).	**2817.000**





Fastening bolts

For
- **TS base/plinth**
- **Base/plinth, complete**
- **Base/plinth, stationary**

For mounting on base/plinth trim panels, side. The lockable fastening bolt allows the installation of cable clamp rails. Tighten with hex spanner, width across flats 19 mm.

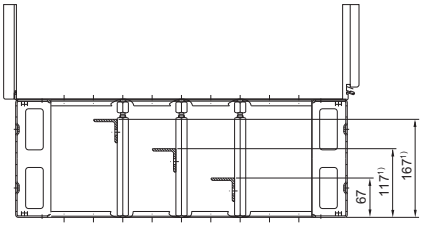
Material:
– Hexagonal steel

Surface finish:
– Zinc-plated

For base/plinth trim panel height mm	Packs of	Model No.
100	10 pc(s).	**2819.000**
200	10 pc(s).	**2819.200**

Accessories:

– Cable clamp rail, see page 783



[1)] Only for height 200 mm





Levelling component

for TS base/plinth
For retrospective levelling on uneven floors at the installation site up to a maximum of 15 mm.
Installed through the corner piece of the base/plinth component.
Adjusted using a hex spanner, width across flats 19 mm.

Benefits:
- A door offset caused by uneven flooring can be corrected
- Installed on the assembled enclosure, i.e. no need to plan levelling in advance

Load capacity:
– Max. admissible static load: 2500 N per levelling component (check the load capacity of the floor)

Supply includes:
– Assembly parts

For base/plinth height mm	Packs of	Model No.
100	4 pc(s).	**2891.000**
200	4 pc(s).	**2892.000**

Cover cap

for TS base/plinth components
As a replacement.

Material:
– Plastic ABS

Colour:
– RAL 9005

For base/plinth height mm	Packs of	Model No.
100	4 pc(s).	**8601.130**
200	4 pc(s).	**8601.140**



Base/plinth, stationary

for PC, TP
Design-coordinated with the enclosures, height 100 mm, with front projection.

Material:
– Sheet steel, 2.0 mm

Colour:
– RAL 7035
– Design component, front: RAL 7015

Supply includes:
– 1 design component, front
– 1 base/plinth component, rear
– 2 base/plinth trim panels, side

For depth mm	Model No.
600	**8800.920**

Accessories:

– Twin castors 7495.000, see page 628
– Levelling feet 4612.000, see page 628
– Fastening bolts 2819.000, see page 622
– Support bracket 4183.000, see page 731



Filter mat

for base/plinth trim panel, vented
To cover the trim panel in the Flex-Block. The filter mat is simply inserted into the trim panel from the rear. May be shortened to the required length.

For enclosure width mm	Packs of	Model No.
600/800	4 pc(s).	**7583.500**

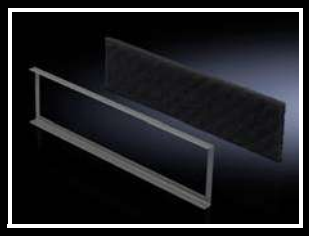


Filter mat

for base/plinth component, vented
To cover the trim panel in the base/plinth component. The mounting frame slides into position behind the filter mat in the base/plinth trim panel.
Filter class G3 to DIN EN 779.

Supply includes:
Mounting frame

For enclosure width mm	Packs of	Model No.
600	1 pc(s).	**7561.500**
800	1 pc(s).	**7581.500**



Base/plinth TS



Base/plinth components front and rear

Stainless steel
for TS, SE

Material:
– Stainless steel 1.4301 (AISI 304)

Surface finish:
– Brushed, grain size 400

Supply includes:
– Mounting accessories for mounting on the enclosure

100 mm high:
– 2 trim panels front/rear

200 mm high:
– 2 corner pieces with removable trim panel
– 1 trim panel front/rear

For enclosure width mm	Height mm	Model No.
600	100	**8701.600**
800	100	**8701.800**
1000	100	**8701.000**
1200	100	**8701.200**
600	200	**8702.600**
800	200	**8702.800**
1000	200	**8702.000**
1200	200	**8702.200**

Accessories:

– Base/plinth plate, modular (perforated plate), see page 624.



Base/plinth trim panels, side

Stainless steel
for base/plinth components front and rear
For mounting between the base/plinth components. At 200 mm height, two 100 mm base/plinth trim panels may be used. Base/plinth trim panels (100 mm high) may be installed rotated through 90° to stabilise bayed base/plinth components.

Material:
– Stainless steel 1.4301 (AISI 304)

Surface finish:
– Brushed, grain size 400

Supply includes:
– 2 base/plinth trim panels, including parts for attaching to the base/plinth components

For enclosure depth mm	Height mm	Model No.
400	100	**8701.040**
500	100	**8701.050**
600	100	**8701.060**
400	200	**8702.040**
500	200	**8702.050**
600	200	**8702.060**

Also required:

– Base/plinth baying brackets 8601.100, see page 620, when base/plinth trim panels are installed rotated through 90°

Accessories:

– Fastening bolts for base/plinth, see page 622



Base/plinth plate, modular

for
- **TS base/plinth, stainless steel**
- **Base/plinth, complete, stainless steel**

For secure cable routing in the base/plinth between the floor and the enclosure.

Width: 175 mm

Material:
– Stainless steel 1.4301 (AISI 304)

Supply includes:
– 4 base/plinth plates

Note:
– One base/plinth plate is needed per 200 mm base/plinth width

For enclosure depth mm	Packs of	Model No.
400	4 pc(s).	**2907.000**
500	4 pc(s).	**2908.000**
600	4 pc(s).	**2913.000**

Accessories:

– Cable tie 2597.000, see page 785

Base/plinth, complete

Sheet steel
for AE, TP universal console
Trim panels at the front and rear with fitted corner pieces and side trim panels.

Material:
– Sheet steel

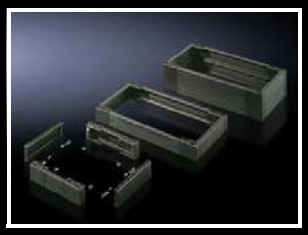
Surface finish:
– Spray-finished

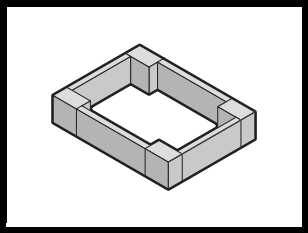
Colour:
– RAL 7022

Supply includes:
– Mounting accessories for mounting on the enclosure

100 mm high:
– 4 corner pieces
– 2 trim panels front/rear
– 2 trim panels, side

200 mm high:
– 4 corner pieces
– 1 trim panel front/rear x 200 mm
– 2 trim panels front/rear x 100 mm
– 4 trim panels, side





Base/plinth for TP universal console, 100 mm high

For enclosures/consoles		Base/plinth depth mm	Model No.
Width mm	Depth mm		
600	500	450	**2807.200**

Base/plinth for AE, 100 mm high

For enclosures		Base/plinth depth mm	Model No.
Width mm	Depth mm		
600	300	279	**2816.200**
800	300	279	**2818.200**
1000	300	279	**2801.200**

Base/plinth for AE, 200 mm high

For enclosures		Base/plinth depth mm	Model No.
Width mm	Depth mm		
600	300	279	**2826.200**
800	300	279	**2828.200**
1000	300	279	**2802.200**

Accessories:

– Fastening bolt, see page 622
– Base mounting plate, see page 622

Base/plinth, complete

Stainless steel
for one-piece consoles, stainless steel

Height: 100 mm
Where necessary, 2 base/plinths may be installed one above the other.

Material:
– Stainless steel 1.4301 (AISI 304)

Surface finish:
– Brushed

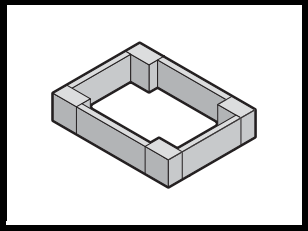
Supply includes:
– Mounting accessories for mounting on the enclosure
– 2 trim panels front/rear
– 2 trim panels, side

For enclosures/consoles		Model No.
Width mm	Depth mm	
600	400	**2865.000**
800	400	**2869.000**
1000	400	**2867.000**
1200	400	**2870.000**

Accessories:

– Levelling feet, see page 626
– Base/plinth plate, modular (perforated plate), see page 624





Base/plinth



Cast feet

For secure siting of
- Enclosure for tower PC

or
- Other customer equipment

Depth: 700 mm

Material:
– Cast aluminium

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Packs of	Model No.
2 pc(s).	**6902.920**

Accessories:

– Base mount 6147.000, see page 205
– Twin castors, see page 628



Levelling feet

For direct mounting underneath the TS base/plinth and the base/plinth, complete. For unhindered access e.g. when cleaning the floor, and to compensate for floor irregularities.

Load capacity:
– Max. admissible static load: 400 kg per levelling foot

Adjustment range:
– M12: 55 mm – 125 mm
– M16: 45 mm – 120 mm

Material:
– Stainless steel 1.4301 (AISI 304)

Thread	Packs of	Model No.
M12	4 pc(s).	**2889.000**
M16	4 pc(s).	**2890.000**

Possible alternative:

– Levelling feet Hygienic Design, see page 210





Cross member

for TS, SE, CM, TP, PC, IW adjustable
- To increase stability
- Height 70 mm
- Adjustable to the enclosure depth

To increase stability, the cross member is positioned 138 mm above the base frame of the enclosure at the front and rear. For deeper enclosures, the rear part may be extended and screw-fastened again. For screw-fastening to the floor and enclosure with mounting hole at the sides, front and rear. The castors and levelling feet may be secured to the welded nuts M12.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7015

For enclosure depth mm	Model No.
400	**8601.450**
500	
600	**8601.680**
800	

Accessories:

– Twin castors 6148.000, 7495.000, see page 628
– Levelling feet 4612.000, 7493.100, see page 628

Base/plinth

Stabiliser

for TS IT
The pull-out stabiliser is quickly and easily retrofitted to the lower frame of the TS IT racks and only extended when necessary.

Load capacity:
– Up to a maximum of 150 kg static load

Material:
– Sheet steel

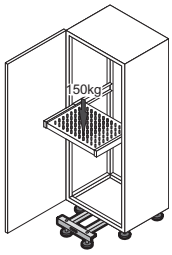
Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Note:
– The stabiliser cannot be used together with base plates, base frames or base/plinths

Enclosure depth mm	Packs of	**Model No.**
1000	1 pc(s).	**7825.250**

Also required:
– Levelling feet, see page 628 and/or
– Transport kit, see page 629







Base/plinth

for FlatBox
For attachment purposes, the base/plinth may be mounted on the pre-existing thread in the base area of the FlatBox. There is a rear recess provided for cable entry.

Material:
– Sheet steel

Surface finish:
– Powder-coated

Colour:
– RAL 7035

Supply includes:
– 4 levelling feet
– Assembly parts

For base area		Height mm	Packs of	**Model No.**
Width mm	Depth mm			
600	600	50	1 pc(s).	**7507.750**
700	700	50	1 pc(s).	**7507.755**



Base



Levelling feet

for TS, TS IT, SE, PC, IW

To compensate for height differences with floor irregularities. Assembly thread M12. Optionally with hex socket for adjustment from the inside of the enclosure.

Load capacity:
– Max. admissible static load: approx. 300 kg per levelling foot

Hex socket	Adjustment height	Packs of	**Model No.**
without	18 – 43 mm	4 pc(s).	**4612.000**
with	18 – 63 mm	4 pc(s).	**7493.100**

Also required:
– For mounting on the TS base/plinth: Base/plinth adaptor 8800.220, see page 629
– For mounting on the Flex-Block base/plinth system: Adaptor sleeve 8000.500, see page 629



Levelling feet

for FlatBox
M10 x 20 mm

For screw-fastening onto the enclosure base when used as a floor-standing or desktop enclosure. Width across flats 17, mounting thread multi-tooth 30.

Packs of	**Model No.**
4 pc(s).	**7507.740**



Levelling feet

85 – 115 mm high

For mounting on TS, SE and PC enclosures, for easier floor cleaning and to compensate for floor irregularities ±15 mm.

Height: 100 mm

Load capacity:
– Max. admissible static load: 350 kg per levelling foot

Material:
– Stainless steel 1.4301 (AISI 304)

Supply includes:
– Mounting accessories to the enclosure

Packs of	**Model No.**
4 pc(s).	**2859.000**

Possible alternative:
– Levelling feet Hygienic Design, see page 210





Twin castors

Mounting thread M12 x 20.

For:
- TS 8 baying system
- SE 8 free-standing enclosure system
- PC enclosure system
- Pedestal base plate
- Pedestal 6106.200/6106.300
- TopConsole pedestals
- Industrial Workstation
- Data Rack

Also required:
– For mounting on the TS base/plinth: Base/plinth adaptor for twin castors 8800.290, see page 630

1	Maximum admissible static load (per castor)	75 kg
	Floor clearance	85 mm
	Lock	2 with, 2 without
	Packs of	4 pc(s).
	Colour	Black with grey running surface
	Model No.	**6148.000**

2	Maximum admissible static load (per castor)	120 kg
	Floor clearance	125 mm
	Lock	2 with, 2 without
	Packs of	4 pc(s).
	Colour	Black
	Model No.	**7495.000**

Transport castors

for TE
The castors may be screw-fastened in the corner areas of the base frame in place of the levelling feet. Floor clearance: 58 mm, mounting thread M10 x 20

Supply includes:
– Assembly parts

Max. load capacity (static) per enclosure N	Packs of	Model No.
3000	4 pc(s).	**7000.672**



Transport kit

for TS IT
Floor clearance: approx. 40 mm

Load capacity:
– Max. admissible static load: 750 kg per enclosure

Supply includes:
– 4 castors (2 of which steerable) including assembly parts

Packs of	Model No.
4 pc(s).	**7825.900**

Note:
– Only for enclosures without gland plates and base tray/base mount



Adaptor sleeve

for Flex-Block
To accommodate levelling feet on the Flex-Block and for stacking the base/plinth corner pieces.

Material:
– Steel

Surface finish:
– Zinc-plated

Supply includes:
– 12 adaptor sleeves
– 8 screws M12
– 8 washers

Packs of	Model No.
12 pc(s).	**8000.500**

Accessories:

– Levelling feet 4612.000, see page 628



Base/plinth adaptor

for levelling feet
Connection component for fastening M12 levelling feet to the TS base/plinth.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
4 pc(s).	**8800.220**

Accessories:

– Levelling feet 4612.000, 7493.100, see page 628



Base



Base/plinth adaptor

for twin castors
Connection component for mounting twin castors on the TS base/plinth.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
4 pc(s).	**8800.290**

Note:
– Base/plinth trim panels, side, see page 620, wherever a twin castor is fitted



Width divider

Divides 1200 mm wide TS and SE enclosures into two halves.

Material:
– Sheet steel

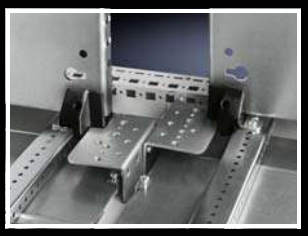
Surface finish:
– Zinc-plated

Supply includes:
– 1 pc(s) =
1 bracket for right, 1 bracket for left, 2 compensating plates for the top, mounting accessories

Packs of	Model No.
1 pc(s).	**8800.200**

Also required:
– TS punched rail 18 x 38 mm, see page 720
– PS punched section without mounting flange, 23 x 73 mm, see page 722

depending on the installation situation



1st mounting position:
Two mounting plates side by side.
Two mounting plates (from 600 mm wide enclosures) in a 1200 mm wide enclosure permit independent positioning and easy handling.

Also required:
– Four TS punched rails 18 x 38 mm at the bottom, according to the enclosure depth, see page 720
– One PS punched section without mounting flange 23 x 73 mm at the top, according to the enclosure depth, see page 722



2nd mounting position:
System support rails, fitted on the left.
Heavy installed equipment rests on the system support rails, leaving the remaining floor space free, e.g. for unhindered cable entry.

Also required:
– 2 system support rails 4361.000, see page 724
– 1 TS punched rail 18 x 38 mm in accordance with the enclosure depth (included with the supply of the standard enclosure)



3rd mounting position:
Cable clamp rail, installed on the left.
With 1200 mm wide enclosures, the width divider allows cable entry and cable clamping to be arranged differently on the left and right of the enclosure.

Also required:
– 1 cable clamp rail 4191.000, see page 783
– 1 TS punched rail 18 x 38 mm in accordance with the enclosure depth (included with the supply of the standard enclosure)

Reinforcement bracket

for TS, SE, TP universal console
For use as an additional stabiliser to the clamping straps when populated enclosures are screw-fastened via the base tray to the base/plinth or pallet for transportation purposes.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
4 pc(s).	**8800.830**





Trim panel

for CM, TP
To conceal the entire base opening with CM or as the cover for a TP pedestal.

Material:
– Sheet steel

Surface finish:
– Textured paint

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Assembly parts

For enclosure		Model No.
Width mm	Depth mm	
600	400	**5001.130**
800	400	**5001.140**
1000	400	**5001.150**
1200	400	**5001.160**
1600	400	**6730.030**
600	500	**6730.100**
800	500	**6730.110**
1200	500	**6730.120**
1600	500	**6730.130**



Clip parts

for gland plates
As replacement and for additional gland plate attachments in TS, SE, CM, TP.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
50 pc(s).	**8800.075**



Base



Gland plate

for CM, TP

Potential equalisation is provided via assembly components and earthing points.

Material:
– Sheet steel

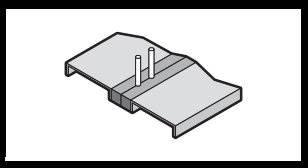
Surface finish:
– Zinc-plated

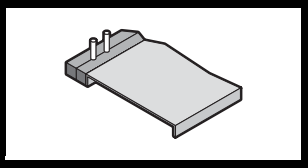
Supply includes:
– Assembly parts

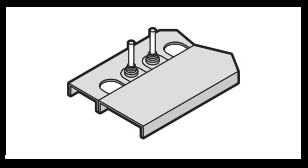
Note:
– For greater stability and universal cable entry, the base opening is divided in the width for 1000, 1200 and 1600 mm wide enclosures, and is suitable for various configurations

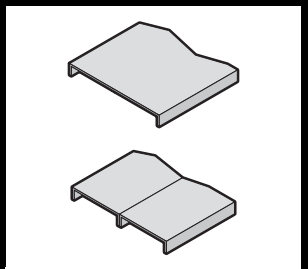
For enclosure depth 300 mm, complete module groups

	For enclosure/console width mm								
	One-piece base opening				Two-piece base opening				
For enclosure width	Packs of	Packs required	600	800	Packs of	Packs required	1000	1200	1600
Cable entry module groups			Model No.				Model No.		
Cable clamp strip, centre									
Gland plate, depth 50 mm	1 pc(s).	2	**5001.210**	**5001.211**	1 pc(s).	4	**5001.212**	**5001.213**	**5001.233**
Section for cable entry, centre	2 pc(s).	1	**8802.060**	**8802.080**	4 pc(s).	1	**8802.100**	**8802.120**	**8802.160**
Cable clamp strip, rear									
Gland plate, depth 100 mm	1 pc(s).	1	**5001.214**	**5001.215**	1 pc(s).	2	**5001.216**	**5001.217**	**5001.234**
Section for cable entry, rear	2 pc(s).	1	**8802.065**	**8802.085**	4 pc(s).	1	**8802.105**	**8802.125**	**8802.165**
Grommets, 1 x									
Gland plate, depth 50 mm	1 pc(s).	1	**5001.210**	**5001.211**	1 pc(s).	2	**5001.212**	**5001.213**	**5001.233**
Cable entry plates for grommets	1 pc(s).	1	**5001.226**	**5001.227**	1 pc(s).	2	**5001.228**	**5001.229**	**5001.237**
Cable entry and connector grommets, see page 769									
For cable glands									
One-piece									
Gland plate, depth 150 mm	1 pc(s).	1	**5001.218**	**5001.219**	1 pc(s).	2	**5001.220**	**5001.221**	**5001.235**
Two-piece									
Gland plate, depth 50 mm	1 pc(s).	1	**5001.210**	**5001.211**	1 pc(s).	2	**5001.212**	**5001.213**	**5001.233**
Gland plate, depth 100 mm	1 pc(s).	1	**5001.214**	**5001.215**	1 pc(s).	2	**5001.216**	**5001.217**	**5001.234**
Cable glands, see page 776									



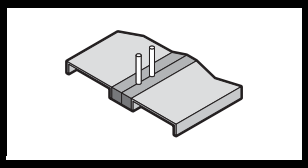


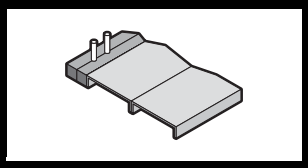


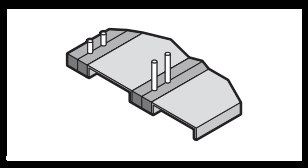


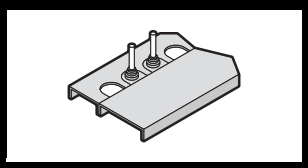
For enclosure depth 400 mm, complete module groups

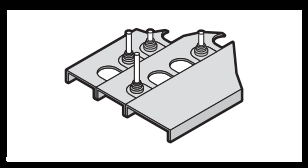
	For enclosure/console width mm								
	One-piece base opening				Two-piece base opening				
For enclosure width	Packs of	Packs required	600	800	Packs of	Packs required	1000	1200	1600
Cable entry module groups			Model No.				Model No.		
Cable clamp strip, centre									
Gland plate, depth 50 mm	1 pc(s).	1	**5001.210**	**5001.211**	1 pc(s).	2	**5001.212**	**5001.213**	**5001.233**
Gland plate, depth 150 mm	1 pc(s).	1	**5001.218**	**5001.219**	1 pc(s).	2	**5001.220**	**5001.221**	**5001.235**
Section for cable entry, centre	2 pc(s).	1	**8802.060**	**8802.080**	4 pc(s).	1	**8802.100**	**8802.120**	**8802.160**
Cable clamp strip, rear									
Gland plate, depth 100 mm	1 pc(s).	2	**5001.214**	**5001.215**	1 pc(s).	4	**5001.216**	**5001.217**	**5001.234**
Section for cable entry, rear	2 pc(s).	1	**8802.065**	**8802.085**	4 pc(s).	1	**8802.105**	**8802.125**	**8802.165**
Cable clamp strip, centre and rear									
Gland plate, depth 50 mm	1 pc(s).	1	**5001.210**	**5001.211**	1 pc(s).	2	**5001.212**	**5001.213**	**5001.233**
Gland plate, depth 100 mm	1 pc(s).	1	**5001.214**	**5001.215**	1 pc(s).	2	**5001.216**	**5001.217**	**5001.234**
Section for cable entry, centre	2 pc(s).	1	**8802.060**	**8802.080**	4 pc(s).	1	**8802.100**	**8802.120**	**8802.160**
Section for cable entry, rear	2 pc(s).	1	**8802.065**	**8802.085**	4 pc(s).	1	**8802.105**	**8802.125**	**8802.165**
Grommets, 1 x									
Gland plate, depth 150 mm	1 pc(s).	1	**5001.218**	**5001.219**	1 pc(s).	2	**5001.220**	**5001.221**	**5001.235**
Cable entry plates for grommets	1 pc(s).	1	**5001.226**	**5001.227**	1 pc(s).	2	**5001.228**	**5001.229**	**5001.237**
Cable entry and connector grommets, see page 769									
Grommets, 2 x									
Gland plate, depth 50 mm	1 pc(s).	1	**5001.210**	**5001.211**	1 pc(s).	2	**5001.212**	**5001.213**	**5001.233**
Cable entry plates for grommets	1 pc(s).	2	**5001.226**	**5001.227**	1 pc(s).	4	**5001.228**	**5001.229**	**5001.237**
Cable entry and connector grommets, see page 769									
EMC									
EMC gland plate	1 pc(s).	1	**8800.660**	**8800.680**	1 pc(s).	2	**8800.600**	**8800.620**	–
Gland plate, depth 100 mm	1 pc(s).	1	**5001.214**	**5001.215**	1 pc(s).	2	**5001.216**	**5001.217**	–
Cable entry and connector grommets, see page 769									
For cable glands									
One-piece									
Gland plate, depth 250 mm	1 pc(s).	1	**5001.222**	**5001.223**	1 pc(s).	2	**5001.224**	**5001.225**	**5001.236**
Two-piece									
Gland plate, depth 150 mm	1 pc(s).	1	**5001.218**	**5001.219**	1 pc(s).	2	**5001.220**	**5001.221**	**5001.235**
Gland plate, depth 100 mm	1 pc(s).	1	**5001.214**	**5001.215**	1 pc(s).	2	**5001.216**	**5001.217**	**5001.234**
Cable glands, see page 776									

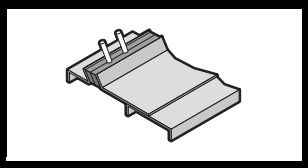


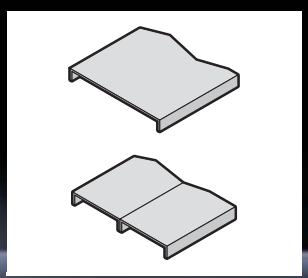








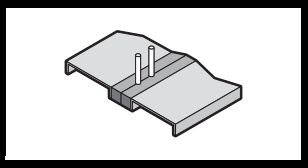


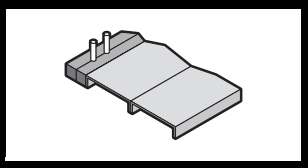


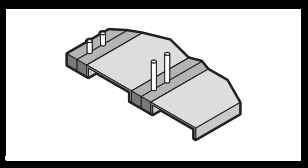
Base

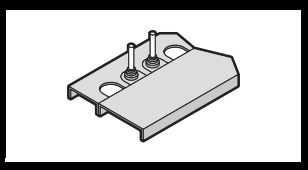
For enclosure depth 500 mm, complete module groups

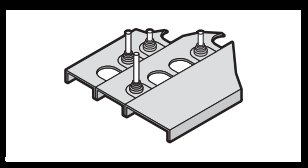
	For enclosure/console width mm								
	One-piece base opening				Two-piece base opening				
For enclosure width	Packs of	Packs re-quired	600	800	Packs of	Packs re-quired	1000	1200	1600
Cable entry module groups			Model No.				Model No.		
Cable clamp strip, centre									
Gland plate, depth 50 mm	1 pc(s).	1	**5001.210**	**5001.211**	1 pc(s).	2	**5001.212**	**5001.213**	**5001.233**
Gland plate, depth 250 mm	1 pc(s).	1	**5001.222**	**5001.223**	1 pc(s).	2	**5001.224**	**5001.225**	**5001.236**
Section for cable entry, centre	2 pc(s).	1	**8802.060**	**8802.080**	4 pc(s).	1	**8802.100**	**8802.120**	**8802.160**
Cable clamp strip, rear									
Gland plate, depth 150 mm	1 pc(s).	2	**5001.218**	**5001.219**	1 pc(s).	4	**5001.220**	**5001.221**	**5001.235**
Section for cable entry, rear	2 pc(s).	1	**8802.065**	**8802.085**	4 pc(s).	1	**8802.105**	**8802.125**	**8802.165**
Cable clamp strip, centre and rear									
Gland plate, depth 50 mm	1 pc(s).	1	**5001.210**	**5001.211**	1 pc(s).	2	**5001.212**	**5001.213**	**5001.233**
Gland plate, depth 100 mm	1 pc(s).	2	**5001.214**	**5001.215**	1 pc(s).	4	**5001.216**	**5001.217**	**5001.234**
Section for cable entry, centre	2 pc(s).	1	**8802.060**	**8802.080**	4 pc(s).	1	**8802.100**	**8802.120**	**8802.160**
Section for cable entry, rear	2 pc(s).	1	**8802.065**	**8802.085**	4 pc(s).	1	**8802.105**	**8802.125**	**8802.165**
Grommets, 1 x									
Gland plate, depth 250 mm	1 pc(s).	1	**5001.222**	**5001.223**	1 pc(s).	2	**5001.224**	**5001.225**	**5001.236**
Cable entry plates for grommets	1 pc(s).	1	**5001.226**	**5001.227**	1 pc(s).	2	**5001.228**	**5001.229**	**5001.237**
Cable entry and connector grommets, see page 769									
Grommets, 2 x									
Gland plate, depth 150 mm	1 pc(s).	1	**5001.218**	**5001.219**	1 pc(s).	2	**5001.220**	**5001.221**	**5001.235**
Cable entry plates for grommets	1 pc(s).	2	**5001.226**	**5001.227**	1 pc(s).	4	**5001.228**	**5001.229**	**5001.237**
Cable entry and connector grommets, see page 769									
EMC									
EMC gland plate	1 pc(s).	1	**8800.660**	**8800.680**	1 pc(s).	2	**8800.600**	**8800.620**	–
Gland plate, depth 100 mm	1 pc(s).	2	**5001.214**	**5001.215**	1 pc(s).	4	**5001.216**	**5001.217**	–
Cable entry and connector grommets, see page 769									
For cable glands, two-piece									
Gland plate, depth 100 mm	1 pc(s).	1	**5001.214**	**5001.215**	1 pc(s).	2	**5001.216**	**5001.217**	**5001.234**
Gland plate, depth 250 mm	1 pc(s).	1	**5001.222**	**5001.223**	1 pc(s).	2	**5001.224**	**5001.225**	**5001.236**
Cable glands, see page 776									

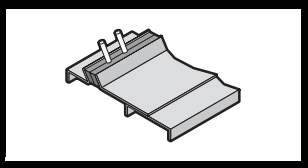


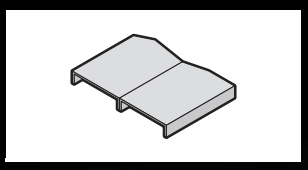












Gland plate

for TS IT

Potential equalisation is provided via assembly components and earthing points.

- **Gland plate set**
  To conceal the entire base opening:
  – Multi-piece, solid, with sliding panel
  – One-piece, vented with filter mat and cable entry at the rear
- **Gland plate modules**
  Select suitable modules depending on the application

Material:
– Sheet steel

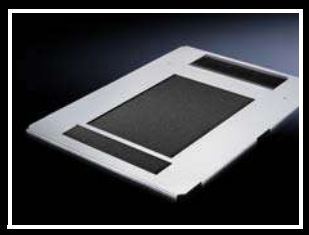
Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Accessories:

– Clip parts for gland plates, see page 631
– Filter mat for gland plate, one-piece, vented, see page 639





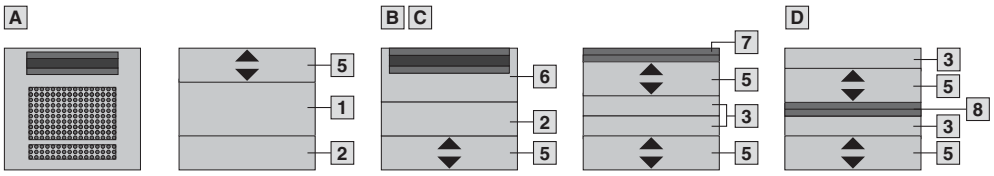
For enclosure depth 600 mm

A Gland plate set	Packs of	Packs required	For enclosure width mm	
			600	800
			Model No.	
Gland plate, multi-piece, solid, with sliding panel	1 pc(s).	1	–	**5502.510**
Gland plate, one-piece, vented	1 pc(s).	1	–	**5502.310**

Gland plate modules		Packs of	Packs required	For enclosure width mm	
				600	800
B 1 module plate as selected				**Model No.**	
Gland plate, depth 150 mm		1 pc(s).	1	**5001.218**	**5001.219**
Sliding panel, depth 150 mm		1 pc(s).	1	**5001.239**	**5001.240**
Module plate, depth 237.5 mm	Cable entry with brush strip	1 pc(s).	1	**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry with brush strip, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			–	**7825.388**

C Cable entry, rear or front			Model No.	
Gland plate, depth 100 mm	1 pc(s).	2	**5001.214**	**5001.215**
Sliding panel, depth 150 mm	1 pc(s).	2	**5001.239**	**5001.240**
Foam rubber cable clamp strip	3 m	1	**2573.000**	**2573.000**

D Cable entry, centre			Model No.	
Gland plate, depth 100 mm	1 pc(s).	2	**5001.214**	**5001.215**
Sliding panel, depth 150 mm	1 pc(s).	2	**5001.239**	**5001.240**
Section for cable entry, centre	2 pc(s).	1	**8802.060**	**8802.080**



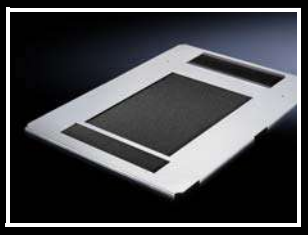
1 Gland plate, depth 250 mm
2 Gland plate, depth 150 mm
3 Gland plate, depth 100 mm
4 Gland plate, depth 50 mm
5 Sliding panel, depth 150 mm
6 Module plate, depth 237.5 mm
7 Foam rubber cable clamp strip
8 Section for cable entry, centre

Also required:

– Base mount, see page 639

Base





For enclosure depth 800 mm

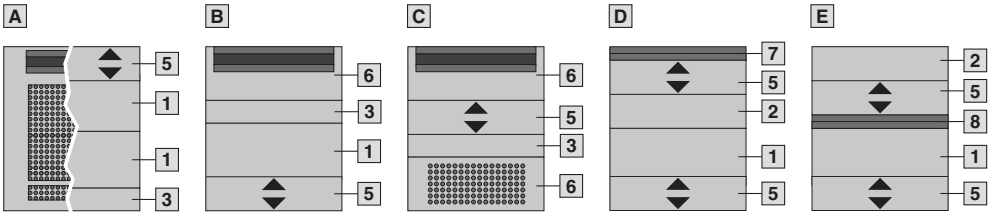
A Gland plate set	Packs of	Packs required	For enclosure width mm	
			600	800
			Model No.	
Gland plate, multi-piece, solid, with sliding panel	1 pc(s).	1	–	**5502.530**
Gland plate, one-piece, vented	1 pc(s).	1	–	**5502.330**

Gland plate modules		Packs of	Packs required	For enclosure width mm	
				600	800
B 1 module plate as selected				**Model No.**	
Gland plate, depth 250 mm		1 pc(s).	1	**5001.222**	**5001.223**
Gland plate, depth 100 mm		1 pc(s).	1	**5001.214**	**5001.215**
Sliding panel, depth 150 mm		1 pc(s).	1	**5001.239**	**5001.240**
Module plate, depth 237.5 mm	Cable entry with brush strip	1 pc(s).	1	**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry with brush strip, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			–	**7825.388**

C 2 module plates as selected				Model No.	
Gland plate, depth 150 mm		1 pc(s).	1	**5001.218**	**5001.219**
Sliding panel, depth 150 mm		1 pc(s).	1	**5001.239**	**5001.240**
Module plate, depth 237.5 mm	Cable entry with brush strip	1 pc(s).	2	**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry with brush strip, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			–	**7825.388**

D Cable entry, rear or front			Model No.	
Gland plate, depth 250 mm	1 pc(s).	1	**5001.222**	**5001.223**
Gland plate, depth 150 mm	1 pc(s).	1	**5001.218**	**5001.219**
Sliding panel, depth 150 mm	1 pc(s).	2	**5001.239**	**5001.240**
Foam rubber cable clamp strip	3 m	1	**2573.000**	**2573.000**

E Cable entry, centre			Model No.	
Gland plate, depth 250 mm	1 pc(s).	1	**5001.222**	**5001.223**
Gland plate, depth 150 mm	1 pc(s).	1	**5001.218**	**5001.219**
Sliding panel, depth 150 mm	1 pc(s).	2	**5001.239**	**5001.240**
Section for cable entry, centre	2 pc(s).	1	**8802.060**	**8802.080**



1 Gland plate, depth 250 mm
2 Gland plate, depth 150 mm
3 Gland plate, depth 100 mm
4 Gland plate, depth 50 mm
5 Sliding panel, depth 150 mm
6 Module plate, depth 237.5 mm
7 Foam rubber cable clamp strip
8 Section for cable entry, centre

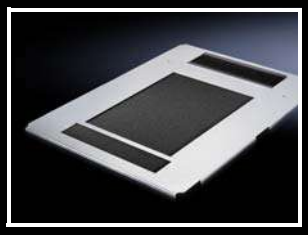
! Also required:

– Base mount, see page 639

For enclosure depth 1000 mm

A Gland plate set	Packs of	Packs required	For enclosure width mm	
			600	800
			Model No.	
Gland plate, multi-piece, solid, with sliding panel	1 pc(s).	1	**5502.540**	**5502.550**
Gland plate, one-piece, vented	1 pc(s).	1	**5502.340**	**5502.350**



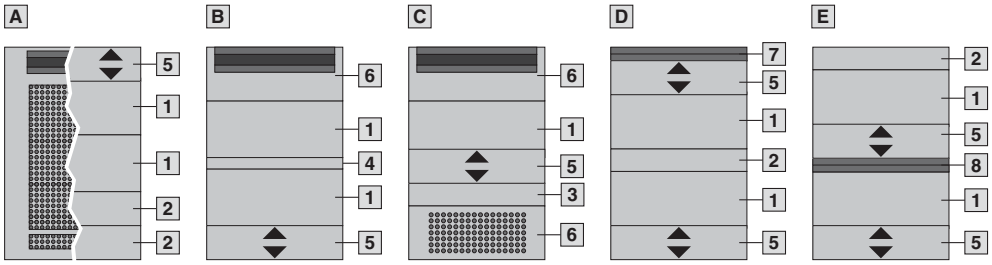


Gland plate modules		Packs of	Packs required	For enclosure width mm	
				600	800
B 1 module plate as selected				**Model No.**	
Gland plate, depth 250 mm		1 pc(s).	2	**5001.222**	**5001.223**
Gland plate, depth 50 mm		1 pc(s).	1	**5001.210**	**5001.211**
Sliding panel, depth 150 mm		1 pc(s).	1	**5001.239**	**5001.240**
Module plate, depth 237.5 mm	Cable entry with brush strip	1 pc(s).	1	**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry with brush strip, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			**–**	**7825.388**

C 2 module plates as selected				Model No.	
Gland plate, depth 250 mm		1 pc(s).	1	**5001.222**	**5001.223**
Gland plate, depth 100 mm		1 pc(s).	1	**5001.214**	**5001.215**
Sliding panel, depth 150 mm		1 pc(s).	1	**5001.239**	**5001.240**
Module plate, depth 237.5 mm	Cable entry with brush strip	1 pc(s).	2	**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry with brush strip, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			**–**	**7825.388**

D Cable entry, rear or front			Model No.	
Gland plate, depth 250 mm	1 pc(s).	2	**5001.222**	**5001.223**
Gland plate, depth 100 mm	1 pc(s).	1	**5001.214**	**5001.215**
Sliding panel, depth 150 mm	1 pc(s).	2	**5001.239**	**5001.240**
Foam rubber cable clamp strip	3 m	1	**2573.000**	**2573.000**

E Cable entry, centre			Model No.	
Gland plate, depth 250 mm	1 pc(s).	2	**5001.222**	**5001.223**
Gland plate, depth 100 mm	1 pc(s).	1	**5001.214**	**5001.215**
Sliding panel, depth 150 mm	1 pc(s).	2	**5001.239**	**5001.240**
Section for cable entry, centre	2 pc(s).	1	**8802.060**	**8802.080**



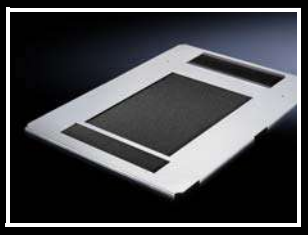
1 Gland plate, depth 250 mm
2 Gland plate, depth 150 mm
3 Gland plate, depth 100 mm
4 Gland plate, depth 50 mm
5 Sliding panel, depth 150 mm
6 Module plate, depth 237.5 mm
7 Foam rubber cable clamp strip
8 Section for cable entry, centre

! Also required:

– Base mount, see page 639

Base

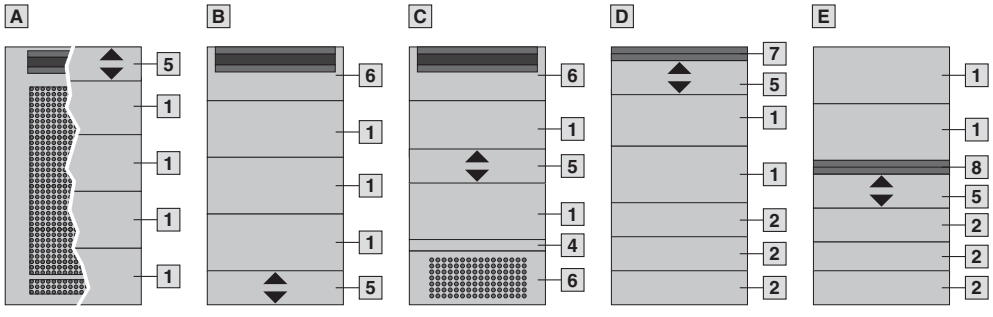




For enclosure depth 1200 mm

A Gland plate set	Packs of	Packs required	For enclosure width mm	
			600	800
			Model No.	
Gland plate, multi-piece, solid, with sliding panel	1 pc(s).	1	**5502.560**	**5502.570**
Gland plate, one-piece, vented	1 pc(s).	1	**5502.360**	**5502.370**

Gland plate modules		Packs of	Packs required	For enclosure width mm	
				600	800
B 1 module plate as selected				**Model No.**	
Gland plate, depth 250 mm		1 pc(s).	3	**5001.222**	**5001.223**
Sliding panel, depth 150 mm		1 pc(s).	1	**5001.239**	**5001.240**
Module plate, depth 237.5 mm	Cable entry with brush strip	1 pc(s).	1	**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry with brush strip, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			**–**	**7825.388**
C 2 module plates as selected				**Model No.**	
Gland plate, depth 250 mm		1 pc(s).	2	**5001.222**	**5001.223**
Gland plate, depth 50 mm		1 pc(s).	1	**5001.210**	**5001.211**
Sliding panel, depth 150 mm		1 pc(s).	1	**5001.239**	**5001.240**
Module plate, depth 237.5 mm	Cable entry with brush strip	1 pc(s).	2	**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry with brush strip, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			**–**	**7825.388**
D Cable entry, rear or front				**Model No.**	
Gland plate, depth 250 mm		1 pc(s).	2	**5001.222**	**5001.223**
Gland plate, depth 150 mm		1 pc(s).	3	**5001.218**	**5001.219**
Sliding panel, depth 150 mm		1 pc(s).	1	**5001.239**	**5001.240**
Foam rubber cable clamp strip		3 m	1	**2573.000**	**2573.000**
E Cable entry, centre				**Model No.**	
Gland plate, depth 250 mm		1 pc(s).	2	**5001.222**	**5001.223**
Gland plate, depth 150 mm		1 pc(s).	3	**5001.218**	**5001.219**
Sliding panel, depth 150 mm		1 pc(s).	1	**5001.239**	**5001.240**
Section for cable entry, centre		2 pc(s).	1	**8802.060**	**8802.080**



1 Gland plate, depth 250 mm
2 Gland plate, depth 150 mm
3 Gland plate, depth 100 mm
4 Gland plate, depth 50 mm
5 Sliding panel, depth 150 mm
6 Module plate, depth 237.5 mm
7 Foam rubber cable clamp strip
8 Section for cable entry, centre

Also required:

– Base mount, see page 639

Base mount

for TS IT
To accommodate gland plate modules.

- Tool-free mounting or screw-fastening
- Easily retrofitted and combined with stabiliser

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Supply includes:
– 2 mounting rails including assembly parts

For enclosure depth mm	Packs of	Model No.
600	2 pc(s).	**5501.300**
800	2 pc(s).	**5501.310**
1000	2 pc(s).	**5501.320**
1200	2 pc(s).	**5501.350**



Gland plate, one-piece, vented

for TS IT
To completely cover the open base assembly in one piece. Perforated over the entire surface. This allows cold air to flow in from the base or base/plinth area, ensuring an inflow of cold air, particularly in enclosures with rack climate control. With a brush strip at the rear for user-friendly cable entry from below across the entire enclosure width. Integral guides permit simple accommodation of a filter mat, which is also readily replaced.

Material:
– Sheet steel

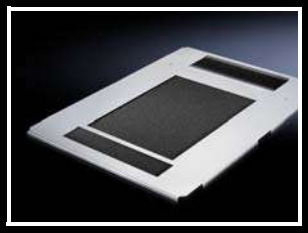
Surface finish:
– Zinc-plated

Supply includes:
– Gland plate, one-piece, vented, with cable entry at the rear
– Filter mat
– Assembly parts

For enclosure width mm	For enclosure depth mm	Packs of	Model No.
800	600	1 pc(s).	**5502.310**
800	800	1 pc(s).	**5502.330**
600	1000	1 pc(s).	**5502.340**
800	1000	1 pc(s).	**5502.350**
600	1200	1 pc(s).	**5502.360**
800	1200	1 pc(s).	**5502.370**

Also required:
– Base mount, see page 639

Accessories:
– Filter mat, see page 639



Filter mat

for gland plate, one-piece, vented
The filter mat may be cut to size according to the required cut-out.

Material:
– PPI 35-5/polyamide

To fit enclosure type	Packs of	Model No.
TS IT	1 pc(s).	**5502.380**



Base



Gland plate module, vented

for TS, TS IT, SE

Large perforated section for passive enclosure ventilation.

Gland plate depth:
– 237.5 mm

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Filter mat and nylon tape

For enclosure width mm	Packs of	Model No.
600	1 pc(s).	**7825.360**
800	1 pc(s).	**7825.380**

Also required:

– Base mount for installation in TS IT, see page 639
– Gland plates for installation in TS IT, see page 635



Gland plate module, one-piece, with brush strip

for TS, TS IT, SE

For simple, sealed cable entry.

Gland plate depth:
– 237.5 mm

Material:
– Module plate: Sheet steel
– Brush strip: Plastic, UL 94-V0

Surface finish:
– Module plate: Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	1 pc(s).	**7825.361**
800	1 pc(s).	**7825.381**

Also required:

– Base mount for installation in TS IT, see page 639
– Gland plates for installation in TS IT, see page 635





Gland plate module, two-piece, with brush strip

for TS, TS IT, SE

Special brush strips with brush strips offset on alternate sides offer maximum possible protection with professional cable entry. The two-piece design even allows retrospective fitting of the base module with the cables already installed.

Gland plate depth:
– 237.5 mm

Design:
– Cable entry with brush strip, super-airtight

Material:
– Module plate: Sheet steel
– Brush strip: Plastic, UL 94-V0

Surface finish:
– Module plate: Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	1 pc(s).	**7825.367**
800	1 pc(s).	**7825.387**

Also required:

– Base mount for installation in TS IT, see page 639
– Gland plates for installation in TS IT, see page 635

Gland plate module for side cable entry

for TS, TS IT, SE

With adjustable openings on both sides and rubber cable clamp strip. The two-piece design even allows retrospective fitting of the base module with the cables already installed.

Gland plate depth:
– 237.5 mm

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
800	1 pc(s).	**7825.388**



Also required:

– Base mount for installation in TS IT, see page 639
– Gland plates for installation in TS IT, see page 635

Module plates

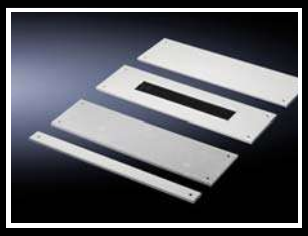
for TE

The base area of the TE may be varied as required using the module plates.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts



Design compensating panel

Width mm	Depth mm	For enclosure width mm	Model No.
450	50	600	**7526.750**
450	150	600	**7526.755**
650	50	800	**7526.790**
650	150	800	**7526.795**

Design vented

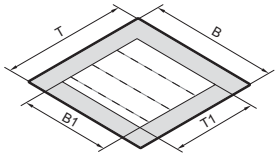
Width mm	Depth mm	For enclosure width mm	Model No.
450	200	600	**7526.829**
650	200	800	**7526.834**

Design solid

Width mm	Depth mm	For enclosure width mm	Model No.
450	200	600	**7526.760**
450	550	600	**7526.770**
450	750	600	**7526.780**
650	200	800	**7526.800**
650	550	800	**7526.785**
650	750	800	**7526.820**

Design with brush strip

Width mm	Depth mm	For enclosure width mm	Model No.
450	200	600	**7526.850**
650	200	800	**7526.860**



Please note the following when selecting suitable module plates:
B1 = Enclosure width (B) - 150 mm
T1 = Enclosure depth (T) - 50 mm

Base



Pressure relief stopper

Especially when enclosures are exposed to changing climatic conditions (e.g. with outdoor siting), condensation may form in sealed enclosures due to pressure differences. The integral sealing membrane largely prevents such pressure differences and hence condensation; additionally, it also prevents the ingress of moisture from the outside. Installed in vertical surfaces to protect against dirt.

Technical specifications:
– Air permeability up to 120 litres/hour with a pressure difference of 70 mbar
– Connection thread M12 x 1.5
– For fitting in wall thicknesses up to 4 mm

Packs of	Model No.
5 pc(s).	**2459.500**

Material:
– Polyamide

Colour:
– Similar to RAL9005

Protection category IP to IEC 60 529:
– IP 66, 68

Protection category IP to DIN 40 050-9:
– IP 69K

Supply includes:
– Lock nut





Condensate discharge

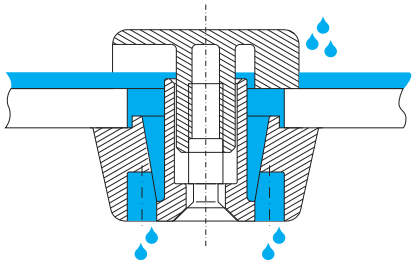
For reliable condensate discharge from the inside and protection against splashed water from the outside (labyrinth effect). A hole diameter of 16 mm is required. (With AE sheet steel, the holes are already provided in the base).

Material:
– Polyamide

Colour:
– Similar to RAL 7035

Protection category:
– Protection from splashed water, when professionally installed at the bottom

Packs of	Model No.
6 pc(s).	**2459.000**



Side panels, screw-fastened, sheet steel

for TS, TS IT

- Automatic potential equalisation and higher EMC protection, thanks to enclosure panel holders with earthing insert
- Easy positioning with the location aid
- Earthing bolt with contact surface

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Dipcoat-primed, powder-coated on the outside

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Assembly parts

Note:
– Enclosure panel holders may optionally be fitted from the inside or outside of the enclosure
– Area available for population: External dimension -100 mm

For enclosures		Packs of	Model No.
Height mm	Depth mm		
800	600	2 pc(s).	**8173.235**
1000	600	2 pc(s).	**8174.235**
1200	500	2 pc(s).	**8115.235**
1200	600	2 pc(s).	**8170.235**
1200	800	2 pc(s).	**8175.235**
1200	1000	2 pc(s).	**8176.235**
1400	500	2 pc(s).	**8145.235**
1400	600	2 pc(s).	**8146.235**
1400	800	2 pc(s).	**8148.235**
1600	500	2 pc(s).	**8165.235**
1600	600	2 pc(s).	**8166.235**
1600	800	2 pc(s).	**8168.235**
1800	400	2 pc(s).	**8184.235**
1800	500	2 pc(s).	**8185.235**
1800	600	2 pc(s).	**8186.235**
1800	800	2 pc(s).	**8188.235**
2000	400	2 pc(s).	**8104.235**
2000	500	2 pc(s).	**8105.235**
2000	600	2 pc(s).	**8106.235**
2000	800	2 pc(s).	**8108.235**
2000	1000	2 pc(s).	**8100.235**
2200	600	2 pc(s).	**8126.235**
2200	800	2 pc(s).	**8128.235**





Accessories:

– Earth straps, see page 762
– Enclosure panel holders, internal, see page 644, for heavy installed equipment and high dynamic pressures
– Hinges, see page 644

Side panels, screw-fastened, stainless steel

for TS

- Automatic potential equalisation and higher EMC protection thanks to enclosure panel holders
- Easy positioning with the location aid
- Earthing bolt with contact surface

Material:
– Stainless steel 1.4301 (AISI 304), 1.5 mm

Surface finish:
– Brushed, grain size 400

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Assembly parts

For enclosures		Packs of	Model No.
Height mm	Depth mm		
1800	400	2 pc(s).	**8700.840**
1800	500	2 pc(s).	**8700.850**
2000	600	2 pc(s).	**8700.060**



Accessories:

– Enclosure panel holders, internal, see page 644, for heavy installed equipment and high dynamic pressures

Side panels



Baying frame, IP 66/NEMA 4, NEMA 4X

for TS

For baying enclosure systems.

- Automatic potential equalisation and higher EMC protection thanks to enclosure panel holders
- Easy positioning with the location aid
- Foamed-in on both sides

Material:
– Stainless steel 1.4301 (AISI 304), 1.5 mm

Surface finish:
– Brushed, grain size 400

Protection category IP to IEC 60 529:
– IP 66

NEMA protection category:
– NEMA 4
– NEMA 4X

Supply includes:
– Assembly parts

For enclosures		Packs of	Model No.
Height mm	Depth mm		
2000	600	1 pc(s).	**8700.010**



Enclosure panel fasteners, internal

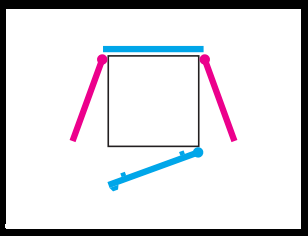
for TS, SE

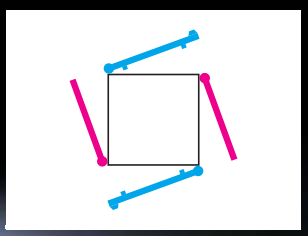
For additional fixing of the side or rear panel with heavy installed equipment and high dynamic loads.

Packs of	Model No.
10 pc(s).	**8800.071**









Hinges

for side panel, screw-fastened, sheet steel

The 180° opening angle allows unhindered access. Optionally installed either from the inside or outside of the enclosure. Simply replace 3 enclosure panel fasteners with hinges. Despite the hinge, the protection category of the enclosure is retained.

Material:
– Die-cast zinc

Supply includes:
– Assembly parts

Version	Packs of	Model No.
RAL 7035	6 pc(s).	**8800.110**

Note:
– Side panel and door hinges may only be installed on the same enclosure section when using a 180° door hinge (see page 684)
– Important: Red areas (side panels), hinged and unhinged, must always be opposite one another, and blue areas (doors/rear panels) must always be opposite one another
– Only one surface on each vertical enclosure section may be hinged

Side panel, divided, lockable

for TS IT

- Easy handling and tool-free assembly
- Cam lock including security lock 3524 E
- Internal latch for optional retrofitting

Material:
– Sheet steel

Surface finish:
– Dipcoat-primed, powder-coated on the outside

Colour:
– RAL 7035

Supply includes:
– 1 top piece
– 1 bottom piece
– 2 cam locks including security lock 3524 E
– 2 earth conductors
– Assembly parts

For enclosures		Packs of	Model No.
Height mm	Depth mm		
1800	800	1 pc(s).	**5501.000**
2000	600	1 pc(s).	**5501.010**
2000	800	1 pc(s).	**5501.020**
2000	1000	1 pc(s).	**5501.030**
2000	1200	1 pc(s).	**5501.040**
2200	800	1 pc(s).	**5501.050**
2200	1000	1 pc(s).	**5501.060**
2200	1200	1 pc(s).	**5501.070**

Accessories:

– Internal latch 7824.510, see page 645



Side panel, lockable

for TS, TS IT

- Simply locate from above
- Lock via security lock no. 3524 E
- Earthing bolt with contact lug

Material:
– Sheet steel

Surface finish:
– Dipcoat-primed, powder-coated on the outside

Colour:
– RAL 7035

Supply includes:
– 8 cam locks including security lock 3524 E

For enclosures		Packs of	Model No.
Height mm	Depth mm		
800	600	2 pc(s).	**7824.086**
1200	600	2 pc(s).	**7824.126**
1200	800	2 pc(s).	**7824.128**
1200	1000	2 pc(s).	**7824.120**
1800	600	2 pc(s).	**7824.186**
1800	800	2 pc(s).	**7824.188**
2000	600	2 pc(s).	**7824.206**
2000	800	2 pc(s).	**7824.208**
2000	1000	2 pc(s).	**7824.200**
2200	600	2 pc(s).	**7824.226**
2200	800	2 pc(s).	**7824.228**
2200	1000	2 pc(s).	**7824.220**

Accessories:

– Internal latch 7824.510, see page 645



Internal latch

for side panel, lockable and side panel, divided, lockable

Additional security is achieved via the option of latching the side panel from the inside. The side panels on the frame section are screw-fastened from the inside with latching brackets.

Supply includes:
– Assembly parts

Packs of	Model No.
4 pc(s).	**7824.510**





Side panels



Side panels

for TE 8000
Simple assembly with insertion aid at the bottom and lock at the top. Earthing bolt with contact lug.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 20

Supply includes:
– 4 cam locks including security lock 3524 E

For enclosure height mm	For enclosure depth mm	Packs of	Model No.
2000	800	2 pc(s).	**7888.652**
2000	1000	2 pc(s).	**7888.653**



Corrosion protection primer

The one-component primer is suitable as corrosion protection on paint-free spots which occur due to cut-outs etc. Used to renew corrosion protection of paint-free spots. The primer satisfies the requirements of standard IEC 61439 for low-voltage and switchgear assemblies.

Benefits:
– Exceptional bonding
– Active protection from corrosion
– Very high filling force

Colour:
– Dark grey

	Contents ml	Packs of	Model No.
Paint pen	12	1 pc(s).	**2436.800**
Paint tin	1000	1 pc(s).	**2438.800**



Paint

For touching up and repairing powder-coated and wet-painted surfaces, air-drying.

	Colour RAL	Model No.
Touch-up pen 12 ml	7035	**2436.735**
Tin 1000 ml	7035	**2438.735**
Spray can 150 ml	7022	**2581.000**
	7035	**2440.735**

Divider panel

for TS

For shielding individual enclosure cells. Thanks to the symmetry of the frame system, the divider panel can also be used at the rear. All-round, double fold for stability and to hold the seal.
Notches in the corners and half-way up the sides permit the use of angular baying brackets and baying brackets, even with a divider panel fitted. For mounting on the outer mounting level, leaving the inner level free for further population.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Zinc-plated

Protection category IP to IEC 60 529:
– IP 54

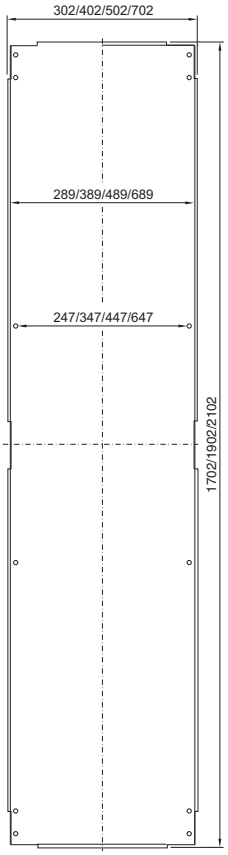
Supply includes:
– Assembly parts

Note:
– The divider panel can also be fitted at the rear, allowing e.g. frequency converters for heat dissipation to be installed in a divider panel with the cooling units facing outwards and protected/ finished off with a cover (see page 650)

Accessories:

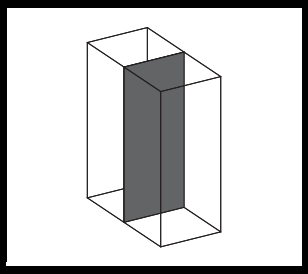
– Cover with door, see page 650
– Baying attachment, vertical 8800.470 for enclosures with fitted divider panel, see page 656

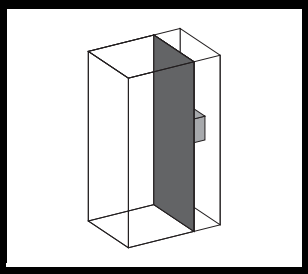
For enclosures		Model No.
Height mm	Depth mm	
1800	400	**8609.840**
1800	500	**8609.850**
1800	600	**8609.860**
2000	400	**8609.040**
2000	500	**8609.050**
2000	600	**8609.060**
2000	800	**8609.080**
2200	600	**8609.260**











Partition

for TS IT

For rack mounting, suspended between two enclosures. With 3 Ø 40 mm holes in all 4 corner areas for the insertion of cables, conduits etc. Drilled holes may be sealed with the enclosed stepped collars. For cable entry, simply cut off at a suitable level to match the required cross-section.

Material:
– Partition: Sheet steel
– Stepped collar: Plastic to UL 94-HB

Surface finish:
– Partition: Zinc-plated

Supply includes:
– 12 stepped collars , Ø 40 mm

For enclosures		Packs of	Model No.
Height mm	Depth mm		
2000	1000	1 pc(s).	**7831.723**
2000	1200	1 pc(s).	**7831.724**
2200	1000	1 pc(s).	**7831.725**
2200	1200	1 pc(s).	**7831.726**

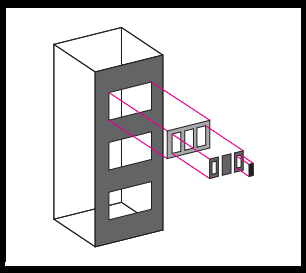
Note:
– Not suitable for use in conjunction with a baying seal. Any existing seals must be removed prior to installation

Accessories:

– Baying clamp 8800.490, see page 654

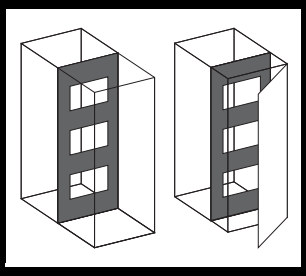


Divider panels/partitions









The divider panel and module plate system

More options:
The cut-outs of a divider panel are individually equipped with module plates for 16-pole or 24-pole connectors, with module plates for cable entry and with solid module plates.

Faster assembly:
Usually only some of the total number of connector cut-outs are used. Thanks to this new divider panel system, cut-outs need not be covered individually. The solid module plate is used instead.
The benefit: Less plates, less screws, less assembly work.

Divider panel

for module plates TS
With cut-outs for the installation of module plates for connectors or for cable entry, and also for the entry of busbar systems and other installed equipment. All-round, double fold for stability and to hold the seal. Thanks to the symmetry of the enclosure frame, divider panels may also be fitted at the rear, dimensions permitting. For mounting on the outer mounting level, leaving the inner level free for further population.

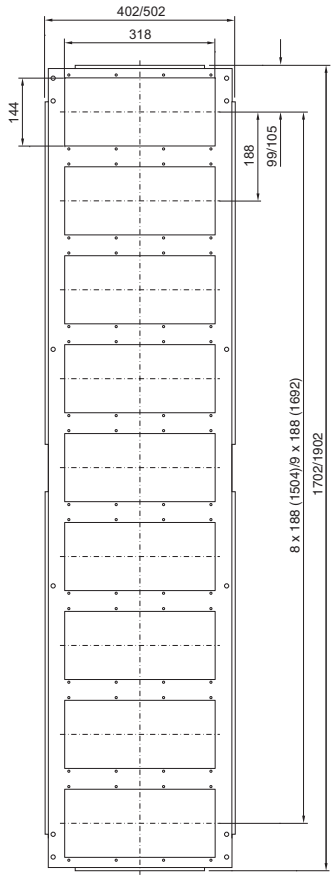
Material:
– Sheet steel, 2 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts and multi-tooth screws M5 x 12 mm for mounting the module plates.

Note:
– Notches in the corners and half-way up the sides permit the use of angular baying brackets and baying brackets, even with a divider panel fitted

Accessories:
– Module plates, see page 649
– Cover with door, see page 650
– Baying attachment 8800.470 for enclosures with fitted divider panel, see page 656



For enclosures		Number of cut-outs	Model No.
Height mm	Depth mm		
1800	500	9	**8609.100**
1800	600	9	**8609.110**
2000	500	10	**8609.120**
2000	600	10	**8609.130**

Module plates

Material:
– Sheet steel, 2 mm

Surface finish:
– Zinc-plated

Supply includes:
– Seal

Version	Cut-outs	Packs of	Model No.
Solid	–	1 pc(s).	**8609.160**
For 16-pole connectors	4	1 pc(s).	**8609.150**
For 24-pole connectors	4	1 pc(s).	**8609.140**
For cable entry	1	1 pc(s).	**8609.170**
With cable sleeve	1	1 pc(s).	**8609.390**

Solid
For sealing unused cut-outs. Easily machined for individual cut-outs.



For 16/24-pole connectors
With cut-outs to accommodate connectors. In addition to mounting on divider panels, module plates may also be attached to the 25 mm pitch pattern of the enclosure and to the rails of the TS/PS system.

Accessories:

– Adaptor, cover plate, see page 650
– Connector gland for connector cut-outs, see page 778
– Connector gland sealing frame and sealing module, see page 779



For cable entry
For the entry of pre-assembled cables. Sealed, secure routing is achieved via adjustable angle brackets with inserted foam cable clamp strip. Fixed bracket, punched, for cable clamping.

Accessories:

– Cable tie for fast assembly 2597.000, see page 785



With cable sleeve
For 10 – 65 mm cable diameters. The flexible grommet adapts to the cable's bending radius.



Divider panels/partitions



Adaptor

for connector cut-outs
For using connectors with varying numbers of poles.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Seal and assembly parts

For reduction	Packs of	Model No.
from 24 to 16 poles	5 pc(s).	**2479.000**
from 24 to 10 poles	5 pc(s).	**2480.000**
from 24 to 6 poles	5 pc(s).	**2481.000**
from 16 to 10 poles	5 pc(s).	**2401.000**
from 16 to 6 poles	5 pc(s).	**2402.000**



Cover plate

for connector cut-outs
For unused cut-outs.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Seal and assembly parts

For	Packs of	Model No.
24-pole cut-outs	20 pc(s).	**2477.000**
16-pole cut-outs	20 pc(s).	**2478.000**



Cover with door

for TS
- To protect and finish off connectors or other installed equipment
- Optional cable entry from above or below

Material:
– Cover: Sheet steel, 1.5 mm
– Door: Sheet steel, 2.0 mm

Colour:
– RAL 7035

Supply includes:
– Cover
– Door with locking rod and double-bit lock insert
– 1 cover plate for top or bottom

For enclosures		Model No.
Height mm	Depth mm	
2000	500	**8609.020**
2000	600	**8609.030**

Accessories:

– Lock inserts, version F, see page 680
– Comfort handle, see page 674
– 180° hinge, see page 684

TS isolator door cover (US version)

Including main door latch for safety locking of enclosures and bayed enclosure suites in accordance with US regulations, only in conjunction with actuator lever for master switches from:

- Allen Bradley
- Square D
- General Electric
- Eaton
- Siemens

A detailed type overview can be found in the product description on our website

Benefits:

- In combination with
  - Operating mechanism
  - Adjacent door latch
  - Interconnecting rods

  meets the requirements of UL 508 A
- Compact design with 125 mm width, may optionally be fitted on the left or right of the enclosure. With this cover, all standard single-door TS 8 enclosures may be configured as isolator door enclosures. The complete installation surface of the enclosure is retained.
- In conjunction with the integrable TS 8 mounting plate infill, see page 702, the mounting surface of the main enclosure can be enlarged by around 14%

Note:

– Cover may only be mounted on a single-door enclosure with tubular door frame

Material:

– Sheet steel

Surface finish:

– Powder-coated

Colour:

– RAL 7035

Protection category IP to IEC 60 529:

– IP 55

Protection category to NEMA:

NEMA 12

Supply includes:

– Main door lock, cover plate and assembly parts

Width mm	Height mm	Depth mm	Model No.
100	1800	400	**8950.840**
100	1800	500	**8950.850**
100	2000	500	**8950.050**
100	2000	600	**8950.060**

Also required:

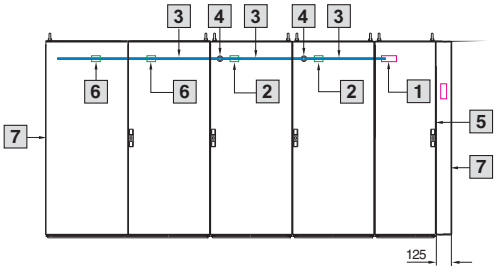
– Operating mechanism, 4912.000, for enclosure with isolator door cover and additionally every fourth adjacent enclosure, see page 651
– Adjacent door latch, 4911.000, 4911.100, for every adjacent enclosure, see page 651
– Interconnecting rods, for every adjacent enclosure in the appropriate enclosure width, see page 651
– Side panel TS, screw-fastened, see page 643

Accessories:

– Mounting plate infill, see page 702

Isolator door lock (US version)

1 Operating mechanism
2 Adjacent door latch (single-door)
3 Interconnecting rod
4 Connection component
5 Main door latch
6 Adjacent door latch (two-door)
7 Side panel TS, screw-fastened







Door latch for bayed enclosure suites

For extending the door locking **of commercially available master switches** to bayed suites TS. Adjacent doors cannot be opened until the main door has been opened.







1 Operating mechanism
Fitted in the enclosure with main switch and additionally in every fourth adjacent enclosure

	Packs of	Model No.
Operating mechanism	1 pc(s).	**4912.000**

2 Adjacent door latch
Installation in adjacent enclosure

Adjacent door latch for	Packs of	Model No.
Single-door enclosures	1 pc(s).	**4911.000**
Two-door enclosures	1 pc(s).	**4911.100**

3 Interconnecting rods
To extend locking from the main enclosure to the adjacent enclosures of a bayed suite. An interconnecting rod corresponding to the width of the enclosure is required for each adjacent enclosure.

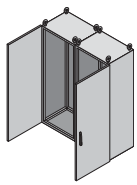
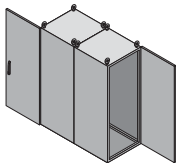
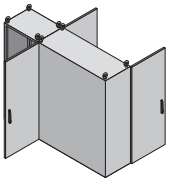
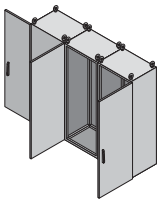
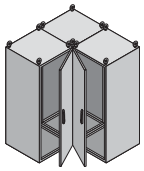
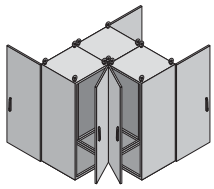
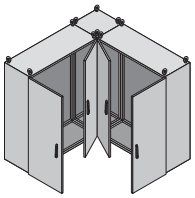
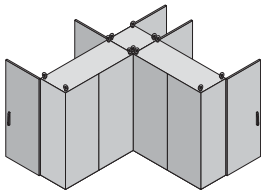
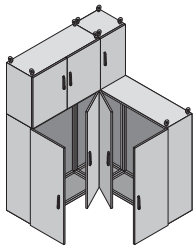
For enclosure width mm	Packs of	Model No.
600	10 pc(s).	**4916.000**
800	10 pc(s).	**4918.000**
1200	10 pc(s).	**4920.000**

Baying



Bayable on all sides

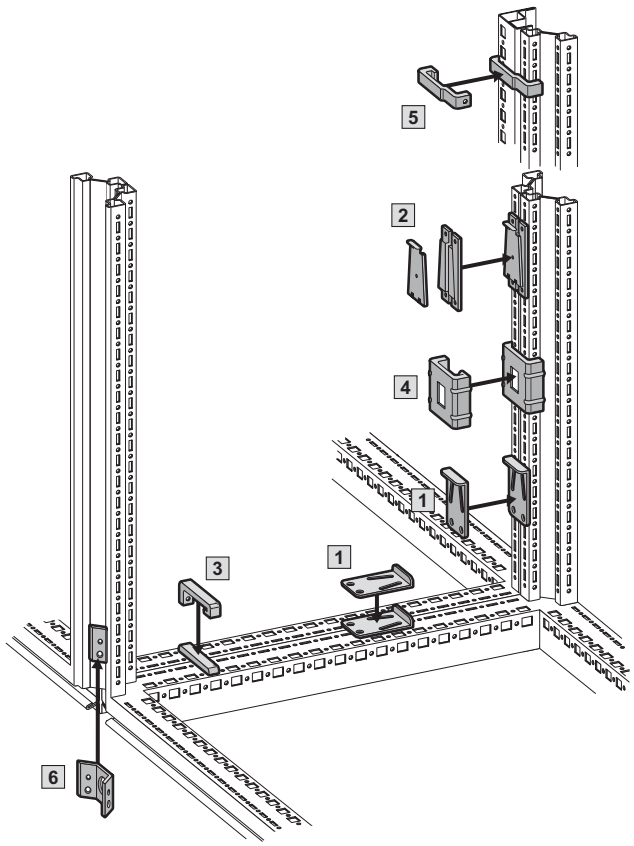
Whether around corners, forwards, backwards, to the left or right or even upwards if required, the baying options are unlimited.

For baying at the installation site or for provisional siting in the workshop

1 Quick-fit baying clamp, one-piece
2 Quick-fit baying clamp, three-piece
3 Baying clamp, horizontal
4 Baying clamp, vertical for TS/TS
5 Baying clamp, vertical for TS/PS
6 Baying connector, external

Notes on the transportation of bayed enclosures, see page 654



Baying

1 Quick-fit baying clamp, one-piece

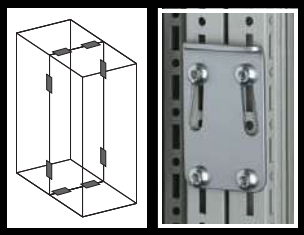
for TS/TS
Simply attach the screws, insert the quick-fit baying clamp, tap in with a hammer and lock.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
6 pc(s).	**8800.500**



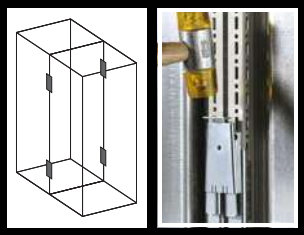
2 Quick-fit baying clamp, three-piece

for TS/TS
Simply locate, connect with the lock plate, and secure.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
6 pc(s).	**8800.590**



3 Baying clamp, horizontal

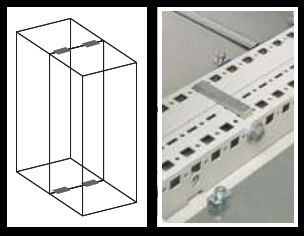
for TS/TS, TS/PS
For mounting on the horizontal enclosure sections.

Material:
– Cast steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
4 pc(s).	**8800.400**



4 Baying clamp, vertical

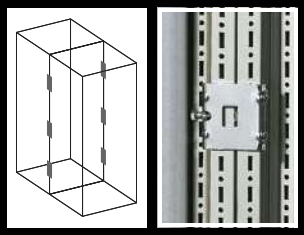
for TS/TS
For mounting on the vertical enclosure sections.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
6 pc(s).	**8800.410**



Baying



4 Baying clamp, vertical

for TS/PS
For mounting on the vertical enclosure sections.

Material:
– Cast steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
6 pc(s).	**8800.420**



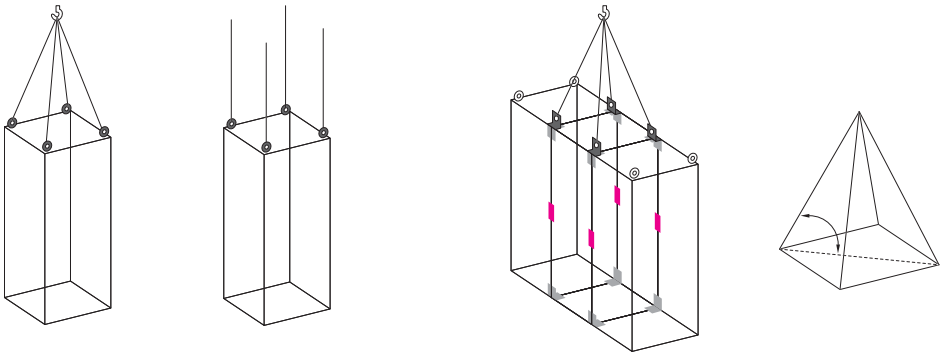
6 Baying connector, external

for TS/TS
For mounting on the vertical enclosure sections. Simply position on the outside and screw-fasten either from the inside or outside.

Supply includes:
– Assembly parts

Material/surface finish	Packs of	Model No.
Sheet steel, zinc-plated	6 pc(s).	**8800.490**
Stainless steel 1.4301 (AISI 304)	6 pc(s).	**8700.000**

Notes on the transport of bayed enclosures



Individual enclosures may be safely transported using the eyebolts included with the supply.
For symmetrical loads, the following maximum permissible loads apply:
for 45° cable pull angle 4,800 N,
for 60° cable pull angle 6,400 N,
for 90° cable pull angle 13,600 N.

Note:
– The eyebolts must be aligned in the direction of the cable pull

For the enclosure combination shown here with angular baying brackets, quick-fit baying clamps and combination angles, the load capacity with a cable pull angle of 60° is as follows:
for the left-hand enclosure 7,000 N,
for the middle enclosure 14,000 N,
for the right-hand enclosure 7,000 N.

The cable pull angle between the roof plate and the cable has a significant influence on the total permissible load.
The cable pull angle must not be less than 45°, and ideally not less than 60°.

When transporting bayed enclosures

7 Angular baying bracket for TS/TS

8 Baying bracket for TS/TS and TS/PS

Note:
- In addition, an external baying connector (see page 654) can be used for reinforcement
- When transporting large, heavy enclosure combinations by crane, we additionally recommend the use of combination angles 4540.000, see page 656

Also required:
- For protection category IP 55: One quick-fit baying clamp is required half-way up the enclosure height, see page 653

Notes on the transportation of bayed enclosures, see page 654

Example A

1 2 quick-fit baying clamps
8800.500
(see page 653)

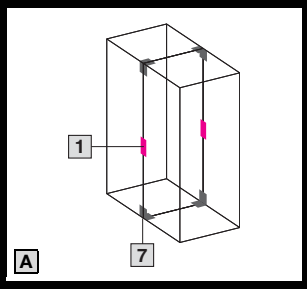
7 4 angular baying brackets
8800.430
(see page 655)

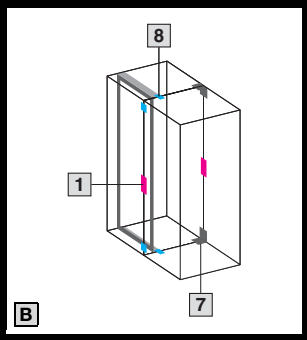
Example B

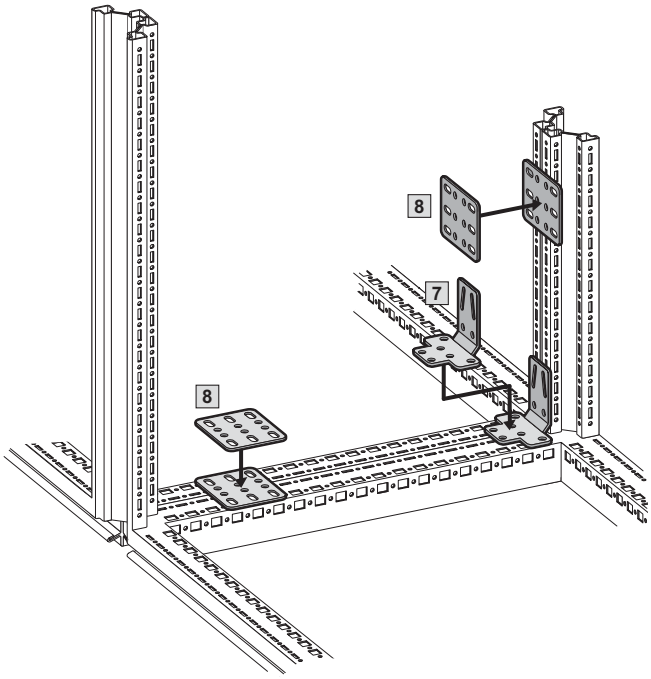
1 2 quick-fit baying clamps
8800.500
(see page 653)

7 2 angular baying brackets
8800.430
(see page 655)

8 4 baying brackets
4582.500
(see page 656)
if the angular baying brackets cannot be fitted in the foremost installation position due to installed equipment such as large swing frames







7 Angular baying bracket

for TS/TS

For a stable connection when transporting bayed enclosure suites.

Screw-fastening either
- Horizontally and vertically with 8 screws
- Horizontally with 2 screws and M8 threaded blocks, vertically with 4 screws

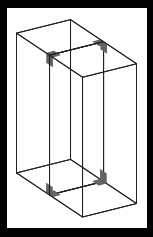
is supported

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- Assembly parts

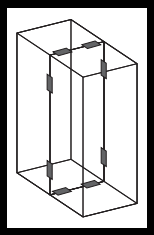
Packs of	Model No.
4 pc(s).	**8800.430**





Baying





8 Baying brackets

for TS/TS and TS/PS

For additional stabilisation, or in cases where
- Mounting plate brackets
- Swing frames
- Busbar supports

prevent the installation of an angular baying bracket

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
4 pc(s).	**4582.500**

Accessories:

– For mounting on the vertical TS enclosure section:
Snap-on nut M8, 8800.808, see page 729



Angular baying brackets

The alternative to baying bracket 4582.500 and for individual interior installations.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
4 pc(s).	**4582.000**

Also required:

– For mounting on the horizontal TS enclosure section:
Cage nuts/threaded blocks M8, see page 736
– For mounting on the vertical TS enclosure section:
Snap-on nut M8, 8800.808, see page 729



Combination angle

For optimum distribution of tensile forces during transportation of bayed enclosures by crane.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

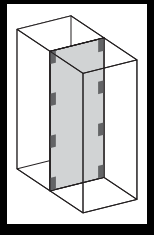
Packs of	Model No.
4 pc(s).	**4540.000**

Accessories:

– Top baying cover, see page 658

Notes on the transportation of bayed enclosures, see page 654





Baying attachment, vertical

for TS/TS with divider panel

Only suitable for mounting in conjunction with the angle brackets of the divider panel (included with the supply).

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
8 pc(s).	**8800.470**

Note:
– May also be used for side or rear wall attachment/fastening of enclosures. In such cases, additional holes must be drilled in the side or rear panel.

Baying attachment, vertical

for TS/TS

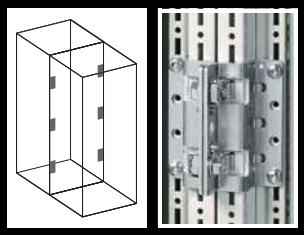
For baying two populated enclosures on the vertical enclosure section.
Simply locate into the vertical TS punchings, secure and connect both brackets using the hex screws (supplied loose).
Using the fastening bolts, the enclosure is pulled into a defined end position, with a height or side offset of up to ± 2 mm.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
6 pc(s).	**8800.670**



Baying cover, vertical

To balance out the gap between the side panels when baying back-to-back. For enclosure height 2200 mm, or may be cut to length individually for lower heights.

Material:
– Cover section: Plastic

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Packs of	Model No.
2 pc(s).	**8800.870**

Also required:
– Baying clamp, exterior, 8800.490, see page 654



Baying clamp, horizontal

for back-to-back mounting

Two-piece, for in situ assembly of enclosures with mounting plate in the rearmost installation position.

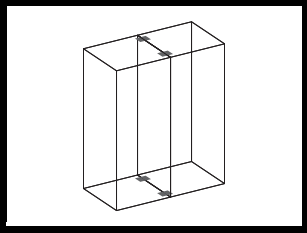
Material:
– Sheet steel

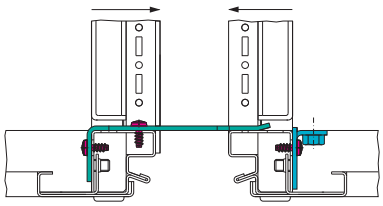
Surface finish:
– Zinc-plated

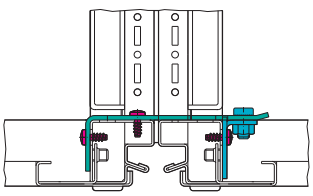
Supply includes:
– Assembly parts

Packs of	Model No.
4 pc(s).	**8800.170**









Baying





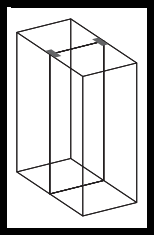
Baying cover, top

A cover with two end caps may additionally be clipped over the seal between the two enclosures. This prevents dirt and liquid from collecting on the baying seal.

Supply includes:
– Assembly parts
– 2 end caps

Note:
– May also be fitted in the width with enclosure suites bayed back-to-back
– May also be used in conjunction with dust guard trim, see page 691

For enclosure depth mm	Packs of	Plastic RAL 7035	Stainless steel 1.4301 (AISI 304)	Model No.
400	1 pc(s).	■	–	**8800.845**
500	1 pc(s).	■	–	**8800.855**
600	1 pc(s).	■	–	**8800.865**
800	1 pc(s).	■	–	**8800.885**
1200	1 pc(s).	■	–	**8800.825**
400	1 pc(s).	–	■	**8700.140**
500	1 pc(s).	–	■	**8700.150**
600	1 pc(s).	–	■	**8700.160**





Baying connector, external

for TS IT/TS IT with side panels
For retrospective baying of enclosures with screw-fastened or lockable side panels.

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Packs of	Model No.
4 pc(s).	**7824.540**



Baying kit

for TE/TE
For connecting individual enclosures into bayed suites at the sides. The enclosures are connected between the base and roof frame.

Benefits:
– Baying of TE 8000 to TE 7000 enclosures is supported

Packs of	Model No.
4 pc(s).	**7888.640**

Material:
– Sheet steel, spray-finished

Colour:
– RAL 7035

Supply includes:
– Assembly parts





Baying kit

for KL, AE
Special screws and nuts
■ For fast, simple assembly without thread-tapping
■ Compression of the seal is limited to a predefined level, to ensure a long-lasting, permanent seal between enclosures

Seal, self-adhesive
■ Comprised of bayable sealing elements and corner pieces, for individual adaptation to various enclosure sizes

One pack is sufficient for a baying point up to H x D = 800 x 350 mm

Packs of	Model No.
1 pc(s).	**1199.100**

Supply includes:
– Sealing elements
– Assembly parts

Tubular door frame

for TS, TS IT

To fit enclosures
- TS with width 400 mm
- TS IT with solid, vertically divided sheet steel doors

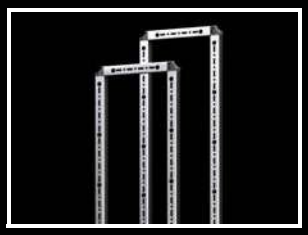
Application:
- For vertical mounting on the threaded bolts of the door

Material:
– Tube section: Sheet steel
– Corner connectors: Plastic

Surface finish:
– Tube section: Zinc-plated

Supply includes:
– Assembly parts

For doors		Packs of	Model No.
Width mm	Height mm		
300	2000	2 pc(s).	**5501.200**
400	2000	2 pc(s).	**5501.210**





Glazed door

for TS, TS IT, SE

Instead of a sheet steel door or rear panel.

Material:
– Frame: Extruded aluminium section
– Corner pieces: Die-cast zinc
– Viewing window: Single-pane safety glass, 3 mm

Surface finish:
– Powder-coated

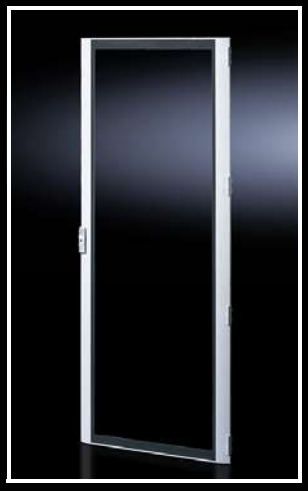
Colour:
– Frame and corner pieces: RAL 7035
– Viewing window (printed mask on the inside): RAL 9005

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Glazed door frame with safety glass
– Locking rod with double-bit lock insert
– 180° hinges, 4 pc(s).
– Visible area: W -140 mm, H -160 mm

For enclosures		Model No.
Width mm	Height mm	
600	1800	**8610.685**
800	1800	**8610.885**
600	2000	**8610.605**
800	2000	**8610.805**
600	2200	**8610.625**
800	2200	**8610.825**

Also required:
– When mounting instead of the rear panel or double door: Lock components for frame 8800.040, see page 660





Handle adaptor

The handle adaptor compensates for the design chamfer in the door profile to enable installation of the comfort handle.

Material:
– Plastic

Supply includes:
– 1 adaptor plate
– 1 bolt to extend the screw-on dome
– 2 assembly screws

For glazed door TS

Colour	Model No.
RAL 7035	**8611.080**

For designer door IW and PC, bottom door

Colour	Model No.
RAL 7035	**8611.300**



Door variants



Lock components

for TS, TS IT, SE
For retrofitting a glazed door or sheet steel door in place of a rear panel.

Material:
– Die-cast zinc

Supply includes:
– Assembly screws

Packs of	Model No.
4 pc(s).	**8800.040**



Glazed door, vented

for TS, TS IT, SE
Surface perforated on both sides with air inlet openings > 78% for optimum air throughput.

Material:
– Door: Sheet steel
– Viewing window: Single-pane safety glass, 3 mm

Surface finish:
– Powder-coated

Colour:
– RAL 7035

Supply includes:
– Glazed door, vented
– Comfort handle for semi-cylinders with security lock 3524 E
– 180° hinges, 4 pc(s).
– Assembly parts

For enclosures		Packs of	Model No.
Width mm	Height mm		
600	2000	1 pc(s).	**7824.201**
800	2000	1 pc(s).	**7824.202**
800	2200	1 pc(s).	**7824.222**

Accessories:

– 180° hinge for bayed TS enclosure suites with comfort handle 7824.520, see page 684

Assembly instruction:

– For TS enclosure suites with sheet steel doors, only the 180° hinge 7824.520 may be used



Lockable and adjacent door

for TS, TS IT, SE
For example, if two 400 mm doors instead of one 800 mm wide door are used to comply with escape routes.

Material:
– Sheet steel

Surface finish:
– Dipcoat-primed, powder-coated on the outside

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– 2 doors, including tubular door frame, hinges and lock parts

For enclosures		Colour RAL	Model No.
Width mm	Height mm		
800	2000	7035	**8801.450**

Accessories:

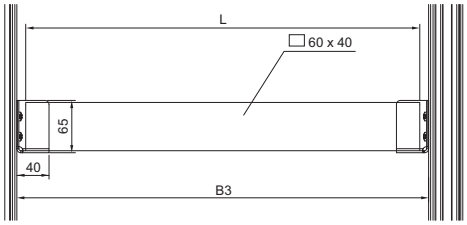
– Lock system, see page 674

Protective bar

for TS, SE

As an alternative to a door, e.g. in sealed switch rooms. Prevents people from falling into the open enclosure frame. Easily removable for maintenance purposes.
For 1200 mm enclosure width; may be shortened or divided for other sizes.

Material:
– Wood, spray-finished, RAL 3000



For enclosure width mm	Length mm	Packs of	Model No.
1200	1090	1 pc(s).	**8801.010**

Enclosure width mm	Clearance between the enclosure frame (B3) mm	Length of protective bar (L) mm
400	312	290[1)]
600	512	490[1)]
800	712	690[1)]
1000	912	890[1)]
1200	1112	1090

[1)] The protective bar 8801.010 (1090 mm) will need to be shortened



Holder

for protective bars

For mounting on the vertical section. The protective bar is simply inserted.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

Packs of	Model No.
2 pc(s).	**8801.000**



Variable modular climate control concept

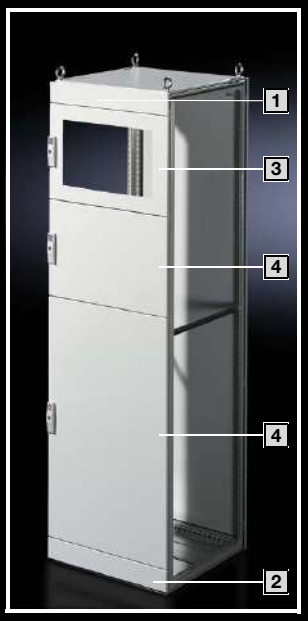
Instead of an enclosure door in a 600 mm/800 mm/1200 mm wide and 1800 mm/2000 mm high TS enclosure, section doors with integral cooling module may be retrofitted without major assembly work.

Possible alternative:

– Modular climate control concept, see page 434/435



Installation accessories for modular front design TS



Modular front design

for TS 8 baying systems
(see page 89)
Suitable for 400, 600 and 800 mm wide TS enclosures instead of a door or rear panel. The partial doors with and without viewing panels including cross members may be combined with one another as required. A trim panel is required at the top and bottom in each case. The requirements for your individual front design and the considerations which must be taken into account are illustrated on the sample configuration opposite.

1 Front trim panel, top
2 Front trim panel, bottom
3 Partial door with viewing window
4 Partial door

Protection category IP to IEC 60 529:
– IP 54 for a completed enclosure





Partial doors

for TS
The door may be optionally hinged on the right or left. The partial door is attached to the TS enclosure with no drilling required. In the case of partial doors without a viewing panel (height 600 – 1000 mm), monitor frame 2305.000 may be installed. Standard double-bit lock insert may be exchanged for lock inserts, type F, and from a height of 600 mm, for comfort handles.

Material:
– Partial door: Sheet steel, 2 mm
– Viewing window: 3 mm single-pane safety glass

Surface finish:
– Textured paint

Colour:
– RAL 7035

Supply includes:
– Cross member, hinges and lock components
– Assembly parts

! Also required:

– Front trim panels, see page 663 or top-hinged trim panel, see page 664
– Front trim panels, bottom, see page 663

+ Accessories:

– Monitor frame 2305.000, see page 668
– Lock inserts, version F, see page 680
– Comfort handle, see page 674
– Perforated mounting strips, see page 663

For enclosure width 400 mm

Height mm	With viewing window	Packs of	Model No.
150	–	1 pc(s).	**9672.141**
200	–	1 pc(s).	**9672.142**
300	–	1 pc(s)	**9672.143**
400	–	1 pc(s).	**9672.144**
600	–	1 pc(s).	**9672.146**
800	–	1 pc(s).	**9672.148**
1000	–	1 pc(s).	**9672.140**
1600	–	1 pc(s)	**9672.156**
1800	–	1 pc(s).	**9672.158**
2000	–	1 pc(s).	**9672.150**

For enclosure width 600 mm

Height mm	With viewing window	Packs of	Model No.
150	–	1 pc(s).	**9672.161**
200	–	1 pc(s).	**9672.162**
300	–	1 pc(s).	**9672.163**
400	–	1 pc(s).	**9672.164**
600	–	1 pc(s).	**9672.166**
600	■	1 pc(s).	**9672.167**
800	–	1 pc(s).	**9672.168**
800	■	1 pc(s).	**9672.169**
1000	–	1 pc(s).	**9672.160**
1600	–	1 pc(s).	**9672.176**
1800	–	1 pc(s).	**9672.178**
2000	–	1 pc(s).	**9672.170**

For enclosure width 800 mm

Height mm	With viewing window	Packs of	Model No.
150	–	1 pc(s).	**9672.181**
200	–	1 pc(s).	**9672.182**
300	–	1 pc(s).	**9672.183**
400	–	1 pc(s).	**9672.184**
600	–	1 pc(s).	**9672.186**
600	■	1 pc(s).	**9672.187**
800	–	1 pc(s).	**9672.188**
1000	–	1 pc(s).	**9672.180**
1600	–	1 pc(s).	**9672.196**
1800	–	1 pc(s).	**9672.198**
2000	–	1 pc(s).	**9672.190**

Installation accessories for modular front design TS

Perforated mounting strips

for partial doors

For retrospective external mounting. The perforated mounting strips have a 25 mm pitch pattern of holes and may be used for individual mountings on the rear side of the door, e.g. cable ducts, hose holders etc.

Hole diameter of perforated mounting strip: 4.5 mm

Material:
– Sheet steel, 1 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Length mm	For partial door height mm	Packs of	Model No.
400	298	150 – 800	10 pc(s).	**9671.204**
600	498	150 – 800	10 pc(s).	**9671.206**
800	698	150 – 800	10 pc(s).	**9671.208**



Front trim panels, top

for TS

To finish off the modular front design at the top when using partial doors. The front trim panels may be removed from the outside by unscrewing. The cross member required for mounting is included with the supply of the mounted partial door.

Material:
– Sheet steel, 2 mm

Surface finish:
– Textured paint

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Assembly parts

For enclosure width mm	Height mm	Packs of	Model No.
400	100	1 pc(s).	**9672.314**
400	300	1 pc(s).	**9672.324**
600	100	1 pc(s).	**9672.316**
600	300	1 pc(s).	**9672.326**
800	100	1 pc(s).	**9672.318**
800	300	1 pc(s).	**9672.328**



Front trim panels, bottom

for TS

To finish off the modular front design at the bottom when using partial doors. If version IP 2X is chosen, a roof plate with protection category IP 2X should be selected for top ventilation. The front trim panels may be removed from the outside by unscrewing.

Material:
– Sheet steel, 2 mm

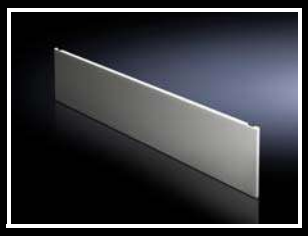
Surface finish:
– Textured paint

Colour:
– RAL 7035

Supply includes:
– Front trim panel including cross member
– Assembly parts

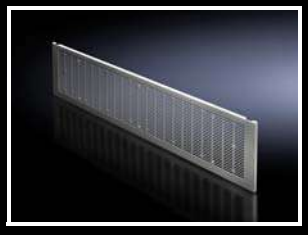
Protection category IP 54

For enclosure width mm	Height mm	Packs of	Model No.
400	100	1 pc(s).	**9672.334**
400	300	1 pc(s).	**9672.344**
600	100	1 pc(s).	**9672.336**
600	300	1 pc(s).	**9672.346**
800	100	1 pc(s).	**9672.338**
800	300	1 pc(s).	**9672.348**



Protection category IP 2X

For enclosure width mm	Height mm	Packs of	Model No.
400	300	1 pc(s).	**9672.354**
600	300	1 pc(s).	**9672.356**
800	300	1 pc(s).	**9672.358**



Also required:

Roof plate IP 2X, see page 693

Accessories:

Upgrade kit IP 4X, see page 665

Installation accessories for modular front design TS





Trim panel, hinged at the top

for TS
For the installation of control and display components, in conjunction with
- Modular front design
- Protective bar TS

Material:
– Sheet steel, 2 mm

Surface finish:
– Textured paint

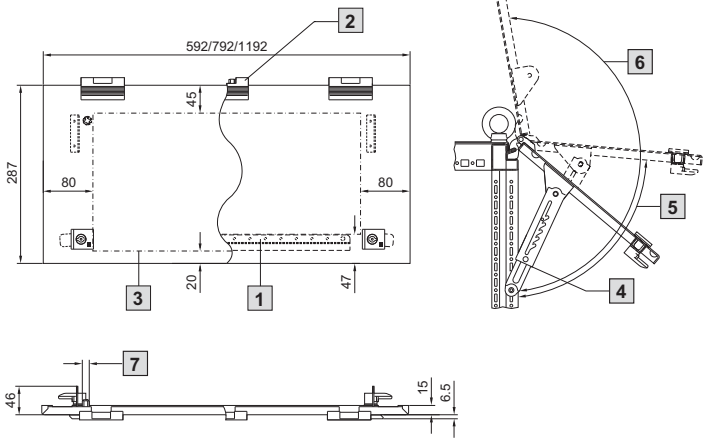
Colour:
– RAL 7035

Supply includes:
– Hinges, cam locks with double-bit insert and assembly parts

Width mm	Height mm	Packs of	Model No.
600	300	1 pc(s).	**8801.230**
800	300	1 pc(s).	**8801.240**
1200	300	1 pc(s).	**8801.250**

Note:
– Not in combination with top-mounting module for TS (see page 692)

Accessories:
– Stay for trim panel, hinged at the top, see page 664
– Lock inserts, type A, see page 680



1 Only for width 800 mm and 1200 mm
2 Only for width 1200 mm
3 Usable interior area
4 Optional: Stay 8801.260
5 Maximum opening angle with stay approx. 85°
6 Maximum opening angle without stay approx. 190°
7 Earthing bolt M8



Drawer

for TS
For mouse and keyboard with a maximum width of 500/700 mm.
A high level of protection is retained, even with the flap open.
Standard double-bit lock insert may be exchanged for 27 mm lock inserts, type A, plastic handles, type B and T handles, type B.

Material:
– Sheet steel

Colour:
– RAL 7035

Height mm	Width mm	Model No.
200	600	**8801.715**
200	800	**8801.915**

Supply includes:
– Flap and assembly parts
– Cross member

Accessories:
– Lock inserts, 27 mm, type A, see page 680
– Plastic handle, type B, see page 679
– T handles, type B, see page 679



Support stay

for trim panel, hinged at the top
5 pitch pattern positions up to a maximum opening angle of approx. 85°.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
2 pc(s).	**8801.260**

Installation accessories for modular front design TS

Upgrade kit IP 4X

for front trim panels, bottom
To increase the protection category of the bottom front trim panel from IP 2X to IP 4X. The upgrade kit is attached to the front trim panel from the inside and secured.

Material:
– Sheet steel (expanded metal)

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	For front trim panel height mm	Packs of	Model No.
400	300	1 pc(s).	**9672.384**
600	300	1 pc(s).	**9672.386**
800	300	1 pc(s).	**9672.388**



Wiring system

for Ri4Power with internal compartmentalisation

The wiring system facilitates vertical and horizontal cable routing in conjunction with internal Form 2-4 separation.
For vertical cable routing, pre-punched cut-outs are provided in the mounting brackets for compartment dividers, which can easily be knocked out and used to install a vertical wiring channel.

Horizontal cable routing occurs behind the front trim panels. This entails fitting a wiring trim panel which is suitable for accommodating a wiring channel while at the same time concealing the busbar system.

Wiring trim panel

Inner front cover of the main busbar system with the option of mounting a wiring channel size W x D 40 x 20 mm. For use in Ri4Power switchgear with 300 mm high front trim panels.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
400/600	1 pc(s).	**9674.550**
800/1000/1200	1 pc(s).	**9674.560**



Viewing panels/operating panels



System window

To conceal display and operating instruments or cut-outs, and to protect against dirt and liquids as well as unauthorised access.

Consisting of the following 2 components:

1. Base frame:
- Easily screw-fastened to the door thanks to modified dimensions (tubular door frame may be used as a drilling template)
- Readily height-adjustable
- Stabilises the door cut-out
- Conceals the cut edge
- The rain canopy
  - prevents dirt from landing on the seal
  - protects the glass from being lifted out
  - prevents the ingress of dirt, and prevents moisture from running behind the window when opened
- Frame section height 30 mm or 60 mm

2. Viewing window:
- Made from single-pane safety glass:
  - High level of resistance to solvents and scratches
  - Anti-static
  - Reduced risk of injury if broken
- Cam lock with double-bit insert, may be exchanged for lock inserts, type A, and semi-cylinders in the Ergoform-S lock system (not with 2735.500 and .560)
- Hinge with 180° opening angle, easily inserted

Material:
– Extruded aluminium sections with die-cast zinc corner pieces and single-pane safety glass

Surface finish:
– Base frame: Powder-coated in RAL 7035
– Hinge and lock section: Natural-anodised

Protection category IP to IEC 60 529:
– IP 54

Note:
– Not suitable for outdoor siting

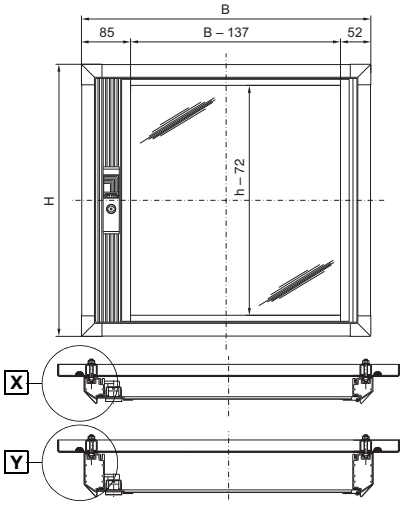
30 section

To fit TS, SE with width mm	Window size, exterior mm		Model No.
	B	H	
600	500	270	**2735.500**
		370	**2735.510**
		470	**2735.520**
		570	**2735.530**
		670	**2735.540**
800	700	270	**2735.560**
		370	**2735.570**
		470	**2735.580**
		570	**2735.590**
		670	**2735.250**

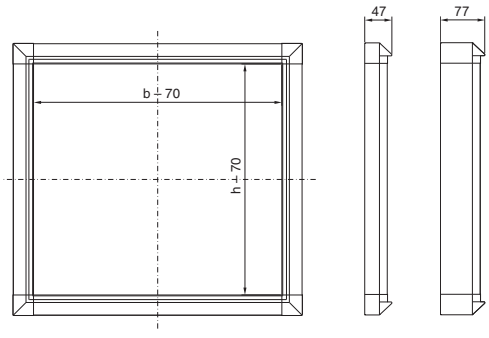
60 section

To fit TS, SE with width mm	Window size, exterior mm		Model No.
	B	H	
600	500	370	**2736.510**
		470	**2736.520**
		570	**2736.530**
		670	**2736.540**
800	700	670	**2736.500**

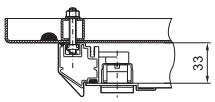
Standard double-bit lock insert may be exchanged for lock inserts 27 mm, type A, see page 680 and for lock system Ergoform-S (except H = 270 mm), see page 678



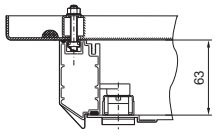
Viewing area (W–137) offset by 16.5 mm towards the hinge side



View X
for profile height 30



View Y
for profile height 60



Viewing window

For mounting on
- AE instead of door
- Surfaces

Max. installation depth: (depth -4 mm)
Visible area: (width -60 mm) x (height -60 mm)

Material:
– Frame: Aluminium, natural anodised
– Glazed panel: Acrylic

Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Plastic handle with lock insert no. 3524 E

Depth = 34 mm

For use as door variant with	Width mm	Height mm	Model No.
1050.500, 1350.500, 1007.600	497	497	**2733.000**
–	597	197	**2734.000**
1039.500, 1339.500, 1009.600, 7641.000	597	377	**2730.000**
1010.600, 1054.500, 1060.500, 1360.500, 7643.000	597	597	**2731.000**
1012.600, 1076.500, 1376.500, 7645.000	597	757	**2732.000**

Depth = 60 mm

For use as door variant with	Width mm	Height mm	Model No.
1050.500, 1350.500, 1007.600	497	497	**2763.000**
1039.500, 1339.500, 1009.600, 7641.000	597	377	**2760.000**
1010.600, 1054.500, 1060.500, 1360.500, 7643.000	597	597	**2761.000**
1012.600, 1076.500, 1376.500, 7645.000	597	757	**2762.000**





Horizontally hinged FT stay

For external mounting on surfaces. A gas pressurised spring holds the viewing window securely open (top or side). When the viewing window is closed, the gas pressurised spring disappears into the frame section.

Packs of	Model No.
2 pc(s).	**2772.000**



Acrylic glazed cover

With security lock, lock no. 3524 E.

Material:
– Frame:
Extruded aluminium sections with die-cast corner pieces
– Glass panel: Smoked acrylic

Protection category IP to IEC 60 529:
– IP 54

Acrylic glazed covers, 482.6 mm (19")

U	Width mm	Height mm	Depth mm	Model No.
3	320	158	47.5	**2780.000**
3	534	158	47.5	**2781.000**
6	534	291.5	47.5	**2782.000**
9	534	425	47.5	**2796.000**

Max. installation depth: 43 mm
Visible area: (width -40 mm) x (height -20.5 mm)

Metric acrylic glazed covers

Width mm	Height mm	Depth mm	Model No.
400	200	47.5	**2784.000**
400	400	47.5	**2785.000**
500	200	47.5	**2786.000**
500	400	47.5	**2787.000**
600	200	47.5	**2788.000**
600	400	47.5	**2789.000**

Max. installation depth: 43 mm
Visible area: (width -40 mm) x (height -20.5 mm)



Viewing panels/operating panels





Viewing window

Stainless steel
Fitted as standard with internal 130° hinges and all-round seal. The double-bit lock insert may be exchanged for 27 mm lock inserts, type A, and Ergoform-S handle 2452.000.

Material:
– Stainless steel 1.4301 (AISI 304)
– Single-pane safety glass

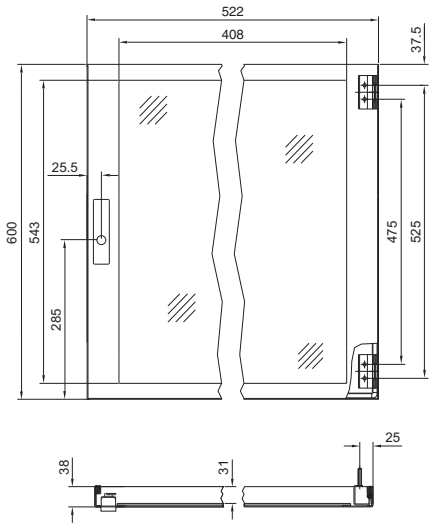
Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Assembly parts

Width mm	Height mm	Depth mm	Model No.
522	600	38	**2793.560**

Accessories:

– Lock inserts, 27 mm, type A, see page 680
– Ergoform-S handle 2452.000, see page 678





Monitor frame

for door width 600 and 800 mm
For covering a door cut-out, for all standard monitors up to 482.6 mm (19").

Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Safety glass panel

Dimensions	Width mm	Height mm	Model No.
External dimensions	470	430	**2305.000**
Viewing area	375	325	
Cut-out required	415	375	



Identification strips

For individual field identifiers on the door, including transparent cover and assembly parts.

For labels:
Width: Enclosure width -150 mm
Height: 29 mm
Thickness: 0.75 mm

Colour:
– RAL 7033

For enclosure width mm	Model No.
600	**2403.000**
800	**2404.000**

Operating panel

For mounting on
- AE instead of door
- Surfaces

Frame construction with internal corner connectors, 3 mm aluminium plate secured from the inside and sealed against the frame.

Material:
– Aluminium, natural anodised

Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Aluminium frame
– Display panel
– Hinges
– Brackets

For use as door variant for AE	Width mm	Height mm	Depth mm	Model No.
1001.600 1002.500 1002.600 1032.500 1035.500	197	297	34	**2740.000**[1)]
1004.600 1011.600 1030.500 1031.500	377	297	34	**2741.000**
1006.500 1006.600 1380.500	377	377	34	**2742.000**
1008.600 1038.500 1338.500	377	597	34	**2743.000**
1007.600 1013.600 1050.500 1350.500	497	497	34	**2745.000**
1009.600 1039.500 1339.500	597	377	34	**2744.000**
1010.500 1010.600 1060.500 1360.500	597	597	34	**2746.000**

[1)] With AE, only for use on the rear panel

Area available for population:
(width -70 mm) x (height -70 mm)

Dimensions of aluminium plate:
(width -54 mm) x (height -54 mm)

Accessories:

– Cam lock 2749.000, see page 669





Cam lock

May be retrofitted to the operating area or enclosure wall of operating panels. Standard double-bit lock insert may be exchanged for type C lock inserts and type C plastic handle.

Packs of	Model No.
1 pc(s).	**2749.000**

Accessories:

– Lock inserts, type C, see page 680
– Plastic handle, type C, see page 679



Viewing window

for display panel

For the protection of display and control components. With a build height of max. 35 mm.

Material:
– Frame: Aluminium, natural anodised
Glazed panel: Smoked acrylic

Supply includes:
– Lock insert no. 3524 E

For display panel	Model No.
2741.000	**2791.000**
2742.000	**2792.000**



Allocation of lock systems

Compact enclosures, sheet steel

		Enclosure series									Lock inserts for handle systems				
		EB	BG	AE, wall-mounted enclosures AE		CM	KS		EL 3-part		Semi-cylinder		Lock inserts		
Application		–	With cam	With cam	With 3-point lock	–	With cam	With 3-point lock	3 – 15 U	18 – 21 U	Lock and push-button inserts	DIN 18 252	Type A	Type F	Lock and push-button inserts
	from page	46	48	58	60	62	64	65	137	137	675	675	680	680	675
Handle systems for enclosures															
Comfort handle															
For lock inserts	674	–	–	–	–	–	–	–	–	■	–	–	–	■	■
For padlock and lock inserts	674	–	–	–	–	–	–	–	–	■	–	–	–	■	■
With security lock insert E1	674	–	–	–	–	–	–	–	–	■	–	–	–	–	–
For semi-cylinder	674	–	–	–	–	–	–	–	–	■	■	■	–	–	–
Prepared for ASSA lock system	674	–	–	–	–	–	–	–	–	■	–	–	–	–	–
Mini comfort handle (from AE enclosure height 380 mm, from AE enclosure width 300 mm)															
For lock inserts	677	–	–	■	–	–	–	–	■	–	–	–	–	■	■
For semi-cylinder	677	–	–	■	–	–	–	–	■	–	■	■	–	–	–
Ergoform-S handle															
Standard	678	–	–	–	■	–	–	–	–	–	■	■	■	–	–
Special with security lock insert E1	678	–	–	–	■	–	–	–	–	–	–	–	–	–	–
Specially prepared for ASSA lock system	678	–	–	–	■	–	–	–	–	–	–	–	–	–	–
Standard for KS plastic enclosures	678	–	–	–	–	–	–	■	–	–	■	■	■	–	–
Folding lever handle															
For lock inserts	675	–	–	–	–	■	–	–	–	–	■	■	–	■	–
For padlock and lock inserts	675	–	–	–	–	■	–	–	–	–	■	■	–	■	–
With security lock insert E1	675	–	–	–	–	■	–	–	–	–	–	–	–	–	–
Semi-cylinder lock															
For AE	681	–	–	■	–	–	–	–	–	–	–	■	–	–	–
Plastic handles															
Type B	679	■	■	■	–	–	–	–	–	–					
Type E	679	–	–	–	–	–	■	–	–	–					
T handles															
Type B	679	■	■	■	–	–	–	–	–	–					
Lock inserts for enclosures															
Lock inserts															
Type A	680	■	■	■	■	–	–	–	–	–					
Type E	680	–	–	–	–	–	■	■	–	–					
Type F	680	–	–	–	–	■	–	–	■	■					
Lock cylinder inserts															
Type B	681	■	■	■	–	–	–	–	–	–					

Allocation of lock systems

Large enclosures, sheet steel

Application		Enclosure series				Lock inserts for handle systems				
				PC enclosure		Semi-cylinder		Lock inserts		
		TS, TS IT, SE	TE	Door	For keyboard drawer or fold-out tray	Lock and push-button inserts	DIN 18 252	Type A	Type F	Lock and push-button inserts
	from page	74	128	156	156	675	675	680	680	675
Handle systems for enclosures										
Comfort handle										
For lock inserts	674	■	–	■ [2]	–	–	–	–	■	■
For padlock and lock inserts	674	■	–	■ [2]	–	–	–	–	■	■
For semi-cylinder	674	■	–	■ [2]	–	■	■	–	–	–
With security lock insert E1	674	■	–	■ [2]	–	–	–	–	–	–
Prepared for ASSA lock system	674	■	–	■ [2]	–	–	–	–	–	–
With code	674	■	–	■ [1]	–	■	■	–	–	–
Ergoform-S handle										
Standard	678	–	■	–	–	■	■	■	–	–
Special with security lock insert E1	678	–	■	–	–	–	–	–	–	–
Special, prepared for ASSA lock system	678	–	■	–	–	–	–	–	–	–
Lock inserts for enclosures										
Lock inserts										
Type A	680	–	■	–	■					
Type F	680	■	–	■	–					

[1] Only suitable for use with rear door
[2] Only in conjunction with the handle adaptor for comfort handle 8611.300, see page 659



Allocation of lock systems

Console systems and industrial workstation, sheet steel

Application		Enclosure series: TopConsole TP: Desk section and console	TopConsole TP: Pedestal	One-piece console TP: Console cover	One-piece console TP: Console door	Universal console TP	IW	IW enclosure for tower PC	Lock inserts for handle systems: Semi-cylinder: Lock and push-button inserts	Semi-cylinder: DIN 18 252	Lock inserts: Type A	Lock inserts: Type F	Lock inserts: Lock and push-button inserts
	from page	149	149	153	153	154	159	158	675	675	680	680	675
Handle systems for enclosures													
Comfort handle													
For lock inserts	674	–	–	–	–	–	■	–	–	–	–	■	■
For padlock and lock inserts	674	–	–	–	–	–	■	–	–	–	–	■	■
For semi-cylinder	674	–	–	–	–	–	■	–	■	■	–	–	–
With security lock insert E1	674	–	–	–	–	–	■	–	–	–	–	–	–
Prepared for ASSA lock system	674	–	–	–	–	–	■	–	–	–	–	–	–
With code	674	–	–	–	–	–	■	–	■	■	–	–	–
Ergoform-S handle													
Standard	678	–	■	–	■	■	–	–	■	■	■	–	–
Special with security lock insert E1	678	–	■	–	■	■	–	–	–	–	–	–	–
Special, prepared for ASSA lock system	678	–	■	–	■	■	–	–	–	–	–	–	–
T handles													
Type B	679	■	–	■	–	–	–	–					
Lock inserts for enclosures													
Lock inserts													
Type A	680	■	■	■	■	■	–	–					
Type D	680	–	–	–	–	–	–	■					
Type F	680	–	–	–	–	–	■	–					
Lock cylinder inserts													
Type B	681	–	–	–	–	–	■	–					



Enclosures and cases, stainless steel

Application		Enclosure series					Lock inserts for handle systems				
		AE		One-piece console			Semi-cylinder		Lock inserts		
		With cam	With 3-point lock	Console cover	Console door	TS, SE	Lock and push-button inserts	DIN 18 252	Type A	Type F	Lock and push-button inserts
	Page	219/220	221	226	226	222/224	675	675	680	680	675
Handle systems for enclosures											
Comfort handle											
For lock inserts	674	–	–	–	–	■	–	–	–	■	■
For padlock and lock inserts	674	–	–	–	–	■	–	–	–	■	■
For semi-cylinder	674	–	–	–	–	■	■	■	–	–	–
With security lock insert E1	674	–	–	–	–	■	–	–	–	–	–
Prepared for ASSA lock system	674	–	–	–	–	■	–	–	–	–	–
Ergoform-S handle											
Standard	678	–	■	–	■	–	■	■	■	–	–
Special with security lock insert E1	678	–	■	–	■	–	–	–	–	–	–
Special, prepared for ASSA lock system	678	–	■	–	■	–	–	–	–	–	–
Plastic handles											
Type C	679	■ [1]	–	■	–	–	–	–	–	–	–
T handles											
Type C	679	■ [1]	–	■	–	–	–	–	–	–	–
Semi-cylinder lock											
for AE	681	■ [2]	–	–	–	–	–	■	–	–	–
Lock inserts for enclosures											
Lock inserts											
Type A	680	–	■	–	–	–					
Type C	680	■	–	■	–	–					
Type F	680	–	–	–	–	■					
Lock cylinder inserts											
Type C	681	■	–	■	–	–					

[1] Not for 1018.600
[2] Not for enclosures made from stainless steel 1.4401 (AISI 316L) and use of cam lock 2304.000



Lock system



Comfort handle

for TS, TS IT, SE, PC, IW

As the handle does not take up any swing space, due to its folding action, the door surface area may be maximised for installed equipment.

Material:
– Die-cast zinc

Surface finish:
– Powder-coated

Also required:

– Handle adaptor 8611.300, see page 659, for mounting on TS glazed door TS, PC bottom door, IW designer door

					
	For lock inserts	For padlock and lock inserts	With security lock insert E1[1]	For semi-cylinder	Prepared for ASSA lock system
	Model No.				
RAL 7035	**8611.020**	**8611.290**	**8611.045**	**8611.070**	**8611.280**
RAL 9005	**8611.350**	**–**	**–**	**8611.360**	**–**
Matt chrome	**8611.330**	**–**	**–**	**8611.340**	**–**
Lock inserts, type F					
7 mm square	8611.100	8611.100	–	–	–
8 mm square	8611.110	8611.110	–	–	–
7 mm triangular	8611.120	8611.120	–	–	–
8 mm triangular	8611.130	8611.130	–	–	–
Screwdriver	8611.140	8611.140	–	–	–
Daimler insert	8611.150	8611.150	–	–	–
3 mm double-bit	8611.160	8611.160	–	–	–
Fiat	8611.170	8611.170	–	–	–
6.5 mm triangular (CNOMO)	8611.220	8611.220	–	–	–
Lock and push-button inserts					
Lock insert, lock no. 3524 E[2]	8611.180	8611.180	–	2467.000	–
Push-button insert	8611.190	8611.190	–	2468.000	–
Push-button and lock insert[2]	8611.200[3]	8611.200[3]	–	2469.000[4]	–
Semi-cylinder					
to DIN 18 252[5]	–	–	–	9785.040	–
	–	–	–	9785.042[6]	–

[1] Only for use with VW, Audi, SEAT, SkodaAuto, supplied without key
[2] With two keys
[3] Lock no. 12321; no other lock is possible
[4] Lock no. 2123; no other lock is possible
[5] With 3 keys for each lock insert
[6] Packs of two, simultaneous locking within the same pack, no simultaneous locking for different packs





Comfort handle

with code, for TS, TS IT, SE

Flexible access opportunities with
- individual 3-digit code without key

or
- with master key function by additionally using a semi-cylinder of 40 or 45 mm to DIN 18 252, independently of the code.

Colour	**Model No.**
RAL 7035	**7200.800**
RAL 9005	**7200.801**

Also required:

– Handle adaptor 8611.300, see page 659, for mounting on TS glazed door TS, vented aluminium sheet steel door, PC bottom door, IW designer door

Accessories:

– Lock and push-button inserts, see page 675
– Semi-cylinder, see page 675



Lock inserts

for installation in comfort handle, mini-comfort handle, Ergoform-S standard, folding lever handle

Installation in the			
	Lock and push-button inserts		Semi-cylinder
	Comfort handle[6], mini-comfort handle[6]	Comfort handle[7], mini-comfort handle[7], Ergoform-S standard, folding lever handle for CM	Comfort handle, mini-comfort handle, Ergoform-S standard, folding lever handle for CM
	Model No.		
Lock insert, lock no. 3524 E[1]	**8611.180**	**2467.000**	**–**
Push-button insert	**8611.190**	**2468.000**	**–**
Push-button and lock insert[1]	**8611.200[2]**	**2469.000[3]**	**–**
to DIN 18 252[4]	**–**	**–**	**9785.040**
	–	**–**	**9785.042[5]**

[1] With two keys
[2] Lock no. 12321; no other lock is possible
[3] Lock no. 2123; no other lock is possible
[4] With 3 keys for each lock insert
[5] Packs of two, simultaneous locking within the same pack, no simultaneous locking for different packs
[6] For lock inserts
[7] For semi-cylinders



Folding lever handle

for CM

As the handle does not take up any swing space, due to its folding action, the door surface area may be maximised for installed equipment.

Size:
- Length: 242 mm (with inserted trim panel)
- Width: 50 mm
- Depth: 17.5 mm

Colour:
- Enclosure: Similar to RAL 9005
- Handle: Similar to RAL 9006

			
	for lock inserts	for padlock and lock inserts	with security lock insert E1[1]
	Model No.		
	5001.060	**5001.062**	**5001.061**
Lock inserts, type F			
7 mm square	8611.100	8611.100	–
8 mm square	8611.110	8611.110	–
7 mm triangular	8611.120	8611.120	–
8 mm triangular	8611.130	8611.130	–
Screwdriver	8611.140	8611.140	–
Daimler insert	8611.150	8611.150	–
3 mm double-bit	8611.160	8611.160	–
Fiat	8611.170	8611.170	–
6.5 mm triangular (CNOMO)	8611.220	8611.220	–
Lock and push-button inserts			
Lock insert, lock no. 3524 E[2]	2467.000	2467.000	–
Push-button insert	2468.000	2468.000	–
Push-button and lock insert[2]	2469.000[3]	2469.000[3]	–
Semi-cylinder			
to DIN 18 252[4]	9785.040	9785.040	–
	9785.042[5]	9785.042[5]	–

[1] Only for use with VW, Audi, SEAT, SkodaAuto, supplied without key
[2] With two keys
[3] Lock no. 2123; no other lock is possible
[4] With 3 keys for each lock insert
[5] Packs of two, simultaneous locking within the same pack, no simultaneous locking for different packs

Lock system





Adjacent door latch

for TS

For optimum operation of the adjacent door from the outside if the handle on the inside is difficult to access due to swing frames or 482.6 mm (19") installed equipment. Retrospective conversion of the adjacent door is easily achieved using the supplied drilling template. The handle on the inside is no longer required.

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**8611.370**

Accessories:

– Standard double-bit lock insert may be exchanged for 27 mm lock inserts, type A, see page 680





Locking bar latch to CNOMO[1)]

To fit all locking bars in TS doors and glazed doors with standard lock or comfort handle

The latch prevents the locking bars from moving when the door is open. For mounting on the bolt of the bar guide.

[1)] CNOMO is a French automobile industry standard. For safety reasons, it must not be possible to lock the handle whilst the door is open.

Packs of	Model No.
10 pc(s).	**8611.210**

Also required:

– for CNOMO[1)]
lock inserts, type F, 6.5 mm triangular insert 8611.220, see page 680





Spring washer

Upon dismantling the TS locking rods, the spring washers cannot be reused.

Material:
– Spring steel

Surface finish:
– Zinc-plated

	Packs of	Model No.
Spring washer	100 pc(s).	**8800.070**

Mini-comfort handle

for AE with cam, EL 3-part
Prepared for the installation of lock inserts or for the installation of standard commercially available 40 or 45 mm semi-cylinders, as well as lock and push-button inserts.

Material:
– Die-cast zinc

Colour:
– RAL 7035



	 for lock inserts		 for semi-cylinder	
	Model No.			
For enclosure system	EL	AE	EL	AE
	7705.110	**2537.010**	**7705.120**	**2537.000**
Lock inserts, type F				
7 mm square	8611.100	8611.100	–	–
8 mm square	8611.110	8611.110	–	–
7 mm triangular	8611.120	8611.120	–	–
8 mm triangular	8611.130	8611.130	–	–
Screwdriver	8611.140	8611.140	–	–
Daimler insert	8611.150	8611.150	–	–
3 mm double-bit	8611.160	8611.160	–	–
Fiat	8611.170	8611.170	–	–
6.5 mm triangular (CNOMO)	8611.220	8611.220	–	–
Lock and push-button inserts				
Lock insert, lock no. 3524 E[1)]	8611.180	8611.180	2467.000	2467.000
Push-button insert	8611.190	8611.190	2468.000	2468.000
Push-button and lock insert[1)]	8611.200[2)]	8611.200[2)]	2469.000[3)]	2469.000[3)]
Semi-cylinder				
to DIN 18 252[4)]	–	–	9785.040	9785.040
	–	–	9785.042[5)]	9785.042[5)]

[1)] With two keys
[2)] Lock no. 12321; no other lock is possible
[3)] Lock no. 2123; no other lock is possible
[4)] With 3 keys for each lock insert
[5)] Packs of two, simultaneous locking within the same pack, no simultaneous locking for different packs

Mini-comfort handle

for AE with cam, including VW E1 lock
For retro-fitting to AE enclosures with cam locks.

Installation options:
– Vertical handle mounting from an enclosure height of 380 mm
– Horizontal handle mounting from an enclosure width of 300 mm
– From an enclosure height of 500 mm, the mini comfort handle may only be fitted horizontally on the lower lock point
– From an enclosure height of 600 mm, the mini-comfort handle may be fitted to the lower locking point, rotated through 180° in the vertical

For enclosure width mm	For enclosure height mm	Packs of	**Model No.**
≥ 300	≥ 380	1 pc(s).	**2537.045**

Material:
– Die-cast zinc

Surface finish:
– Powder-coated

Colour:
– RAL 7035

Note:
– Only for use with VW, Audi, SEAT, SkodaAuto
– Supplied without key



Lock system



Ergoform-S lock system

The unlocked handle folds down forwards, and the lock is opened by swivelling.

Material:
– Die-cast zinc

Surface finish:
– Powder-coated

				
	Standard	Standard for KS plastic enclosures	Special with security lock insert E1[1]	Specially prepared for ASSA lock system
	Model No.			
RAL 7035 with brown handle	**–**	**–**	**2456.500**	**–**
Brown	**–**	**–**	**–**	**2453.000**
Matt nickel-plated	**2452.000**	**–**	**–**	**–**
RAL 7035	**2435.000**	**1490.010**	**–**	**–**
RAL 7035 with brown handle and bracket	**2455.010**	**–**	**–**	**–**
Lock inserts, type A				
7 mm square	2460.000	2460.000	–	–
8 mm square	2461.000	2461.000	–	–
7 mm triangular	2462.000	2462.000	–	–
8 mm triangular	2463.000	2463.000	–	–
Screwdriver	2464.000	2464.000	–	–
Daimler insert	2465.000	2465.000	–	–
3 mm double-bit	2466.000	2466.000	–	–
Fiat	2307.000	2307.000	–	–
6.5 mm triangular (CNOMO)	2460.650	2460.650	–	–
Lock and push-button inserts				
Lock insert, lock no. 3524 E[2]	2467.000	2467.000	–	–
Push-button insert	2468.000	2468.000	–	–
Push-button and lock insert[2]	2469.000[3]	2469.000[3]	–	–
Semi-cylinder				
to DIN 18 252[4]	9785.040	9785.040	–	–
	9785.042[5]	9785.042[5]	–	–

[1] Only for use with VW, Audi, SEAT, SkodaAuto, supplied without key
[2] With two keys
[3] Lock no. 2123; no other lock is possible
[4] With 3 keys for each lock insert
[5] Packs of two, simultaneous locking within the same pack, no simultaneous locking for different packs



Ergoform-S handle

with code
Flexible access options thanks to individual 3-digit numerical code without key, or via the master key function with the additional use of 40 or 45 mm semi-cylinders to DIN 18 252, independently of the code.

Colour	Version	Packs of	**Model No.**
RAL 7035	Ergoform-S handle	1 pc(s).	**7200.810**

Accessories:

– Semi-cylinder, see page 675
– Lock inserts, see page 675



Plastic handles

With or without lock cylinder insert.

Supply includes:
– Assembly parts and seal

Type	B		C		E	
						
	With lock cylinder insert, lock no. 3524 E[1]	Without lock cylinder insert	With lock cylinder insert, lock no. 3524 E[1]	Without lock cylinder insert	With lock cylinder insert, lock no. 3524 E[1]	Without lock cylinder insert
	Model No.					
RAL 9011	**2576.000**	**2533.000**	**2485.000**	**2485.100**	**–**	**–**
RAL 8019	**–**	**–**	**–**	**–**	**1484.000**	**1484.001**

[1] With two keys



T handles

With or without lock cylinder insert.

Supply includes:
– Seal

Type	B		C	
				
	With lock cylinder insert[1]	Without lock cylinder insert	With lock cylinder insert[1]	Without lock cylinder insert
	Model No.			
	2575.000[2]	**2572.000**	**2535.000[2]**	**2536.000**

[1] With 2 keys
[2] Lock no. 3524 E

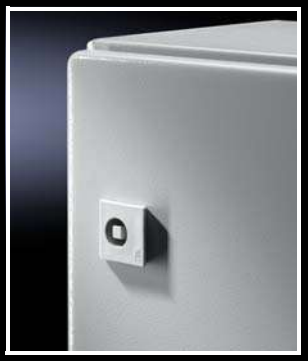
Lock system



Cam locks

						
	With double-bit insert	With lock cylinder insert[3]	With double-bit insert	With lock cylinder insert[3]	With security lock insert E1[1] RAL 7035	With double-bit insert
Material: Enclosure	Die-cast zinc, nickel-plated		Fibreglass-reinforced polyamide			Made entirely from stainless steel 1.4404 (AISI 316L)
	Model No.					
	2520.000	**2530.000**	**2420.000**	**2430.000**	**2540.500**	**2304.000**
Lock inserts						
7 mm square	2523.000	–	2460.000	–	–	–
8 mm square	2526.000	–	2461.000	–	–	–
7 mm triangular	2527.000	–	2462.000	–	–	–
8 mm triangular	2528.000	–	2463.000	–	–	–
Screwdriver	–	–	2464.000	–	–	–
Daimler insert	2522.000	–	2465.000	–	–	–
3 mm double-bit	2483.000	–	2466.000	–	–	–
Fiat	–	–	2307.000	–	–	–
6.5 mm triangular (CNOMO)	–	–	2460.650	–	–	–
Lock cylinder inserts						
With lock no. 3524 E[2]	–	–	2571.000	–	–	–

[1] Only for use with VW, Audi, SEAT, SkodaAuto, supplied without key
[2] With two keys
[3] Lock no. 3524 E



Lock inserts

Type	A	C	D	E	F
					
Material	Die-cast zinc	Die-cast zinc	Die-cast zinc	Plastic	Die-cast zinc
Length	27 mm	41 mm	47 mm		
	Model No.				
7 mm square	**2460.000**	**2523.000**	**–**	**–**	**8611.100**
8 mm square	**2461.000**	**2526.000**	**–**	**1488.000**	**8611.110**
7 mm triangular	**2462.000**	**2527.000**	**–**	**–**	**8611.120**
8 mm triangular	**2463.000**	**2528.000**	**–**	**1486.000**	**8611.130**
Screwdriver	**2464.000**	**–**	**–**	**–**	**8611.140**
Daimler insert	**2465.000**	**2522.000**	**–**	**–**	**8611.150**
3 mm double-bit	**2466.000**	**2483.000**	**2484.000**	**1492.000**	**8611.160**
Fiat	**2307.000**	**–**	**–**	**–**	**8611.170**
6.5 mm triangular (CNOMO)	**2460.650**	**–**	**–**	**–**	**8611.220**

Lock cylinder inserts



Type	B	C
		
	With lock no. 3524 E[1)]	With lock no. 3524 E[1)]
Material	Die-cast zinc	Die-cast zinc
	Model No.	
	2571.000	**2525.000**

[1)] With two keys

Semi-cylinder lock

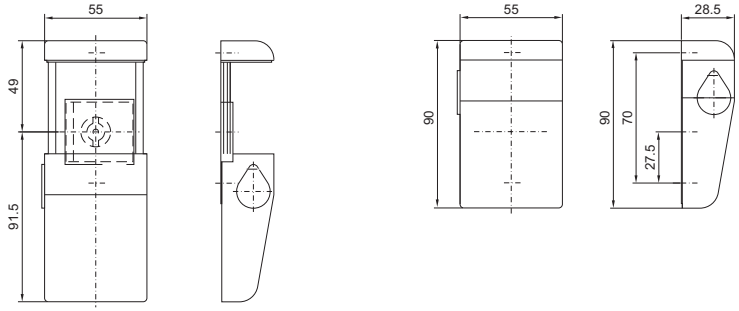


for AE compact enclosures
For retro-fitting to all single-door enclosures with cam lock. The cover plate is locked by semi-cylinders with a total length of 40/45 mm (to DIN 18 252). An additional cover protects the cylinder against dirt. The protection category of the enclosure is not impaired. Supplied without semi-cylinder.

Material:
– Die-cast zinc

Type	Model No.
RAL 7035	**2534.100**
Nickel-plated (matt)	**2534.500**

Accessories:
– Semi-cylinder, see page 675



Lock cover



for padlocks or multiple locks
For retrospective mounting on all compact enclosures AE, sheet steel, with cam lock.

Material:
– Die-cast zinc

Surface finish:
– Nickel-plated

Packs of	Model No.
1 pc(s).	**2493.000**

Lock system



Multiple lock

for 6 padlocks
The ideal solution in cases where individual access for several persons is required for maintenance and repair purposes.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
2 pc(s).	**2493.500**



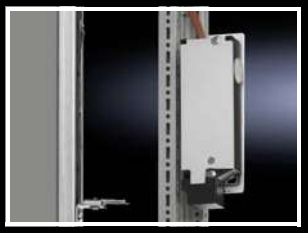
Lock cover

Prepared for lead seal
For use in all enclosure types with Rittal-specific locks, such as AE and EB.

Material:
– Polyamide

Colour:
– RAL 7035

Packs of	Model No.
2 pc(s).	**2476.000**



Safety lock

Fitted to doors, to protect against contact with live electrical equipment whilst the master switch is ON.

Function:
- Locks the door when the master switch is ON
- Mains power (voltage) is only enabled whilst the door is closed
- Monitoring of the lock magnet via an additional closing contact

Supply includes:
– Lock
– Actuator
– Angle bracket
– Assembly parts

Connection voltage for lock magnet	Model No.
230 V AC 11 VA	**2416.000**
24 V DC 8 W	**2418.000**
120 V AC 8 VA	**2419.000**

Also required:

– For twin-door enclosures (for the overlapping door, to indicate “enclosure door closed”): Door-operated switch 4127.010, see page 755



Enclosure key

For lock inserts. Enclosure, case and lock systems are supplied as standard with matching keys.

				
	Model No.			
	–	**–**	**2549.000**	**2549.500**[2)3)]
Double-bit key no. 5	**2531.000**	**–**	■	■
Safety lock no. 3524 E	**–**	**2532.000**[1)]	**–**	**–**
7 mm triangular	**2545.000**	**–**	**–**	■
8 mm triangular	**2546.000**	**–**	■	■
7 mm square	**2547.000**	**–**	**–**	■
8 mm square	**2548.000**	**–**	■	■
for HD locks	**2549.600**	**–**	**–**	**–**
for Daimler	**2521.000**	**–**	**–**	**–**
for Fiat	**2308.000**	**–**	**–**	**–**

[1)] Packs of 2
[2)] With bit adaptor and reversible bit for: Multi-tooth size 25 and Phillips-head (Ph 2)
[3)] Bit 2549.510 for HD lock insert, see page 211

Hinges

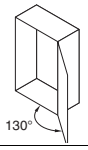
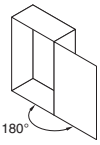


130°/180° hinges

Supply includes:
– Assembly parts

Note:
– The protection category of the enclosure may be reduced
– Door hinge remains the same within a bayed enclosure suite

Also required:
– [1] Lock components for frame 8800.040, see page 660

Enclosure type	Door variant	Material	Colour	Packs of		
					Model No.	
TS 8, SE	Sheet steel door	Die-cast zinc	–	4 pc(s).	**8800.020**[1]	**–**
TS 8, SE	Sheet steel door	Die-cast zinc	RAL 7035	4 pc(s).	**–**	**8800.190**
			RAL 9005		**–**	**8800.950**
			Matt nickel-plated		**–**	**8701.180**
TS 8, SE	Doors with high dynamic loads, door installations up to 900 N	Precision casting/ die-cast zinc	RAL 7035	4 pc(s).	**–**	**8800.710**
TS 8 bayed enclosure suites with comfort handle/ TS IT	Sheet steel door, glazed door vented	Die-cast zinc	RAL 7035	4 pc(s).	**–**	**7824.520**[2]
	Glazed aluminium door, glazed aluminium door vented	Die-cast zinc	RAL 7035			**7824.525**[2][3]
AE	Standard door	Die-cast zinc	–	2 pc(s).	**–**	**2449.000**
CM	Standard door	Die-cast zinc	RAL 9011/9006	3 pc(s).	**–**	**5001.000**

[2] not for vertically divided doors
[3] max. 140°



Hinge pin remover

For safe and easy removal of hinge pins.

For enclosure	Model No.
AE/CM	**2432.000**



Cover hinge

for KL
The cover hinge is simply screw-fastened to the enclosure protection channel and to the edge fold.

Supply includes:
– Assembly parts

Material	Packs of	Model No.
Die-cast zinc	6 pc(s).	**1592.000**
Stainless steel 1.4404 (AISI 316L)	2 pc(s).	**1592.010**



Cover retainer

for KL
The cover retainer is easily fitted without drilling, and allows the covers to be opened, even when the terminal box below is bayed.

Packs of	Model No.
6 pc(s).	**1591.000**

Support strips

For attachment of
- Cable ducts
- Cable conduit holders
- Contact hazard protection covers
- Equipment installed on the door
- Cable clamping and attachment

4.5 mm diameter hole on a 25 mm DIN pitch pattern

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Accessories:

– Screws and self-tapping screws M5, see page 737





For TS, SE, CM, TP

For door width mm	Length mm	Packs of	Model No.
400	290	20 pc(s).	**4594.000**
500	390	20 pc(s).	**4309.000**
600	490	20 pc(s).	**4596.000**
800	690	20 pc(s).	**4598.000**
900	790	20 pc(s).	**4579.000**
1000	890	20 pc(s).	**4599.000**

For AE

For enclosures AE	Packs of	Model No.
1018.600[2], 1019.500[2] 1050.500[1], 1057.500 1100.500, 1110.500 1114.500[1], 1130.500 1213.500[1], 1350.500[1]	20 pc(s).	**2325.000**
1012.500[2], 1039.500 1054.500, 1058.500 1060.500, 1076.500 1090.500, 1260.500[1] 1339.500, 1360.500 1376.500	20 pc(s).	**2326.000**
1014.500[2], 1073.500 1077.500	20 pc(s).	**2327.000**
1016.500[2], 1017.500[2] 1055.500, 1180.500 1280.500[1]	20 pc(s).	**2328.000**

[1] For these AE types, cut support strips to length at the knockout
[2] Only in conjunction with perforated mounting strip (see page 686)

Spacers

The universal assembly component for all situations where a distance from the mounting level is required. With self-tapping thread for diameter 4.5 mm. The following components may be attached to the rear using 5.5 x 13 mm screws:
- Top-hat / cross rails
- Contact hazard protection covers
- Master switch trim panels
- Cable clamp rails

etc.

Material:
– Hexagonal steel (SW8)

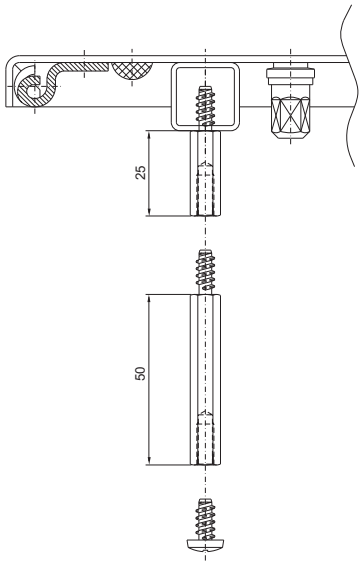
Surface finish:
– Zinc-plated

Accessories:

– Screws 5.5 x 13 mm, see page 737

Length mm	Packs of	Model No.
25	12 pc(s).	**2311.225**
50	12 pc(s).	**2311.250**





Door, internal



Perforated mounting strip

for AE stainless steel

For vertical mounting on the threaded bolts of the door, for attaching

- Support strips for AE, see page 685
- Door stay 2519.000, see page 688

3.7 mm dia. hole on a 25 mm DIN pitch pattern

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Packs of 20 (nuts and serrated washers included)

To fit AE	Length mm	Model No.
1012.600, 1014.600	698	**2310.076**
1016.600, 1018.600	938	**2310.100**
1017.600, 1019.500, 1019.600	1138	**2310.120**

Accessories:

– Screws, see page 737



Utility lectern

For programming units etc., prepared for mounting on the tubular door frame of TS, SE, CM, PC or on any sufficiently large surface. When required for servicing, it folds down quickly with a maximum support area, and after use is stowed between the tubular door frames in a space-saving design.

Load capacity:
– max. 30 kg.

Material:
– Sheet steel

Colour:
– RAL 7035

Support area		For door width mm	Model No.
Width mm	Depth mm		
413	400	600	**4638.600**
613	400	800	**4638.800**





Wiring plan lectern

Holds wiring plans during fault finding and maintenance work. The wiring plan lecterns can be bayed according to the door width. For mounting on the tubular door frame.

Material:
– Utility lectern: Polypropylene
– Mounting bracket: Die-cast zinc

Colour:
– Similar to RAL 7035

Supply includes:
– Wiring plan lectern (width 210 mm)
– Assembly parts

For enclosures	Packs of	Model No.
TS, SE, CM, TP, PC	1 pc(s).	**4120.000**

For door width mm	Required/possible number of wiring plan lecterns	
	min.	max.
400	1	1
500	1	1
600	2	2
800	2	3
1000	3	3



CD/DVD box

For fixing to all flat, clean surfaces with double-sided adhesive tape.

Capacity:
– Max. 10 CDs/DVDs

Material:
– Polyamide

Colour:
– RAL 7033

Packs of	Model No.
1 pc(s).	**2446.000**

Plastic wiring plan pockets

for AE

For installation options, refer to table
- B = Screw-fastened to the perforated door strip on both sides
- E = Screw-fastened on one side, other side stuck with adhesive tape

or stuck entirely with adhesive tape

Supply includes:
- 2 holders with double-sided adhesive tape
- Acrylic glazed pane
- Assembly parts

Note:
- The acrylic glazed pane may be shortened to any required size for shorter doors







Model No.		2514.500	2514.600	2514.800
Usable width mm		340	415	615
Usable depth mm		18	18	18
Height of acrylic glazed pane mm		167	167	167
Installation options				
For Model No. AE	Width mm			
1050.500	500	B	–	–
1054.500	600	E	E	–
1055.500	800	E	E	E
1057.500	500	B	–	–
1058.500	600	E	E	–
1060.500	600	E	E	–
1073.500	760	E	E	–
1076.500	600	E	E	–
1077.500	760	E	E	–
1090.500	600	E	E	–
1100.500	1000	B	–	–
1110.500	1000	B	–	–
1114.500	1000	B[1)]	–	–
1130.500	1000	B	–	–
1180.500	800	E	E	E
1213.500	1000	B[1)]	–	–
1260.500	600	E	B	–
1280.500	800	E	E	B
1350.500	500	B	–	–
1360.500	600	E	E	–
1376.500	600	E	E	–

[1)] Prepared for mounting on the l/h door; for mounting on the r/h door, the acrylic glazed pane can be shortened

Plastic wiring plan pockets

For affixing to the inside surfaces of doors.

Material:
- Polystyrene with self-adhesive fastening strips

Colour:
- Similar to RAL 7035

For format	Clearance opening mm			Model No.
	W	H	D	
A3 landscape	438	286	45	**2513.000**
A4 portrait	228	254	17	**2514.000**
A5 landscape	228	174	17	**2515.000**



Wiring plan pockets with transparent pouch

With welded-on transparent pouch and self-adhesive backing.

For format	Model No.
A4	**2510.000**
A3	**2512.000**



Door, internal





Wiring plan pockets of sheet steel

for TS, SE, CM, TP pedestal, PC

For fastening to tubular door frames at any height.

Colour:
– RAL 7035

Supply includes:
– Assembly screws

D = 90 mm

To fit door width mm	Clearance opening mm		Model No.
	W	H	
400	255	210	**4114.000**
500	355	210	**4115.000**
600	455	210	**4116.000**
800	655	210	**4118.000**
900	755	210	**4123.000**
1000	855	210	**4124.000**

D = 35 mm

To fit door width mm	Clearance opening mm		Model No.
	W	H	
500	355	210	**4115.500**
600	455	210	**4116.500**
800	655	210	**4118.500**





Door stay

To secure the door in the open position.

Supply includes:
– Assembly parts

For	Mounting	Packs of	Model No.
TS, SE, TP universal console, PC	bottom	5 pc(s).	**4583.000**
CM, TP	top	2 pc(s).	**2519.200**
AE (except 1032.500 and 1035.500) and all AE stainless steel enclosures[1)]	top	5 pc(s).	**2519.000**

[1)] With AE stainless steel, only in conjunction with perforated mounting strips, see page 686







Door stay for escape routes

for TS, SE, PC

In case of an emergency, conventional door stays can block the escape route. This stay is actuated automatically in the event of pressure, releasing the door in both directions. In conjunction with 180° hinges, this ensures that no escape routes are blocked by open doors in the event of an emergency.

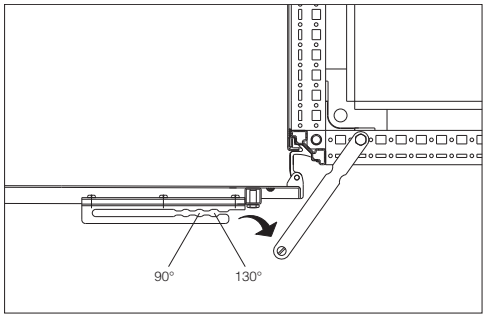
Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**4583.500**

Accessories:

– 180° hinge, see page 684

180° hinge



Ride-up roller

for TS, SE, PC

Lifts the door with heavy installed equipment (e.g. cooling unit) as a closing aid. For attaching to the tubular door frame.

Packs of	Model No.
10 pc(s).	**4538.000**



Transport and mounting handle

for doors TS, SE

For safe installation and removal of the door and during relocation in the workshop. The matching hinge pin removal tool for 130° hinges is pre-integrated, and supplied loose for 180° hinges.

Packs of	Model No.
1 pc(s).	**2415.100**





Document clip, magnetic

For simple attachment of installation documentation as a reminder or for flexible accommodation of a wide range of documents, measurement records, test reports etc. May be attached to any magnet-compatible surface via a permanent magnet.

Material:
- Plastic: Transparent
- Handle pieces: Black

Packs of	Model No.
2 pc(s).	**7950.200**



Alternate frame, magnetic

For individual marking or labelling of the existing network infrastructure. The magnetic surface facilitates flexible mounting on all magnet compatible surfaces. Adhesive strips are supplied for non-magnetic surfaces. The maximum size of the labels is 130 x 50 mm.

Packs of	Model No.
10 pc(s).	**7950.150**



Roof

Rain canopies

for AE, CM
Reliable protection for outdoor siting – with water run-off to the rear. Easily retro-fitted.

Supply includes:
– Assembly parts

Accessories:
– Condensate discharge, see page 642
– Pressure relief stopper, see page 642
– Wall mounting brackets 2503.010 and 2508.010, see page 698

Note:
– For outdoor siting, we generally recommend a rain canopy above the enclosure or the gap between the door and the enclosure, in order to protect against water and UV radiation
– Testing of IP protection categories for water protection (2nd code number to IEC 60 529) cannot be compared with an enclosure sited outdoors or under similar conditions
– Depending on the ambient conditions, additional measures may be required (see “Technical Information”)



for AE, sheet steel version

Material:
– Sheet steel

Surface finish:
– Powder-coated, textured paint

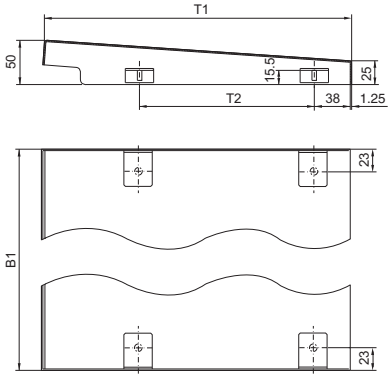
Colour:
– RAL 7035

For		Model No.
Enclosure width mm	Enclosure depth mm	
380	210	**2501.500**
600	210	**2502.500**
600	350	**2511.500**

for AE, stainless steel version

Material:
– Stainless steel 1.4301 (AISI 304)

Surface finish:
– Brushed, grain size 240



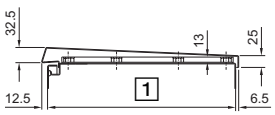
B1 = Enclosure width + 11 mm
T1 = Enclosure depth + 25 mm
T2 = Enclosure depth – 90 mm, from enclosure width 600 mm: Enclosure depth – 115 mm

For		Model No.
Enclosure width mm	Enclosure depth mm	
200	155	**2470.000**
300	210	**2361.000**
380	155	**2471.000**
380	210	**2472.000**
500	210	**2362.000**
600	210	**2473.000**
760	300	**2474.000**
800	300	**2475.000**
1000	300	**2363.000**

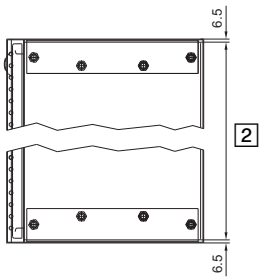




for CM, sheet steel version



1 Enclosure depth



2 Enclosure width

Width mm	Depth mm	Model No.
600	400	**5001.310**
800	400	**5001.330**
1000	400	**5001.350**
1200	400	**5001.360**

Material:
– Sheet steel

Surface finish:
– Powder-coated, textured paint

Colour:
– RAL 7035

Dust guard trim

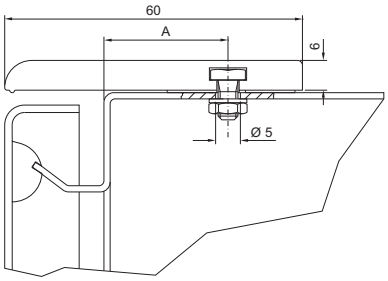
for AE, CM, EB, KL and BG

To protect against deposits on the upper edge of the door and between the enclosure and the door/ cover. Cut the dust guard trim to length according to the enclosure width. Drill the enclosure and fit the dust guard trim using the adhesive strips and screws.

Material:
– Plastic, UV-resistant

Colour:
– Similar to RAL 7024

For enclosure	Length mm	A mm	Model No.
AE	1200	25	**2426.500**
CM		20	
KL, EB, BG		20.5	





Dust guard trim

for TS, SE

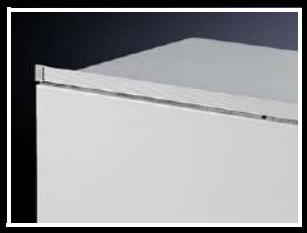
To protect against dust deposits on the upper edge of the door and between the door and upper horizontal enclosure section. The dust guard trim provides space for texts or company logos.

Colour:
– RAL 7035

Supply includes:
– Clear plastic strip for text labels (height 29.5 mm)

Length mm	Model No.
600	**2424.100**
800	**2425.100**
1000	**2427.100**
1200	**2426.100**

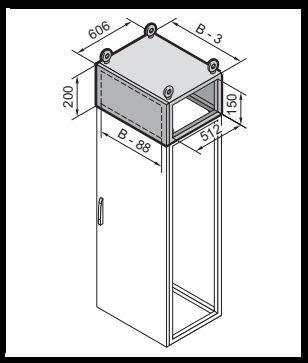
Note:
– Also suitable for use in conjunction with top baying cover, see page 658



Roof







Top mounting module

for TS

As a cable chamber for cable infeed from above or for power distribution with busbar systems across bayed enclosures. The TS cover plate supplied as standard is used to finish off at the top. The enclosure height is increased by 200 mm with the top module fitted. The top baying cover cannot be fitted. Installation accessories for top and bottom, see diagram and explanations below.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Spray-finished, textured paint

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

NEMA protection category:
– NEMA 12

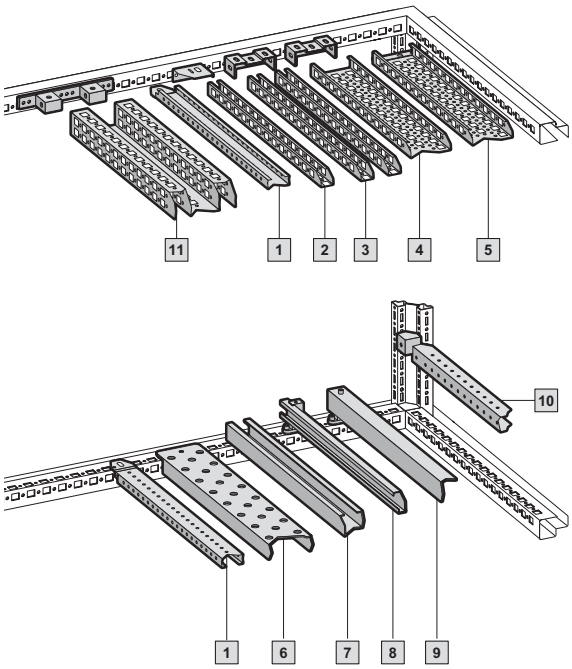
For enclosures		Model No.
Width (B) mm	Depth mm	
600	600	**8801.735**
800	600	**8801.745**
1000	600	**8801.755**
1200	600	**8801.765**

Supply includes:
– 1 frame module
– 2 trim panels (front and rear)
– 8 retainers with automatic potential equalisation
– 4 tapped rods with eyebolts

c UL us LISTED

Also required:

– Side panel for top-mounting module 8801.775, see page 692



Accessories:

Description	Page
1 TS punched rail 18 x 38 mm	720
2 PS punched rail 23 x 23 mm with angle bracket	721
3 PS punched rail 23 x 23 mm with PS support bracket	721
4 PS punched section without mounting flange 23 x 73 mm with PS support bracket	723
5 PS punched section with mounting flange 23 x 73 mm	722
6 Support rail	724
7 System support rails	724
8 C ail 30/15 with support bracket or spacer	723
9 Cable clamp rail	783
10 TS punched rail 25 x 38 mm	719
11 TS punched section without mounting flange 45 x 88 mm	719





Side panel

for top-mounting module

To finish off the side of a top-mounting module or bayed suite.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Spray-finished, textured paint

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Packs of	Model No.
2 pc(s).	**8801.775**

Roof plates

for TS

For enclosures without roof plate and in exchange for the standard roof in other TS enclosures.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Textured paint

Colour:
– RAL 7035





IP 55, solid

For enclosures		Packs of	Model No.
Width mm	Depth mm		
400	600	1 pc(s).	**9671.646**
600	600	1 pc(s).	**9671.666**
800	600	1 pc(s).	**9671.686**
400	800	1 pc(s).	**9671.648**
600	800	1 pc(s).	**9671.668**
800	800	1 pc(s).	**9671.688**

IP 4X

In order to achieve a protection category of IP 41, a roof plate IP 55 should be fitted above the existing roof plate using four spacers 7967.000.

For enclosures		Packs of	Model No.
Width mm	Depth mm		
400	600	1 pc(s).	**9671.364**
600	600	1 pc(s).	**9671.366**
800	600	1 pc(s).	**9671.368**
400	800	1 pc(s).	**9671.384**
600	800	1 pc(s).	**9671.386**
800	800	1 pc(s).	**9671.388**

IP 2X with ventilation hole, build height: 72 mm
Supply includes: Assembly parts

For enclosures		Packs of	Model No.
Width mm	Depth mm		
400	600	1 pc(s).	**9671.846**
600	600	1 pc(s).	**9660.235**
800	600	1 pc(s).	**9660.245**
1000	600	1 pc(s).	**9660.255**
1200	600	1 pc(s).	**9660.265**
400	800	1 pc(s).	**9671.848**
600	800	1 pc(s).	**9659.525**
800	800	1 pc(s).	**9659.535**
1000	800	1 pc(s).	**9659.545**
1200	800	1 pc(s).	**9659.555**

For cable entry glands

For enclosures		Required number of glands	Packs of	Model No.
Width mm	Depth mm			
600	400	2 pc(s).	1 pc(s).	**9665.943**
850	400	3 pc(s).	1 pc(s).	**9665.953**
1100	400	4 pc(s).	1 pc(s).	**9665.963**
400	600	3 pc(s).	1 pc(s).	**9671.546**
600	600	4 pc(s).	1 pc(s).	**9665.903**
800	600	8 pc(s).	1 pc(s).	**9671.586**
850	600	6 pc(s).	1 pc(s).	**9665.913**
1100	600	8 pc(s).	1 pc(s).	**9665.923**
400	800	4 pc(s).	1 pc(s).	**9671.548**
600	800	8 pc(s).	1 pc(s).	**9671.568**
800	800	8 pc(s).	1 pc(s).	**9671.588**

Also required:

Cable entry gland, see page 694.

Pressure stoppers

for roof plates

For converting the IP 55 roof plate for TS enclosures into a roof plate with pressure relief function. The pressure relief function is essential for compliance with health and safety regulations for arc-proofing to IEC/TR 61641.

Material:
– Polyamide (PA 6.6)

Supply includes:
– 2 warning stickers

Packs of	Model No.
4 pc(s).	**9674.790**

Note:
– 2 pressure stoppers and 1 warning sticker are required for one roof plate
– The arc-proofing compliance limits are dependent on the busbar system used

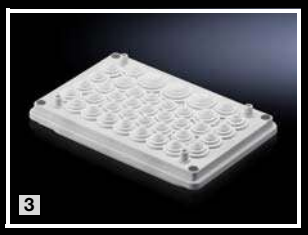


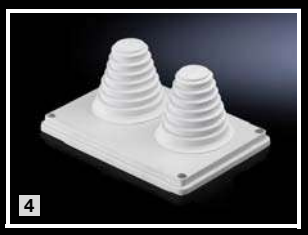


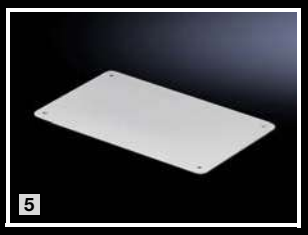
Roof







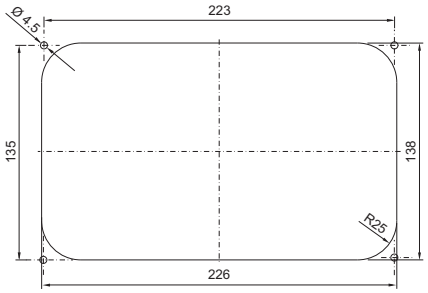




Cable entry glands

- Including seal
- External dimensions 250 x 160 mm
- Protection category IP 55

Version	Material	Colour	Packs of	**Model No.**
1 14 x M25/32	Insulating material	RAL 7035	1 pc(s).	**9665.750**
2 2 x M25/32/40, 1 x M32/40/50, 2 x M40/50/63	Insulating material	RAL 7035	1 pc(s).	**9665.760**
3 With sealing membranes 32 x Ø 7 – 16 mm, 4 x Ø 10 – 20 mm, 3 x Ø 14 – 26 mm	Insulating material	RAL 7035	1 pc(s).	**9665.770**
4 With entry glands up to Ø 66 mm	Insulating material	RAL 7035	1 pc(s).	**9665.780**
5 Solid	Sheet steel, spray-finished	RAL 7035	4 pc(s).	**9665.785**



Cut-out dimensions for 9665.750 to 9665.785



Roof

Roof plate

for cable entry, two-piece
for TS, TS IT
In exchange for the standard roof. Equipped with a sliding angular bracket in the rear section. Rubber cable clamp strip on both sides for attaching cable bundles and bunched cables. Due to the symmetrical design of the TS frame, side cable entry can also be achieved by rotating the roof plate. The two-piece design allows convenient retrofitting.

Material:
– Sheet steel

Colour:
– RAL 7035

For enclosures		Packs of	Model No.
Width mm	Depth mm		
600	600	1 pc(s).	**7826.665**
600	800	1 pc(s).	**7826.685**
600	1000	1 pc(s).	**7826.605**
800	600	1 pc(s).	**7826.865**
800	800	1 pc(s).	**7826.885**
800	1000	1 pc(s).	**7826.805**
800	1200	1 pc(s).	**7826.825**





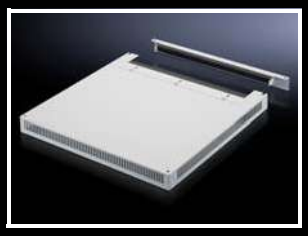
Roof plate, vented

for TS, TS IT
In exchange for the standard roof.
72 mm high roof plate, all-round vent slots, and clamp strip for cable entry. The two-piece design with cable entry allows convenient retrofitting.

Material:
– Sheet steel

Colour:
– RAL 7035

For enclosures		Packs of	Model No.
Width mm	Depth mm		
600	600	1 pc(s).	**7826.669**
600	800	1 pc(s).	**7826.689**
800	600	1 pc(s).	**7826.869**
800	800	1 pc(s).	**7826.889**
800	1000	1 pc(s).	**7826.809**



Brush kit for cable entry in the roof

for TE
To activate cable entry in the roof plate.

Benefits:
- For simple top-mounting on the cut-out edge

Material:
– Plastic support with brushes

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**7888.610**
800	2 pc(s).	**7888.612**



Roof



Cable organiser

for TE open
Cable routing plate for targeted routing of cables.

Applications:
– Optionally on the roof plate of the TE open

Material:
– Sheet steel, spray-finished

Colour:
– RAL 7035

Packs of	Model No.
4 pc(s).	**7888.950**



Roof mounting screw

For screw-fastening the roof plate instead of eye-bolts. With contact washers for potential equalisation.

Thread: M12

Material:
– Steel

Surface finish:
– Zinc-plated

Supply includes:
– 20 panhead screws M 12 x 20
– 20 serrated sealing washers A 12.5

Packs of	Model No.
20 pc(s).	**4198.000**





Spacers

for roof plate TS
To raise the TS roof for ventilation purposes, in three different heights.
Not suitable for crane transportation!

Thread: M12

Material:
– Hexagonal sectional steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Height mm	Packs of	Model No.
10	4 pc(s).	**2422.000**
20	4 pc(s).	**2423.000**
50	4 pc(s).	**7967.000**

Eyebolts

for TS, SE

For crane transportation of enclosures, where not already included in the supply.

Thread: M12

Supply includes:
– 4 eyebolts M12
– 4 serrated lock washers A 12.5

Material	Packs of	Model No.
Sheet steel, zinc-plated, C 15E	4 pc(s).	**4568.000**
Stainless steel 1.4301 (AISI 304)	4 pc(s).	**4568.500**



Eyebolts

for CM

For crane transportation of enclosures, with reinforcement plate to be inserted underneath. Mounting via the two holes in the top of the CM.

Thread: M12

Supply includes:
– Eyebolts
– Reinforcement plates

Packs of	Model No.
2 pc(s).	**2509.500**



Eyebolts

for AE

For crane transportation of enclosures, with reinforcement plate to be inserted underneath.

Thread: M12

Supply includes:
– Eyebolts
– Reinforcement plates

Packs of	Model No.
4 pc(s).	**2509.000**



Wall mounting



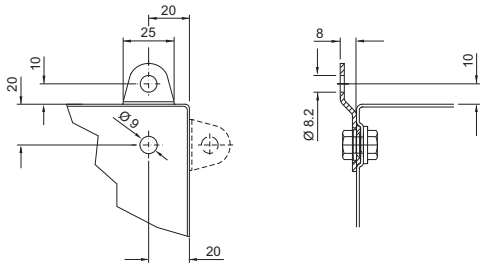
Wall mounting bracket

For the attachment of KL, EB, BG and IT enclosures based on EL.

Supply includes:
– Assembly parts for mounting on the enclosure

Note:
– For hygiene reasons, and in view of the protection category, the stainless steel enclosures do not have any drilled holes for the wall mounting brackets

Material	Wall distance mm	Packs of	Model No.
Brass, nickel-plated	8	4 pc(s).	**1580.000**
Sheet steel, zinc-plated, passivated	8	4 pc(s).	**1590.000**
Stainless steel 1.4301 (AISI 304)	8	4 pc(s).	**1594.000**







Wall mounting bracket

for AE

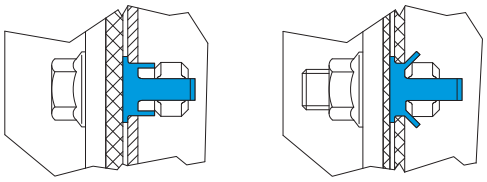
For attaching to the enclosure from the outside. Simply insert the expandable dowel into the housing hole from the outside, and screw-fasten the wall bracket from the outside.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Wall bracket pre-fitted with seal and expandable dowel

Wall distance mm	Packs of	Model No.
15	4 pc(s).	**2508.100**





Wall mounting bracket

For mounting KL, EB, BG, AE, CM, IT enclosures based on EL and AE, TP consoles and small fibre-optic distributors.

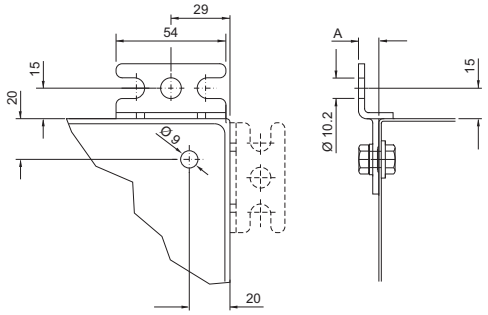
Supply includes:
– Assembly parts for mounting on the enclosure

Note:
– Item 2503.010 is only suitable up to a depth of 600 mm

Possible alternative:

– Wall spacer bracket Hygienic Design, see page 210

Material	Wall distance (A) mm	Packs of	Model No.
Sheet steel, zinc-plated, passivated	40	4 pc(s).	**2503.010**
	10	4 pc(s).	**2508.010**
Stainless steel 1.4301 (AISI 304)	10	4 pc(s).	**2433.000**
Stainless steel 1.4404 (AISI 316L)	10	4 pc(s).	**2433.500**



Wall mounting bracket

for KS

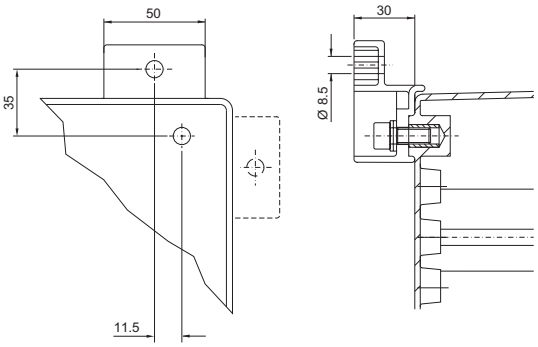
For attachment to the wall, only possible from the outside of the enclosure.

Material:
– Fibreglass-reinforced polyamide[1)]

Supply includes:
– Assembly parts for mounting on the enclosure

Colour	Packs of	Model No.
Similar to RAL 7035	4 pc(s).	**1483.010**
Similar to RAL 9011	4 pc(s).	**9266.000[1)]**

[1)] With graphite additive for Ex applications



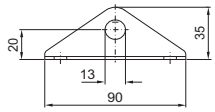


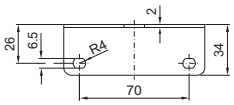
Wall angle

For compact enclosures (additional holes required in the enclosure).

Supply includes:
– Assembly parts for mounting on the enclosure

Material	Colour	Packs of	Model No.
Sheet steel	RAL 7035	4 pc(s).	**2505.510**
Stainless steel 1.4301 (AISI 304)	–	4 pc(s).	**2583.010**







Wall bracket

For roof-side wall mounting of TS and SE with a low depth and e.g. heavy components on the door or built-in swing frame.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
4 pc(s).	**4595.000**

Possible alternative:

– With TS 8 inside the enclosure (without mounting plate), baying bracket 8800.470, see page 656



Wall mounting





Pole clamp

for KL, EB, BG, AE, KS

For reliable, convenient fastening to round or square poles.

For pole diameter / size:
– Ø from 40 to 190 mm
– □ from 50 to 150 mm

Material:
– Mounting angles, clamping section: Sheet steel
– Clamping strap: Stainless steel 1.4301 (AISI 304)

Surface finish:
– Mounting angle, clamping section: Zinc-plated

Supply includes:
– 2 mounting angles, 600 mm long
– 4 clamping sections
– 2 clamping straps
– 4 clamping brackets
– 4 screws and captive nuts M8 for mounting on the enclosure.

Packs of	Model No.
2 pc(s).	**2584.000**



Enclosure connectors

Adjustable

Between Command Panels, terminal boxes, compact enclosures and horizontal or vertical surfaces. Pre-mount the connector halves on both sides, screw together and secure with a locking screw, and/or adjust the angle of rotation.

Rotation range:
– ±105° adjustable in 7.5° stepped increments

Material:
– Die-cast zinc

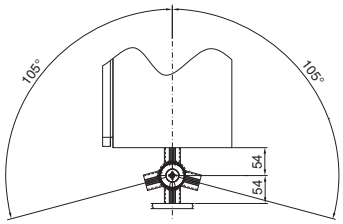
Surface finish:
– Powder-coated

Colour:
– RAL 7035

Supply includes:
– Assembly parts for both sides

Packs of	Model No.
2 pc(s).	**6016.200**

Note:
– The locking screws may be exchanged for standard, commercially available clamping levers (M10 x 50 mm)



Frame connector, adjustable

for Comfort Panel
Between the command panel and keyboard housing and horizontal or vertical surfaces.

Rotation range:
– Adjustable in 8° stepped increments, see drawing

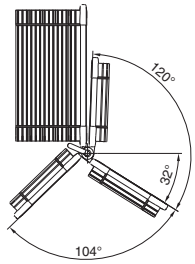
Material:
– Die-cast zinc

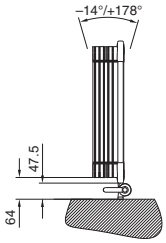
Surface finish:
– Powder-coated

Colour:
– RAL 7024

Supply includes:
– Assembly parts and clamping levers for both sides

Packs of	Model No.
2 pc(s).	**6005.500**









Wall mounting

Vertically hinged
Between the Compact Panel and horizontal or vertical surfaces.

Rotation range:
– 180° adjustable on a 7.2° pitch pattern

Material:
– Wall mounting bracket: Sheet steel
– Knurled screw: Steel with plastic knurled handle

Supply includes:
– Knurled screw and assembly parts for mounting on the Compact Panel

Packs of	Model No.
2 pc(s).	**6341.000**





Mounting plates



Mounting plates

for KL and KL-HD

For component installation outside of the enclosure. Assembly screws included as accessories with the enclosure.

Material:
– Sheet steel, 2 mm

Surface finish:
– Zinc-plated

Accessories:

– Self-tapping screws 2487.000, see page 737

Possible alternative:

– Support rails, see page 725

For size mm	For Model No. KL and KL-HD	Model No.
150 x 150	1500.510, 1514.510, 1521.010, 1527.010, 1670.600, 1671.600	**1560.700**
200 x 150	1528.510, 1529.510	**1575.700**
300 x 150	1501.510, 1515.510, 1522.010, 1530.510	**1561.700**
400 x 150	1589.510	**1576.700**
200 x 200	1502.510, 1516.510, 1523.010, 1528.010, 1672.600	**1562.700**
300 x 200	1503.510, 1517.510, 1524.010, 1529.010, 1531.510, 1674.600	**1563.700**
400 x 200	1504.510, 1518.510, 1525.010, 1532.510, 1675.600	**1564.700**
500 x 200	1505.510, 1533.510	**1565.700**
600 x 200	1506.510, 1519.510, 1534.510	**1566.700**
800 x 200	1527.510, 1542.510	**1574.700**
300 x 300	1507.510, 1526.010, 1535.510	**1567.700**
400 x 300	1508.510, 1530.010, 1536.510, 1676.600	**1568.700**
500 x 300	1509.510, 1537.510	**1569.700**
600 x 300	1510.510, 1538.510	**1570.700**
400 x 400	1511.510, 1539.510	**1571.700**
600 x 400	1512.510, 1540.510	**1572.700**
800 x 400	1513.510, 1541.510	**1573.700**



Mounting plate

for TS, 400 mm wide

Depth-adjustable on a 25 mm pitch pattern.

Material:
– Sheet steel, 3 mm

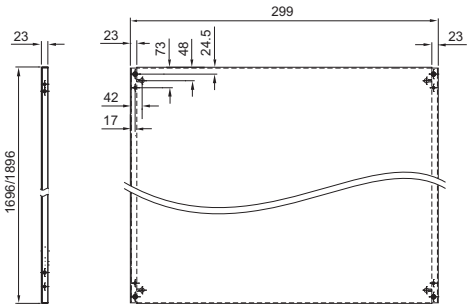
Surface finish:
– Zinc-plated

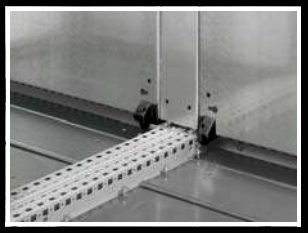
Supply includes:
– Assembly parts

Accessories:

– TS 18 x 38 mm punched rail, used as mounting plate slide rail, see page 720
– TS width divider, for installation in wider enclosures, see page 630

For enclosure height mm	Model No.
1800	**8614.180**
2000	**8614.200**





Mounting plate infill

for TS

For a continuous mounting surface in bayed suites where the mounting plate is set forward.

Material:
– Sheet steel, 2 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure height mm	Model No.
1800	**4590.700**
2000	**4591.700**
2200	**4592.700**

Mounting plate attachment

For additional clamping and to reduce potential vibration of the mounting plate. Select according to mounting position, installation type and enclosure.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For TS, SE
Installation options:
- At the side, at half height in conjunction with mounting plate infill
- In the penultimate position
- Set forward (supplied state)

Benefit:
No impairment to the mounting surface, but mounting is only possible from the enclosure rear

Packs of	Model No.
10 pc(s).	**8800.630**



Accessories:

– Mounting plate infill, see page 702

For TS, SE
Installation options:
- At the side
- At the rear, flush with enclosure frame

Benefit:
No impairment to the mounting surface, but mounting is only possible from the enclosure rear

Packs of	Model No.
10 pc(s).	**8800.610**



For TS, SE
Installation options:
- At the side
- At the rear, flush with enclosure frame
- Set forward on a 25 mm pitch pattern

Benefit:
No impairment to the mounting surface, for optional use as attachment or screw-fastening

Packs of	Model No.
10 pc(s).	**8800.090**



Also required:

– Punched section with mounting flange 17 x 73 mm for the inner mounting level, see page 717 (for fig. 3)

1 Mounting plate attached with a screw in the rearmost installation position

2 Mounting plate screw-fastened from the rear in the rearmost installation position

3 Mounting plate in a set forward position, either attached with a screw or screw-fastened (not shown)







For TS, SE
Installation options:
- At the side
- At the rear, flush with enclosure frame

Slide over the plate at the side and secure with screws. Additionally, the mounting plate may be drilled and screw-fastened at the rear C-edge.

Packs of	Model No.
10 pc(s).	**8800.050**



Mounting plates

Mounting plate attachment

For additional clamping and to reduce potential vibration of the mounting plate. Select according to mounting position, installation type and enclosure.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts



For TS, SE
Installation options:
- All-round
- Set forward on a 25 mm pitch pattern

Slide in between the bar and plate from below or above or from the side, and secure with screws.

Packs of	Model No.
10 pc(s).	**4593.000**

Also required:
– Support strip (with TS for inner level), see page 720 or
– Punched section with mounting flange (with TS for inner level), see page 717 or
– Punched rails and punched sections without mounting flange, see page 719/720



For TS, SE
Installation options:
- On the top and bottom of the mounting plate
- At the rear, flush with enclosure frame

Screw in the clip behind the plate and secure with screws.

Packs of	Model No.
10 pc(s).	**4576.000**



Installation kit

for mounting plates TS, SE, back-to-back
The minimal distance between the two mounting plates ensures maximum depth available for installed equipment on both sides.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Note:
Build depth front and rear, with central installation = (enclosure depth -48 mm) : 2
Example:
8806.521 = Depth 600 mm
Build depth = 2 x 276 mm

Packs of	Model No.
1 pc(s).	**8800.280**







Mounting plates

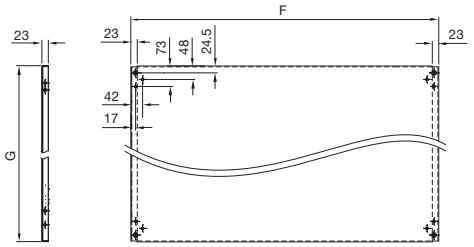
For Outdoor Basic enclosure
For the configuration of mounting levels. The mounting plates are depth-adjustable on a 25 mm pitch pattern.

Material:
– Aluminium, 3 mm

Supply includes:
– Assembly parts

Note:
– For an enclosure width of 1200 mm, partial installation with one or two 600 mm wide mounting plates is possible

For enclosure		F mm	G mm	Model No.
Width mm	Height mm			
600	1200	499	1096	**9765.092**
800	1200	699	1096	**9765.095**
1200	1200	1099	1096	**9765.191**



Slide rails

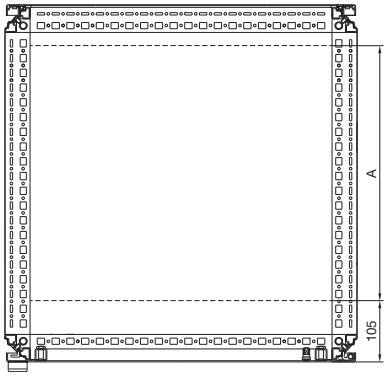
for mounting plate TS
Slides in from the side.
- Attachment of the mounting plate to the slide rails using cage nuts and screws.
- Mounting of the slide rails directly on the enclosure frame, depth-adjustable on a 25 mm pitch pattern

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**8802.260**
800	2 pc(s).	**8802.280**
1200	2 pc(s).	**8802.220**



For enclosure depth mm	A (depth adjustable on a 25 mm pitch pattern from/to)
400	105 – 330
500	105 – 430
600	105 – 530
800	105 – 730





Mounting plate adjustment bracket

for KS
Infinitely adjustable.
Other equipment can also be installed on a rail system in this way, instead of the mounting plate.

Material:
– Sheet steel

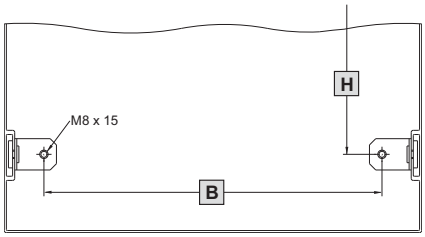
Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

B Enclosure width:
– 76 mm (1481.000)
– 104 mm (1491.000)

H Enclosure height:
– 150 mm

For enclosures KS	Packs of	Model No.
1423.500, 1432.500, 1434.500, 1444.500, 1446.500, 1448.500, 1449.500, 1466.500, 1467.500	4 pc(s).	**1481.000**
1400.500, 1453.500, 1454.500, 1468.500, 1469.500, 1479.500, 1480.500	4 pc(s).	**1491.000**





Mounting plates







Mounting plate attachment

for CM, TP one-piece console, TP pedestal for high dynamic loads

For example, if a direct connection between the mounting plate and the enclosure is required for mobile use (cranes etc.). Tested as per DIN EN 60 721 severity 3 M4, with a weight of 150 kg evenly distributed over the mounting plate. Simply screw-fasten to the existing holes in the mounting plate to pre-assemble for:

Wall mounting from the inside
Direct using a bracket and wall/support mounted enclosure.

Wall mounting from the outside
Screws for wall mounting brackets (see page 698) are easily screwed into the plate nuts from the outside

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**5001.075**





Cross-brace for mounting plates

for TS, SE

Additional horizontal rigidity for vibration resistance and/or stabilisation of wide mounting plates. This brace may also be used as an attachment aid for heavy components.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– 2 sections
– 4 clamping sections
– 4 grub screws M10 x 16 mm

For enclosure width mm	Model No.
1200	**4333.120**
1600	**4333.160**
1800	**4333.180**



Transport handles for mounting plates

for TS, SE

May be used at any given position in the side C-fold.
Benefits include:
- Can be used for people of different heights
- Optimised force transmission
- Easy handling

Packs of	Model No.
2 pc(s).	**2415.500**

Partial mounting plates

for TS, SE

For

- Universal interior installation, also in conjunction with punched sections with mounting flanges and support strips; defective assemblies are easily and quickly replaced
- Additional mounting levels

Partial mounting plates are fastened directly onto the vertical enclosure sections via the inner mounting level using the assembly parts supplied loose. In this mounting position (in both the width and the depth) they form one level with TS punched sections with mounting flanges 17 x 73 mm and TS support strips for the inner mounting level.

Material:
– Sheet steel, 2.5 mm

Surface finish:
– Zinc-plated

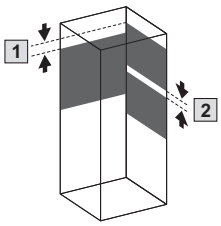
Supply includes:
– Assembly parts

Accessories:

– TS punched section with mounting flange 17 x 73 mm for the outer mounting level, see page 717
– TS support strip, see page 720
– Hinge attachment, see page 708
– Self-tapping screws , 2487.000, see page 737

For installation in									Size mm	Packs of	Model No.
Enclosure width mm					Enclosure depth (side) mm						
400	600	800	1000	1200	400	500	600	800			
■	■				■		■		500 x 300	1 pc(s).	**8614.640**
	■					■	■		500 x 400	1 pc(s).	**8614.650**
	■						■		500 x 500	1 pc(s).	**8614.660**
	■	■					■	■	500 x 700	1 pc(s).	**8614.680**
	■						■		500 x 775	1 pc(s).	**8614.675**[1)]
■		■			■			■	700 x 300	1 pc(s).	**8614.840**
		■				■		■	700 x 400	1 pc(s).	**8614.850**
		■						■	700 x 700	1 pc(s).	**8614.880**
■			■		■				900 x 300	1 pc(s).	**8614.040**
			■			■			900 x 400	1 pc(s).	**8614.050**
	■		■				■		900 x 500	1 pc(s).	**8614.060**
■				■	■				1100 x 300	1 pc(s).	**8614.240**
				■		■			1100 x 400	1 pc(s).	**8614.250**
	■			■			■		1100 x 500	1 pc(s).	**8614.260**

[1)] Also suitable for installing in
– PC enclosures based on SE behind the lower front door
– IW enclosures, height 900 and 1000 mm

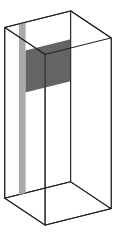


When **installing around corners** due to collision between the assembly components

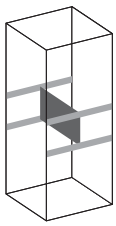
1 At least 75 mm (adjustable on a 25 mm pitch pattern)

Maximum space utilisation

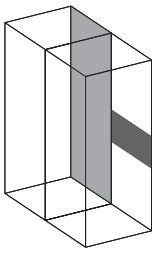
2 1 mm (adjustable on a 25 mm pitch pattern)



Partial installation
Partial use of the enclosure depth or width is also possible, in this case using a PS punched section without mounting flange 23 x 73 mm, see page 722



Set forward installation position
Quickly and easily achieved with four TS punched sections with mounting flanges 17 x 73 mm for the outer mounting level, see page 717



Continuously flush
In bayed enclosure suites, the partial mounting plate is in the rearmost position flush with the standard mounting plate; this facilitates continuous component mounting





Mounting plates







Hinge attachment

for partial mounting plate TS, SE

Material:
– Steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**8614.100**

Also required:

– 1 Installation kit for swing frame, small, for enclosure width 600 mm 2377.860, 800 mm 2377.880, see page 796
– 2 PS punched section without mounting flange 23 x 73 mm according to the enclosure depth, see page 723, support brackets 8800.330, see page 731

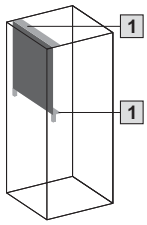
depending on the installation position

Side installation:
In conjunction with hinge, for side panel, see page 644, for an enclosure depth of 600 or 800 mm, side installation is identical to installation parallel to the front

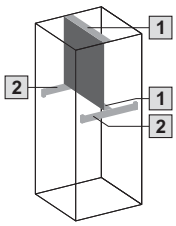
Examples

In the highest or lowest position

Front

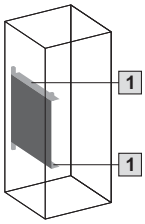


Set back

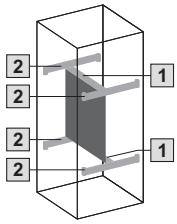


In a central position

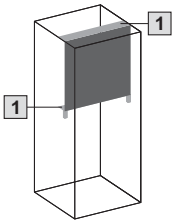
Front



Set back



Side installation





Partial mounting plates, locatable

for TS, SE, TP

For installation in
- Console and desk unit on the system rails for interior installation
- Pedestal at the side of punched sections with mounting flanges or support strips fitted in the depth
- Other enclosures mounted on rails with 25 mm pitch pattern punchings

For easy mounting on pre-fitted assembly screws. Bayable by screw-fastening at the sides.

Material:
– Sheet steel

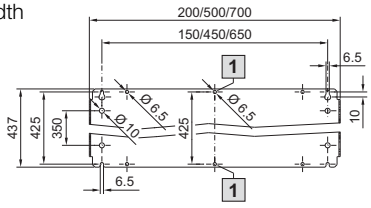
Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Width mm	Height mm	Packs of	Model No.
200	437	1 pc(s).	**6730.310**
500	437	1 pc(s).	**6730.330**
700	437	1 pc(s).	**6730.340**

For console/desk unit width mm	Max. partial mounting plates that may be installed
600	1 x 6730.330
800	1 x 6730.340
1200	2 x 6730.310 1 x 6730.340
1600	1 x 6730.330 1 x 6730.340

1 From width 500 mm



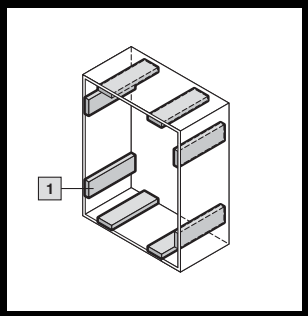
AE installation examples with TS system rails

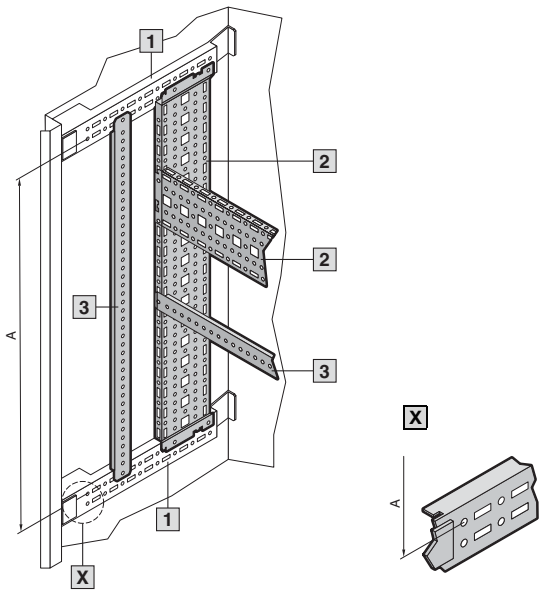
1 Rails for interior installation (preparing for installation)						
For enclosure depth mm	Packs of	210	250	300	350	Page
Model No.	4 pc(s).	2383.210	2383.250	2383.300	2383.350	716

Interior installation in the width and height								
2 TS punched section with mounting flange 17 x 73 mm	AE from enclosure width/height mm	A[1] mm	Packs of	Model No.				
	380	225	4 pc(s).	8612.130	8612.130	8612.130	8612.130	717
	500	325	4 pc(s).	8612.140	8612.140	8612.140	8612.140	
		375	4 pc(s).	8612.040	8612.040	8612.040	8612.040	
	600	425	4 pc(s).	8612.150	8612.150	8612.150	8612.150	
		475	4 pc(s).	8612.050	8612.050	8612.050	8612.050	
	760	525	4 pc(s).	8612.160	8612.160	8612.160	8612.160	
		575	4 pc(s).	8612.060	8612.060	8612.060	8612.060	
	1000	725	4 pc(s).	8612.180	8612.180	8612.180	–	
		775	4 pc(s).	8612.080	8612.080	8612.080	–	
		875	4 pc(s).	8612.090	8612.090	8612.090	–	
	1200	925	4 pc(s).	–	–	8612.100	–	
		975	4 pc(s).	–	–	8612.000	–	
	1400	1125	4 pc(s).	–	–	8612.120	–	
		1175	4 pc(s).	–	–	8612.020	–	
3 TS support strip	400	325	20 pc(s).	4694.000	4694.000	4694.000	4694.000	720
	500	425	20 pc(s).	4695.000	4695.000	4695.000	4695.000	
	600	525	20 pc(s).	4696.000	4696.000	4696.000	4696.000	
	800	725	20 pc(s).	4697.000	4697.000	4697.000	4697.000	

[1] A = Rail mounting distance

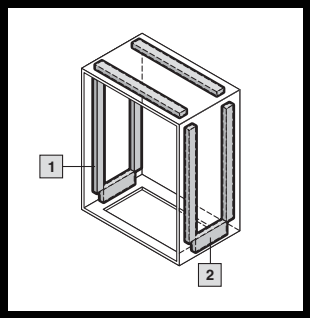






Rail systems





CM installation examples with TS system rails

1 Rails for interior installation (preparing for installation)							
For enclosure width/height mm	Packs of	600	800	1000	1200	1400	Page
Model No.	4 pc(s).	5001.050	5001.051	5001.052	5001.053	5001.054	716

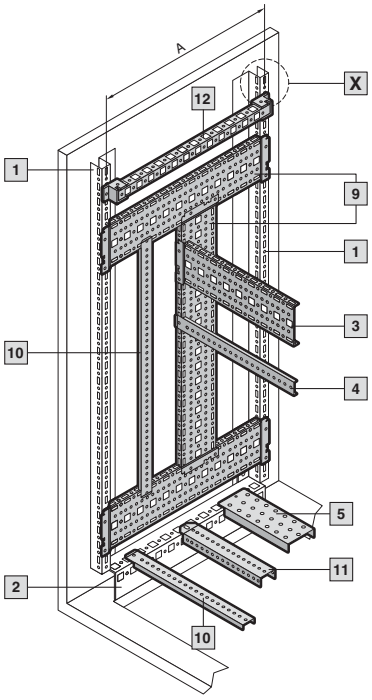
2 Base configuration rail (preparing for installation)							
For enclosure depth	Packs of	300	400	–	–	–	
Model No.	2 pc(s).	5001.371	5001.370	–	–	–	719

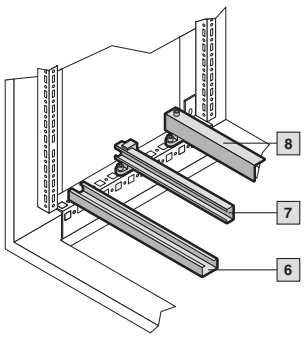
Installation in the width								
		Packs of	Model No.					
For enclosure width mm			600	800	1000	1200	1400	
A[1] mm			575	775	975	1175	–	
3 TS punched section with mounting flange 17 x 73 mm		4 pc(s).	8612.060	8612.080	8612.000	8612.020	–	717
4 TS support strips		20 pc(s).	8800.130	4579.000	–	–	–	720
5 Support rail	Slotted	4 pc(s).	4396.000	4398.000	–	–	–	724
	Unslotted	4 pc(s).	4396.500	4398.500	–	–	–	724
6 System support rails		2 pc(s).	4361.000	4362.000	4347.000	4363.000	–	724
7 C rails 30/15		6 pc(s).	4944.000	4945.000	4946.000	4947.000	–	723
8 Cable clamp rail		2 pc(s).	4191.000	4192.000	4336.000	4196.000	–	783

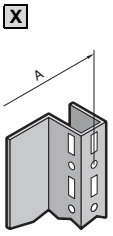
Installation in the height (individual installation e.g. with)	
TS punched section with mounting flange 17 x 73 mm	see page 717
TS support strips	see page 720

Installation in the depth									
	For enclosure depth mm	A[1] mm	Packs of	Model No.					
9 TS punched section with mounting flange 17 x 73 mm	300	225	4 pc(s).	8612.130	8612.130	8612.130	8612.130	8612.130	717
	400	325	4 pc(s).	8612.140	8612.140	8612.140	8612.140	8612.140	
10 TS support strips	400	325	20 pc(s).	4694.000	4694.000	4694.000	4694.000	4694.000	720
11 TS punched rail 18 x 38 mm	400	325	4 pc(s).	8612.240	8612.240	8612.240	8612.240	8612.240	720
12 PS punched rail 23 x 23 mm	400	275	12 pc(s).	4169.000	4169.000	4169.000	4169.000	4169.000	721
With mounting bracket TS (2 per rail)			24 pc(s).	8800.370	8800.370	8800.370	8800.370	8800.370	730

[1] A = Rail mounting distance







TP pedestal/one-piece console
Installation examples with TS system rails

1 Rails for interior installation (preparing for installation)						
For enclosure width mm	Packs of	600	800	1200	1600	Page
For enclosure height mm		675	675	675	675	
Model No.	4 pc(s).	5001.050	5001.050	5001.050	5001.050	716

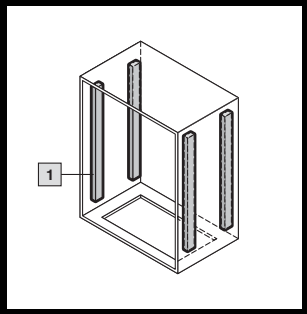
Installation in the width						
	Packs of	**Model No.**				
For enclosure width mm		600	800	1200	1600	
A[1] mm		575	775	1175	1575	
2 TS punched section with mounting flange 17 x 73 mm	4 pc(s).	8612.060	8612.080	8612.020	–	717
3 TS support strips	20 pc(s).	8800.130	4579.000	–	–	720

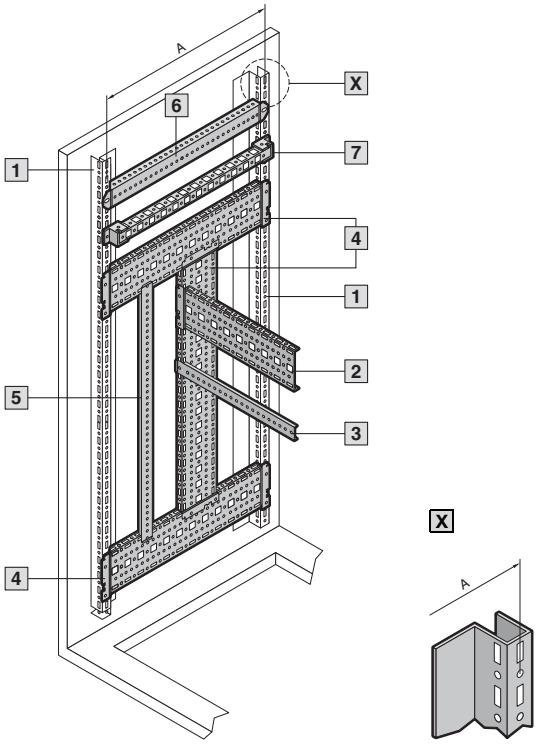
Installation in the height (individual installation e.g. with)	
TS support strips	see page 720
TS punched rail, 18 x 38 mm	see page 720

Installation in the depth	For enclosure depth mm	A[1] mm	Packs of	**Model No.**				
4 TS punched section with mounting flange 17 x 73 mm	400	325	4 pc(s).	8612.140	8612.140	8612.140	8612.140	717
	500	425	4 pc(s).	8612.150	8612.150	8612.150	8612.150	
5 TS support strips	400	325	20 pc(s).	4694.000	4694.000	4694.000	4694.000	720
	500	425	20 pc(s).	4695.000	4695.000	4695.000	4695.000	
6 TS punched rail 18 x 38 mm	400	325	4 pc(s).	8612.240	8612.240	8612.240	8612.240	720
	500	425	4 pc(s).	8612.250	8612.250	8612.250	8612.250	
7 PS punched rail 23 x 23 mm	400	325	12 pc(s).	4169.000	4169.000	4169.000	4169.000	721
	500	425	12 pc(s).	4170.000	4170.000	4170.000	4170.000	
With mounting bracket TS (2 per rail)			24 pc(s).	8800.370	8800.370	8800.370	8800.370	730

[1] A = Rail mounting distance

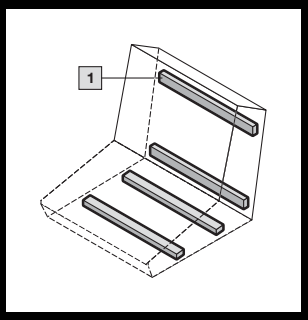


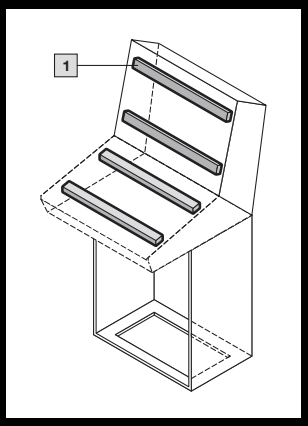




Rail systems







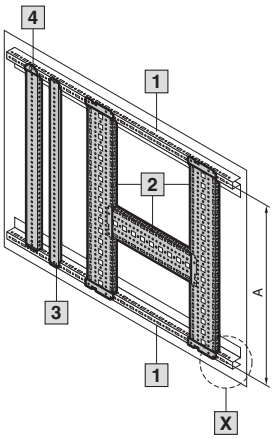
TP console
Installation examples with TS system rails

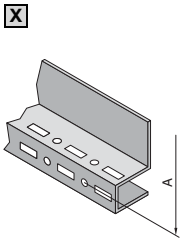
1 Rails for interior installation (preparing for installation)						
For enclosure width mm	Packs of	600	800	1200	1600	Page
Model No.	4 pc(s).	5001.050	5001.051	5001.053	5001.054	716

Installation in the height							
	A[1] mm	Packs of	Model No.				
For enclosure width mm			600	800	1200	1600	
2 TS punched section with mounting flange 17 x 73 mm							
For cover	375	4 pc(s).	8612.040	8612.040	8612.040	8612.040	717
For enclosure	425	4 pc(s).	8612.150	8612.150	8612.150	8612.150	717
3 TS support strips							
For cover	375	4 pc(s).	4309.000	4309.000	4309.000	4309.000	720
For enclosure	425	4 pc(s).	4695.000	4695.000	4695.000	4695.000	720
4 TS punched rail 18 x 38 mm							
For enclosure	425	4 pc(s).	8612.250	8612.250	8612.250	8612.250	720

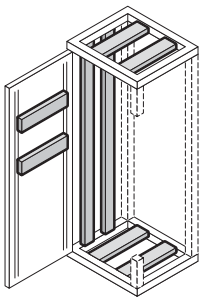
[1] A = Rail mounting distance

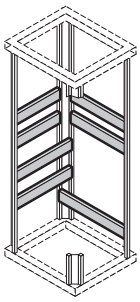
Console/desk unit/console lid

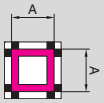
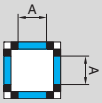




TS/SE installation examples with TS system rails





	Installation in the roof and base frame in the width/depth	Installation between vertical sections in the width/depth	
		Inner level	Outer level
			

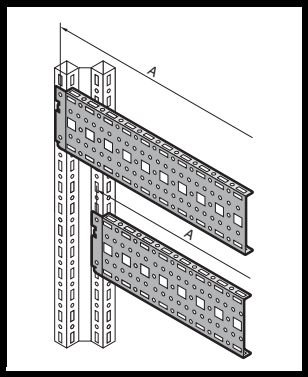




TS punched section with mounting flange, 17 x 73 mm

For enclosure width/depth mm	Packs of	A[1] mm	Model No.	A[1] mm	Model No.	A[1] mm	Model No.	Page
300	4 pc(s).	–	–	275	8612.030	225	8612.130	717
400	4 pc(s).	–	–	375	8612.040	325	8612.140	
500	4 pc(s).	–	–	475	8612.050	425	8612.150	
600	4 pc(s).	–	–	575	8612.060	525	8612.160	
800	4 pc(s).	–	–	775	8612.080	725	8612.180	
1000	4 pc(s).	–	–	975	8612.000	925	8612.100	
1200	4 pc(s).	–	–	1175	8612.020	1125	8612.120	

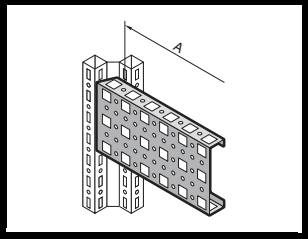
[1] A = Rail mounting distance



TS punched section with mounting flange, 23 x 73 mm

For enclosure width/depth mm	Packs of	A[1] mm	Model No.	A[1] mm	Model No.	A[1] mm	Model No.	Page
500	4 pc(s).	–	–	425	8612.550	–	–	718
600	4 pc(s).	–	–	525	8612.560	–	–	
800	4 pc(s).	–	–	725	8612.580	–	–	
1000	4 pc(s).	–	–	925	8612.500	–	–	
1200	4 pc(s).	–	–	1125	8612.520	–	–	

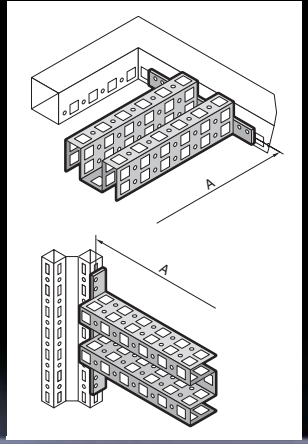
[1] A = Rail mounting distance



TS punched section without mounting flange 45 x 88 mm

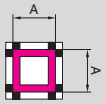
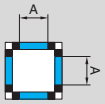
For enclosure width/depth mm	Packs of	A[1] mm	Model No.	A[1] mm	Model No.	A[1] mm	Model No.	Page
500	2 pc(s).	375	8612.650	375	8612.650	–	–	719
600	2 pc(s).	475	8612.660	475	8612.660	–	–	
800	2 pc(s).	675	8612.680	675	8612.680	–	–	

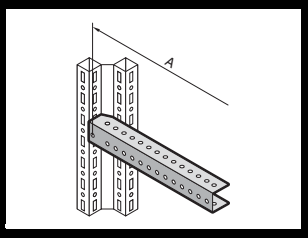
[1] A = Rail mounting distance



Rail systems

TS/SE installation examples with TS system rails

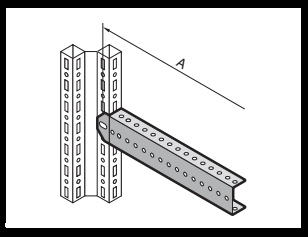
	Installation in the roof and base frame in the width/depth	Installation between vertical sections in the width/depth	
		Inner level	Outer level
			



TS punched rail 25 x 38 mm (with snap-on nut M8)

For enclosure width/depth mm	Packs of	A[1] mm	Model No.	A[1] mm	Model No.	A[1] mm	Model No.	Page
500	2 pc(s).	–	–	435	8612.750	–	–	719
600	2 pc(s).	–	–	535	8612.760	–	–	
800	2 pc(s).	–	–	735	8612.780	–	–	

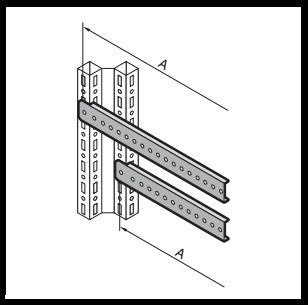
[1] A = Rail mounting distance



TS punched rail, 18 x 38 mm

For enclosure width/depth mm	Packs of	A[1] mm	Model No.	A[1] mm	Model No.	A[1] mm	Model No.	Page
400	4 pc(s).	335	8612.240	–	–	325	8612.240	720
500	4 pc(s).	435	8612.250	–	–	425	8612.250	
600	4 pc(s).	535	8612.260	–	–	525	8612.260	
800	4 pc(s).	735	8612.280	–	–	725	8612.280	

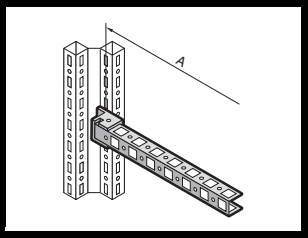
[1] A = Rail mounting distance
Two TS punched rails 18 x 38 mm are included in the supply of enclosures with a mounting plate as an installation aid. After installing the mounting plate, the TS punched rail may be inserted, as shown here.



TS support strips

For enclosure width/depth mm	Packs of	A[1] mm	Model No.	A[1] mm	Model No.	A[1] mm	Model No.	Page
400	20 pc(s).	–	–	–	–	325	4694.000	720
500	20 pc(s).	–	–	–	–	425	4695.000	
600	20 pc(s).	–	–	–	–	525	4696.000	
800	20 pc(s).	–	–	–	–	725	4697.000	
400	20 pc(s).	–	–	375	4309.000	–	–	
500	20 pc(s).	–	–	475	4596.000	–	–	
600	20 pc(s).	–	–	575	8800.130	–	–	
–	20 pc(s).	–	–	675	4598.000	–	–	
800	20 pc(s).	–	–	775	4579.000	–	–	
–	20 pc(s).	–	–	875	4599.000	–	–	

[1] A = Rail mounting distance
Alternatively, the TS support strip for the inner mounting level may also be used for mounting on the door.

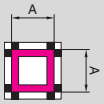
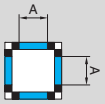


PS punched rails 23 x 23 mm
(for installation options, see support bracket TS/PS, angle bracket, mounting bracket)

For enclosure width/depth mm	Packs of	A[1] mm	Model No.	A[1] mm	Model No.	A[1] mm	Model No.	Page
400	12 pc(s).	275	4169.000	275	4169.000	–	–	721
500	12 pc(s).	375	4170.000	375	4170.000	–	–	
600	12 pc(s).	475	4171.000	475	4171.000	–	–	
800	12 pc(s).	675	4172.000	675	4172.000	–	–	
1000	12 pc(s).	875	4173.000	875	4173.000	–	–	
1200	6 pc(s).	1075	4174.000	1075	4174.000	–	–	
1400	6 pc(s).	1275	4393.000	1275	4393.000	–	–	
1600	6 pc(s).	1475	4175.000	1475	4175.000	–	–	
1800	6 pc(s).	1675	4176.000	1675	4176.000	–	–	
2000	6 pc(s).	1875	4177.000	1875	4177.000	–	–	
2200	6 pc(s).	2075	4178.000	2075	4178.000	–	–	

[1] A = Rail mounting distance

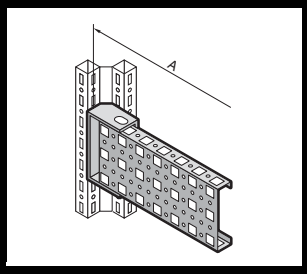
TS/SE installation examples with TS system rails

	Installation in the roof and base frame in the width/depth	Installation between vertical sections in the width/depth	
		Internal level	External level
			

PS punched section without mounting flange 23 x 73 mm (installation option with support bracket TS)

For enclosure width/depth mm	Packs of	A[1] mm	Model No.	A[1] mm	Model No.	A[1] mm	Model No.	Page
400	4 pc(s).	275	4374.000	275	4374.000	–	–	722
500	4 pc(s).	375	4375.000	375	4375.000	–	–	
600	4 pc(s).	475	4376.000	475	4376.000	–	–	
800	4 pc(s).	675	4377.000	675	4377.000	–	–	
1000	4 pc(s).	875	4382.000	875	4382.000	–	–	
1200	4 pc(s).	1075	4378.000	1075	4378.000	–	–	
1800	4 pc(s).	1675	4379.000	1675	4379.000	–	–	
2000	4 pc(s).	1875	4380.000	1875	4380.000	–	–	
2200	4 pc(s).	2075	4381.000	2075	4381.000	–	–	

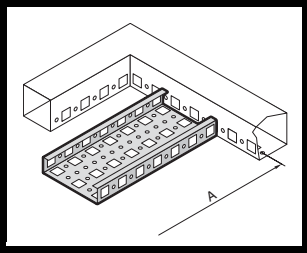
[1] A = Rail mounting distance

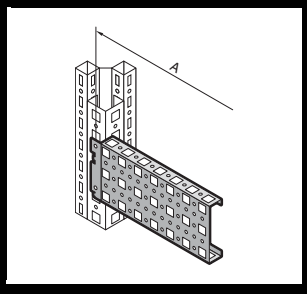


PS punched section with mounting flange 23 x 73 mm (installation options with TS adaptor rail when mounting on the vertical TS enclosure section)

For enclosure width/depth mm	Packs of	A[1] mm	Model No.	A[1] mm	Model No.	A[1] mm	Model No.	Page
400	4 pc(s).	335	8800.640	–	8800.640	–	–	723
500	4 pc(s).	435	8800.650	–	8800.650	–	–	
600	4 pc(s).	535	4364.000	–	4364.000	–	–	
800	4 pc(s).	735	4365.000	–	4365.000	–	–	
1000	4 pc(s).	935	4373.000	–	4373.000	–	–	
1200	4 pc(s).	1135	4367.000	–	4367.000	–	–	

[1] A = Rail mounting distance

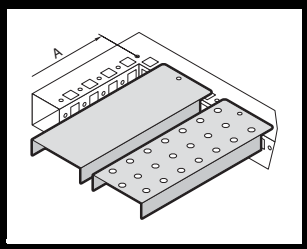




Support rails, slotted

For enclosure width/depth mm	Packs of	A[1] mm	Model No.	A[1] mm	Model No.	A[1] mm	Model No.	Page
400	4 pc(s).	335	4394.000	–	–	–	–	724
500	2 pc(s).	435	4395.000	–	–	–	–	
600	2 pc(s).	535	4396.000	–	–	–	–	
800	2 pc(s).	735	4398.000	–	–	–	–	
Support rails, unslotted								
400	4 pc(s).	335	–	–	–	–	–	724
500	2 pc(s).	435	–	–	–	–	–	
600	2 pc(s).	535	4396.500	–	–	–	–	
800	2 pc(s).	735	4398.500	–	–	–	–	

[1] A = Rail mounting distance
Alternatively, the support rail (slotted and unslotted) can also be fitted with snap-on nut M8, adaptor rail or TS punched rail 25 x 38 mm on the vertical TS enclosure section.









Rails for interior installation

for AE

For mounting in the enclosure, no machining required. Suitable for all-round mounting on the sides, base and roof areas.

Variable with 2 rows of system punchings, creates additional mounting space e.g. for:
- TS punched section with mounting flange
- Enclosure lights
- Door-operated switch
- Door stay
- Cable conduit holder

Benefits:
- Only one screw for attaching the rail inside the enclosure
- Larger mounting space than with the previous rail, thanks to separate adaptor for door-operated switches (included with the supply)
- Compatibility with TS 8 system accessories
- Enclosure protection category is retained (no machining required)
- Automatic potential equalisation
- May be retrospectively installed even with the mounting plate in situ. Suitable for installation via gland plates

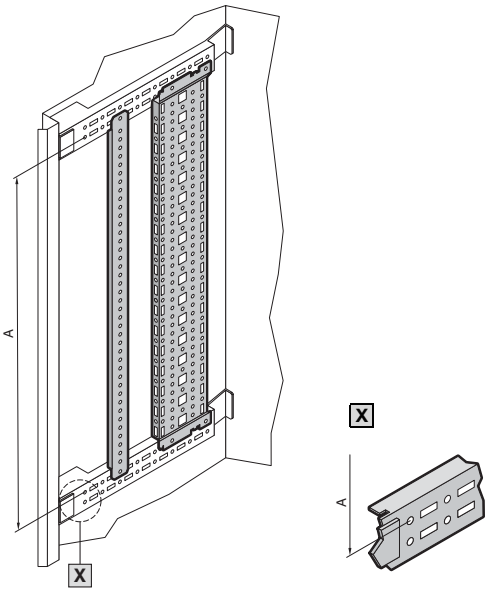
Material:
– Sheet steel

Surface finish:
– Zinc-plated

Note:
Other mounting options:
– Mounting plates, locatable, 8612.400, see page 727
– Mounting plates, screw-fastening, large, 8612.410, see page 727
– Mounting plates, screw-fastening, small, 4532.000, see page 728
– Mounting brackets, 4597.000, see page 728

For enclosure depth mm	Packs of	Model No.
210	4 pc(s).	**2383.210**
250	4 pc(s).	**2383.250**
300	4 pc(s).	**2383.300**
350	4 pc(s).	**2383.350**

Configuration examples:



A = Bar centre distance





Rails for interior installation

for CM, TP

For mounting on the existing threaded bolts. With TS system punchings on three sides.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Width mm		Height mm		Packs of	Model No.
CM	TP[1)]	CM	TP[2)]		
600	600	–	675	4 pc(s).	**5001.050**
800	800	800	960	4 pc(s).	**5001.051**
1000	1000	1000	–	4 pc(s).	**5001.052**
1200	1200	1200	–	4 pc(s).	**5001.053**
–	1600	1400	–	4 pc(s).	**5001.054**

[1)] Only with TP console and desk unit (cover or rear panel/base), one-piece console in cover
[2)] Only with TP pedestal/one-piece console

Configuration examples:
See from page 710

TS punched section with mounting flange, 17 x 73 mm

Variable, with 5 rows of holes for universal skeleton structures or partial assembly. Simply locate onto the TS punchings and secure.

Installation options:
- On the vertical TS enclosure section
  - On the outer mounting level, all-round, at the same height
  - On the inner mounting level, all-round, height-offset
- In the tubular door frame for TS, SE and PC
- For SE, may additionally be mounted on the top horizontal section in the depth
- In CM and TP via rail for interior installation
  - In the depth, for outer mounting level
  - In the width, for inner mounting level

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

Also required:

– For installation in CM, TP:
Rail for interior installation, see page 716

Accessories:

– Screws, see page 737.
– Cable tie for fast assembly 2597.000, see page 785

For the outer mounting level

For enclosure width/depth mm	Packs of	Model No.
300	4 pc(s).	**8612.130**
400	4 pc(s).	**8612.140**
500	4 pc(s).	**8612.150**
600	4 pc(s).	**8612.160**
800	4 pc(s).	**8612.180**
1000	4 pc(s).	**8612.100**
1200	4 pc(s).	**8612.120**

For the inner mounting level or for tubular door frames

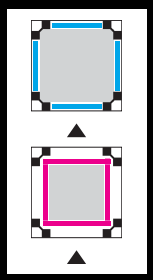
For door width mm	For enclosure width/depth mm	Length mm	Packs of	Model No.
400	300	290	4 pc(s).	**8612.030**
500	400	390	4 pc(s).	**8612.040**
600	500	490	4 pc(s).	**8612.050**
–	600	590	4 pc(s).	**8612.060**
800	–	690	4 pc(s).	**8612.070**
900	800	790	4 pc(s).	**8612.080**
1000	–	890	4 pc(s).	**8612.090**
–	1000	990	4 pc(s).	**8612.000**
–	1200	1190	4 pc(s).	**8612.020**

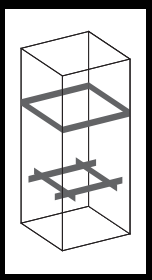
Configuration examples:
See from page 713











Attachment TS

for TS punched section with mounting flange, 17 x 73 mm

Benefits:
- For attaching the TS punched section with mounting flange where access for screw-fastening installed equipment, such as mounting plates, is blocked
- May also be screw-fastened onto the punched section with mounting flange or enclosure frame and used as a support for contact hazard protection covers or master switch trim panels

Packs of	Model No.
12 pc(s).	**8612.010**

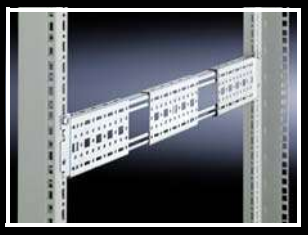
Material:
– Sheet steel

Surface finish:
– Zinc-plated









TS punched section with mounting flange, 17 x 73 mm

Depth-variable, for TE
For flexible interior installation, and/or to accommodate additional built-in components. Punched sections with mounting flanges may be suspended in the enclosure depth between two TE mounting frames with a distance between the 482.6 mm (19") levels of 650 – 820 mm. An additional screw fastening secures the unit.

Length mm	Packs of	**Model No.**
530 – 700	2 pc(s).	**7000.678**

Material:
– Sheet steel

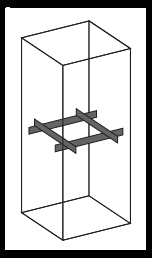
Surface finish:
– Zinc-plated

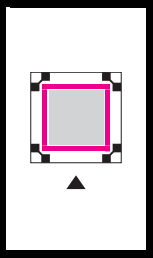
Supply includes:
– Assembly parts











TS punched section with mounting flange, 23 x 73 mm

The alternative to the TS punched section with mounting flange 17 x 73 mm, see page 717, with punchings for cage nuts/threaded blocks instead of the slotted holes top and bottom. Simply locate and secure.

Installation options:
■ On the vertical TS, SE enclosure section

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

For the inner mounting level

For enclosure width/depth mm	Packs of	**Model No.**
500	4 pc(s).	**8612.550**
600	4 pc(s).	**8612.560**
800	4 pc(s).	**8612.580**
1000	4 pc(s).	**8612.500**
1200	4 pc(s).	**8612.520**

Accessories:
– Screws, see page 737.
– Threaded blocks, cage nuts, see page 736

Configuration examples:
See page 713

TS punched section without mounting flange 45 x 88 mm

Provides support for heavy top-mounted equipment mounted directly on the internal surfaces (e.g. roof). Mounted on the side or rear, the enclosure can then be screw-fastened securely to the machine. The twin profile with 11 rows of holes offers numerous additional opportunities for interior installation.

Installation options:
- On the vertical and horizontal TS, SE enclosure section

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

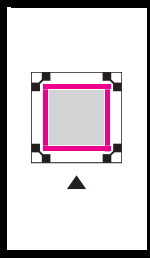
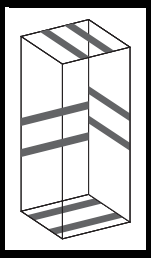
For the inner mounting level

For enclosure width/depth mm	Packs of	Model No.
500	2 pc(s).	**8612.650**
600	2 pc(s).	**8612.660**
800	2 pc(s).	**8612.680**

Accessories:
– Screws, see page 737
– Threaded blocks, cage nuts, see page 736

Configuration examples:
See page 713



TS punched rail 25 x 38 mm

For heavy installed equipment, with attachment holes.

Installation options:
- On the vertical TS, SE enclosure section

With 9 mm round holes on a 25 mm pitch pattern on all sides, for mounting
- Support rails, see page 724
- System support rails, see page 724
- C rails 30/15, see page 723
- Cable clamp rails (right angle section), see page 783
- Customer assemblies

Material:
– Sheet steel, 3.0 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

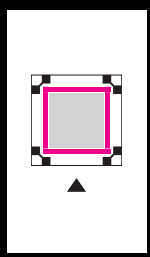
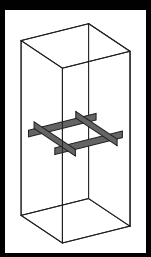
For enclosure width/depth mm	Packs of	Model No.
500	2 pc(s).	**8612.750**
600	2 pc(s).	**8612.760**
800	2 pc(s).	**8612.780**

Also required:
– Snap-on nut M8, 8800.808, see page 729

Note:
– In conjunction with the snap-on nut, particularly well-suited for dynamic connections

Configuration examples:
See from page 713.



Base configuration rail

for CM, TP

For mounting in the enclosure depth, on the existing threaded bolts, no machining required. TS system punchings on 2 sides. Creates additional installation options.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure depth mm	Packs of	Model No.
400	2 pc(s).	**5001.370**
300	2 pc(s).	**5001.371**

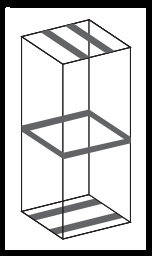


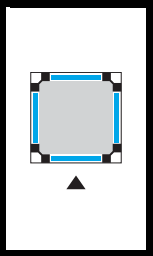

Rail systems











TS punched rail 18 x 38 mm

Simply locate and secure with a screw. The location system makes assembly and dismantling easier. It only needs to be secured on one side, but may be secured on both sides if required.

Installation options:
- On the vertical TS, SE enclosure section
  - On the outer mounting level
- On the horizontal TS, SE enclosure section
- On base configuration rail for CM

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- Assembly screws

Note:
- In enclosures with a mounting plate, 2 punched rails are already included with the supply

For enclosure width/depth mm	Packs of	Model No.
400	4 pc(s).	**8612.240**
500	4 pc(s).	**8612.250**
600	4 pc(s).	**8612.260**
800	4 pc(s).	**8612.280**

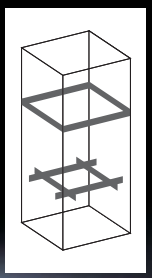
Accessories:
- Screws, see page 737
- Cable ties for fast assembly 2597.000, see page 785
- Cable clamps, see page 784

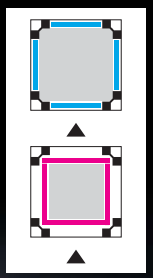
Configuration examples:
See from page 713











TS support strips

Installation options:
- On the vertical and horizontal TS, SE enclosure section
  - On the outer mounting level, all-round, at the same height
  - On the inner mounting level, all-round, height-offset
- On the tubular door frame TS, SE
- On the perforated door strip CM, TP

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- Assembly screws

For the outer mounting level

For enclosure width/depth mm	Length mm	Packs of	Model No.
400	340	20 pc(s).	**4694.000**
500	440	20 pc(s).	**4695.000**
600	540	20 pc(s).	**4696.000**
800	740	20 pc(s).	**4697.000**

Accessories:
- Screws, see page 737
- Cable ties for fast assembly 2597.000, see page 785

Configuration examples:
See from page 713

For the inner mounting level and for mounting on doors

For enclosure width/depth mm	For door width mm	Length mm	Packs of	Model No.
–	400	290	20 pc(s).	**4594.000**
400	500	390	20 pc(s).	**4309.000**
500	600	490	20 pc(s).	**4596.000**
600	–	590	20 pc(s).	**8800.130**
–	800	690	20 pc(s).	**4598.000**
800	900	790	20 pc(s).	**4579.000**
–	1000	890	20 pc(s).	**4599.000**

TS assembly block

Installation in the vertical TS, SE enclosure sections for mounting PS-compatible individual components.

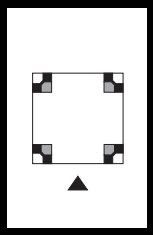
Material:
– Die-cast zinc

Supply includes:
– Assembly screws

Packs of	Model No.
4 pc(s).	**8800.310**

Possible alternative:

– Snap-on nut, see page 729





Adaptor rail

for PS compatibility

Installation in the vertical TS, SE enclosure sections (across the entire enclosure height or in sub-sections), and in the case of SE, may additionally be fitted to the top horizontal section in the width (must be cut to length depending on the width of the enclosure), in order to achieve compatibility with:
- PS punched rail, 23 x 23 mm
- PS punched section without mounting flange 23 x 73 mm
- PS punched section with mounting flange 23 x 73 mm

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

For enclosure height mm	Packs of	Model No.
1800	4 pc(s).	**8800.380**
2000	4 pc(s).	**8800.300**
2200	4 pc(s).	**8800.320**

Accessories:

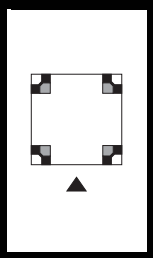
– Screws, see page 737

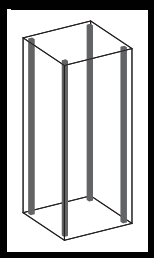
Possible alternative:

– Snap-on nut, see page 729









PS punched rails 23 x 23 mm

for TS, SE

Installation options:
- On the vertical enclosure section
  – Directly via support brackets TS
  – Via adaptor rail for PS compatibility in conjunction with angle brackets, mounting brackets or support brackets PS
- On the horizontal enclosure section
  – Directly via angle brackets, mounting brackets or support brackets PS

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Length mm	For WHD mm	Packs of	Model No.
295	400	12 pc(s).	**4169.000**
395	500	12 pc(s).	**4170.000**
495	600	12 pc(s).	**4171.000**
695	800	12 pc(s).	**4172.000**
895	1000	12 pc(s).	**4173.000**
1095	1200	6 pc(s).	**4174.000**
1295	1400	6 pc(s).	**4393.000**
1495	1600	6 pc(s).	**4175.000**
1695	1800	6 pc(s).	**4176.000**
1895	2000	6 pc(s).	**4177.000**
2095	2200	6 pc(s).	**4178.000**

Also required:

– U nuts, see page 735
– Mounting brackets TS/PS, see page 730 or
– Angle brackets, support brackets TS/PS, see page 731
– Adaptor rail for PS compatibility, see page 721

Accessories:

– Cable attachment, see page 785
– Screws, see page 737
– Cable ties for fast assembly 2597.000, see page 785.

Configuration examples:
See from page 713









Rail systems



Punched rail 23 x 23 mm

for Flex-Block

Supports tool-free installation in two levels via a plug-in system in the Flex-Block depth. For the installation of cable clamp rails.

Installation options:
– In the width and depth

Material:
– Sheet steel

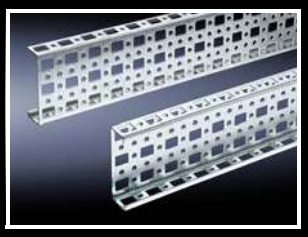
Surface finish:
– Zinc-plated

Supply includes:
– 12 punched rails
– Assembly parts for mounting

Length mm	For width/depth mm	Packs of	Model No.
245	400	12 pc(s).	**4169.500**
345	500	12 pc(s).	**4170.500**
445	600	12 pc(s).	**4171.500**
645	800	12 pc(s).	**4172.500**

Accessories:

– Cable clamp rail (PS 4193.000 etc.), see page 783
– Adaptor rail for PS compatibility, see page 721









PS punched section without mounting flange 23 x 73 mm

for TS, SE

Installation options:
- On the vertical enclosure section
  – Directly via support brackets TS
  – Via adaptor rail for PS compatibility in conjunction with support brackets PS
- On the horizontal enclosure section
  – Directly via support brackets PS

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Length mm	For WHD mm	Packs of	Model No.
295	400	4 pc(s).	**4374.000**
395	500	4 pc(s).	**4375.000**
495	600	4 pc(s).	**4376.000**
695	800	4 pc(s).	**4377.000**
895	1000	4 pc(s).	**4382.000**
1095	1200	4 pc(s).	**4378.000**
1695	1800	4 pc(s).	**4379.000**
1895	2000	4 pc(s).	**4380.000**
2095	2200	4 pc(s).	**4381.000**

Also required:

– Support brackets PS/TS, see page 731

Accessories:

– Screws, see page 737.
– Cable ties for fast assembly 2597.000, see page 785
– U nuts, see page 735

Configuration examples:
See from page 713

PS punched section with mounting flange 23 x 73 mm

for TS, SE

Variable, with 5 rows of holes for universal skeleton structures or partial assembly. Simply locate into the system punchings and secure.

Installation options:
- On the vertical TS enclosure section
  - Via adaptor rail for PS compatibility
- On the horizontal TS enclosure section
- In the case of SE, may additionally be fitted to the horizontal section at the bottom (width/depth) and top (width)

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- Assembly screws

Installation in enclosure width/depth TS mm	Packs of	Model No.
400	4 pc(s).	**8800.640**
500	4 pc(s).	**8800.650**
600	4 pc(s).	**4364.000**
800	4 pc(s).	**4365.000**
1000	4 pc(s).	**4373.000**
1200	4 pc(s).	**4367.000**

Also required:
- Adaptor rail for PS compatibility (when mounting on the vertical enclosure section), see page 721

Configuration examples:
See from page 713







C rails 30/15

to EN 60 715 for TS, SE

Installation options:
- On the vertical TS, SE enclosure section
  - Via snap-on nut 8800.808 (fig. 1)
  - Via adaptor rail for PS compatibility
- On the horizontal TS enclosure section (fig. 2)
- In the case of SE, additionally on the horizontal section
  - In the width (bottom/top)
  - In the depth, bottom (without mounting plate)
  - In the depth, top

  using snap-on nuts 8800.808 (fig. 1)
- On base configuration rail for CM

Material:
- Sheet steel

Surface finish:
- Zinc-plated

For enclosure width/depth mm	Length mm	Packs of	Model No.
500	455	6 pc(s).	**4943.000**
600	555	6 pc(s).	**4944.000**
800	755	6 pc(s).	**4945.000**
1000	955	6 pc(s).	**4946.000**
1200	1155	6 pc(s).	**4947.000**

Accessories:
- Cable clamps, see page 784
- Support bracket or spacer, see page 732
- Quick-assembly block, see page 733
- Snap-on nut M8, 8800.808, see page 729
- Adaptor rail, see page 721

Possible alternative:
- Rail for EMC shielding bracket and strain relief, see page 759







Rail systems



C rails

for TS, SE

For direct external mounting between the horizontal or vertical TS, SE enclosure sections. Due to the universally designed attachment piece, the C rails may optionally be attached to the inner or outer level of the TS 8 frame.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width/depth mm	Length mm	Packs of	Model No.
400	298	4 pc(s).	**7828.040**
500	398	4 pc(s).	**7828.050**
600	498	4 pc(s).	**7828.060**
800	698	4 pc(s).	**7828.080**
1000	898	4 pc(s).	**7828.100**
1200	1098	4 pc(s).	**7828.120**

Accessories:

– Cable clamps, see page 784
– Angle bracket C section, see page 732







System support rails

For heavy installed equipment such as transformers. T-head screw and slot in the support rail accommodate all mounting dimensions.

Installation options:
- On the vertical TS, SE enclosure section
  – Via snap-on nut 8800.808 (fig. 1)
  – Via adaptor rail for PS compatibility
  – Offset in the height, via TS punched rail 25 x 38 mm (fig. 2)
- On the horizontal TS enclosure section
  – In the width
  – In the depth (without mounting plate)
- In the case of SE, additionally on the horizontal section
  – In the width, bottom/top
  – In the depth, bottom (without mounting plate)
  – In the depth, top (without mounting plate)

  using snap-on nuts 8800.808 (fig. 1)
- On base configuration rail for CM

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– 2 system support rails (45 x 25 mm)
– 4 T-head screws M12 x 60 mm
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**4361.000**
800	2 pc(s).	**4362.000**
1000	2 pc(s).	**4347.000**
1200	2 pc(s).	**4363.000**

Accessories:

– Width divider e.g. for the installation of 2 system support rails (for 600 mm width) in 1200 mm wide enclosures, see page 630
– Snap-on nut M8, 8800.808, see page 729
– Adaptor rail, see page 721
– TS punched rail 25 x 38 mm, see page 719









Support rails

for TS, SE, CM

For heavy installed equipment. Particularly suitable for the installation of base isolators.

Installation options:
- On the vertical TS, SE enclosure section
  – Via snap-on nut 8800.808 (fig. 1)
  – Via adaptor rail for PS compatibility
  – Offset in the height, via TS punched rail 25 x 38 mm (fig. 2)
- On the horizontal TS enclosure section
  – In the width
  – In the depth
- In the case of SE, additionally on the horizontal section
  – In the width
  – In the depth, top

  using snap-on nut 8800.808
- On base configuration rail for CM

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width/depth mm	Packs of	Model No. Slotted	Model No. Unslotted
400	4 pc(s).	**4394.000**	**–**
500	4 pc(s).	**4395.000**	**–**
600	4 pc(s).	**4396.000**	**4396.500**
800	4 pc(s).	**4398.000**	**4398.500**

Accessories:

– Snap-on nut M8, 8800.808, see page 729
– Adaptor rail, see page 721
– TS punched rail 25 x 38 mm, see page 719

Configuration examples:
See from page 713

Support rail 65 x 42 mm

for TS, SE

Benefits:
- For heavy assemblies up to 5000 N per support rail

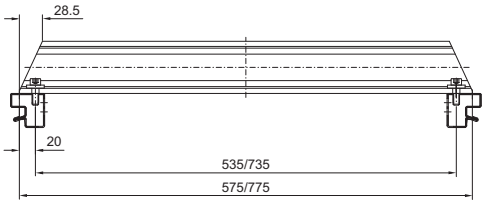
Total permissible static load:
– 10000 N per enclosure

Material:
– Steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**8612.960**
800	2 pc(s).	**8612.980**







Support rails TS 35/15

to EN 60 715 for TS, SE

Mounting on the TS vertical section via
– Snap-on nut M8, 8800.808, see page 729
– Assembly block, see page 721 or
– Adaptor rail, see page 721

For enclosure width/depth mm	Support rails length mm	Packs of	Model No.
500	455	6 pc(s).	**4933.000**
600	555	6 pc(s).	**4934.000**
800	755	6 pc(s).	**4935.000**
1200	1155	6 pc(s).	**4937.000**



Support rails TS 35/7.5 and TS 35/15

to EN 60 715 for KL, KL-HD, AE

Length sized to the enclosure width

For enclosure width mm	Support rails length mm	Version	Packs of	Model No.
150	137	TS 35/7.5	10 pc(s).	**2314.000**
200	187		10 pc(s).	**2315.000**
300	287		10 pc(s).	**2316.000**
400	387		10 pc(s).	**2317.000**
500	487	TS 35/15	10 pc(s).	**2318.000**
600	587		10 pc(s).	**2319.000**



Support rails

to EN 60 715

Standard length 2 m

Version	Length	Packs of	Model No.
TS 35/15	2 m	6 pc(s).	**2313.150**
TS 35/7.5	2 m	6 pc(s).	**2313.750**

Mounting clip

for support rails

For fast, secure attachment of:
- Cable ducts
- Mounting plates
- Mounting angles

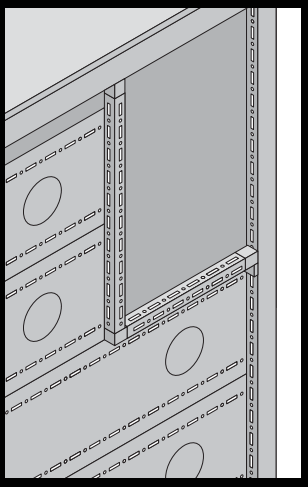
on support rail TS 35/7.5 and TS 35/15 to EN 60 715.
Simply pre-assemble the mounting clip on the part to be installed, then snap into position on the support rail.

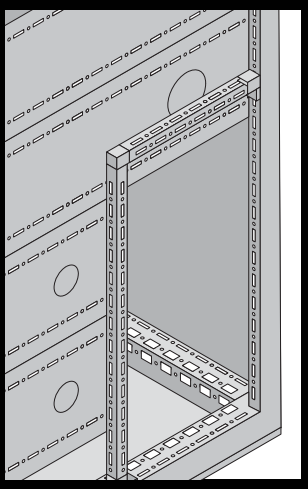
Packs of	Model No.
30 pc(s).	**2309.000**











TS punched rail 17 x 17 mm

for TS

Mounting angle with TS pitch on three sides.
Suitable for

- Building an auxiliary construction for dividing the busbar space
- Individual use as mounting frame for low and medium loads
- Fastening to the internal or external mounting level of the TS 8 enclosure

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Zinc-plated

Note:
– Where necessary, punched rails should be shortened to the applicable mounting dimension

Length	For compartment depth mm	For compartment height, top mm	For compartment height, bottom mm	For enclosure width/depth mm		Packs of	**Model No.**	Page
				Inner mounting level	Outer mounting level			
62.5	425	–	–	–	–	12 pc(s).	**9673.915**	
137.5	600	–	–	–	–	12 pc(s).	**9673.920**	
262.5	425/800	–	–	–	400	12 pc(s).	**9673.940**	
487.5	–	350 – 500	350 – 400	400/500	500/600	12 pc(s).	**9673.953**	
787.5	–	550 – 800	450 – 700	600/800	800	12 pc(s).	**9673.983**	
862.5	–	–	750 – 800	–	–	12 pc(s).	**9673.995**	
Also required								
Frame connector piece						24 pc(s).	9673.901	733
T-connector piece						24 pc(s).	9673.903	734
Corner connector						10 pc(s).	9673.902	734

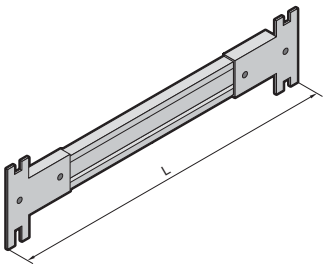
C rails

for TS, SE
For attaching cables and lines.

Material:
– Sheet steel

Supply includes:
– 4 C rails
– 8 brackets
– Assembly parts

For enclosure width/depth mm	Length (L) mm	Packs of	Model No.
600	600	4 pc(s).	**9660.210**
800	800	4 pc(s).	**9660.220**





Punched section with mounting flange

for coupling section
For assembling a Maxi-PLS or Flat-PLS busbar system directly beneath or above the circuit-breaker. This punched section with mounting flange may be used without conflict in conjunction with the compartment side panel modules. It is attached to the outer level of the TS 8 enclosure system, but the PS punchings support a mounting level as in the roof or base frame, thereby facilitating the use of busbar system attachment for the roof/base section.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width/depth mm	Packs of	Model No.
600	2 pc(s).	**9674.056**
800	2 pc(s).	**9674.058**





Mounting plates

Locatable
on the
- Vertical TS, SE enclosure section
- TS punched section w. mounting flange, 17 x 73 mm

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

Packs of	Model No.
4 pc(s).	**8612.400**





Mounting plates

Screw-fastened, large
On all enclosures and mounting parts with system punchings on a 25 mm pitch pattern.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

Packs of	Model No.
4 pc(s).	**8612.410**





Rail systems



Mounting plates

Screw-fastened, small

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

Packs of	Model No.
4 pc(s).	**4532.000**





Mounting plates

with integral top hat rail, for TS, TS IT, SE

For direct snap-mounting of components such as speed control, enclosure internal thermostat and hygrostat.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**7526.964**



Mounting bracket

May be screw-fastened onto all enclosures and mounting parts with system punchings on a 25 mm pitch pattern.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

Packs of	Model No.
4 pc(s).	**4597.000**

Accessories:

– Screws, see page 737
– Cable ties for fast assembly 2597.000, see page 785





Mounting bracket

for interior installation

For installing punched sections with mounting flanges and support strips in
- Comfort Panel horizontal/vertical from 74 mm installation depth

or for installing in:
- Optipanel from an installation depth of 100 mm

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

		Comfort Panel/Optipanel Front panel width 482.6 mm (19")	Page
Punched section with mounting flange	horizontal	8612.150	717
	vertical		
Support strips	horizontal	4695.000	720
	vertical		

Snap-on nut TS

Metric thread for vertical TS, SE enclosure section. To install, insert into slot and clip into position. The snap-on nut is then secure. As the screw is tightened, it is securely tensioned against the section, and potential equalisation is automatically created.

Installation options:
- On the vertical TS, SE enclosure section and on the horizontal SE enclosure section (top, in the width)
  - With metric thread M6 or M8
  - The alternative to metal screws
  - Particularly well-suited for dynamically loaded connections

Material:
– Precision-cast stainless steel

Thread	Packs of	**Model No.**
M6	20 pc(s).	**8800.806**
M8	20 pc(s).	**8800.808**

Also required:

– Multi-tooth screw M6 x 12 or M8 x 12, see page 737













Accessories for interior installation

1 Support rails, see page 724

2 Cable clamp rails, see page 783

3 C rails 30/15, see page 723

4 System support rails, see page 724

5 TS punched rails 25 x 38 mm, see page 719

Adaptor bracket TS

For external mounting of
- System lights
- Cable ducts

on the vertical TS enclosure section and on the horizontal SE enclosure section (top, in the width)

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

Packs of	**Model No.**
6 pc(s).	**8800.360**







Assembly components



Mounting bracket TS

Offers variable mounting options for the punched rail 23 x 23 mm, e.g. for supporting external surfaces or creating an additional internal level.

Material:
– Die-cast zinc

Supply includes:
– 24 screws 5.5 x 13 mm

Packs of	Model No.
24 pc(s).	**8800.370**

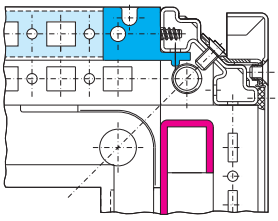
Accessories:
– U nuts (recommendation: M6), see page 735

Installation options:
- On the vertical TS, SE enclosure section
  – flush with the outer edge of the enclosure or
  – flush with the enclosure clearance width



1 Support of external surfaces with two mounting options:
- Without mounting plate (photo)
- With mounting plate (drawing)

1

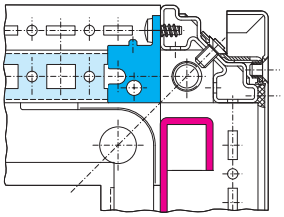




Two installation options for the inner mounting level:

2 If there is no divider panel fitted

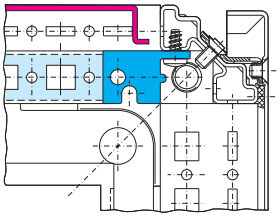
2





3 With a divider panel fitted, and without or with a mounting plate in a set forward position

3







Mounting bracket PS

For variable attachment of punched rail 23 x 23 mm.

Installation options:
- Optionally flush with:
  – Outer enclosure edge or
  – Enclosure clearance width
- On the vertical TS, SE enclosure section via
  – Adaptor rail for PS compatibility, see page 721
- On the horizontal TS enclosure section
- On the horizontal SE enclosure section, bottom
- On the horizontal SE enclosure section, top in the depth
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Material:
– Die-cast zinc

Supply includes:
– 1 pc(s). =
1 mounting bracket,
1 screw M6 x 12 mm,
1 cage nut M6

Packs of	Model No.
24 pc(s).	**4182.000**

Also required:
– U nuts (recommended: M6), see page 735
– Multi-tooth screws M6 x 12 mm, see page 737

Angle bracket PS

For quick attachment of punched rails 23 x 23 mm.

Installation options:
- On the vertical TS, SE enclosure section via
  – Adaptor rail for PS compatibility, see page 721
- On the horizontal TS enclosure section
- On the horizontal SE enclosure section, bottom
- On the horizontal SE enclosure section, top in the depth
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– 1 pc(s). =
1 angle bracket, left,
1 angle bracket, right,
2 metal screws 5.5 x 13 mm

Packs of	**Model No.**
12 pc(s).	**4181.000**

Also required:
– U nuts (recommended: M6), see page 735
– Multi-tooth screws M6 x 12 mm, see page 737





Support bracket TS

For the attachment of
- Punched sections without mounting flanges 23 x 73 mm or
- Punched rails 23 x 23 mm

Installation options:
- On the vertical TS, SE enclosure section
  – on a 25 mm pitch pattern
  – in 2 mm increments.
- On the horizontal SE enclosure section, in the width, top

Material:
– Die-cast zinc

Supply includes:
– 1 pc(s). =
1 support bracket,
1 stay,
3 metal screws 5.5 x 13 mm

Packs of	**Model No.**
6 pc(s).	**8800.330**

Also required:
– U nuts (recommended: M6), see page 735
– Multi-tooth screws M6 x 12 mm, see page 737




Support bracket PS

For the attachment of
- Punched sections without mounting flanges 23 x 73 mm or
- Punched rails 23 x 23 mm

Installation options:
- On the vertical TS enclosure section via
  – Snap-on nut 8800.806, see page 729, or
  – Adaptor rail for PS compatibility, see page 721
- On the horizontal TS enclosure section
- On the horizontal SE enclosure section, bottom
- On the horizontal SE enclosure section, top in the depth
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Material:
– Die-cast zinc

Supply includes:
– 1 pc(s). =
1 support bracket,
2 countersunk screws,
2 serrated lock washers

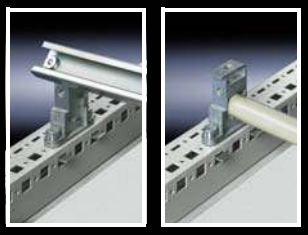
Packs of	**Model No.**
24 pc(s).	**4183.000**

Also required:
– U nuts (recommended: M6), see page 735
– Multi-tooth screws M6 x 12 mm, see page 737
– Adaptor rail for PS compatibility (when mounting on the vertical enclosure section), see page 721





Assembly components

Bracket/spacer

For the attachment of C rails, punched rails or cable clamp rails (angle section). On the sides, to accommodate square sections or tubes (Ø 20 mm). Attachment points with M8 thread.

Installation options:
- On the vertical TS, SE enclosure section via
  – Snap-on nut 8800.808, see page 729
  or
  – Adaptor rail for PS compatibility, see page 721
- On the horizontal TS enclosure section
- On the horizontal SE enclosure section, bottom
- On the horizontal SE enclosure section, top in the depth
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Packs of	Model No.
6 pc(s).	**4199.000**

Material:
– Die-cast zinc

Supply includes:
– 1 pc(s). =
1 bracket/spacer,
2 screws M8 x 16 mm,
2 spring lock washers,
2 cage nuts M8,
2 serrated lock washers,
2 metal screws

Accessories:
– Angle piece 4134.000, see page 733





Angle bracket, C-section

for attachment to the horizontal section
For fast attachment to the horizontal enclosure section or for cascaded cable routing between two horizontal punched sections with or without mounting flanges.

Installation options:
- On the horizontal TS enclosure section
- On the horizontal SE enclosure section, bottom
- On the horizontal SE enclosure section, top in the depth
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm
- On the vertical TS, SE enclosure section via adaptor rails for PS compatibility

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Angle bracket, left
– Angle bracket, right
– Assembly parts

Packs of	Model No.
8 pc(s).	**7091.100**

Also required:
– C rails, see page 724

Assembly instruction:
– Two angle brackets are needed to secure each C rail

Accessories:
– TS punched section with mounting flange, 17 x 73 mm, see page 717
– Adaptor rail, see page 721

Quick-assembly block

For a variety of installation options.

Installation options:
- On the vertical TS, SE enclosure section via
  – Snap-on nut 8800.808, see page 729
  or
  – Adaptor rail for PS compatibility, see page 721
- On the horizontal TS enclosure section
- On the horizontal SE enclosure section, bottom
- On the horizontal SE enclosure section, top in the depth
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Packs of	Model No.
12 pc(s).	**4133.000**

Material:
– Die-cast zinc

Supply includes:
– 12 quick-assembly blocks
– 12 threaded blocks M8
– 24 screws M8 x 12 mm
– 24 square nuts M8





Angle piece

For assembling punched rails and mounting surfaces with a 45° incline.

Installation options:
- On the vertical TS, SE enclosure section via
  – Snap-on nut 8800.806, see page 729
  or
  – Adaptor rail for PS compatibility, see page 721
- On the horizontal TS enclosure section
- On the horizontal SE enclosure section, bottom
- On the horizontal SE enclosure section, top in the depth
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Packs of	Model No.
12 pc(s).	**4134.000**

Material:
– Angle pieces: Die-cast zinc
– Insulating pieces: Plastic

Supply includes:
– 1 pc(s). =
  1 angle piece,
  1 insulating piece,
  1 insulating screw,
  2 assembly screws,
  1 threaded block M8





Frame connector piece

for TS punched rail 17 x 17 mm
Mounting part with integral M4 threads for attaching the TS punched rail 17 x 17 mm to the horizontal and vertical TS frame section (external level). The frame connector piece can be used as a self-holding construction aid in the TS pitch and fastened with a screw to the frame. Can also be used for fastening other sections with TS pitch.

Material:
– Die-cast zinc

Supply includes:
– Assembly parts

Packs of	Model No.
24 pc(s).	**9673.901**



Assembly components



T-connector piece

for TS punched rail 17 x 17 mm

Mounting piece with integral M4 threaded holes for attaching the TS punched rail 17 x 17 mm
- to the horizontal and vertical TS chassis
- to TS punched rail 17 x 17 mm
- to the vertical TS frame section (internal level).

The T-connector piece can be used as a self-holding construction aid in the TS pitch and fastened with a screw to the frame. Can also be used for fastening other sections with TS pitch.

Material:
– Die-cast zinc

Supply includes:
– Assembly parts

Packs of	Model No.
24 pc(s).	**9673.903**



Corner connector

for TS punched rail 17 x 17 mm

Mounting part with integral M4 threads for connecting two TS punched rails 17 x 17 mm at an angle of 90° across the corner. Required for building the auxiliary construction for the busbar space separation.

Material:
– Die-cast zinc

Supply includes:
– Assembly parts

Packs of	Model No.
10 pc(s).	**9673.902**







Universal bracket

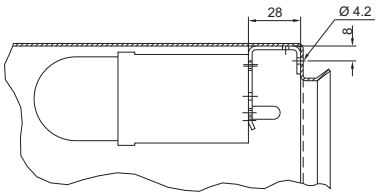
For the installation of
- Enclosure lights in
  – Compact enclosures AE
- Door-operated switches in
  – Compact enclosures AE
  – TopConsole system TP
- Cable conduit holders 2593.000 and 2591.000 in
  – Compact enclosures AE
- Support rails for terminals in
  – Command panels and command panel housings with door

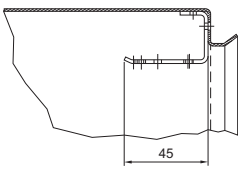
Mounting screws are concealed when the door is closed. Existing holes for mounting blocks or hinges may be used with AE.

Material:
– Sheet steel, zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
6 pc(s).	**2373.000**





Rail mounting bracket

For individual rail mounting.

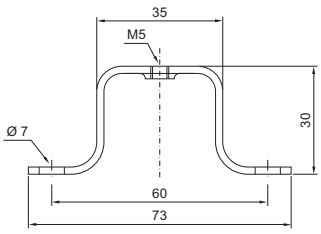
Material:
– Sheet steel, zinc-plated

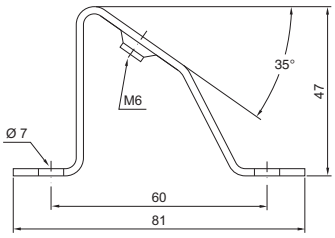
Rail mounting bracket	Packs of	Model No.
Flat	20 pc(s).	**2365.000**
Inclined	20 pc(s).	**2366.000**











Mounting block

for AE

As an accessory for additional interior installation, e.g. mounting of cable ties, PS punched rails, top hat rails and C rails (e.g. for a second pair of mounting angles).

Supply includes:
– Assembly parts

Packs of	Model No.
20 pc(s).	**2574.000**



U nuts

for
- Punched rail 23 x 23 mm
- Punched section without mounting flange, 23 x 73 mm
- Punched section without mounting flange, 45 x 88 mm
- Punched section with mounting flange, 23 x 73 mm

For mounting punched rails and punched sections without mounting flanges on angle brackets, mounting brackets and support brackets, we recommend U nuts with M6 thread (4179.000).

Thread	Packs of	Model No.
M4	20 pc(s).	**4119.000**
M5	20 pc(s).	**4157.000**
M6	20 pc(s).	**4179.000**
M8	20 pc(s).	**4180.000**

Accessories:

– Multi-tooth screws M6 x 12 mm, for 4179.000, see page 737





Assembly components

Cage nuts/threaded blocks

Installation options:
On enclosures and rails with rectangular system punching 12.5 x 10.5 mm,
such as
- TS, SE enclosure section,
  – vertically, via adaptor rail for PS compatibility
  – TS horizontally, direct
- SE horizontally, bottom, direct
- SE horizontally, top (in the depth only), direct
- Punched rails 23 x 23 mm
- Punched section without mounting flange, 23 x 73 mm
- Punched section without mounting flange, 45 x 88 mm
- Punched section with mounting flange, 23 x 73 mm

Possible alternative:
– On the vertical TS enclosure section TS snap-on nuts, see page 729




Cage nut
The compression spring, designed as an insertion aid, ensures reliable mechanical and electrical connection in the system punchings.

Thread	Packs of	Model No.
M5	50 pc(s).	**4166.000**
M6	50 pc(s).	**4164.000**
M8	50 pc(s).	**4165.000**




Threaded block
With snap-off insertion aid, die-cast zinc.

Thread	Packs of	Model No.
M6	50 pc(s).	**4162.000**
M8	50 pc(s).	**4163.000**




Cage nut
The nuts are inserted from the same side as screw-fastening takes place. Consequently, attachment points in the same height or width may also be used around corners. The spring cage also ensures electrical connection in the system punchings.

Thread	Packs of	Model No.
M6	50 pc(s).	**8800.340**
M8	50 pc(s).	**8800.350**



Spring nut M5

For
- Comfort Panel from an installation depth of 74 mm
- Optipanel from an installation depth of 100 mm
- Compact Panel

The spring ensures reliable protection against unintentional displacement.

Other interior installation, e.g. with
- Mounting bracket 4597.000 (see page 728) or
- Mounting bracket components for interior installation 6205.100 (see page 728)

Material:
– Sheet steel, zinc-plated

Packs of	Model No.
50 pc(s).	**6108.000**

Threaded inserts M6

for KS

For securing installed equipment to the moulded bosses in the door and in the enclosure rear panel. Screw length available for insertion: 8 mm.

Packs of	Model No.
20 pc(s).	**1482.000**



Multi-tooth screws

M6 x 12 to fit:
- Snap-on nuts (8800.806)
- U nuts for punched rails (4179.000)
- Cage nuts (4164.000)
- Threaded blocks (4162.000)

M8 x 12 to fit:
- Snap-on nut (8800.808)

Metal multi-tooth screws

For the round holes Ø 4.5 mm in the enclosure section, punched rails and punched sections without mounting flanges.

Self-tapping screws

For the round holes Ø 4.5 mm in the enclosure section, punched rails and punched sections without mounting flanges.

Multi-tooth drive for optimum transmission of torques, an extended tool life and increased safety and reliability when tightening and loosening screw connections.

Type of screw	Dimensions mm	Packs of	Model No.
Multi-tooth screws	M6 x 12 M8 x 12	300 pc(s). 300 pc(s).	**2504.500** **2504.800**
Metal multi-tooth screws	5.5 x 13	300 pc(s).	**2486.500**
Metal multi-tooth screws for stainless steel	5 x 13	300 pc(s).	**2486.300**
Self-tapping screws:			
■ Hex screws	M5 x 10	500 pc(s).	**2504.000**
■ Posidrive raised countersunk screws	M5 x 12	500 pc(s).	**2488.000**
■ Pan-head screws, posidrive	M5 x 12	500 pc(s).	**2489.000**
■ Multi-tooth pan-head screws	M5 x 12	500 pc(s).	**2489.500**
Self-tapping screws	ST 4.8 x 16	300 pc(s).	**2487.000**







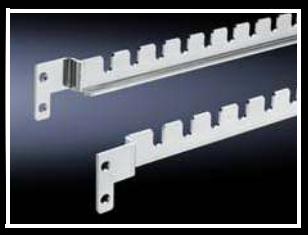
Self-tapping screws

Mark, drill and tighten in a single operation using electric or pneumatic tools.

For metal thickness: 0.8 – 3 mm
Length: 16 mm
Usable length: 9.5 mm
Width across flats: 8 mm



Assembly components



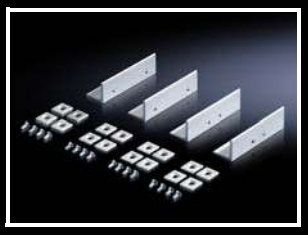
TS adaptor rail for wiring systems

Adaptor rail for the Lütze LSC wiring system

Supply includes:
– 6 adaptor rails,
24 spring lock washers,
24 metal screws 5.5 x 13 mm

Note:
– Mounting parts for the LSC wiring system not included with the supply

For enclosure depth mm	Packs of	Model No.
500	6 pc(s).	**8800.150**
600		**8800.160**
800		**8800.180**





Kit

for separate frame TS

Any TS 8 frame can be easily converted to a rack suitable for dismantling. To this end, the frame sections in the roof and base frame are separated, optionally in the width or depth. The four connection components are inserted into the frame section and screw-fastened. The external dimensions of the frame remain unchanged.

Supply includes:
– Assembly parts

Note:
– The maximum achievable IP protection category is restricted by separation of the frame

Packs of	Model No.
4 pc(s).	**7829.400**

Component shelves for frame attachment

Component shelf for frame attachment

Enclosure width 600 and 800 mm for TS
For installation in enclosures **without** 482.6 mm (19") accommodation.
Max. depth of component shelves = Enclosure depth -100 mm

Technical specifications:
– Mounting bolts or mounting rails may be installed on a 25 mm pitch pattern in the enclosure depth
– Mounting hole for handles provided.
– Slotted component shelf

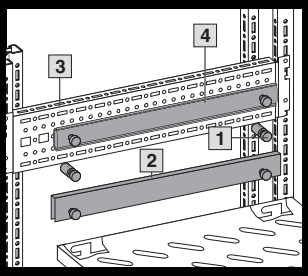
Material:
– Sheet steel

Surface finish:
– Spray-finished

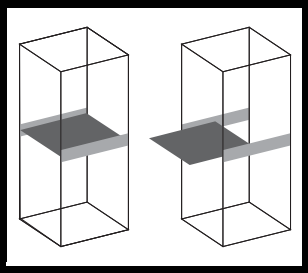
Colour:
– RAL 7035

Supply includes:
– Assembly parts





1 Assembly bolts
2 Mounting rails
3 Installation kit
4 Telescopic slides



Enclosure width 600 mm

Load capacity kg (static surface load)	50	50	50	50	100	100	100	100
Component shelf width mm	471	471	471	471	471	471	471	471
Component shelf depth mm	400	500	600	700	400	500	600	700
Component shelf height mm	29	29	29	29	45	45	45	45
Model No.	**7164.035**	**7165.035**	**7166.035**	**7166.735**	**7464.035**	**7465.035**	**7466.035**	**7466.735**

Enclosure width 800 mm

Load capacity kg (static surface load)	50	50	50	50	100	100	100	100
Component shelf width mm	671	671	671	671	671	671	671	671
Component shelf depth mm	400	500	600	700	400	500	600	700
Component shelf height mm	29	29	29	29	45	45	45	45
Model No.	**7184.035**	**7185.035**	**7186.035**	**7186.735**	**7484.035**	**7485.035**	**7486.035**	**7486.735**

Also required:

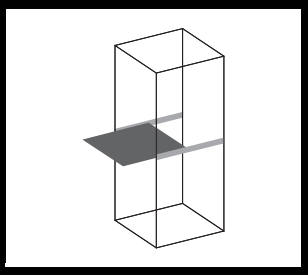
TS punched section with mounting flange, 17 x 73 mm, as installation kit for enclosure depth, see page 746	500	8612.050	8612.050	8612.050	8612.050	8612.050	8612.050	8612.050	8612.050
	600	8612.060	8612.060	8612.060	8612.060	8612.060	8612.060	8612.060	8612.060
	800	8612.080	8612.080	8612.080	8612.080	8612.080	8612.080	8612.080	8612.080
	1000	8612.000	8612.000	8612.000	8612.000	8612.000	8612.000	8612.000	8612.000
	1200	8612.020	8612.020	8612.020	8612.020	8612.020	8612.020	8612.020	8612.020

Accessories:

Telescopic slides, see page 746	7061.000	7081.000	7161.000	7161.700	7064.000	7065.000	7066.000	7066.700
Handles for component shelves, see page 747	5501.730	5501.730	5501.730	5501.730	5501.730	5501.730	5501.730	5501.730
Cable support, hinged	see page 747							

Component shelves for frame attachment





Component shelf, pull-out

for TS, SE, PC, IW
For direct mounting on the vertical TS enclosure section.

Load capacity:
– 30 kg surface load, static

Material:
– Sheet steel

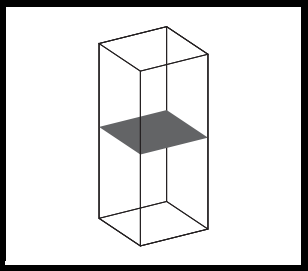
Colour:
– RAL 7015

Supply includes:
– 2 telescopic slides.

For enclosures[1]		Support area		Model No.
Width mm	Depth mm	Width mm	Depth mm	
600	600	465	545	**6902.960[2]**
600	800	465	745	**6902.980**

[1] For enclosures without a mounting plate
[2] May also be installed in 800 mm deep enclosures based on TS (pull-out rear attachment)





Component shelf, static installation

for TS, SE, PC, IW, prepared for fan expansion kit
For direct mounting on the vertical TS enclosure section. Simply locate into 4 pre-fitted screws and secure.

Load capacity:
– 40 kg surface load, static

Material:
– Sheet steel

Colour:
– RAL 7015

Supply includes:
– Assembly parts

For enclosures[1]		Support area		Model No.
Width mm	Depth mm	Width mm	Depth mm	
600	600	507	550	**8800.900**
600	800	507	750	**8800.910**

[1] For enclosures without a mounting plate

Accessories:

– Fan expansion kit 7980.XXX, see page 533



Drawer tray

Pull-out
For enclosures with TS frame construction in series IW, PC.
Width 600 mm and depth 600 – 800 mm.
Tray height: 83 mm

Load capacity:
– 40 kg surface load, static

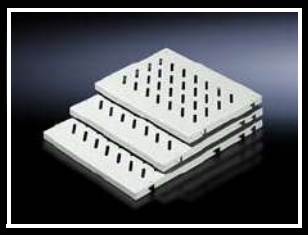
Material:
– Sheet steel

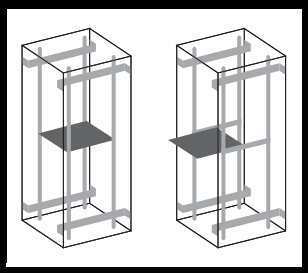
Colour:
– RAL 7035

Supply includes:
– 2 telescopic slides.

Packs of	Model No.
1 pc(s).	**6902.700**

Component shelves for attachment to the 482.6 mm (19") section





Component shelf, 482.6 mm (19") installation

for enclosures with cranked or L-shaped mounting angles front and rear

Depending on their depth, the component shelves have several attachment points, so the distance between the 482.6 mm (19") mounting angles is variable within certain limits. Each component shelf secured in this way can be retrospectively upgraded to full withdrawal using telescopic slides. For this purpose, the telescopic slides are screw-fastened in place of the spacers.

Load capacity:
– 50 kg surface load, static

Material:
– Sheet steel

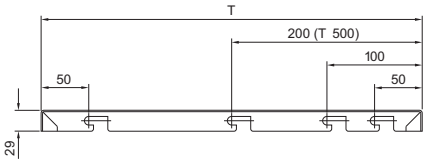
Surface finish:
– Spray-finished

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Also required:

– Adaptor for L-shaped mounting angles 7827.300, see page 746
– Installation kit, depth variable 7063.850, for flexible mounting on L-shaped mounting angles, see page 745

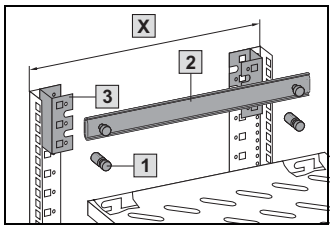


Component shelf width mm	409	409	409	409
Component shelf depth mm	400	500	600	700
Distance between levels (X)	348/398	348/448/498	448/548/598	548/648/698
	7144.035	**7145.035**	**7145.635**	**7145.735**

Accessories:

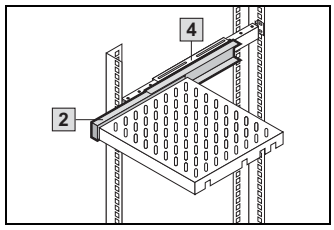
Telescopic slides for 50 kg, see page 746	7061.000	7081.000	7161.000	7161.700
Handles for component shelf, see page 747	5501.730	5501.730	5501.730	5501.730
Cable support, hinged	see page 747			

For TS:
Note for installation in network enclosures based on TS, L-shaped mounting angle:
If L-shaped mounting angles are used, adaptor 7827.300 is required, see page 746.



1 Spacers
2 Telescopic slides
3 Adaptors
X Distance between levels

For TS, 482.6 mm (19") system punchings:
Note regarding flexible installation between two L-shaped mounting angles:
May be mounted directly on the 482.6 mm (19") system punchings using the depth-variable installation kit, 7063.850, see page 745.



2 Telescopic slides
4 Installation kit, depth-variable

Component shelves for attachment to the 482.6 mm (19") system





Component shelf, static installation

482.6 mm (19"), depth-variable for TS IT, TE

For static installation between two 482.6 mm (19") mounting levels.

- Contact width: 489 mm
- Depth-variable to adapt to individual distances between levels
- Tool-free, time-saving one-man assembly

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 9005

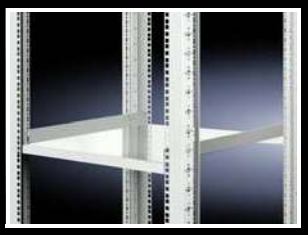
Supply includes:
– Assembly parts

Distance between levels mm	Load capacity, static kg	Height U	Packs of	Model No.
400 – 600	50	½	1 pc(s).	**5501.655**
600 – 900	50	½	1 pc(s).	**5501.665**
400 – 600	100	1	1 pc(s).	**5501.695**
600 – 900	100	1	1 pc(s).	**5501.705**

Accessories:

– Cable support, hinged, see page 747





Component shelf, static installation

for TE

The component shelf is attached directly at the side to the front and rear 482.6 mm (19") mounting frames for TE.

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Note:
– Not suitable for combination with telescopic slides

Contact surface, width mm	505
Contact surface, depth mm	410
Distance between 482.6 mm (19") levels mm	495
Load capacity (static) N	300
Packs of	1 pc(s).
Model No.	**7000.620**

Component shelves for attachment to the 482.6 mm (19") system

Component shelf, pull-out

482.6 mm (19")
for TS IT, TE

For mounting between two 482.6 mm (19") mounting levels.

- Contact width: 419 mm
- Depth-variable to adapt to individual distances between levels
- Tool-free, time-saving one-man assembly from the enclosure front
- Self-locking
- Full withdrawal

Material:
– Sheet steel

Surface finish:
– Component shelf: Spray-finished
– Mounting kit/telescopic slides: Zinc-plated

Colour:
– Component shelf: RAL 9005

Supply includes:
– Component shelf, slotted
– Telescopic slide with mounting kit
– Assembly parts

Distance between levels mm	Load capacity, static kg	Height U	Depth mm	Packs of	Model No.
400 – 600	50	1	500	1 pc(s).	**5501.675**
600 – 900	50	1	700	1 pc(s).	**5501.685**
400 – 600	100	1½	500	1 pc(s).	**5501.715**
600 – 900	100	1½	700	1 pc(s).	**5501.725**

Accessories:

– Handle for component shelf 5501.730, see page 747
– Cable support, hinged, see page 747





Component shelf, pull-out

for TE

For mounting between two 482.6 mm (19") mounting angles.

Benefits:
– Depth-variable to adjust to the distance between 482.6 mm (19") levels in a 25 mm pitch pattern
– Full withdrawal

Material:
– Base: Sheet steel

Surface finish:
– Base: Spray-finished
– Mounting kit/telescopic slides: Zinc-plated

Colour:
– RAL 7035

Supply includes:
– Component shelf, vented
– Telescopic slides with mounting kit

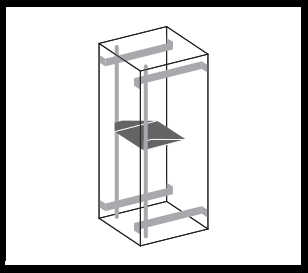
Contact surface, width mm	409
Contact surface, depth mm	500
Distance between 482.6 mm (19") levels mm	395 – 645
Load capacity (static) N	500
Packs of	1 pc(s).
Model No.	**7000.625**





Component shelves for attachment to the 482.6 mm (19") system





Component shelf 1 U, static installation

482.6 mm (19")
for one 482.6 mm (19") mounting level
The ideal support surface for small active components such as modems or mini-hubs.

Load capacity:
– 10 kg surface load, static

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Note:
– Usable height inside the U approx. 35 mm

Component shelf depth mm	Packs of	Model No.
140	1 pc(s).	**7119.140**

Also required:
– Cage nuts, see page 815
– Screws, see page 737







Component shelf 2 U, static installation

482.6 mm (19")
for one 482.6 mm (19") mounting level
The ideal support surface for small active components such as modems or mini-hubs.

Load capacity:
– 25 kg surface load, static

Material:
– Sheet steel

Surface finish:
– Spray-finished

Component shelf depth mm	Colour RAL	Packs of	Model No.
250	7035	1 pc(s).	**7119.250**
	9005	1 pc(s).	**5501.615**
400	7035	1 pc(s).	**7119.400**
	9005	1 pc(s).	**5501.625**

Also required:
– Cage nuts, see page 815
– Screws, see page 737

Component shelves for attachment to the 482.6 mm (19") system

Component shelf, pull-out, 2 U

for one 482.6 mm (19") mounting level
For simple, front installation of wall-mounted or floor-standing enclosures with at least one 482.6 mm (19") mounting level. This complete set comprises the pre-configured variant including telescopic slides, moulded handle, flange and locking pins.

Contact surface, width mm	Contact surface, depth mm	Load capacity (static) N	Packs of	**Model No.**
430	300	250	1 pc(s).	**5501.635**





Benefits:
– Simple tool-free assembly
– Full withdrawal
– Self-locking

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 9005

Supply includes:
– Component shelf, pre-configured
– Assembly parts

Installation kit, depth-variable

For component shelves, 482.6 mm (19") installation
Depending on the distance between the two 482.6 mm (19") mounting levels, the installation kit is screw-fastened in the depth between the L-shaped 482.6 mm (19") mounting angles or mounting frame.

Distance between 482.6 mm (19") levels mm	Packs of	**Model No.**
550 – 850	2 pc(s).	**7063.850**



Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Installation kits/accessories for component shelves



TS punched section with mounting flange, 17 x 73 mm

as installation kit for component shelves
Simply locate and secure. One pack is sufficient for 2 component shelves.

Load capacity:
– 100 kg surface load, static

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Installation in enclosure depth mm	Packs of	Model No.
500	4 pc(s).	**8612.050**
600	4 pc(s).	**8612.060**
800	4 pc(s).	**8612.080**
1000	4 pc(s).	**8612.000**
1200	4 pc(s).	**8612.020**



Adaptor for L-shaped mounting angles

for TS
For mounting component shelves and slide rails on L-shaped mounting angles.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
4 pc(s).	**7827.300**



Telescopic slides

For component shelf for frame attachment and component shelf, 482.6 mm (19") configuration
Static component shelves are easily converted to full withdrawal, by exchanging the existing assembly bolts or mounting rails (heavy-duty version) for telescopic slides.

Technical specifications:
– For installation and locking on a 25 mm pitch pattern in the enclosure depth

Material:
– Sheet steel

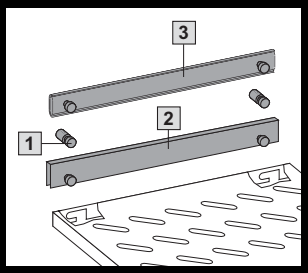
Surface finish:
– Zinc-plated

Load capacity 50 kg

For component shelf depth mm	Packs of	Model No.
400	2 pc(s).	**7061.000**
500	2 pc(s).	**7081.000**
600	2 pc(s).	**7161.000**
700	2 pc(s).	**7161.700**

Load capacity 100 kg

For component shelf depth mm	Packs of	Model No.
400	2 pc(s).	**7064.000**
500	2 pc(s).	**7065.000**
600	2 pc(s).	**7066.000**
700	2 pc(s).	**7066.700**



1 Assembly bolts
2 Mounting rails
3 Telescopic slides

Accessories for component shelves

Cable support

Hinged, with quick-release fastener
For secure routing of connection cables from the component shelf to the clamping point. The attachment may be released on both sides thanks to the quick-release fastener.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure depth mm	Packs of	Model No.
≤ 600	1 pc(s).	**7163.500**
> 600	1 pc(s).	**7163.550**

Note:
– Max. depth of component shelves = Enclosure depth -100 mm



Cable support

Hinged, with anti-kink device and quick-release fastener
For secure routing of connection cables from the component shelves with telescopic pull-out to the clamping point. Kink-free cable routing in the central part via mobile chain links. The attachment may be released on both sides, thanks to the quick-release fastener.

Material:
– Sheet steel, zinc-plated
– Centre part: Plastic

Supply includes:
– Assembly parts

For enclosure depth mm	Packs of	Model No.
≤ 600	1 pc(s).	**7163.560**
> 600	1 pc(s).	**7163.565**

Note:
– Max. depth of component shelves = Enclosure depth -200 mm





Handles

for pull-out component shelves
The component shelves are prepared for the attachment of handles.

Material:
– Die-cast zinc

Surface finish:
– Spray-finished

Colour:
– Silver grey

Supply includes:
– Assembly parts

Packs of	Model No.
2 pc(s).	**5501.730**



Fastening bolts

for slotted component shelves
For non-slip attachment of your components. The bolts are screwed into the longitudinal slots of the component shelf support surface. Consequently, they are infinitely adjustable and can be adapted to suit any appliance.

Packs of	Model No.
4 pc(s).	**7115.000**



LED system light – Sensationally bright



Optimum illumination

- Innovative LED technology for even more light into the very last corner
- Intelligent lighting, tailored to the geometry of the enclosure, thanks to a special optical cover with Fresnel structure
- Optical cover with two different Fresnel structures
- The cover is easily rotated – to adapt the light distribution to the current installation situation
- Enormous luminous intensity up to 1200 lumens, directed selectively into the enclosure



Simple assembly

- Fast, tool-free assembly thanks to a latching hook system on a 25 mm pitch pattern of holes; simply latch and secure
- Optional screw-fastening also available, or opt for complete flexibility with a magnetic attachment freely positionable inside the enclosure
- May be fitted horizontally and vertically with no loss of space in the enclosure; existing rails and sections can simply be covered
- Lights with motion detectors are equipped with a rotating LED board as standard, allowing the direction of light to be perfectly adapted to any installation situation



Flexible connection

- Rotating connectors support installation in the most confined spaces
- Simple through-wiring based on the plug & play system
- Variants with integral motion detectors eliminate the need for installing separate door-operated switches
- If additionally equipped with a socket, electricity will be available whenever it is needed for maintenance work
- Suitable for immediate, global use with wide-range voltage 100 – 240 V (AC) and 24 V (DC)



LED system light



Connection accessories Page 752 **Enclosure systems** Page 67 **Compact enclosures AE** Page 58

Benefits:
- Optimum illumination of the entire enclosure
- Optionally with clip, screw and magnetic attachment
- Equipment to suit every application

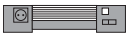
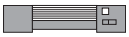
Material:
- Plastic
- Aluminium

Colour:
- Enclosure: RAL 7016

Light colour:
- 4000 K (neutral white)

Supply includes:
- Assembly screws

Note:
- Connection accessories should be ordered separately
- Further information on country-specific versions can be found on the Internet

						
Model No.			**2500.310**	**2500.300**	**2500.210**	**2500.200**
Output (lumens)			1200	1200	900	900
Length (mm)			437	437	437	437
Motion sensor			■	■	–	–
Rated operating voltage	100 – 240 V AC		■	■	■	■
	24 V DC		–	–	–	–
Equipment	Socket		■	–	■	–
	90° rotating connector		■	■	■	■
	Adjustable light direction		■	■	–	–
	Adjustable light distribution		■	■	■	■
Protection class			II (all-insulated)			
Approvals	UL		–	■	–	■
	cUL		–	■	–	■
	CCC		–	■	–	■
	ENEC		■	■	■	■
Installation type	Screw-fastening		■	■	■	■
	Clip attachment		■	■	■	■
	Magnetic attachment to surfaces (accessory)		–	■	–	■
Connection options	Infeed		3-pole	3-pole	3-pole	3-pole
	Through-wiring		3-pole	3-pole	3-pole	3-pole
	Door-operated switch (accessories)		–	–	■	■
Mounting options	Enclosures with a 25 mm pitch pattern	Screw fastening/clip	Directly on the profile	Directly on the profile	Directly on the profile	Directly on the profile
	AE	Screw-fastening	With universal bracket			
Accessories						
Universal bracket			2373.000	2373.000	2373.000	2373.000
Mounting kit magnet			–	2500.480	–	2500.480
Door-operated switch			–	–	2500.460	2500.460
Door-operated switch, UL			–	–	–	2500.470
Connection accessories						
Infeed, 2-pole			–	–	–	–
Infeed, 3-pole			2500.400	2500.400	2500.400	2500.400
Infeed, 3-pole, ENEC, UL			–	2500.500	–	2500.500
Through-wiring, 2-pole			–	–	–	–
Through-wiring, 3-pole			2500.430	2500.430	2500.430	2500.430
Through-wiring, 3-pole, ENEC, UL			–	2500.530	–	2500.530

					
Model No.			**2500.220**	**2500.110**	**2500.100**
Output (lumens)			900	600	400
Length (mm)			437	337	262
Motion sensor			–	–	–
Rated operating voltage	100 – 240 V AC		–	■	■
	24 V DC		■	–	–
Equipment	Socket		–	–	–
	90° rotating connector		■	–	–
	Adjustable light direction		–	–	–
	Adjustable light distribution		■	–	–
Protection class			III (SELV)	II (all-insulated)	
Approvals	UL		■	–	–
	cUL		■	–	–
	CCC		–	■	■
	ENEC		■	■	■
Installation type	Screw-fastening		■	■	■
	Clip attachment		■	■	■
	Magnetic attachment to surfaces (accessory)		■	■	■
Connection options	Infeed		2-pole	2-pole	2-pole
	Through-wiring		2-pole	2-pole	2-pole
	Door-operated switch (accessories)		■	■	■
Mounting options	Enclosures with a 25 mm pitch pattern	Screw fastening/clip	Directly on the profile	Directly on the profile	–
	AE	Screw-fastening	With universal bracket		
Accessories					
Universal bracket			2373.000	2373.000	2373.000
Mounting kit magnet			2500.480	2500.480	2500.480
Door-operated switch			2500.460	2500.460	2500.460
Door-operated switch, UL			2500.470	–	–
Connection accessories					
Infeed, 2-pole			2500.410	2500.420	2500.420
Infeed, 3-pole			–	–	–
Infeed, 3-pole, ENEC, UL			–	–	–
Through-wiring, 2-pole			2500.440	2500.450	2500.450
Through-wiring, 3-pole			–	–	–
Through-wiring, 3-pole, ENEC, UL			–	–	–

LED system light





Connection accessories

for LED system light

The following components can be used for time-saving and simple installation of the lights:

Accessories:

– Cable ties for quick assembly, see page 785









Connection cable for		ENEC	UL	Length mm	Packs of	Model No.	
						orange	black
1	Infeed, 3-pole, 100 – 240 V AC	■	■	3000	1 pc(s).	**2500.500**	**–**
	Infeed, 3-pole, 100 – 240 V AC	■	–	3000	5 pc(s).	**2500.400**	**–**
2	Infeed, 2-pole, 100 – 240 V AC	■	–	3000	5 pc(s).	**2500.420**	**–**
3	Infeed, 2-pole, 24 V DC	■	–	3000	5 pc(s).	**–**	**2500.410**
4	Through-wiring, 3-pole, 100 – 240 V AC	■	■	1000	1 pc(s).	**2500.530**	**–**
	Through-wiring, 3-pole, 100 – 240 V AC	■	–	1000	5 pc(s).	**2500.430**	**–**
5	Through-wiring, 2-pole, 100 – 240 V AC	■	–	1000	5 pc(s).	**2500.450**	**–**
6	Through-wiring, 2-pole, 24 V DC	■	–	1000	5 pc(s).	**–**	**2500.440**



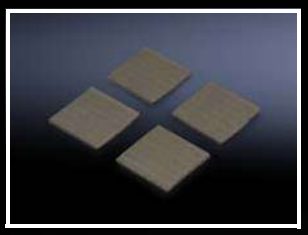
Door-operated switch

for LED system light

Supply includes:

– Assembly parts

	ENEC	UL	Length mm	To fit	Packs of	Model No.
						black
Connection cable	■	–	600	230 V AC/24 V DC, 1 A	1 pc(s).	**2500.460**
	–	■	600		1 pc(s).	**2500.470**



Mounting kit magnet

for LED system light

For sticking onto the rear of lights without a socket.

Packs of	Model No.
4 pc(s).	**2500.480**

Universal light

with integral motion detector

Benefits:
- Insulated plastic housing
- Efficient compact fluorescent tube
- Simple attachment of the light to the enclosure

Material:
– Plastic

Supply includes:
– Mounting clips

Also required:
– Connection accessories, see page 755



Technical specifications	Socket	Width mm	Height mm	Depth mm	**Model No.**	Approvals
18 W, 110 – 240 V, 50 – 60 Hz	Earthing-pin	343	95	55	**4155.110**	VDE
	–	343	95	55	**4155.010**	VDE
	–	343	95	55	**4155.510**	UL

Courtesy light

without door-operated switch

Technical specifications	Socket	Width mm	Height mm	Depth mm	**Model No.**	Approvals
14 W, 100 – 240 V, 50/60 Hz	Earthing-pin	452	117	50	**4139.140**	ENEC
18 W, 100 – 240 V, 50/60 Hz	Earthing-pin	682	117	50	**4139.180**	ENEC
30 W, 100 – 240 V, 50/60 Hz	Earthing-pin	987	117	50	**4139.300**	ENEC



with door-operated switch

Technical specifications	Socket	Width mm	Height mm	Depth mm	**Model No.**	Approvals
14 W, 100 – 240 V, 50/60 Hz	Earthing-pin	452	117	50	**4139.150**	ENEC
18 W, 100 – 240 V, 50/60 Hz	Earthing-pin	682	117	50	**4139.190**	ENEC
30 W, 100 – 240 V, 50/60 Hz	Earthing-pin	987	117	50	**4139.350**	ENEC

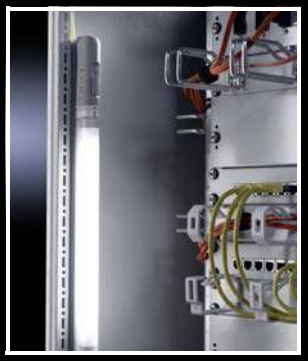


Also required:
– Connection accessories, see page 755

System lights







Compact light

- Slimmer: Around 50% less height and depth and therefore around 75% less volume than conventional lights
- Door-operated switch can also be connected via a 2-pole connector

Colour:
– Similar to RAL 7035

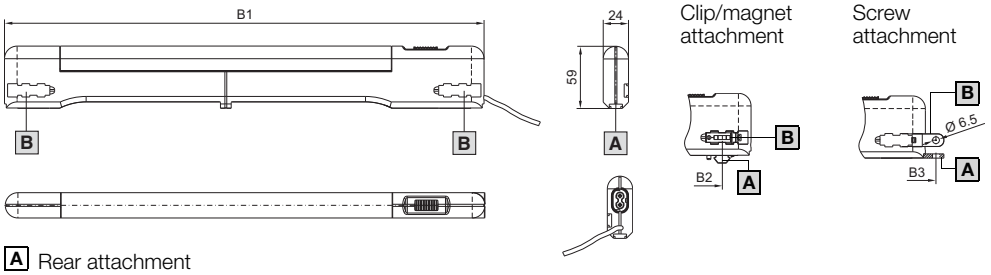
Protection category IP to IEC 60 529:
– IP 20

Supply includes:
– Compact light with clip and screw mounting kits, including assembly parts

Accessories:
– Mounting kit magnet for compact light, see page 754
– Door-operated switch with connection cable, see page 755

Model No.	ENEC 24	4140.010	–	4140.020	–	4140.110	4140.120
	cURus	–	4140.210[1)]	–	4140.220[1)]	–	–
Rated voltage		100 – 240 V ±10% at 50 – 60 Hz				24 V (DC) ±10%	
Wattage		8		14		8	14
Protection category		II (all-insulated)					
Width (B1) mm		455		705		455	705
Mounting distance (B2) mm clip/magnet		400		650		400	650
Mounting distance (B3) mm		475		725		475	725
Connection cable		3 m (open end)					
Cover colour		yellow	grey	yellow	grey	yellow	yellow
Rated current A – at 230 V – at 110 V – at 24 V (DC)		 0.045 – 0.088 0.083 – 0.149 –		 0.073 – 0.127 0.149 – 0.216 –		 – – 0.35	 – – 0.57
Light		Fluorescent lamp T5					
Operating unit		Wide-range electronic ballast				Electronic ballast	
Circuit-breakers		Integral, on/off/door-operated switch mode					
Light cover		Transparent, grooved on the inside					
Cable deflector across rear		■	–	■	–	■	■

[1)] Only for the North American market



A Rear attachment
B Side attachment



Mounting kit magnet

for compact light and LED compact system light
For reliable adhesion on all sheet steel surfaces.

Packs of	Model No.
2 pc(s).	4140.000

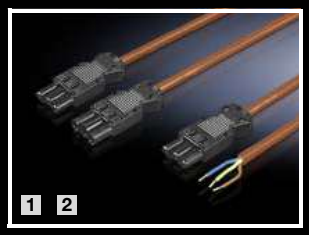
Connection accessories

For universal light, courtesy light and compact light

The following components can be used for time-saving and simple installation of the lights:

Accessories:

– Cable ties for quick assembly, see page 785



	Connection cable for	UL	Length mm	Packs of	Model No. orange	Model No. grey
1	Power supply (with jack, without connector)	–	3000	5 pc(s).	**4315.100**	**–**
1	Power supply (with socket and strain relief, without connector)	■	3000	1 pc(s).	**–**	**4315.150**
2	Through-wiring (with socket and connector)	■	600	1 pc(s).	**–**	**4315.450**
2	Through-wiring/power supply via connection component 2507.500 (with socket and connector)	–	600	5 pc(s).	**4315.400**	**–**
		–	1000		**4315.200**	**–**
		–	4000	1 pc(s).	**4315.600**	**–**





	Door-operated switch with mounting accessories	UL	Length mm	Technical specifications	Packs of	Model No. orange	Model No. yellow	Model No. grey
3	With connection cable (not required for universal lights and courtesy lights with integral door-operated switch)	–	600	240 V, 6 A 125 V, 8 A 24 V, 6 A 24 V (DC), 6 A	1 pc(s).	**4315.520**	**–**	**–**
			1000		1 pc(s).	**4315.320**	**–**	**–**
	Without connection cable	■	–		1 pc(s).	**4127.010**		
4	With connection cable (for compact light)	–	600	240 V, 2.5 A 125 V, 2.5 A 24 V, 2.5 A 24 V (DC), 2.5 A	1 pc(s).	**–**	**4315.710**	**–**
		■	600		1 pc(s).	**–**	**–**	**4315.720**
Also required:								
Mounting kit for installation in HP						**7888.615**		



	Door-operated switch with toggle	UL	Technical specifications	Packs of	Model No.
5	Without connection cable, for TS enclosures with installed large swing frame. The toggle is actuated via the tubular door frame of the sheet steel door, or in the case of glazed doors, via an adaptor included with the supply.	■	240 V, 6 A 125 V (DC), 8 A 24 V, 6 A 24 V (DC), 6 A	1 pc(s).	**4127.210**



	Connection component with circuit-breaker 10 A	Packs of	Model No.
6	Reduce assembly costs: Power is supplied rapidly and reliably to system and workstation lights via connection cables. For independently configured cables, connector 2507.200 must be used. Connection component to be snapped onto the top hat rail.	1 pc(s).	**2507.500**

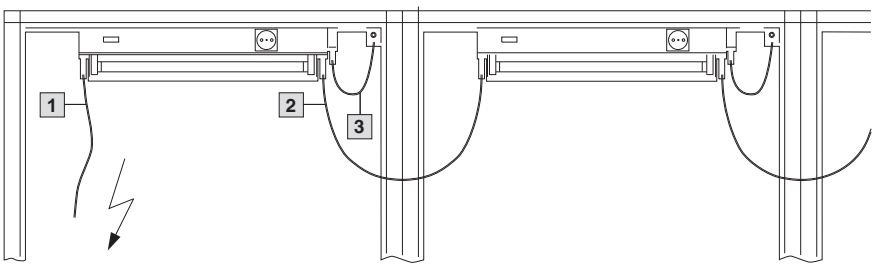


	For self-assembly	Packs of	Model No.
7	Sockets for power supply/through-wiring	5 pc(s).	**2507.100**
	Connectors for connection component/through-wiring	5 pc(s).	**2507.200**
	T distributor with 2 sockets, 1 connector	5 pc(s).	**2507.300**
	Connector for door-operated switch cable	5 pc(s).	**2507.400**

1 Connection cable for infeed

2 Connection cable for through-wiring/infeed

3 Door-operated switch with connection cable



System lights



LED compact system light

in 24 V (DC) version

- Max. EMC compatibility
- Protected, as it operates within the safety extra-low voltage range
- Door operated switch connection supported
- Integral through-wiring
- Vertically hinged light cone

Material:
– Light body: Extruded aluminium
– Light cover: Polycarbonate (halogen-free)
– Light ends: PC-ABS

Colour:
– Similar to RAL 7035

Protection category IP to IEC 60 529:
– IP 20

Supply includes:
– LED compact system light with clip and screw mounting kits, assembly parts

Model No.	4140.810	4140.820	4140.830	4140.840
Rated voltage	24 V (DC) (±10%)			
Number of LEDs	10	20	30	40
Protection category	III (SELV)			
Width (B1) mm	230	330	430	530
Mounting distance CLIP (B2) mm	175	275	375	475
Mounting distance, screw attachment (B3) mm	250	350	450	550
Rated current A[1)]	0.04	0.08	0.12	0.16
Switches	Integral on/off/door-operated switch mode			

[1)] Maximum baying up to a total rated current strength of 2 amps

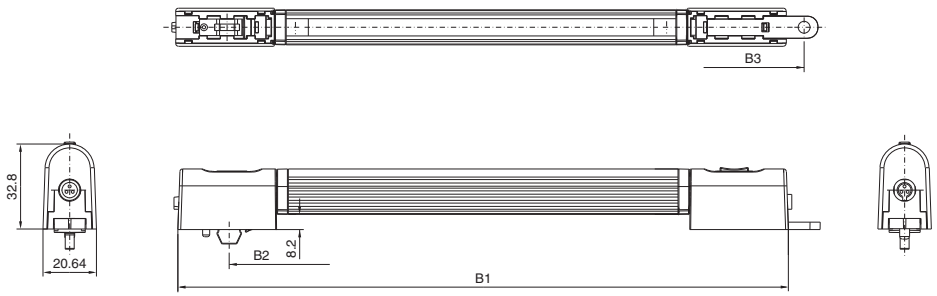
Also required:

– LED connection cable, see page 757 or
– Door-operated switch with LED connection cable, see page 757

Accessories:

– Mounting kit magnet for LED compact system light, see page 754
– Door-operated switch with LED connection cable, see page 757
– LED connection cable, see page 757
– Adaptor power pack, see page 757

Note:
– Only intended for use in enclosures and sealed cases!
– When using on customer-supplied power packs, it is important to obtain the requisite approvals depending on the application



Connection accessories

for LED compact system light

	Connection cable	Length mm	Packs of	**Model No.**
1	LED connection cable	3000	1 pc(s).	**4315.800**

	Door-operated switch	Length mm	Packs of	**Model No.**
2	With LED connection cable	3000	1 pc(s).	**4315.810**
3	With LED interconnecting cable	1000	1 pc(s).	**4315.820**

	Interconnecting cable	Length mm	Packs of	**Model No.**
4	LED interconnecting cable	600	1 pc(s).	**4315.830**
		1000	1 pc(s).	**4315.840**
		3000	1 pc(s).	**4315.850**

	Adaptor power pack	Technical specifications	Packs of	**Model No.**
5	Adaptor power pack	100 – 230 V/24 V (DC), 1 A	1 pc(s).	**4315.860**









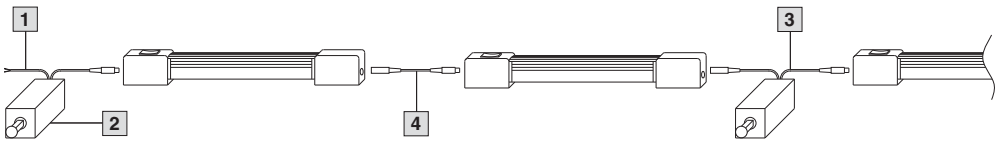
Layout diagram for LED compact system light 24 V (DC):

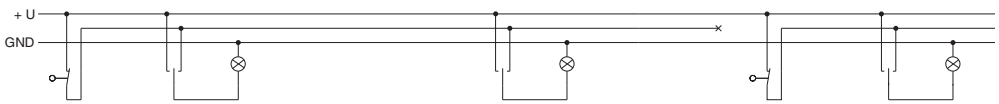
1 Connection cable

2 Door-operated switch with LED connection cable (open end/cable bush)

3 Door-operated switch with LED interconnecting cable

4 LED interconnecting cable for through-wiring





EMC



EMC side panels

for TS

Automatic potential equalisation via assembly components, and a high level of EMC protection thanks to a special EMC seal.

Material:
– Sheet steel, 1.5 mm

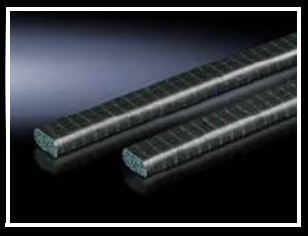
Surface finish:
– Aluminium zinc coated, powder-coated on the outside

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Assembly parts

For enclosures		Packs of	Model No.
Height mm	Depth mm		
2000	600	2 pc(s).	**8106.750**
2000	800	2 pc(s).	**8108.750**



EMC baying seal

for TS

For baying enclosure systems. Seal with all-round, electrically conductive sheathing.

Supply includes:
– 3 seals, length 2 m each

Cross section mm	Model No.
6.3 x 6.3	**8800.690**



EMC divider panel seal

This seal ensures optimum contact in bayed EMC enclosure systems and when using a zinc-plated divider panel.

Material:
– PU foam with electrically conductive sheathing

Supply includes:
– 1 roll (12.7 x 12.7 x 5300 mm)

Packs of	Model No.
1 pc(s).	**4348.000**

Rail

for EMC shielding bracket and strain relief
Combined rail for strain relief and EMC contacting of inserted cables.

Design:
– C rail to accommodate cable clamps
– T-head cut-outs on a 40 mm pitch pattern for cable clamping using cable ties

Benefits:
– Additional contacting on the left or right of the rail via existing holes (9 mm diameter)
– Prepared for tool-free mounting of EMC shielding brackets

Installation options:
– On the horizontal/vertical TS, SE, PC enclosure section
– May also be fitted without a retaining bracket on a mounting plate

Material:
– Extruded aluminium section

Surface finish:
– Chrome-free passivated

Supply includes:
– 1 rail
– 2 retaining brackets
– Assembly parts

For enclosure width mm	Length mm	Packs of	Model No.
600	553	1 pc(s).	**2388.650**
800	753	1 pc(s).	**2388.850**
1000	953	1 pc(s).	**2388.050**
1200	1153	1 pc(s).	**2388.125**

Also required:
– EMC shielding bracket, see page 759
– Cable clamps, see page 784

Accessories:
– Support bracket or spacer, see page 732
– Quick-assembly block, see page 733
– Angle piece, see page 733
– Earth straps, see page 762
– Earthing braids, see page 762

Possible alternative:
– C rails 30/15, see page 723







EMC shielding bracket

Quick assembly without the use of tools:
Press the EMC shielding bracket against the cable shield and clip into the rail. Diameter changes are compensated in full by the spring of the EMC shielding bracket.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

For shield diameter mm	Packs of	Model No.
3 – 10	10 pc(s).	**2388.100**
4 – 15	10 pc(s).	**2388.150**
10 – 20	10 pc(s).	**2388.200**
15 – 28	10 pc(s).	**2388.280**



EMC gland plates

For shielded cables with a maximum diameter of 20 mm.
Combined EMC/IP seal provides low-resistance contact between cable shield and gland plate.
For all 400, 500, 600 and 800 mm deep enclosures in conjunction with standard gland plates.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– 1 gland plate with T-head punching
– 1 sliding base plate
– 2 IP/EMC seals

Width mm	Packs of	Model No.
600	1 pc(s).	**8800.660**
800	1 pc(s).	**8800.680**
1000	1 pc(s).	**8800.600**[1)]
1200	1 pc(s).	**8800.620**[1)]

[1)] For one enclosure half only



EMC



EMC cable glands

The cable sheathing may optionally be interrupted at the contact point or removed completely inside the enclosure. The cable shield in the enclosure is retained. The supplied lock nut cuts automatically into the paint when screwed down, thus creating a conductive connection.

Protection category IP to IEC 60 529:
– IP 68

Possible alternative:

– Cable gland Hygienic Design, see page 777

Cable glands, metric

Size	Cable diameter mm	Minimum shield diameter[1] mm	Packs of	Model No.
M16	4.5 – 10	3	5 pc(s).	**2843.160**
M20	6 – 12	5	5 pc(s).	**2843.200**
M25	11 – 17	8	5 pc(s).	**2843.250**
M32	15 – 21	10	1 pc(s).	**2843.320**
M40	19 – 28	15	1 pc(s).	**2843.400**
M50	27 – 38	19	1 pc(s).	**2843.500**
M63	34 – 44	30	1 pc(s).	**2843.630**

[1] Minimum shield diameter = cable diameter minus cable sheathing



EMC shield bus

Made of corrosion-proof steel strip, 75 mm² cross section, for cable shield contact.

Supply includes:
– Assembly parts

Rail length mm	Connections	Packs of	Model No.
375	10	1 pc(s).	**2413.375**
550	16	1 pc(s).	**2413.550**



EMC earth clamps

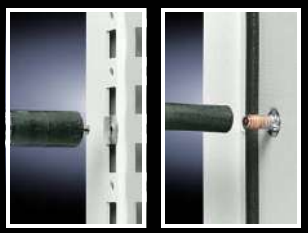
The clamps may be used directly on the device or operating equipment on the mounting plate for cable shield contact.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Size mm	Packs of	Model No.
4	50 pc(s).	**2367.040**
6	50 pc(s).	**2367.060**
8	50 pc(s).	**2367.080**
12	50 pc(s).	**2367.120**
16	50 pc(s).	**2367.160**
20	25 pc(s).	**2367.200[1]**

[1] 2 assembly brackets



Contact cutter

The contact cutter enables EMC-compatible preparation of the contact point e.g. for earthing braids. Plastic-bound abrasive with guide pin for round system punchings. With location point for drill, grinder etc.

For	Model No.
Frame section	**2414.000**
Earthing bolts[1]	**2414.500**

[1] Not necessary with TS



Contact paint

Contact paint prevents the corrosion of conductive, unprotected contact points.

Contents:
– 12 ml

Packs of	Model No.
1 pc(s).	**2415.000**

For areas at risk from earthquakes

TS 8 for earthquake zone 1, 2 and 3 to Bellcore
8806.500:
W x H x D 800 x 2000 x 600 mm

With base/plinth (base/plinth components front and rear, see page 619 and base/plinth trim panel, side, see page 620), 100 mm high.

Note:
- In conjunction with a corresponding sheet steel TS base/plinth, 100 mm high, the TS 8 enclosure 8806.500 meets the requirements for earthquake zone 1, 2 and 3 to Bellcore.
- These versions have been tested and meet the requirements to Telcordia GR 63-CORE. They should be seen as a comparative variable to the customer's own plant, since empty enclosures cannot be certified.
- To comply with earthquake zone 4 to Bellcore, the TS 8 enclosure 8806.500 can be retrofitted with an earthquake kit together with an earthquake base/plinth.

TS 8 for earthquake zone 4 to Bellcore
8806.500:
W x H x D 800 x 2000 x 600 mm

Fitted with:
- Earthquake kit and
- Earthquake base/plinth, see page 761

(Photo shows TS 8 for earthquake zone 4 to Bellcore)



Earthquake kit

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:

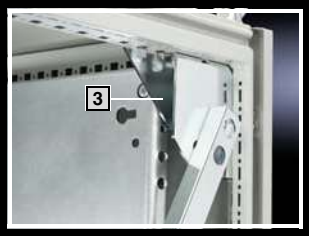
1 2 side reinforcements, bottom

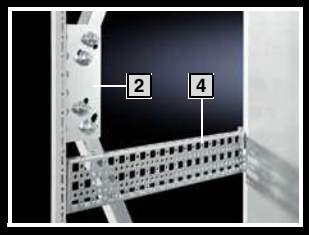
2 2 bracing struts each, sides

3 8 gusset plates

4 Mounting plate attachment and reinforcement, including assembly parts

For enclosures W x H x D mm	Packs of	Model No.
800 x 2000 x 600	1 pc(s).	**8613.860**





Earthquake base/plinth

Height 100 mm

Material:
- Corner pieces: Sheet steel, 5 mm
- Trim panels: Sheet steel, 2 mm

Surface finish:
- Powder-coated

Colour:
- RAL 7022

Supply includes:
- 1 pc(s). =
  4 corner pieces,
  2 depth stays,
  1 trim panel each front and rear

Fully assembled.

For enclosures W x D mm	Packs of	Model No.
800 x 600	1 pc(s).	**8601.860**





Earthing



Earth straps

For configuring a reliable earthing connection with perfect contact

- With ring terminals in M6 and M8 to match the earthing screws
- Length-optimised and ready to install

Enclosure	Connection option		
	Door/cover	Enclosure	Mounting plate
KL	M6	M6	M8
EB/BG	M6	M6	–
AE	M6	M6[1]/M8	M8
KE/KEL	M8	M8	M8
CM/TP	M6	M8	M8
TS/SE	M8	M8	M8
PC	M8	M8	–

[1] M6 with AE 1032.XXX/AE 1035.XXX

Connection	Cross-section mm²	Length mm	Packs of	Model No.
M8 – M8	4	170	5 pc(s).	**2564.000**
M8 – M8	16	170	5 pc(s).	**2565.000**
M8 – M8	25	170	5 pc(s).	**2566.000**
M6 – M6	10	200	5 pc(s).	**2565.100**
M8 – M8	4	300	5 pc(s).	**2567.000**
M6 – M8	10	300	5 pc(s).	**2565.110**
M8 – M8	10	300	5 pc(s).	**2565.120**
M8 – M8	16	300	5 pc(s).	**2568.000**
M8 – M8	25	300	5 pc(s).	**2569.000**



Earthing braid

Tin-plated copper, in various lengths and cross-sections with press-fitted contact rings. Earthing braids counteract the current displacement effect at high frequencies, whilst at the same time offering highly flexible connection opportunities.

For	Cross-section mm²	Length mm	Packs of	Model No.
M6	10	200	10 pc(s).	**2412.210**
M8	16	200	10 pc(s).	**2412.216**
M8	25	200	10 pc(s).	**2412.225**
M6	10	300	10 pc(s).	**2412.310**
M8	16	300	10 pc(s).	**2412.316**
M8	25	300	10 pc(s).	**2412.325**



Assembly parts

for system punchings

For fastening the earth straps and earthing braids to:

- Horizontal TS enclosure sections
- PS rail systems
- Horizontal SE enclosure sections (in the depth only, top)

Size	Packs of	Model No.
M6	10 pc(s).	**2570.000**
M8	10 pc(s).	**2559.000**

Also required:

– For mounting on the horizontal TS, SE enclosure section: Cage nut, see page 736



Assembly parts

for gland plates

For fastening the earth straps and earthing braids to:

- Gland plates

Fast assembly thanks to self-tapping screws

Size	Packs of	Model No.
M8	10 pc(s).	**2570.200**



Contact washers

Serrated contact washers facilitate secure PE conductor connection. As a result, there is no need to manually strip paint in the connection area.

Size	Packs of	Model No.
M5	100 pc(s).	**2343.000**
M6	100 pc(s).	**2334.000**
M8	100 pc(s).	**2335.000**

Earthing plate

For installation in
- Comfort Panel
- Optipanel
- TS
- SE
- PC

One earthing cable can be screw-fastened to the threaded bolt and connected to up to 8 components with earth straps via 6.3 mm flat-pin connectors.

Packs of	Model No.
1 pc(s).	**2570.500**

Supply includes:
– Assembly parts



Central earthing point

For connecting
- Earth straps
- Earthing braids

to the vertical and horizontal enclosure profile. The connection bracket is connected to the enclosure frame with 2 screws and is securely contacted. Earth connection is carried out via the threaded bolt M8 x 20 mm.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
1 pc(s).	**7829.200**

Supply includes:
– 1 connection bracket
– 2 assembly screws for mounting on the enclosure section
– 2 serrated washers
– 1 nut M8
– 1 contact lock washer M8
– 1 washer



Potential equalisation star

for 8 mm earthing bolt

The earthing connector is used for simple potential equalisation on an 8 mm earthing bolt, or in conjunction with central earthing point 7829.200. Up to five flat-pin connectors (6.3 mm) may be contacted on one earthing point.

Packs of	Model No.
10 pc(s).	**7548.210**

Supply includes:
– 10 earthing connectors
– Assembly parts





Earthing extension kits

for TS IT

To DIN EN 60 950/VDE 0805, Ø 4 mm^2, length 300 mm.
For system-compatible earthing of all housing parts on the housing frame. The earth conductors are pre-assembled ready for connection with connectors.

Supply includes:
– 8 earth straps, UL style 1015 AWG 12
– Central earthing point and assembly parts

Approvals:
– UL

Packs of	Model No.
1 pc(s).	**7829.150**



Earthing



Complete earthing kit

for TE

To DIN EN 60 950/VDE 0805, Ø 4 mm². For system-compatible earthing of all housing parts on the housing frame. The earth conductors are pre-assembled ready for connection with connectors and cut to the correct length.

Supply includes:
– 4 earth straps, 300 mm
– 4 earth straps, 350 mm
– Assembly parts

Packs of	Model No.
1 pc(s).	**7000.675**



Earthing kit

for KL

Comprising all the screws, nuts, contact washers and earthing strip needed to earth the cover; length 250 mm, cross-section 4 mm².

Packs of	Model No.
5 pc(s).	**2570.100**



PE busbar

699 mm long PE busbar with pre-fitted screws, including terminal clamps up to 6 mm² (fine wire conductors), 10 mm² (single wire or multi-wire conductors) and main terminal clamp up to 35 mm².

Packs of	Model No.
1 pc(s).	**2364.000**

Accessories:

– Cable retainer, see page 735



Earth rail, horizontal

for TS, TS IT, SE

Supply includes:
– Earth rail made from E-Cu 57 to DIN EN 12 163, DIN EN 13 601, 15 x 5 mm
– 20 connection points with M5 screws
– 2 earth connections 25 mm²
– 2 isolators
– Assembly parts

For enclosure width mm	Width mm	Height mm	Length mm	Packs of	Model No.
600 800	15	5	450	1 pc(s).	**7113.000**

Earth rail, vertical

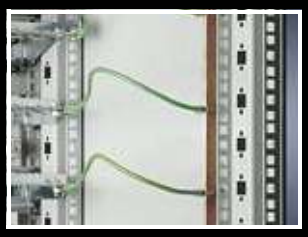
for TS

Easily fitted to the 25 mm DIN pitch pattern of distributors or to the 482.6 mm (19") mounting angles. The supplied earth conductors facilitate star earthing of the cable clamp straps in the patch panels. The earth terminals are fully adjustable.
Current carrying capacity of rail approx. 200 A.

Supply includes:
- Earth rail made from E-Cu 57 to DIN EN 12 163, DIN EN 13 601, 15 x 5 mm
- 16 conductor connection clamps 2.5 – 16 mm^2
- 15 earthing leads 6 mm^2, L = 500 mm
- Assembly parts

For enclosure height mm	Length mm	Packs of	**Model No.**
800	545	1 pc(s).	**7541.000**
1000	745	1 pc(s).	**7542.000**
1200	945	1 pc(s).	**7543.000**
1400	1145	1 pc(s).	**7544.000**
1600	1345	1 pc(s).	**7545.000**
1800	1545	1 pc(s).	**7546.000**
2000	1745	1 pc(s).	**7547.000**
2200	1945	1 pc(s).	**7548.000**





Extension kit

for earth rail, vertical

For system-compatible expansion of the star earthing on the vertical potential equalisation rail.

Supply includes:
- 15 earthing leads 6 mm^2, L = 500 mm
- Preassembled, with ring terminal and wire end ferrule
- Earth terminals 2.5 – 16 mm^2
- Assembly parts

Packs of	**Model No.**
10 pc(s).	**7549.000**



ESD connection point

Dangerously high potential differences can occur during maintenance or conversion work on the enclosure. To protect sensitive electronic components, this standardised connection point (push-button) provides potential equalisation. The connection point is directly conductively connected to the enclosure frame via two screws.

Packs of	**Model No.**
1 pc(s).	**7752.950**

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- Assembly parts







E-Cu busbars

with integral holes

Suitable for

- Direct installation in enclosures
- Busbar supports
  - 9340.000/.010, see page 266
  - 9340.004, see page 266
  - 3052.000, see page 352
  - 3073.000, see page 352
- PE/PEN combinations in conjunction with PE/PEN combination angles, see page 767 and baying bracket E-Cu, see page 767

Size 30 x 5 mm (hole Ø 11 mm)				
For enclosure width mm	Length mm	Packs of	**Model No.**	Page
400	365	2 pc(s).	**9661.345**	
600	565	2 pc(s).	**9661.365**	
800	765	2 pc(s).	**9661.385**	
1000	965	2 pc(s).	**9661.305**	
1200	1165	2 pc(s).	**9661.325**	
Accessories				
Baying bracket E-Cu	95	4 pc(s).	9661.355	767
PE/PEN combination angle	–	4 pc(s).	9661.235	767

Size 30 x 10 mm (hole Ø 11 mm)				
For enclosure width mm	Length mm	Packs of	**Model No.**	Page
400	365	2 pc(s).	**9661.340**	
600	565	2 pc(s).	**9661.360**	
800	765	2 pc(s).	**9661.380**	
1000	965	2 pc(s).	**9661.300**	
1200	1165	2 pc(s).	**9661.320**	
Accessories				
Baying bracket E-Cu	95	4 pc(s).	9661.350	767
PE/PEN combination angle	–	4 pc(s).	9661.230	767

Size 40 x 10 mm (hole Ø 14 mm)				
For enclosure width mm	Length mm	Packs of	**Model No.**	Page
400	392	2 pc(s).	**9661.040**	
600	592	2 pc(s).	**9661.060**	
800	792	2 pc(s).	**9661.080**	
1000	992	2 pc(s).	**9661.000**	
1200	1192	2 pc(s).	**9661.020**	
Accessories				
Baying bracket E-Cu	88	4 pc(s).	9661.050	767
PE/PEN combination angles for use with Form 2-4	–	4 pc(s).	9661.240	767
PE/PEN combination angles for other applications	–	4 pc(s).	9661.200	767

Size 80 x 10 mm (hole Ø 14 mm)				
For enclosure width mm	Length mm	Packs of	**Model No.**	Page
400	392	2 pc(s).	**9661.140**	
600	592	2 pc(s).	**9661.160**	
800	792	2 pc(s).	**9661.180**	
1000	992	2 pc(s).	**9661.100**	
1200	1192	2 pc(s).	**9661.120**	
Accessories				
Baying bracket E-Cu	88	4 pc(s).	9661.150	767
PE/PEN combination angles for use with Form 2-4	–	4 pc(s).	9661.240	767
PE/PEN combination angles for other applications	–	4 pc(s).	9661.200	767

Inserted screw nuts M12

Self-holding nuts with knurled ring for busbars E-Cu.

Hole diameter: 14.5 mm

Packs of	Model No.
30 pc(s).	**3591.060**



PE/PEN combination angle E-Cu

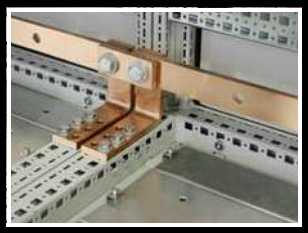
for PE/PEN combinations

The PE/PEN combination, comprising busbars, combination angles and baying brackets, supports type-tested configurations to IEC 61 439-1.
The pre-assembled combination angles, baying brackets and busbars customised to match the enclosure width ensure time-saving assembly and reduced costs.

Material:
– E-Cu

Supply includes:
– Assembly parts

Tested short-circuit resistance
– PE/PEN combination 30 x 5 mm: I_{cw} 18 kA, 1 sec.
– PE/PEN combination 30 x 10 mm: I_{cw} 30 kA, 1 sec.
– PE/PEN combination 40/80 x 10 mm: I_{cw} 60 kA, 1 sec.

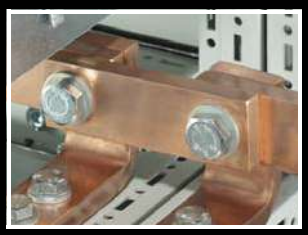




For busbars mm	Application		Size mm	Packs of	Model No.
	Form 2-4	Others			
30 x 5	■	■	30 x 5	4 pc(s).	**9661.235**
30 x 10	■	■	30 x 10	4 pc(s).	**9661.230**
40 x 10 and	■	–	40 x 10	4 pc(s).	1 **9661.240**
80 x 10	–	■	40 x 10	4 pc(s).	**9661.200**

Baying bracket E-Cu

For busbars mm	Length mm	Packs of	Model No.
30 x 5	95	4 pc(s).	**9661.355**
30 x 10	95	4 pc(s).	**9661.350**
40 x 10	88	4 pc(s).	**9661.050**
80 x 10	88	4 pc(s).	**9661.150**



Cable entry



Cable entry plates

for
- Cable entry grommets
- Connector grommets

instead of segments of the standard divided gland plates

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For installation in TS, SE and PC enclosures

Enclosure width mm	Cut-outs per plate	Packs of	Model No.
600	5	2 pc(s).	**8800.060**
800	8	2 pc(s).	**8800.080**
1000	4	4 pc(s).	**8800.100**
1200	6	4 pc(s).	**8800.120**

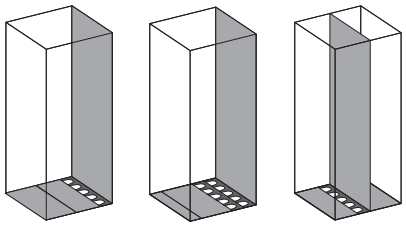
For installation in CM enclosures and TP TopConsole system

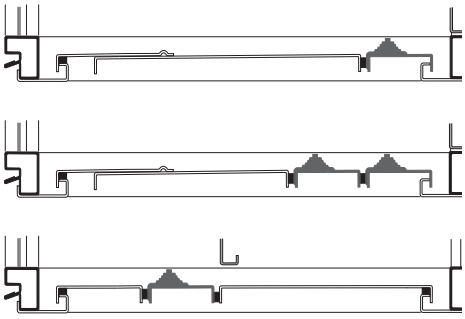
Enclosure width mm	Cut-outs per plate	Packs of	Model No.
600	5	1 pc(s).	**5001.226**
800	8	1 pc(s).	**5001.227**
1000	4	1 pc(s).	**5001.228**
1200	6	1 pc(s).	**5001.229**
1600	8	1 pc(s).	**5001.237**

Accessories:

– Cable entry grommets, see page 769

Three examples from a wide range of possibilities
The diagrams show three TS examples for the positioning of cable entry plates instead of segments of the three-piece gland plates supplied as standard. This facilitates positioning to fit the mounting plate. Thanks to the enclosure symmetry, where dimensions permit, cable entry plates may also be inserted in the enclosure depth, right and left, analogous to the gland plates.





Cable entry grommets

In conjunction with the cable entry plate, supports simple and fast sealing of cables inserted in the base area of enclosures.

Material:
– Body: Polypropylene
– Cover: Thermoplastic elastomer

Protection category IP to IEC 60 529:
– IP 55 if installed correctly

Cables per grommet	Max. Ø mm	Packs of	Model No.
8	13	25 pc(s).	**4316.000**
3	21	25 pc(s).	**4317.000**
1	47	25 pc(s).	**4318.000**





Connector grommets

Suitable for cable diameters from 8 to 36 mm.

Material:
– Outer cover: Polypropylene covered with thermoplastic elastomer
– Seal: Cellular rubber

Protection category IP to IEC 60 529:
– IP 55 if installed correctly

Packs of	Model No.
10 pc(s).	**4311.000**



Section for cable entry, centre

for TS, SE, CM, TP

For top-mounting on gland plates. A superior alternative to the foam rubber cable clamp strip, thanks to:
- Easier mounting
- Full-surface support
- High level of sealing of cables inserted into the enclosure

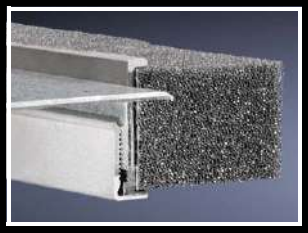
Material:
– Extruded aluminium section
– Seal: PU foam
– Cross-section: 30 x 25 mm

Protection category IP to IEC 60 529:
– IP 55 if installed correctly

Supply includes:
– Plug-in sections, incl. foam rubber clamp strips

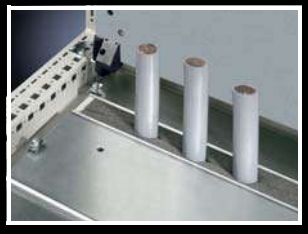
Note:
– 2 pc(s). are sufficient for one base opening up to an enclosure width of 800 mm
– From an enclosure width of 1000 mm, two base openings are provided. 4 packs per enclosure may be fitted.

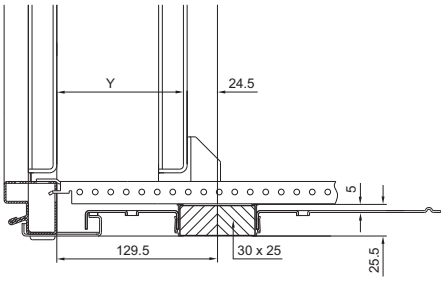
For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**8802.060**
800	2 pc(s).	**8802.080**
1000	4 pc(s).	**8802.100**
1200	4 pc(s).	**8802.120**
1600	4 pc(s).	**8802.160**



Accessories:

– Cable clamp rails (right angle section), see page 783
– C rail 30/15, see page 723





Y = Mounting plate depth-adjustable on a 25 mm pitch pattern (final pitch 30 mm)

Cable entry



Section for cable entry, rear

for TS, SE, CM, TP

Unlike the section for cable entry, centre, the rear section is mounted directly onto the base opening. In this way, when installing the mounting plate in the rearmost position (TS) or with CM, the cables may be routed directly on a cable clamping rail with no large radii. In conjunction with the cable clamp rail, optimum adjustment between the cable entry and mounting plate can be achieved.

Material:
- Extruded aluminium section
- Seal: PU foam
- Cross-section: 30 x 25 mm

Protection category IP to IEC 60 529:
- IP 55 if installed correctly

Supply includes:
- Plug-in sections, incl. foam rubber clamp strips

Note:
- 2 pc(s). are sufficient for one base opening up to an enclosure width of 800 mm
- From an enclosure width of 1000 mm, two base openings are provided. 4 packs per enclosure may be fitted.

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**8802.065**
800	2 pc(s).	**8802.085**
1000	4 pc(s).	**8802.105**
1200	4 pc(s).	**8802.125**
1600	4 pc(s).	**8802.165**

Accessories:
- Cable clamp rail, see page 783



Foam rubber cable clamp strip

For sealing the cable entry between the gland plates. Particularly suitable for identical cable cross-sections.

Material:
- PU foam
- Cross-section: 30 x 30 mm

Protection category IP to IEC 60 529:
- IP 55 if installed correctly

Packs of	Model No.
3 m	**2573.000**



EMC gland plates

see page 759

Plastic cable gland plates

With metric knockouts
With pre-punched holes for cable glands. Used for sealing standard gland plates.

Temperature range:
– Suitable for use from -40°C…+70°C

Colour:
– RAL 7035

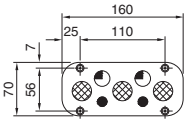
Protection category IP to IEC 60 529:
– IP 55 if installed correctly

Note:
– The applicable size may be taken from the relevant product ordering page

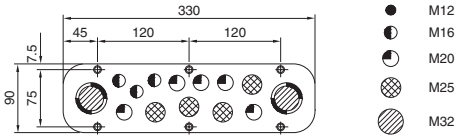
Size	Packs of	Model No.
1	10 pc(s).	**2560.010**
3	10 pc(s).	**2561.010**
4	5 pc(s).	**2562.010**
5	5 pc(s).	**2563.010**



Size 1

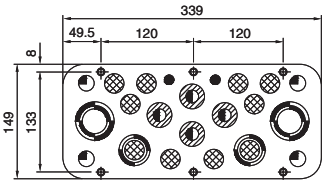


Size 3

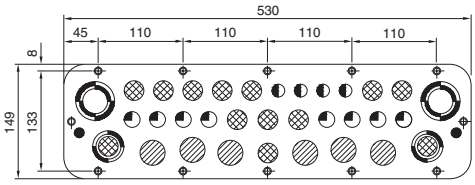




Size 4



Size 5



Plastic cable gland plates

With PG knockouts
With pre-punched PG holes for cable glands. Used for sealing standard gland plates.

Temperature range:
– Suitable for use from -40°C…+70°C

Material:
– ABS

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55 if installed correctly

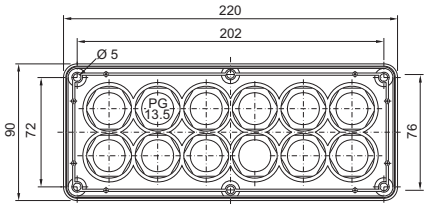
Note:
– The applicable size may be taken from the relevant product ordering page

Size	PG	Qty.	Packs of	Model No.
2	13.5	12	5 pc(s).	**1581.000**
	13.5 16 21	6 2 2	5 pc(s).	**1582.000**

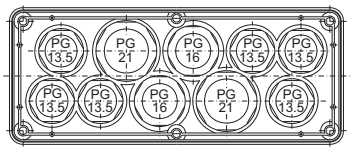




1581.000



1582.000



Gland plates



Plastic gland plates

with membranes
Simply pierce the plastic with a sharp object, and pull through the cable.

Material:
– Plastic to UL 94-V0

Colour:
– Similar to RAL 7035

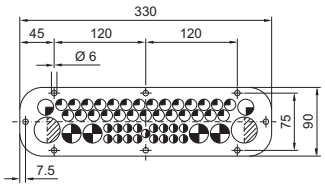
Protection category IP to IEC 60 529:
– IP 65 with careful cable entry

Note:
– The applicable size may be taken from the relevant product ordering page

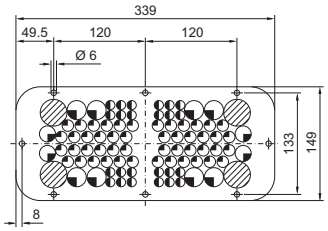
Size	Packs of	**Model No.**
3	1 pc(s).	**2561.500**
4	1 pc(s).	**2562.500**
5	1 pc(s).	**2563.500**

	Diameter mm	No. of cable entries for Model No.		
		2561.500	2562.500	2563.500
●	5 – 9	–	–	18
◑	6 – 11	17	–	–
◐	7 – 12	–	24	16
◔	10 – 15	27	48	36
◒	15 – 21	2	4	–
◓	15 – 24	–	–	6
◒	15 – 25	–	8	–
◓	16 – 25	4	–	–
▨	19 – 34	2	–	–
▩	23 – 30	–	–	2
▨	26 – 35	–	4	2
◫	26 – 54	–	–	4
○	50 – 110	–	–	1

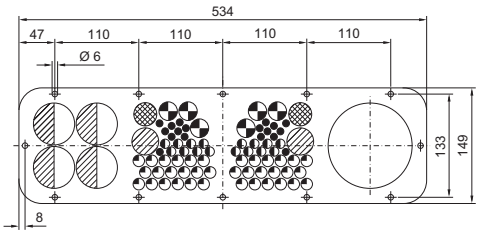
Size 3



Size 4



Size 5





Metal gland plates

with metric knockouts
Simply knock out the holes for the cable glands using a screwdriver.

Material:
– Sheet steel

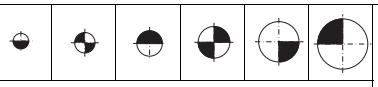
Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 66 when mounting in the usual position at the bottom

Note:
– The applicable size may be taken from the relevant product ordering page

Size	Packs of	**Model No.**
2	1 pc(s).	**1581.100**
3	1 pc(s).	**2561.100**
4	1 pc(s).	**2562.100**
5	1 pc(s).	**2563.100**

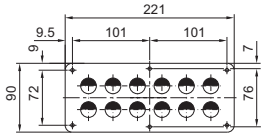
Number of cable entries

						Model No.
Diameter						
M12	M16	M20	M25	M32	M40	
–	–	12	–	–	–	1581.100
–	–	9	4	2	–	2561.100
–	2	5	13	2	2	2562.100
1	–	12	11	8	4	2563.100

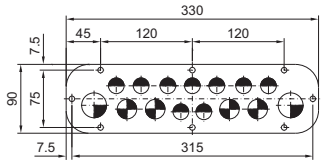
Accessories:

– Cable glands made from polyamide or brass, see page 776

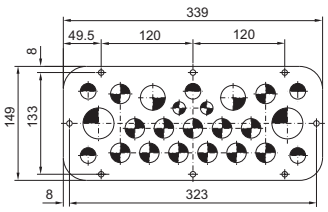
Size 2



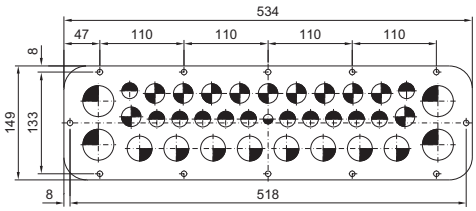
Size 3



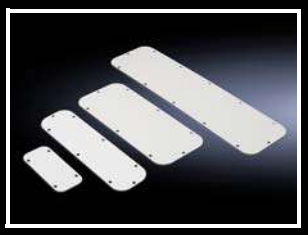
Size 4



Size 5



Gland plates



Metal gland plates

As spare/replacement part for the standard gland plates supplied loose.

Material:
– Sheet steel

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 66 when mounting in the usual position at the bottom

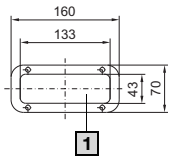
Note:
– The applicable size may be taken from the relevant product ordering page

Size	Version	Packs of	Model No.
1	solid	1 pc(s).	**2560.400**
2	solid	6 pc(s).	**1158.500**
3	solid	1 pc(s).	**2561.400**
4	solid	1 pc(s).	**2562.400**
5	solid	1 pc(s).	**2563.150**

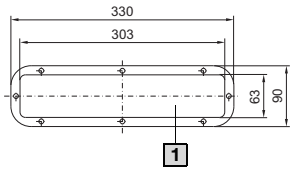
Accessories:

– Cable glands made from polyamide or brass, see page 776

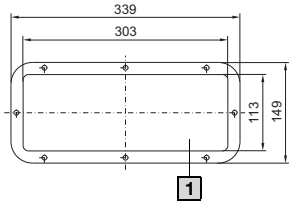
2560.400



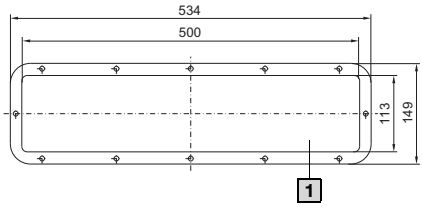
2561.400



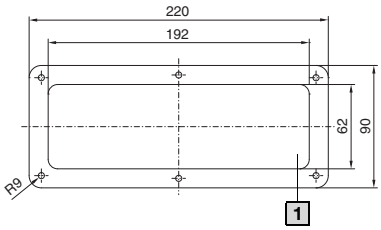
2562.400



2563.150



1158.500



1 Area available for population



Gland plate

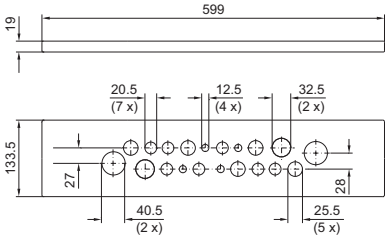
for metric cable glands, for EL
Folded gland plate with foamed-in seal and pre-punched, knock-out holes for metric cable glands M12, M20, M25, M32, M40.

Material:
– Sheet steel, 1.5 mm

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Width mm	Depth mm	Cable entry (quantity x diameter)	Packs of	Model No.
599	133.5	4 x M12 7 x M20 5 x M25 2 x M32 2 x M40	1 pc(s).	**7705.235**



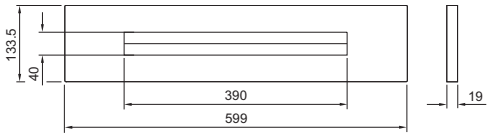
Gland plate

with brush insert, for EL
Folded gland plate with foamed-in seal and plastic brush inserts for simple cable entry.

Material:
– Sheet steel, 1.5 mm

Colour:
– RAL 7035

Packs of	Model No.
1 pc(s).	**7705.035**





Brush strip

For individual installation of enclosure panels, gland plates and panels. Cut-outs for cable routing at any given positions in the side panel, rear panel, doors, roof and base plate may be finished off attractively by simply attaching the brush strip.

Packs of	Model No.
2 m	**7072.200**

Technical specifications:
– For metal thickness: 0.6 – 1.5 mm
– Bristle length: 30 mm
– Plastic sheathing: 18 mm
– Snap-on surface: 10 mm
– Maximum cut-out height: 38 mm



Brush strip, super-airtight

For individual installation of enclosure panels, gland plates and panels. Cut-outs for cable routing at any position in the side panel, rear panel, doors, roof and base plate. These special brush strips may be used to create airtight entries for cable sections and conductors. The brush strips arranged in an offset configuration ensure good sealing from the routed cables even with large quantities of cables. In this way, unwanted flow losses may be reduced to a minimum.

Packs of	Model No.
2 x 1 m	**7825.375**

Technical specifications:
– For metal thickness: 1.5 – 2 mm
– Bristle length: 58 mm
– Plastic sheathing: 14 mm
– Snap-on surface: 11.5 mm
– Cut-out width: 88 – 90 mm

Material:
– Plastic

Supply includes:
– 1 brush strip, right-hand version
1 brush strip, left-hand version



Cable gland



Cable gland, brass

Benefits:
- Because the gland and lock nut are sold together in a single pack, this saves additional ordering and storage
- Clamping membranes ensure even tightening and strain relief, which in turn protects the cables

Material:
– Brass
– Seal: TPE/NBR

Surface finish:
– Nickel-plated

Protection category IP to IEC 60 529:
– IP 68 (1 bar, 30 min.)

Approvals:
– VDE

Size	Packs of	Model No.
M12 x 1.5	15 pc(s).	**2411.801**
M16 x 1.5	15 pc(s).	**2411.811**
M20 x 1.5	10 pc(s).	**2411.821**
M25 x 1.5	10 pc(s).	**2411.831**
M32 x 1.5	5 pc(s).	**2411.841**
M40 x 1.5	4 pc(s).	**2411.851**
M50 x 1.5	2 pc(s).	**2411.861**
M63 x 1.5	1 pc(s).	**2411.871**

Possible alternative:

– Cable gland Hygienic Design, see page 777



Cable gland, polyamide

Benefits:
- Because the gland and lock nut are sold together in a single pack, this saves additional ordering and storage
- Clamping membranes ensure even tightening and strain relief, which in turn protects the cables

Material:
– Polyamide 6
– Seal: Neoprene

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 68 (1 bar, 30 min.)

Approvals:
– VDE

Size	Packs of	Model No.
M12 x 1.5	50 pc(s).	**2411.601**
M16 x 1.5	50 pc(s).	**2411.611**
M20 x 1.5	50 pc(s).	**2411.621**
M25 x 1.5	25 pc(s).	**2411.631**
M32 x 1.5	15 pc(s).	**2411.641**
M40 x 1.5	5 pc(s).	**2411.651**
M50 x 1.5	5 pc(s).	**2411.661**
M63 x 1.5	3 pc(s).	**2411.671**

HD cable gland

Applications:
- Manufacturing and packaging of foodstuffs etc.
- Clean room technology (e.g. pharmaceuticals)
- Biotechnology
- Chemical industry

Benefits:
- Smooth, solid exterior surfaces effectively prevent the depositing of harmful micro-organisms
- Much easier, and therefore cheaper, to clean compared with conventional cable glands

Material:
– Cap nut: Stainless steel 1.4305 (AISI 303)
– Seal: Conforms to FDA 21 CFR 177.2600

Protection category IP to IEC 60 529:
– IP 68 (5 bar, 30 min.)

Protection category IP to DIN 40 050-9:
– IP 69K

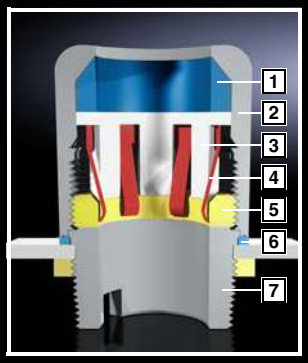
Standard version

Size	Cable diameter mm	Packs of	Model No.
M12 x 1.5	3 – 6.5	5 pc(s).	**2410.000**
M16 x 1.5	5 – 10	5 pc(s).	**2410.010**
M20 x 1.5	6 – 12	5 pc(s).	**2410.020**
M25 x 1.5	12 – 17	5 pc(s).	**2410.030**

EMC version

Size	Cable diameter mm	Packs of	Model No.
M16 x 1.5	5 – 10	5 pc(s).	**2410.110**
M20 x 1.5	6 – 12	5 pc(s).	**2410.120**
M25 x 1.5	12 – 17	5 pc(s).	**2410.130**



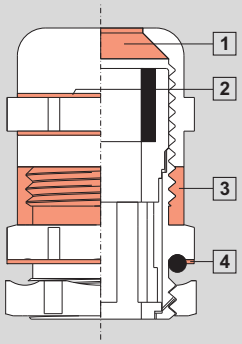


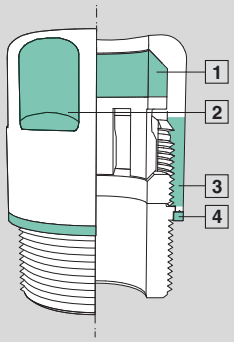
1 Seal
2 Cap nut
3 Gripper jaws
4 Shield spring (EMC version only)
5 Clamping ring
6 Enclosure seal
7 Base with locator for assembly tool

Why use hygienic cable glands?

Critical points with conventional solutions

1 Cable entry in front of seal
2 No minimum radii on the hexagon
3 External threads
4 Gap caused by O-ring on the enclosure surface





Hygienic design features

1 Seal directly at the cable entry
2 Compliance with minimum radii on the hexagon
3 No external threads
4 Flush termination between the cap nut and the enclosure

Stainless steel lock nut

To match HD cable glands.

Material:
– Stainless steel 1.4305 (AISI 303)

Size	Packs of	Model No.
M12 x 1.5	10 pc(s).	**2410.200**
M16 x 1.5	10 pc(s).	**2410.210**
M20 x 1.5	10 pc(s).	**2410.220**
M25 x 1.5	10 pc(s).	**2410.230**



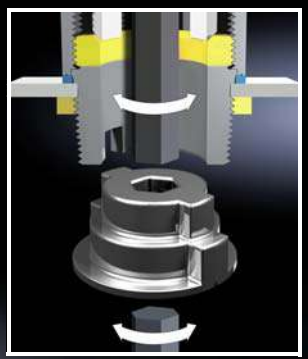
Assembly tool

for HD cable gland

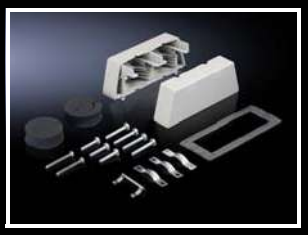
For attaching HD cable glands in an internal thread or using lock nuts. This can be achieved either from the inside or from the outside using an Allen key.

Supply includes:
– 1 pc(s). = Adaptor for sizes from M12 – M25

Packs of	Model No.
1 pc(s).	**2410.290**



Cable gland



Connector gland

for connector cut-outs (24-pole)
For the entry of 2 pre-assembled cables in the connector cut-out, without dismantling the connector.

Cable diameter: 8 – 36 mm

Material:
– Housing: Plastic
– Clamps: Sheet steel

Surface finish:
– Clamps: Zinc-plated

Supply includes:
– 1 pc(s). =
2 half-shells, including seals, with fastening clamp

Packs of	Model No.
1 pc(s).	**2400.000**





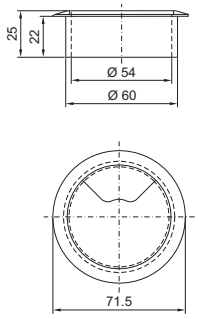
Cable gland

for IW worktops
To fit drilled holes Ø 60 mm. For the entry of cables with pre-assembled connectors, the rotating flap and cover are easily removed.

Material:
– Plastic

Colour:
– RAL 7035

Packs of	Model No.
1 pc(s).	**6902.770**





Edge protection

For covering sharp edges of cut-outs. Provides protection from injuries and prevents damage to inserted cables. The edge protector is suitable for material thicknesses of approx. 1.0 – 2.0 mm, and may be cut to length individually.

Material:
– Plastic PVC

Colour:
– Black

Packs of	Model No.
10 m	**7072.100**

Cable gland



The connector gland proves that sometimes “less is more”: significantly faster installation, a flexible sealing system for different cable diameters, and simple cable entry with pre-assembled cables. Low installation costs, a high degree of protection and flexible cable management – added value guaranteed with the latest generation of cable entry solutions from Rittal.

Benefits:
- Cable diameters 4 – 16 mm
- Simple cable entry for pre-assembled cables
- Individual cables can be added or replaced without dismantling the sealing frame
- Sealing modules remain safely attached to their cables

Sealing frame

For pre-assembled cables with connectors.

Mounting over 24-pole or 16-pole connector cut-outs in:
- Module plates for TS divider panels
- Metal gland plates

Material:
– Frame: Polyamide
– Flat seal: CR

Protection category IP to IEC 60 529:
– IP 64

NEMA protection category:
– NEMA 12

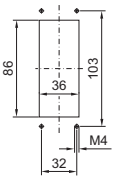
Supply includes:
– Assembly parts

For modules 20 x 20 mm	For cut-out	Packs of	Model No.
10 pc(s)	24-pole	1 pc(s).	**2400.900**
8 pc(s).	16-pole	1 pc(s).	**2400.910**

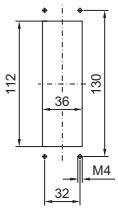


Accessories:

– Module plates for TS divider panel, see from page 649



16-pole



24-pole

Sealing modules

For sealing cables and lines in conjunction with a sealing frame. 20 x 20 mm and 40 x 40 mm sealing modules may be combined.

Material:
– Hard shell: Polyamide
– Seal: TPE 2

Protection category IP to IEC 60 529:
– IP 64

NEMA protection category:
– NEMA 12

Sealing modules 20 x 20 mm

Sealing range	Packs of	Model No.
4 – 6 mm	10 pc(s).	**2400.920**
6 – 9 mm	10 pc(s).	**2400.930**
solid	10 pc(s).	**2400.970**

Sealing modules 40 x 40 mm

Sealing range	Packs of	Model No.
9 – 12 mm	10 pc(s).	**2400.940**
12 – 16 mm	10 pc(s).	**2400.950**
solid	10 pc(s).	**2400.960**



Cable gland



Connector gland, small

For pre-assembled cables with connectors.
- For use with material thickness of up to 4 mm
- Strain relief of the pre-assembled cables can be achieved with cable ties.

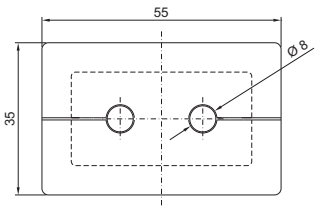
Material:
– Plastic

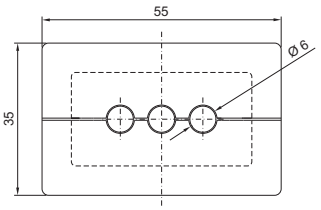
Colour:
– RAL 9005

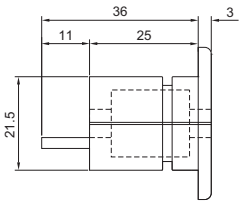
Protection category IP to IEC 60 529:
– IP 65 if installed correctly

Supply includes:
– Assembly parts

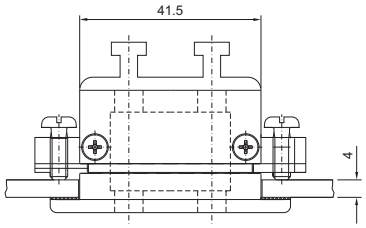
To fit	Packs of	Model No.
2 cables Ø 6 – 8 mm	1 pc(s).	**2400.300**
3 cables Ø 4 – 6 mm	5 pc(s).	**2400.500**



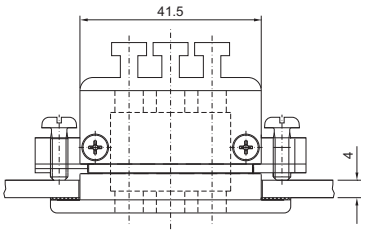




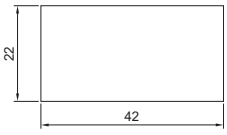
2400.300



2400.500



Mounting cut-out







Cable gland module

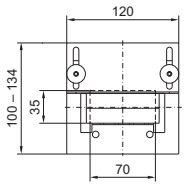
for support arm connection Ø 130 mm
Use of the mounting cut-out for support arm connection Ø 130 mm, round, with enclosures mounted on the wall, for sealed cable entry. May also be mounted retrospectively with the cables already inserted. Fitted with T-heads for cable clamping. Particularly well-suited to cables with identical cross-sections.

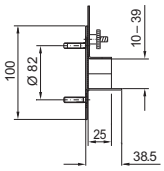
Material:
– Sheet steel

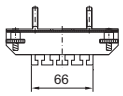
Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**6052.500**











Stepped collar

for wall thicknesses from 1.5 to 4.5 mm
For cable entry, simply cut off at the required level to match the cable diameter.

Material:
– Plastic to UL 94-HB

Protection category IP to IEC 60 529:
– IP 54 with careful cable entry

For hole	Sealing range mm	Packs of	Model No.
M20	5 – 16	100 pc(s).	**2899.200**
M25	5 – 21	50 pc(s).	**2899.250**
M32	13 – 26.5	25 pc(s).	**2899.320**
M40	13 – 34	20 pc(s).	**2899.400**

Cable duct

for vertical TS section

For direct mounting on the vertical enclosure section.

Width 50 mm,
For mounting on a vertical enclosure section in the area of the side panel.

Width 100 mm,
For mounting on two bayed enclosure sections in the baying area. Baying brackets and baying clamps which have already been fitted can be covered over with the cable duct. The nominal break points of the bars are also designed for combination with the cable ducts for mounting plates; in addition a further nominal break at the level of the mounting plate enables direct insertion into the cable duct. The cable duct fastening points are co-ordinated with the TS system hole pattern; time-consuming drilling work, as in the case of DIN ducts, is eliminated.

Width mm	Height mm	Packs of	**Model No.**
50	1600	8 pc(s).	**8800.570**
50	1800	8 pc(s).	**8800.520**
100	1600	4 pc(s).	**8800.540**
100	1800	4 pc(s).	**8800.510**

Technical specifications:
– Depth: 80 mm
– Length: 1600 mm (for enclosure height 1800 mm)
1800 mm (for enclosure height 2000 mm),
may be shortened for other enclosure dimensions
– Bar width: 5.5 mm
– Slot width: 4.5 mm

Material:
– Hard PVC
– Flame-resistant, self-extinguishing
– Temperature resistant to +60°C

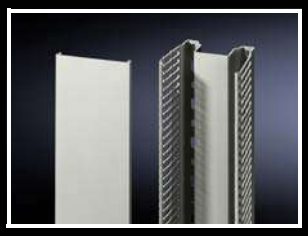
Colour:
– Similar to RAL 7030

Supply includes:
– 1 pc(s). =
1 cable duct with cover

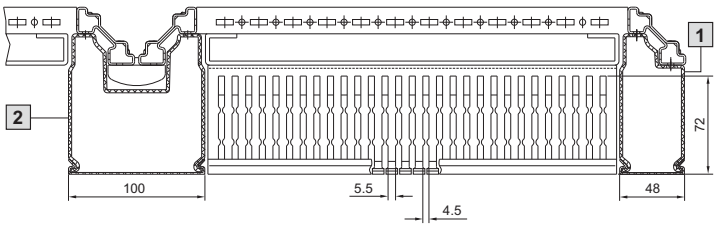
Accessories:
– Aluminium rivet for attachment, see page 782

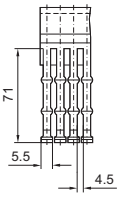




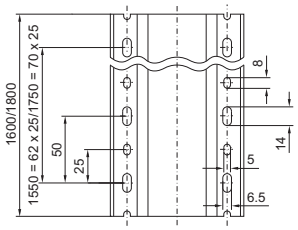


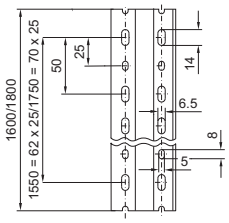


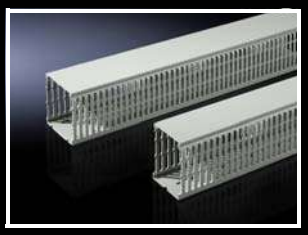




1 8800.570/8800.520
2 8800.540/8800.510









Cable duct

for mounting plate

- To fit the cable ducts for vertical TS sections
- If the TS mounting plate is installed in the rear-most position, the horizontally mounted cable ducts are flush with the vertical ones
- For external mounting on surfaces

Technical specifications:
– Depth: 80 mm
– Length: 2000 mm, may be cut to length
– Bar width: 5.5 mm
– Slot width: 4.5 mm

Material:
– Hard PVC
– Flame-resistant, self-extinguishing
– Temperature resistant to +60°C

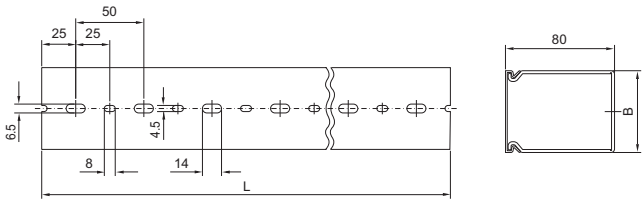
For enclosure width mm		Standard length 2000 mm
Length (L) mm		
Width (B) mm	Packs of	**Model No.**
30	24 pc(s).	**8800.750**
40	20 pc(s).	**8800.751**
60	18 pc(s).	**8800.752**
80	12 pc(s).	**8800.753**
100	12 pc(s).	**8800.754**

Colour:
– Similar to RAL 7030

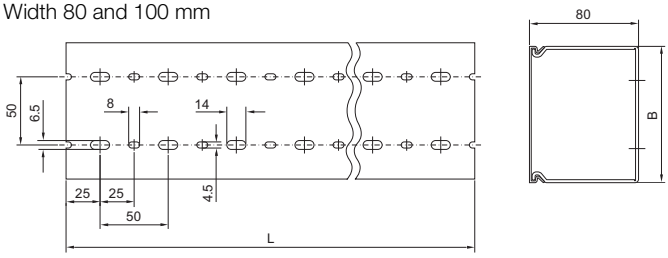
Supply includes:
– 1 pc(s). = 1 cable duct with cover

Accessories:
– Aluminium rivet for attachment, see page 782

Width 30, 40 and 60 mm



Width 80 and 100 mm





Aluminium rivet

For secure assembly of cable ducts. Also suitable for mounting support rails and punched rails.

To fit
- TS system hole pattern
- Drilled hole Ø 4.5 mm

Packs of	**Model No.**
100 pc(s).	**8800.531**

Accessories:
– Cable ducts for vertical TS section, see page 781
– Cable ducts for mounting plate, see page 782

Cable clamp rails

Mounting angle for TS, SE, PC, TP universal console, TS base/plinth, Flex-Block

For strain relief with cable entry. Depth-variable mounting on a 25 mm pitch pattern of holes on the horizontal enclosure section or in the TS base/plinth / Flex-Block.

Material:
– Steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Enclosure width mm	Length mm	Packs of	Model No.
400	385	2 pc(s).	**4193.000**
600	585	2 pc(s).	**4191.000**
800	785	2 pc(s).	**4192.000**
1000	985	2 pc(s).	**4336.000**
1200	1185	2 pc(s).	**4196.000**
1600	1585	2 pc(s).	**4338.000**
1800	1785	2 pc(s).	**4339.000**

Accessories:

– Fastening bolts for TS base/plinth, see page 622
– Quick-assembly block 4133.000 for Flex-Block, see page 733
– Punched rails 23 x 23 mm for Flex-Block, see page 722



Cable clamps

for cable clamp rails

For fastening the cables to the cable clamp rails.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Plastic insert

For cable diameter mm	Packs of	Model No.
6 – 12	25 pc(s).	**2350.000**
12 – 16	25 pc(s).	**2351.000**
14 – 18	25 pc(s).	**2352.000**
18 – 22	25 pc(s).	**2353.000**
22 – 26	25 pc(s).	**2354.000**
26 – 30	25 pc(s).	**2355.000**
30 – 34	25 pc(s).	**2356.000**
34 – 38	25 pc(s).	**2357.000**
38 – 42	25 pc(s).	**2358.000**
42 – 46	25 pc(s).	**2359.000**
46 – 50	25 pc(s).	**2360.000**

Possible alternative:

– Rail for EMC shielding bracket and strain relief, see page 759





Cable clamp rails

C rail, for mounting plates, for TS, SE, CM, TP

For strain relief with cable entry. The length of the cable clamp rail is tailored to the width of the mounting plate. The mounting bracket included with the supply supports three different installation situations on the mounting plate:

1 Straight, at a distance of 23 mm from the mounting plate

2 Straight, at a distance of 10 mm from the mounting plate

3 Tilted, towards the mounting plate

Material:
– Sheet steel

Surface finish:
– Zinc-plated

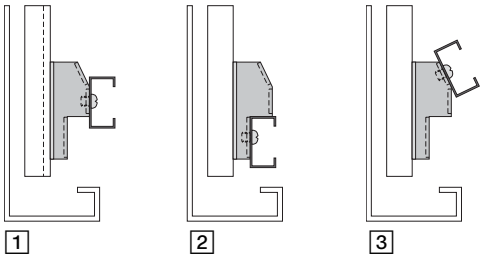
Supply includes:
– Two mounting brackets and assembly screws.

For enclosure width mm	Length mm	Packs of	Model No.
600	499	1 pc(s).	**5001.080**
800	699	1 pc(s).	**5001.081**
1000	899	1 pc(s).	**5001.082**
1200	1099	1 pc(s).	**5001.083**

Accessories:

– Cable clamps for C rails, see page 784









Cable clamping bracket

For installation in command panels with mounting cut-out □ 120 x 65 mm and Ø 130 mm.
Cable clamping optionally via:
- Cable clamps
  or
- Cable ties 2597.000
- Standard commercially available cable ties

Bracket height = 25 mm with fitted C rail 40 mm

Material:
– Sheet steel

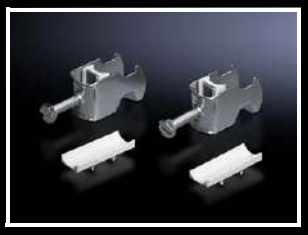
Surface finish:
– Zinc-plated

Supply includes:
– C rail and assembly screws

Packs of	**Model No.**
1 pc(s).	**6052.000**

Accessories:

– Cable clamps, see page 784
– Cable ties, see page 785





Cable clamps

for C rails
For attaching the cables to the C rails.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

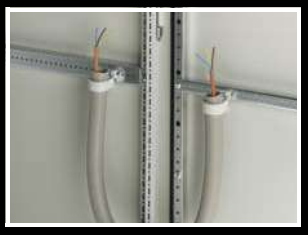
Supply includes:
– Plastic washers

For cable diameter mm	Packs of	**Model No.**
6 – 14	25 pc(s).	**7077.000**
12 – 18	25 pc(s).	**7078.000**
18 – 22	25 pc(s).	**7097.000**
22 – 26	25 pc(s).	**7097.220**
26 – 30	25 pc(s).	**7097.260**
30 – 34	25 pc(s).	**7097.300**
34 – 38	25 pc(s).	**7097.340**
38 – 42	25 pc(s).	**7098.000**
42 – 56	25 pc(s).	**7098.100**
56 – 64	25 pc(s).	**7099.000**

Accessories:

– C rails, see from page 723





Cable conduit and cable conduit holder

For secure cable routing e.g. from the enclosure or mounting plate to the door. Attachment facility for standard commercially available cable ties is provided on the cable conduit holder, so that cables may be attached upon entry to/exit from the cable conduit.

Material:
– Cable conduit: Polythene
– Cable conduit holder: Polyamide

Cable conduit

Internal Ø mm	Packs of	**Model No.**
16	25 m	**2595.000**
29	25 m	**2589.000**
36	25 m	**2596.000**
48	25 m	**2590.000**

Cable conduit holder

For cable conduit Ø mm	Packs of	**Model No.**
16	20 pc(s).	**2593.000**[1)]
29	20 pc(s).	**2591.000**[1)]
36	20 pc(s).	**2594.000**
48	20 pc(s).	**2592.000**

[1)] Installation in compact enclosures AE with universal bracket 2373.000, see page 734

Cable attachment

For professional, secure fastening of cables and conduits.
For fastening:
- Slide into the punched rail 23 x 23 mm,
- Screw-fasten onto the round punchings of the enclosures, as well as all punched rails and punched sections

Material:
– Polyamide

Note:
– As the attachments are bayable, several attachments, even those of different sizes, can be assembled using just 2 screws

For cable diameter from – to mm	Packs of	Model No.
6 – 9	50 pc(s).	**4319.090**
9 – 12	50 pc(s).	**4319.120**
12 – 16	50 pc(s).	**4319.160**
16 – 20	50 pc(s).	**4319.200**





Also required:
– Posidrive raised countersunk screw M5 x 12 mm, 2488.000, for screw-fastening to the round system punchings, see page 737

Accessories:
– Punched rail 23 x 23 mm, see page 722

Cable tie

The super-fast solution for fastening cables to the enclosure profile or mounting system parts.
Simply clip into the round system punchings.

Length mm	Packs of	Model No.
150	100 pc(s).	**2597.000**



Nylon loop

With the nylon loop, secured cables are easily released, allowing individual cables to be added or removed. Ideal for sensitive data cables (fibre-optic/Cu), as it avoids indentations on the cable sheathing. In addition, the nylon loop may be screw-fastened to the round system punchings or attached using a quick-release fastener.

Colour:
– Black

Supply includes:
– Quick-release fasteners

Width mm	Length mm	Max. cable diameter mm	Packs of	Model No.
20	130	30	10 pc(s).	**7072.220**
20	200	50	10 pc(s).	**7072.230**
20	300	90	10 pc(s).	**7072.240**



Also required:
– Screw 2486.500 for screw-fastening to the round system punchings, see page 737

Nylon tape

For tidy cable routing. Supplied on a reel for cutting to the required length.

Unlike cable ties, nylon tape
- protects the cable sheathing
- is easily reopened and
- is reusable

Length mm	Width mm	Packs of	Model No.
5000	16	1 pc(s).	**2203.400**







Nylon tape holder

- For simple, fast cable attachment
- Tool-free mounting in the system punchings with 10.5 x 12.5 mm, with a quarter rotation
- Direct use on the horizontal TS frame section, on the support strips and mounting angles of the TS IT 482.6 mm (19") interior installation, on the cable route or on punched sections with mounting flanges
- Length of nylon tape: 400 mm

Material:
– Plastic

Supply includes:
– 10 nylon tapes
– 10 holders

Packs of	**Model No.**
10 pc(s).	**5502.155**





Nylon loop cable holder

Self-adhesive
Suitable for universal use in all network enclosures and server racks, wall-mounted enclosures, mounting plates, gland plates.

Material:
– Woven polyamide 6.6

Colour:
– Black

Size length x width mm	Packs of	**Model No.**
70 x 16	10 pc(s).	**7111.350**







Snap-in cable routing

for clipping into the system punchings.
Cable routing suitable for universal use, for tool-free, fast assembly, in two variants:

For locking
- User-friendly opening for cable management via locating points
- For cable diameters 14 – 19 mm
- For system punchings 6.2 mm

For twisting
- User-friendly opening for cable management
- For cable diameters 10.2 – 12.7 mm
- For system punchings 4.7 mm

Material:
– Polyamide 6.6, self-extinguishing to UL 94-V2

Colour:
– Natural

Version	Packs of	**Model No.**
For locking, for system punchings 6.2 mm	10 pc(s).	**7111.300**
For twisting, for system punchings 4.7 mm	10 pc(s).	**7111.310**

Cable clamp rails

for TS, TS IT

For vertical cable routing in the enclosure. The cables may be attached to the cable clamp rails with cable ties or nylon loops. The cable clamp rails are simply located onto the frame section and may additionally be secured with a screw.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts



For the inner mounting level

For enclosures		Packs of	Model No.
Width mm	Depth mm		
600	600	4 pc(s).	**7828.061**
800	800	4 pc(s).	**7828.081**
1000	1000	4 pc(s).	**7828.101**
1200	1200	4 pc(s).	**7828.121**

For the outer mounting level

For enclosures		Packs of	Model No.
Width mm	Depth mm		
600	600	4 pc(s).	**7828.062**
800	800	4 pc(s).	**7828.082**
1000	1000	4 pc(s).	**7828.102**
1200	1200	4 pc(s).	**7828.122**

Accessories:

– Cable ties, see page 785
– Nylon loop, see page 785

Cable clamp rails, depth-variable

for TS, TS IT, TE

For cable routing on the enclosure frame and for strain relief of the routed cables. The cables may be attached to the cable clamp rails with cable ties or nylon loops. The cable clamp rails may be located horizontally at the rear directly onto a 482.6 mm (19") mounting level or in the enclosure depth between two mounting levels. An additional screw fastening secures the unit. The depth variability of the rails facilitates flexible adaptation of their length to the existing attachment distance between the two 482.6 mm (19") mounting levels.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts





Mounting dimension[1] mm	Packs of	Model No.
325 – 575	4 pc(s).	**7858.160**
500 – 895	4 pc(s).	**7858.162**

[1] Mounting dimensions + 152 mm = distance between 482.6 mm (19") levels

Accessories:

– Cable ties, see page 785
– Nylon loop, see page 785

Cable clamp, variable

for enclosure-independent mounting

Variable attachment from 450 to 800 mm for flexible cable clamping in two variants.
Supports attachment to punched sections with and without mounting flanges, and direct screw-fastening onto mounting plates and other flat surfaces.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

1 C rail

2 T-head rail





Version	Packs of	Model No.
C rail	1 pc(s).	**7016.140**
T-head rail	1 pc(s).	**7016.150**







Cable manager

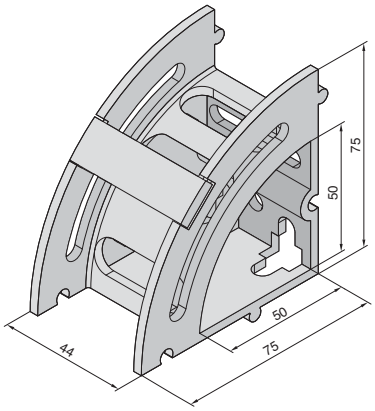
- For system-compatible cable deflection while complying with minimal bending radii and to accommodate surplus cables and excess length. The elements may optionally be used individually or in combination for cable routing. They may be combined into semi-circular or circular elements.
- Supports use on corners and edges to allow protected cable routing around them
- Mounting clips for use above the arc hold the routed cables back within the elements. The elements are also bayable in an axial direction to allow U-based cable routing to the mounting level, or channelling of the cable sections.

Material:
– Plastic, UL 94-V0

Colour:
– RAL 9005

Supply includes:
– Mounting clips and assembly parts

	Packs of	Model No.
Maxi-kit	20 pc(s).	**5502.405**





Cable shunting ring

For flexible, system-compatible cable routing at the side of the 482.6 mm (19") mounting angles.

Material:
– Steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Dimensions mm	Packs of	Model No.
125 x 85	10 pc(s).	**7111.900**
125 x 65	10 pc(s).	**7111.000**
85 x 43	10 pc(s).	**7112.000**





Shunting ring

To accommodate large quantities of cables. Shunting ring for side attachment to 482.6 mm (19") sections in 800 mm wide network enclosures. The ring is attached asymmetrically providing approx. 110 mm free space in front of the 482.6 mm (19") level. This allows even large quantities of cables to be effectively managed.

Material:
– Steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Dimensions mm	Packs of	Model No.
330 x 90/70	4 pc(s).	**7220.600**

Fibre-optic shunting rings

Fibre-optic shunting or jumper cables can be inserted into the grooves of the inner body.
A rubber ring holds different fibre-optic cables up to Ø 4.5 mm. Strain relief and bending radius are ensured.

Length: 120 mm

Material:
– Dual compound plastic

Colour:
– Exterior: RAL 7035
– Interior: Black

Supply includes:
– 2 rubber rings
– Baying kit
– Assembly parts

Assembly:
The supplied mounting brackets are suitable for universal use; the fibre-optic cables can be routed to the patch panel in all directions in various mounting positions:

1 At the side, directly on the patch panel
2 In front of the patch panel
3 At the side next to the patch panel
4 Behind the patch panel

Packs of	Model No.
2 pc(s).	**7116.500**

Possible alternative:

– Fibre-optic cable management panel, 1 U, see page 795











System supports for cable routes

for TS, TS IT

The depth-variable support system may be attached to all 800 – 1200 mm deep TS enclosures with external screw-fastening of the roof plate. The integral system punchings, for screws or captive nuts, support the attachment of most common cable route systems.

- May be combined with TS IT fan mounting plate
- In combination with punched rail, suitable for accommodating additional cable routing rails or pipelines
- Support height: 102 mm

Material:
– Sheet steel

Surface finish:
– Powder-coated

Colour:
– RAL 7035

Packs of	Model No.
2 pc(s).	**7831.472**

Accessories:

– Metal multi-tooth screws 5.5 x 13 mm, 2486.500, see page 737
– Cage nuts M6, 8800.340, see page 736









Cable route

for TS, TS IT

- For cable clamping and routing with network and server applications
- Mounting across the entire depth with 800 mm width, mounting only behind the second 482.6 mm (19") pair of mounting angles with 600 mm width
- Tool-free fast assembly
- Alternatively suitable for screw-fastening
- Multi-functional punchings for cable management accessories

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 9005

Supply includes:
– Assembly parts

Height mm	Packs of	**Model No.**
2000 – 2200	1 pc(s).	**5502.120**

Accessories:

– Cable ties, see page 785
– Nylon tape, see page 785
– Nylon tape holder, see page 786
– Wall-mounted enclosures, see page 788
– Cable routing bars, see page 791



Cable route

for TE

For vertical cable entry at the side of the 482.6 mm (19") mounting frame for TE, independently from the enclosure frame.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Width mm	Height mm	Packs of	**Model No.**
100	1700	1 pc(s).	**7000.685**





Surplus cable holder

For fastening at the rear area of the enclosure, or at the side of network enclosures. The surplus cable holder can be attached to all depth stays or to punched sections and rails with a 25 mm pitch pattern – mounting dimension 150 mm. Components may also be joined together.

Material:
– Spray-finished

Surface finish:
– Zinc-plated

Colour:
– RAL 7035

Supply includes:
– Assembly parts

W x H x D mm	Packs of	**Model No.**
280 x 151 x 75	1 pc(s).	**7220.500**

Cable management 482.6 mm (19")

Cable routing bars

For structured routing of entire cable bundles, the cable bars may be secured to a variety of different positions inside the enclosure.
Individual chambers H x D: 34 x 80 mm

Material:
– Support: Sheet steel
– Cable routing bars, connection combs: Plastic

Colour:
– RAL 9005

Supply includes:
– Cable routing bars
– Connection combs





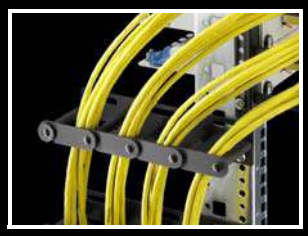
482.6 mm (19") attachment
For horizontal cable routing within the distributor level.
Thanks to their open mounting holes, they can also be retrospectively slotted onto the 482.6 mm (19") system punchings of the mounting level at any time, and secured with the existing mounting screws of the installed components.

U	No. of connection combs	Packs of	Model No.
4	2 pc(s).	4 pc(s).	**7111.224**
1	5 pc(s).	10 pc(s).	**7111.214**



All-round attachment for universal use
For vertical and horizontal cable routing inside the enclosure or within the distributor level.

U	No. of connection combs	Packs of	Model No.
4	2 pc(s).	4 pc(s).	**7111.222**
1	5 pc(s).	10 pc(s).	**7111.212**



Connection comb
For connecting individual cable routing bars into complete systems (included with the supply).



Cable duct

for TS IT, TE
- High packing density due to U-based cable routing
- Removable duct cover hinged on both sides
- Bayable back-to-back
- Easily installed with tool-free fast assembly on the front and rear 482.6 mm (19") mounting angle of the TS IT
- Screw-fastening optionally supported

Material:
– Sheet steel
– Plastic, UL 94-V0

Colour:
– RAL 9005

Supply includes:
– 2 covers
– 4 cable holders for spare cables
– Assembly parts

For enclosure width mm	For enclosure height mm	U	Packs of	Model No.
800	2000	36	1 pc(s).	**5502.105**
800	2200	42	1 pc(s).	**5502.145**





Cable management 482.6 mm (19")




Cable finger 6 U

for TS IT

- For U-based cable routing
- Simple tool-free assembly
- Cable routing in combination with air baffle plates supported

Material:
– Plastic, UL 94-V0

Colour:
– RAL 9005

Packs of	**Model No.**
14 pc(s).	**5502.115**




482.6 mm (19") drawer

To accommodate surplus cables
The 1 U drawer offers a convenient opportunity for storing surplus cables in an organised, compact and secure way within the 482.6 mm (19") levels.

- With brush strip at the front for cable routing
- T-head rail in the rear section for cable clamping
- Ring-shaped, kink-free routing of the conductors on adjustable elements in the interior
- May be fitted between two 482.6 mm (19") levels at a distance of 435 – 750 mm, independently of the enclosure system

Material:
– Sheet steel

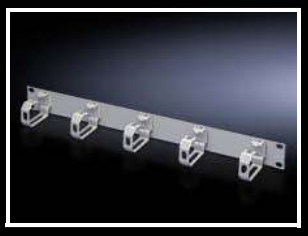
Surface finish:
– Spray-finished

Colour:
– RAL 7035

Distance between levels mm	Packs of	**Model No.**
435 – 750	1 pc(s).	**7063.200**

Supply includes:
– Drawer including telescopic slides and assembly parts

Accessories:
– Nylon loop 7072.220/ 7072.230, see page 785



Cable management panel

With plastic rings
For horizontal management of the patch cables, with 5 cable shunting rings.
Cable shunting rings supplied loose

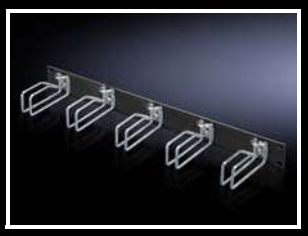
Width: 482.6 mm (19")

Material:
– Panel: Sheet steel
– Rings: Polyamide

Colour:
– RAL 7035

U	Ring size mm	Packs of	**Model No.**
1	70 x 44	1 pc(s)	**7159.035**

Note:
– The dimensions given are external dimensions




Cable management panel

With steel rings
For horizontal management of the patch cables, with 5 cable shunting rings.

Width: 482.6 mm (19")

Material:
– Panel: Sheet steel
– Rings: Steel

Surface finish:
– Rings: Zinc-plated

Note:
– The dimensions given are external dimensions

U	Ring size mm	Colour		Packs of	**Model No.**
		RAL 7035	RAL 9005		
1	43 x 55	■	–	1 pc(s).	**7257.200**
1	43 x 55	–	■	1 pc(s)	**5502.205**
1	43 x 105	■	–	1 pc(s).	**7257.035**
1	43 x 105	–	■	1 pc(s).	**7257.005**
2	85 x 125	■	–	1 pc(s).	**7257.100**
2	85 x 125	–	■	1 pc(s).	**7257.105**

Cable management 482.6 mm (19")

Cable management panel with cable routing bars

482.6 mm (19")
For horizontal management of the patch cables with 5 cable routing bars. Opening the individual cable routing bars allows user-friendly modification and extension of the cabling.

Material:
– Panel: Sheet steel, spray-finished
– Cable routing bars: Plastic





U	Bar depth mm	No. of bars/U	Colour		Packs of	**Model No.**
			RAL 7035	RAL 9005		
1	approx. 80	5	■	–	1 pc(s).	**7257.050**
1	approx. 80	5	–	■	1 pc(s).	**5502.225**

Cable management panel, 2 U

482.6 mm (19")
The cable routing chamber has cut-outs from above, into which the patch cables can be inserted. The cable management panel is equipped with a flap and quick-release fasteners at the front, for optimum access to the cables. From the rear, the cables can be inserted via a cut-out with brush strips.

Material:
– Sheet steel

Surface finish:
– Spray-finished





U	Depth mm	Colour		Packs of	**Model No.**
		RAL 7035	RAL 9005		
2	55	■	–	1 pc(s).	**7158.035**
2	55	–	■	1 pc(s).	**5502.235**

Cable routing channel panel

482.6 mm (19")
To hold the patching cables.

Material:
– Sheet steel

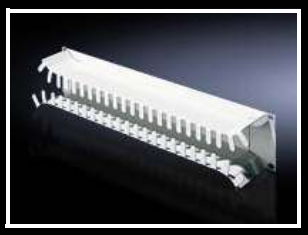
Surface finish:
– Spray-finished





U	Depth mm	Colour		Packs of	**Model No.**
		RAL 7035	RAL 9005		
1	85	■	–	1 pc(s).	**7149.135**
1	85	–	■	1 pc(s).	**5502.245**

Cable management 482.6 mm (19")



Cable management panel, 2 U

To accommodate fibre-optic and copper cables. Fibres from the patch panels are placed into the tray via openings and may be distributed at the sides. Rounded openings protect the cable sheathing.

Width: 482.6 mm (19")
Depth: 86.5 mm

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

U	Packs of	Model No.
2	1 pc(s).	**7269.135**





Cable management duct, horizontal

482.6 mm (19")

The duct facilitates concealed, simple cable routing of large quantities of cables to equipment within the 482.6 mm (19") mounting level. Large cut-outs ensure convenient, kink-free cable routing to the components at the top and bottom. For simple handling, the entire front panel may be removed via quick-release fasteners. After attaching the cables, these are held in position via nylon loop tapes, whilst the duct may be resealed.

Depth: 87.8 mm

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Supply includes:
– 5 nylon tapes

U	Packs of	Model No.
2	1 pc(s).	**7158.100**



Cable tray, 2 U

For side routing and distribution of fibre-optic and copper cables. In this way, cables inserted into the roof area may be routed at the side of the mounting angles in the upper section of the rack.

Width: 482.6 mm (19")
Depth: 85 mm

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

U	Packs of	Model No.
2	1 pc(s)	**7269.235**

Cable management 482.6 mm (19")

Fibre-optic cable management panel, 1 U

482.6 mm (19")
The four fibre-optic cable shunting rings integrated into the front permit optimum management of up to 48 fibres.

Material:
– Panel: Sheet steel
– Rings: Dual compound plastic

Colour:
– Panel: RAL 7035
– Cable shunting rings: RAL 7035, black interior

U	Packs of	Model No.
1	1 pc(s).	**7256.035**

Possible alternative:
– Fibre-optic shunting rings 7116.500, see page 789



Cable entry panel

482.6 mm (19")
Cut-out 390 x 40 mm (2 U) or 390 x 20 mm (1 U) with brush insert.

Material:
– Panel: Sheet steel, spray-finished
– Brush strip: Plastic

Colour:
– RAL 9005

U	Cut-out mm	Colour	Packs of	Model No.
1	390 x 20	RAL 7035	1 pc(s).	**7140.535**
1	390 x 20	RAL 9005	1 pc(s).	**5502.255**
2	390 x 40	RAL 7035	1 pc(s).	**7150.535**
2	390 x 40	RAL 9005	1 pc(s).	**5502.265**



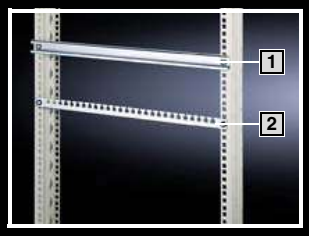
Cable management on the 482.6 mm (19") level

There are various different cable clamping systems available for system-compatible cable routing in 482.6 mm (19") systems with one or two mounting levels:

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts



1 **C rail**
for mounting between all 482.6 mm (19") mounting levels for cable clamps

C rail	Packs of	Model No.
482.6 mm (19") level	6 pc(s).	**7016.100**

2 **Cable clamp rails**
for mounting between all 482.6 mm (19") mounting levels for cable ties

Cable clamp rail	Packs of	Model No.
482.6 mm (19") level	6 pc(s).	**7016.110**

Swing frame



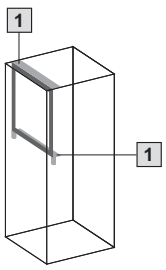
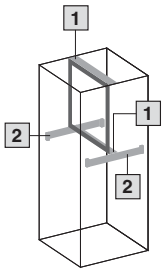
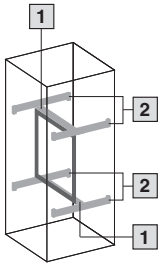
Swing frame, small

Installation for TS, SE, 600 mm and 800 mm wide enclosures
For mounting 482.6 mm (19") equipment.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Cam with double-bit lock insert and parts for attaching to the installation kit

Installation			Front, top/bottom	Set back, top/bottom	Set back/front, centre
					
U		Packs of	**Model No.**		
3		1 pc(s).	**2377.030**		
6		1 pc(s).	**2377.060**		
9		1 pc(s).	**2377.090**		
12		1 pc(s).	**2377.120**		
15		1 pc(s).	**2377.150**		
18		1 pc(s).	**2377.180**		
Also required:					
[1] Installation kit		1 set(s)	for enclosure width: 600	800	
			2377.860	**2377.880**	
	For enclosure depth mm				Page
[2] PS punched section without mounting flange, 2 or 4 required	400	4 pc(s).	4374.000		722
	500	4 pc(s).	4375.000		722
	600	4 pc(s).	4376.000		722
	800	4 pc(s).	4377.000		722
Support bracket, 2 required per PS punched section without mounting flange		6 set(s)	8800.330		731
Accessories					
Lock inserts, type D			2484.000		680

Note:
– The swing frame stay is required to lock the open swing frame, see page 799

Swing frame, large

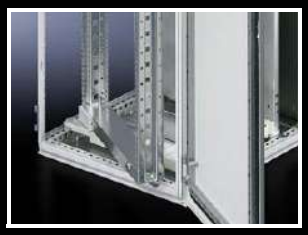
Without trim panel, for 600 mm and 1200 mm wide enclosures
For mounting 482.6 mm (19") equipment.

Material:
– Sheet steel

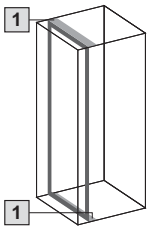
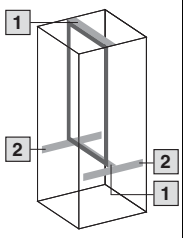
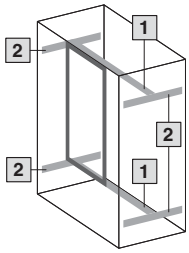
Surface finish:
– Zinc-plated

Supply includes:
– Cam with double-bit lock insert and parts for attaching to the installation kit







Installation	Full installation, front/set back	Partial installation top, front/set back	Partial installation centre, front/set back
			

For enclosure width mm			600	1200
U	For min. enclosure height mm	Packs of	**Model No.**	
22	1200	1 pc(s).	**2322.700**	
31	1600	1 pc(s).	**2331.700**	
36	1800	1 pc(s).	**2336.700**	
40	2000	1 pc(s).	**2340.700**	
45	2200	1 pc(s).	**2345.700**	

Accessories		Page
Lock inserts, type D	2484.000	680

Also required:

1 Installation kits

For enclosure		Hinge	Load capacity			Packs of
TS	SE					
■	■	130°	< 1500 N[2]	**1994.835**	**–**	1 pc(s).
■	■	130°	< 1500 N[2]	**–**	**1996.835**	1 pc(s).
■	■	130°	< 1500 N[1]	**–**	**1996.535**	1 pc(s).

[1] Installation only possible with the mounting plate slide rail dismantled
[2] Maximum load 800 N with the TS mounting plate slide rail dismantled

2 For TS, SE:
TS punched section with mounting flange 23 x 73 mm, 2 or 4 pc(s). required

Installation in enclosure depth mm	Packs of	**Model No.**	Page
400	4 pc(s).	8612.040[1]	717
500	4 pc(s).	8612.550	718
600	4 pc(s).	8612.560	718
800	4 pc(s).	8612.580	718
1000	4 pc(s).	8612.500	718
1200	4 pc(s).	8612.520	718

[1] TS punched section with mounting flange, 17 x 73 mm

Note:
– The swing frame stay is required to lock the open swing frame, see page 799

Swing frame







Swing frame, large

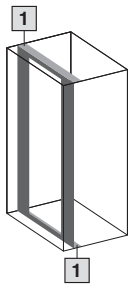
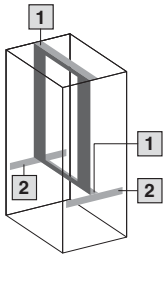
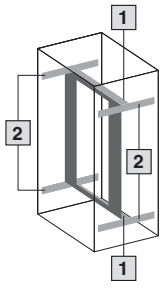
With trim panel, for 800 mm wide enclosures
For mounting 482.6 mm (19") equipment.

Material:
– Sheet steel

Surface finish:
– Frame: Zinc-plated
– Trim panel: Spray-finished

Colour:
– RAL 7035

Supply includes:
– Locking rod system with double-bit lock insert and parts for attaching to the installation kit

Installation	Full installation, width 800 mm, front/set back	Partial installation top, width 800 mm, front/set back	Partial installation centre (in the height), width 800 mm, front/set back
			

Mounting position	side	central
		
With hinge	130°/180°	180°
For enclosure width mm	800	

U	For min. enclosure height mm	Packs of	**Model No.**	
22	1200	1 pc(s).	**2323.235**	**2324.235**
31	1600	1 pc(s).	**2332.235**	**–**
36	1800	1 pc(s).	**2337.235**	**2338.235**
40	2000	1 pc(s).	**2341.235**	**2342.235**
45	2200	1 pc(s).	**2346.235**	**2347.235**

Heavy-duty version[1)]

U	For enclosure height mm	Packs of	**Model No.**	
40	2000	1 pc(s).	**7858.100**	**–**

Accessories

Ergoform-S lock systems	see page 678
Lock inserts, type A	see page 680

Also required:

1 Installation kits

For enclosure TS	For enclosure SE	Hinge	Load capacity		Packs of
■	■	130°	< 1500 N[3)]	**1995.235**	1 pc(s).
■	■		< 1500 N[2)]	**1995.835**	1 pc(s).
■	■	180°	< 1200 N[3)]	**1997.235**	1 pc(s).
■	■		< 1200 N[2)]	**1997.835**	1 pc(s).

[1)] Load capacity 350 kg, including installation kit, for enclosure height 2000 mm
[2)] Installation only possible with the mounting plate slide rail dismantled
[3)] Maximum load 800 N with the TS mounting plate slide rail dismantled

2 For TS, SE: TS punched section with mounting flange 23 x 73 mm, 2 or 4 pc(s). required

Installation in enclosure width/depth mm	Packs of	**Model No.**	Page
400	4 pc(s).	8612.040[1)]	717
500	4 pc(s).	8612.550	718
600	4 pc(s).	8612.560	718
800	4 pc(s).	8612.580	718
1000	4 pc(s).	8612.500	718
1200	4 pc(s).	8612.520	718

[1)] TS punched section w. mounting flange, 17 x 73 mm

Note:
– The swing frame stay is required to lock the open swing frame, see page 799

Compact swing frame

for AE

For mounting slide-in electronic equipment, 482.6 mm (19"), across the entire height.

Technical specifications:
– Torsionally stiff frame, welded from rectangular tube and triple-folded support section

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Double-bit lock insert and assembly parts

Width mm	600	600	600/760
Height mm	380	600	760
U	6	11	14
Packs of	1 pc(s).	1 pc(s).	1 pc(s).
Model No.	**2026.200**	**2027.200**	**2034.200**

Accessories:

– 41 mm lock insert, type C, see page 680



Swing frame stay

Holds the swing frame in the open position.

For mounting on swing frame, large:
- 1979.200, at the top of the enclosure
- 1980.200, at the bottom of the enclosure (with safety stop at 160°)

For mounting on swing frame, small:
- 1979.200, may be mounted at the top or bottom on the installation kit

	Packs of	Model No.
with 130° hinge	5 pc(s).	**1979.200**
with 180° hinge	1 pc(s).	**1980.200**





Slide rails

To support heavy slide-in electronic equipment, 482.6 mm (19") in the swing frame.

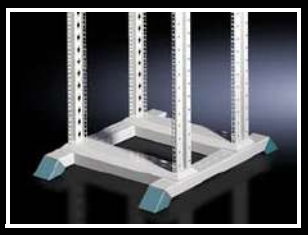
Material:
– Sheet steel

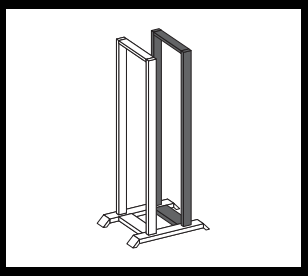
Surface finish:
– Zinc-plated

For slide-in equipment with max. installation depth	Packs of	Model No.
D max. < 190 mm	10 pc(s).	**1962.200**
D max. > 190 mm	10 pc(s).	**1963.200**



Accessories for Data Rack





Second mounting level

To accommodate 482.6 mm (19") network components or for the attachment of component shelves and slide rails. 482.6 mm (19") punched profile at the front, hole centre distance 465 mm (470 mm at the rear), tailored to the attachment of patch panels and cable routing rails. The mounting level may be positioned on a 50 mm pitch pattern. Minimum distance between levels 150 mm, maximum distance between levels 350 mm.

Material:
– Sheet steel, 2 mm

Surface finish:
– Spray-finished

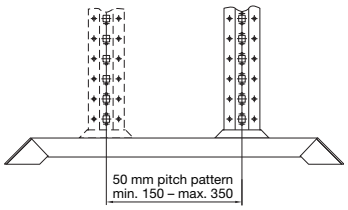
Colour:
– Profile frame: RAL 7035
– Trim panel: RAL 5018

Supply includes:
– 1 torsionally stiff profile frame
– Mounting accessories

U	Packs of	Model No.
31	1 pc(s).	**7296.000**
36	1 pc(s).	**7297.000**
40	1 pc(s).	**7298.000**
45	1 pc(s).	**7299.000**

Accessories:

– Support strips, see page 800





Baying connector

For assembling rows of distributor frames, or for cable routing between data racks.

Technical specifications:
– Length: 53 mm

Packs of	Model No.
3 pc(s).	**7494.000**

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Supply includes:
– Assembly parts



Depth stays

For securing and stabilising two 482.6 mm (19") mounting levels in the Data Rack.
The length of the depth stays is adjustable, and can accommodate the following spacings of mounting angles: 250, 300 and 350 mm.

Packs of	Model No.
2 pc(s).	**7401.000**

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Supply includes:
– Assembly parts



Continuous slide rail

for two mounting levels, 482.6 mm (19")
To support heavy equipment in the Data Rack.
The mounting dimensions of the slide rails were selected to enable them to be combined with 500 mm deep, 482.6 mm (19") component shelves.
The mounting distance between the 482.6 mm (19") mounting levels is 350 mm.

Packs of	Model No.
2 pc(s).	**7402.000**

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Also required:

– Second mounting level, see page 800

Accessories:

– Component shelf, 500 mm deep, see page 739

Adaptor sections, 482.6 mm (19")

for TS, SE

For the installation of subracks and other equipment. Adaptor sections are easily shortened for partial assemblies.

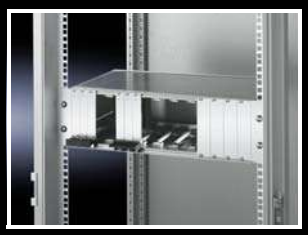
Supply includes:
– Assembly parts

Note:
– The 482.6 mm (19") measurement is obtained when mounting on the TS frame for enclosures with width 600 mm

Accessories:

– Infill panels, see page 802
– Cage nuts, see page 815
– Assembly screws, see page 737
– Slide rails with one-sided mounting, see page 808
– Slide rails with two-sided mounting, see page 808
– Component shelf mounting kit, see page 811





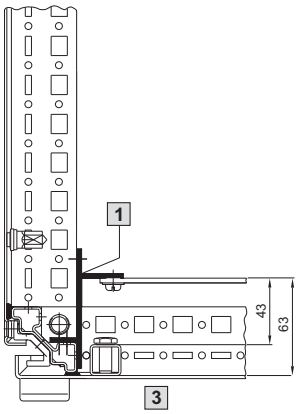
For enclosure system TS[1)]

For enclosure height mm	Material	U	Packs of	Model No.
1600	Extruded aluminium section	33	4 pc(s).	**8613.060**
1800		38	4 pc(s).	**8613.080**
2000		42	4 pc(s).	**8613.000**

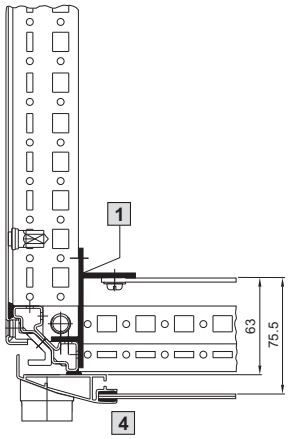
[1)] For the rear of electronic enclosures, see page 802

Mounting examples for TS:

Drawing 1

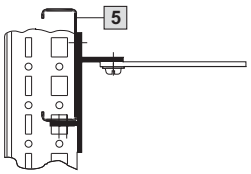


Drawing 2

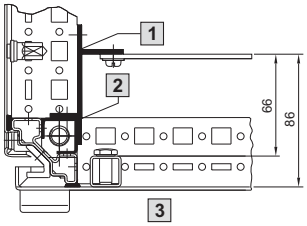


Drawing 1 and 2:
Adaptor section or adaptor piece fitted in the foremost installation position, directly on the vertical section. When installing slide rails with two-sided mounting (see page 808), the same sections or adaptor pieces must also be mounted on the vertical section at the rear.

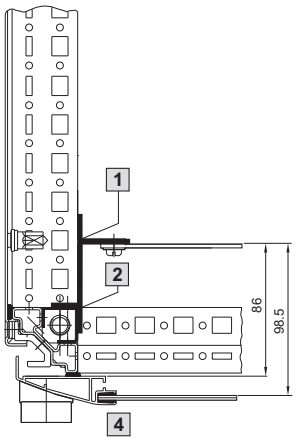
Drawing 3



Drawing 4



Drawing 5



Drawing 3:
Mounting on two vertically installed PS punched sections permits fully flexible use of the enclosure depth.

Drawing 4 and 5:
Greater distance from the door is achieved by mounting on adaptor rails for PS compatibility. In this position, the slide rails can be fitted with one-sided mounting.

1 Adaptor section/piece
2 Adaptor rail
3 TS sheet steel door
4 TS glazed door
5 Punched sections without mounting flanges

Mounting angles



Adaptor pieces, 482.6 mm (19")

for TS, SE
The "1 U" sub-section of adaptor sections. For the installation of individual subracks and other equipment.

Supply includes:
– Assembly parts

Assembly examples:
May be found on page 801

Note:
– The 482.6 mm (19") measurement is obtained when mounting on the TS frame for enclosures with width 600 mm
– Adaptor set 7246.100 for 800 mm wide enclosures, see page 809

U	Packs of	Model No.
1	4 pc(s).	**8613.010**

Accessories:
– Cage nuts, see page 815
– Assembly screws, see page 737
– Slide rails with two-sided mounting, see page 808
– Component shelf mounting kit, see page 811





Adaptor sections, 482.6 mm (19")

for TS electronic enclosure, rear
For installing subracks on both sides, and for attaching slide rails 8613.150, 8613.160 and 8613.180 (see page 808).
For mounting on the inner mounting level. The outer mounting level may, for example, still be used for cable routing on depth-mounted TS punched sections with mounting flange.

Material:
– Extruded aluminium section

Supply includes:
– Assembly parts

Note:
– Design similar to adaptor sections, 482.6 mm (19"), see page 801, but asymmetrical height, suitable for TS electronic enclosure

For enclosure height mm	U	Packs of	Model No.
1600	33	2 pc(s).	**8613.360**
2000	42	2 pc(s).	**8613.300**

Accessories:
– Cage nuts, see page 815
– Assembly screws, see page 737
– Slide rails with two-sided mounting, see page 808
– Component shelf mounting kit, see page 811

Possible alternative:
– Adaptor pieces, 482.6 mm (19"), see page 802



Infill panels, 482.6 mm (19"), horizontal

for adaptor sections
To infill between installed 482.6 mm (19") equipment positioned in the full enclosure height and the enclosure clearance height.

Material:
– Extruded aluminium section

Supply includes:
– Assembly parts

For enclosure height mm	Packs of	Model No.
1600/2000	2 pc(s).	**8613.040**
1800/2200	2 pc(s).	**8613.030**



Mounting angles 482.6 mm (19")

for Outdoor enclosures
For mounting 482.6 mm (19") components in outdoor enclosures. The mounting angles are depth-adjustable on a 25 mm pitch pattern. A depth stay is required to attach the mounting angles.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

For enclosure height mm	U	Packs of	Model No.
1200	24	2 pc(s).	**7688.000**

Supply includes:
– Mounting accessories

Also required:
Depth stays, see page 803

Depth stays

for mounting angles 482.6 mm (19")

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Mounting accessories

For enclosure width mm	Installation (centre)	Packs of	Model No.
600/1200	482.6 mm (19")	2 pc(s).	**7696.000**
800	482.6 mm (19")/ metric	2 pc(s).	**7698.000**



Mounting frame, 482.6 mm (19")

for TS, TS IT

Firmly linked 482.6 mm (19") mounting frame for integration of a 482.6 mm (19") mounting level within a TS frame structure. Profiles analogous to TS IT for complete system compatibility, incl. tool-free assembly. Depth-variable mounting between the roof and base frames. Individual height units bidirectionally numbered. Mounting frame at the front, prepared for the integration of cable management and Dynamic Rack Control (RFID), mounting frame at the rear for space-saving integration of the PDU busbar, in the Zero-U space on both sides.

Material:
– Sheet steel

Surface finish:
– Primed

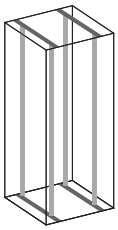
Colour:
– RAL 9005

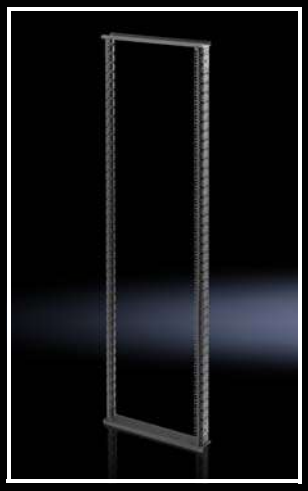
Load capacity:
– Up to 10,000 N static load, with even load distribution on two 482.6 mm (19") mounting frames, fully configured

Supply includes:
– Assembly parts

Note:
– The outer mounting level of the enclosure frame is left free for other installed equipment; all-round compartmentalisation with air baffle plates is supported

For enclosure width mm	For enclosure height mm	Installation position	Packs of	Model No.
600	1800	front	1 pc(s).	**5501.242**
600	1800	rear	1 pc(s).	**5501.245**
800	1800	front	1 pc(s).	**5501.252**
800	1800	rear	1 pc(s).	**5501.255**
600	2000	front	1 pc(s).	**5501.262**
600	2000	rear	1 pc(s).	**5501.265**
800	2000	front	1 pc(s).	**5501.272**
800	2000	rear	1 pc(s).	**5501.275**
600	2200	front	1 pc(s).	**5501.282**
600	2200	rear	1 pc(s).	**5501.285**
800	2200	front	1 pc(s).	**5501.292**
800	2200	rear	1 pc(s).	**5501.295**







Additional fastening attachment for mounting angles

for TS IT

Prevents the mounting angles from twisting in case of unevenly distributed loads. Secured directly between the mounting angle and a mounting section on the outer mounting level of the TS frame structure.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 9005

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**5501.225**
800	2 pc(s).	**5501.235**

Also required:

– TS punched section with mounting flange, 17 x 73 mm, see page 717

Assembly instruction:

– For the outer mounting level, the TS punched section with mounting flange 17 x 73 mm is additionally required



Mounting angles



Mounting angles, 482.6 mm (19")

for TS

L-bracket
The L-shaped mounting angles accommodate the installation kits of server systems. The integral U markings in the front facilitate systematic assembly within the 482.6 mm (19") attachment level.

Technical specifications:
– Integral 482.6 mm (19") punchings (EIA standard)
– Side punchings, round and square

Material:
– Sheet steel, 2 mm

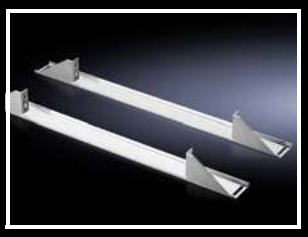
Surface finish:
– Zinc-plated

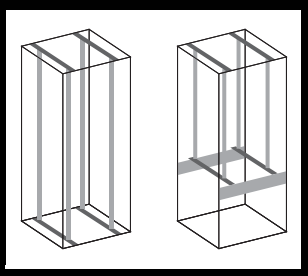
Supply includes:
– Assembly parts

Full installation rack height mm	U	Packs of	Model No.
1800	38	2 pc(s).	**7827.181**
2000	42	2 pc(s).	**7827.201**
2200	47	2 pc(s).	**7827.221**

Also required:
– TS punched sections with mounting flanges or TS installation brackets as installation kit for mounting angles, see page 804

Accessories:
– Additional fastening attachment for L-shaped mounting angles 7284.135, see page 805
– 482.6 mm (19") fastener, 1 U, 2090.000, see page 815
– Attachment of component shelves: Adaptor 7827.300, see page 746





Installation bracket TS

for L-shaped mounting angles into TS, 482.6 mm (19")

Installation in enclosure width 800 mm
The installation brackets are screw-fastened to the enclosure frame in the enclosure width.
The mounting angle is attached to the installation bracket at the top and bottom. The brackets ensure optimum clearance at the sides for cable routing.
For partial enclosure configuration, the installation brackets may be attached to the TS punched sections with mounting flanges 17 x 73 mm on the outer and inner mounting level of the enclosure frame.
Fully depth-variable mounting is facilitated by the attachment slots.

Installation position	Packs of	Model No.
Centred	2 pc(s).	**7827.480**

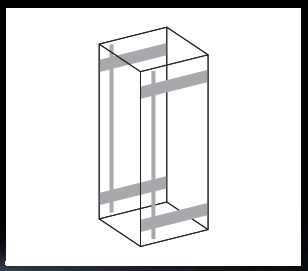
Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Accessories:
– For partial installation, TS punched section with mounting flange, see page 717 – 718
– For partial installation, L-shaped mounting angles, see page 804





TS punched section with mounting flange as installation kit

for L-shaped mounting angles into TS, 482.6 mm (19")

Installation in enclosure width 600 mm
The installation kit consists of 4 TS punched sections with mounting flange 17 x 73 mm to accommodate mounting angles. One pack is sufficient for installing one or two 482.6 mm (19") mounting levels. For exceptionally heavy installed equipment, we recommend the installation of additional punched sections in the centre.

For enclosures		Packs of	Model No.
Width mm	Depth mm		
600	600	4 pc(s).	**8612.060**
600	800	4 pc(s).	**8612.080**
600	1000	4 pc(s).	**8612.000**
600	1200	4 pc(s).	**8612.020**

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Additional fastening attachment for mounting angles

for L-shaped mounting angles in TS
The additional fastening attachment prevents the mounting angles mounted on installation brackets from twisting in case of unevenly distributed loads. It is attached directly to 482.6 mm (19") mounting angles and to the punched section with mounting flange fitted in the depth (inner mounting level).

Material:
– Sheet steel

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
800	2 pc(s).	**7284.135**

Also required:
– TS punched section with mounting flange for the inner mounting level, see page 717 – 718



Mounting kit, 2 U

for 482.6 mm (19") equipment
Facilitates fast, simple integration of additional 2 U mounting space within an enclosure by attaching to the enclosure frame or to the existing mounting angles at the sides. The flexible slot fastening of the brackets means that the distance between the two installation brackets may be freely selected, to facilitate other 482.6 mm (19") mounting dimensions. The second row of holes is used for the optional configuration of additional mounting surfaces.

Packs of	Model No.
2 pc(s).	**7246.420**

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts





Mounting angles, 482.6 mm (19")

for FlatBox
L-shaped bracket as 2nd mounting level

Material:
– Sheet steel, spray-finished

Supply includes:
– Assembly parts for fast, tool-free assembly

U	Packs of	Model No.
6	2 pc(s).	**7507.706**
9	2 pc(s).	**7507.709**
12	2 pc(s).	**7507.712**
15	2 pc(s).	**7507.715**
18	2 pc(s).	**7507.718**
21	2 pc(s).	**7507.721**

Note:
– The 2nd mounting level should always be ordered in the same height as the basic enclosure
– Partial configuration is not possible



Adhesive measurement strip, 482.6 mm (19")

Made from robust aluminium foil, guarantees easy handling and durability. With numerical labelling on an imperial pitch pattern for clear identification of the various height units. The double-sided labelling allows the counting direction to be freely selected, up to a maximum of 56 U. In this way, clear documentation of the various mounting parts is easily achieved.

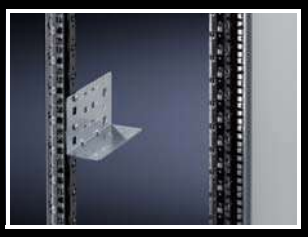
Material:
– Aluminium foil

U labelling range	Packs of	Model No.
1 – 56	1 pc(s).	**7950.100**



Slide rails





Slide rails, static installation

for TS IT
For mounting on one 482.6 mm (19") mounting level.

- System punchings for mounting accessories and cooling active components

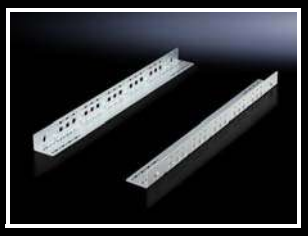
Load capacity:
– 30 kg, static

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

U	Length mm	Packs of	**Model No.**
2	150	2 pc(s).	**5501.400**





Slide rails, static installation

for TS IT
For mounting on two 482.6 mm (19") mounting levels.

- To support heavy installed equipment.
- Side system punchings for mounting accessories and cooling components that expel to the side
- Simply locate into the system punchings of the TS IT

Load capacity:
– 80 kg, static

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Note:
– Effective contact surface 35 mm per side

U	Distance between 482.6 mm (19") levels mm	Packs of	**Model No.**
1	345	2 pc(s).	**5501.410**
1	445	2 pc(s).	**5501.420**
1	545	2 pc(s).	**5501.430**
1	645	2 pc(s).	**5501.440**
1	745	2 pc(s).	**5501.450**







Slide rails, heavy-duty

for TS IT, TE
With L-shaped mounting angles or 482.6 mm (19") mounting frames and a clearance between levels of 745 mm. Easily and quickly installed thanks to locating brackets for the rear level.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Load capacity (static):
– 1000 N

Supply includes:
– Assembly parts

Distance between 482.6 mm (19") levels mm	Contact surface, width mm	Contact surface, depth mm	Packs of	**Model No.**
745	50	734	2 pc(s).	**7063.740**

Slide rails, static installation

for TE

For mounting between the front and rear 482.6 mm (19") mounting levels. The slide rails can be used to support heavy 482.6 mm (19") components.

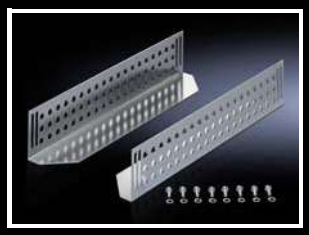
Material:
– Sheet steel

Surface finish:
– Zinc-plated

Load capacity (static):
– 800 N

Supply includes:
– Assembly parts

Distance between 482.6 mm (19") levels mm	Contact surface, width mm	Contact surface, depth mm	Packs of	Model No.
395	85	324	2 pc(s).	**7963.310**
495	85	424	2 pc(s).	**7963.410**
595	85	524	2 pc(s).	**7963.510**
695	85	624	2 pc(s).	**7963.610**
795	85	724	2 pc(s).	**7963.710**



Slide rails, depth-variable

482.6 mm (19") for TS IT, TE

For mounting between the front and rear mounting level.

- To support heavy installed equipment
- To adapt to individual distances between 482.6 mm (19") levels
- Tool-free, time-saving one-man assembly from the enclosure front
- All three mounting holes in the EIA system punchings are available for screw-fastening the equipment
- Alternatively, direct attachment to the 482.6 mm (19") system punchings is also possible

Distance between 482.6 mm (19") levels mm	Load capacity kg	Packs of	Model No.
400 – 600	80	2 pc(s).	**5501.460**
600 – 900	150	2 pc(s).	**5501.480**

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Note:
– Effective contact surface 25 mm per side





Slide rails, depth-variable, 1 U

for TS, SE

For direct attachment to the 482.6 mm (19") system punchings without additional loss of U. The slide rails are pulled out to the required length and secured between the front and rear mounting level on the 482.6 mm (19") pitch pattern.

Load capacity:
– 20 kg static load

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Distance between 482.6 mm (19") levels mm	Support surface mm	Packs of	Model No.
390 – 550	30	2 pc(s).	**7063.750**
550 – 750	30	2 pc(s).	**7063.752**

Note:
– Thanks to the thin support area of only around 0.8 mm thickness, exceeding the U pitch pattern is generally avoided, provided the components do not exceed a maximum height of 43.5 mm. This means that several devices are easily arranged on top of one another without offsetting.
– Not to be combined with cranked mounting angles





Slide rails



Slide rails

for TS adaptor section
With two-sided mounting between the 482.6 mm (19") front and rear adaptor sections, 482.6 mm (19") or adaptor pieces, 482.6 mm (19").

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure depth mm	Packs of	Model No.
500	10 pc(s).	**8613.150**
600	10 pc(s).	**8613.160**
800	10 pc(s).	**8613.180**

Also required:
– Adaptor sections, 482.6 mm (19"), see page 801, or
– Adaptor pieces, 482.6 mm (19"), see page 802



Slide rails

for TS adaptor section
With one-sided mounting on the 482.6 mm (19") adaptor sections

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Length mm	Packs of	Model No.
270	10 pc(s).	**4531.000**

Also required:
– Adaptor sections, 482.6 mm (19"), see page 801

Server telescopic slides

Guarantee optimum accessibility to the units, even when built-in. For a maximum enclosure width of 426 mm.

Load capacity:
– 30 kg

Material:
– Sheet steel

Supply includes:
– 2 telescopic slides, installation kit, assembly parts

For enclosure depth mm	Maximum extension mm	Model No.
600	511.2	**3659.180**
800	596.4	**3659.190**

Note:
– May only be fitted in conjunction with L-shaped 482.6 mm (19") sections.



Adaptor kit, 3 U

for 800 mm wide TS enclosures

For fastening individual 482.6 mm (19") components, or as an additional mounting facility at the rear of the enclosure. The mounting level in the adaptor angle can be adjusted in 25 mm increments by up to 100 mm in the depth, leaving sufficient space for baying where patch panels or splicing boxes are used. Attachment is on the inner mounting level of the frame section or a suitable chassis in the enclosure depth.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Height	Mounting position	Packs of	Model No.
3 U	Centred	2 pc(s).	**7246.100**





Adaptor, 3 U

Depth offset 100 mm

The adaptor is used to recess 482.6 mm (19") mounting of equipment inside enclosures with 482.6 mm (19") installation in the foremost position, such as server or electronic enclosures. In this way, sufficient space can be gained in front of the mounting equipment to integrate patch panels or switches, whilst at the same time exploiting the maximum enclosure depth.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
2 pc(s).	**7246.400**





482.6 mm (19") installation




Adaptor, metric to 21"/19"

With this adaptor, 482.6 mm (19") assemblies may be fastened to metric (535 mm) mounting angles, or combined systems may be configured.

Material:
– Extruded aluminium section

Supply includes:
– Assembly parts

SU	U	Packs of	Model No.
2	1	2 pc(s).	**7246.010**
6	3	2 pc(s).	**7246.030**
11	6	2 pc(s).	**7246.060**



Drawer, 2 U, 3 U

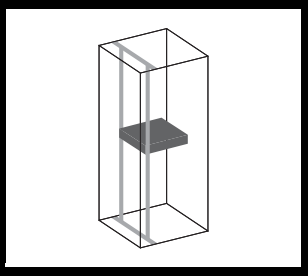
for one 482.6 mm (19") mounting level
For front attachment to mounting angles, 482.6 mm (19"). With cover and telescopic slides to accommodate assignment lists, operating manuals and small parts. The small version of the 2 U variant is also suitable for mounting inside a swing frame.

Material:
– Sheet steel

Supply includes:
– Drawer fully assembled including security lock 12321



Height	Clearance openings		Installation depth mm	Colour		Packs of	Model No.
	Width mm	Depth mm		RAL 7035	RAL 9005		
2 U	411	244	250	■	–	1 pc(s).	**7282.135**
2 U	411	419	427	■	–	1 pc(s).	**7282.035**
2 U	411	419	427	–	■	1 pc(s).	**5502.305**
3 U	411	419	427	■	–	1 pc(s).	**7283.035**
3 U	411	419	427	–	■	1 pc(s).	**5502.325**



Small equipment box, 4 U, shielded

for one 482.6 mm (19") mounting level
For accommodation of small equipment and other accessories within a partitioned 482.6 mm (19") installation level. The small equipment box contains an adjustable mounting base which can be used to further sub-divide the box.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 9005

Load capacity:
– 200 N surface load, static

Supply includes:
– Small equipment box with brush strip
– 1 shelf



Contact width mm	Contact depth mm	Width mm	Height mm	Depth mm	Packs of	Model No.
405	300	427	170	400	1 pc(s).	**5501.900**

482.6 mm (19") installation

Installation kit

for component shelves with 482.6 mm (19") adaptor sections in TS

For installation between the front and rear adaptor sections or adaptor pieces, 482.6 mm (19") in 600 mm wide enclosures.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure system TS

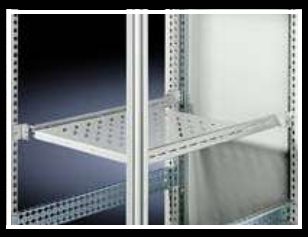
For enclosure depth mm	Packs of	Model No.
600	2 pc(s).	**8800.560**
800	2 pc(s).	**8800.580**

Max. depth of component shelves = Enclosure depth -100 mm

Also required:

– Adaptor sections, 482.6 mm (19"), see page 801, or
– Adaptor pieces, 482.6 mm (19"), see page 802
– Component shelf, 48.2 mm (19") installation 7144.035, 7145.035, see page 741





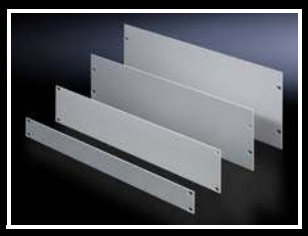
Blanking plates, 482.6 mm (19")

For installation in electronic enclosures or housings.

Material:
– Aluminium

Surface finish:
– Natural anodised

U	Packs of	Model No.
1	3 pc(s).	**1931.200**
2	3 pc(s).	**1932.200**
3	3 pc(s).	**1933.200**
4	3 pc(s).	**1934.200**
6	3 pc(s).	**1936.200**
7	3 pc(s).	**1935.200**
9	3 pc(s).	**1939.200**
12	3 pc(s).	**1937.200**



Hinge

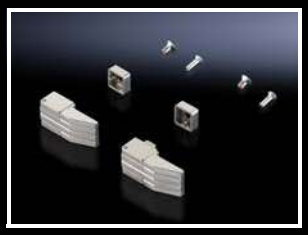
for blanking plates

Material:
– Die-cast zinc

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
2 pc(s)	**1950.000**



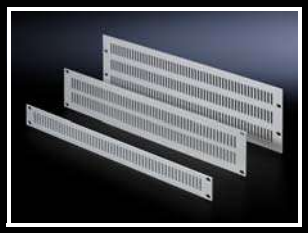
Ventilated front panels

For venting enclosures and housings.

Material:
– Aluminium

Surface finish:
– Natural anodised

Width	U	Packs of	Model No.
482.6 mm (19")	1	3 pc(s).	**2231.000**
482.6 mm (19")	2	3 pc(s).	**2232.000**
482.6 mm (19")	3	3 pc(s).	**2233.000**



482.6 mm (19") installation





Air baffle plates

for TS IT 482.6 mm (19") mounting angles

- To separate the hot/cold zones within an enclosure with aisle containment or when using an LCP system
- With all-round brush strip for collision-free shielding with installed rail systems on the outer mounting level

Material:
– Sheet steel
– Plastic, UL 94-V0

Surface finish:
– Spray-finished

Colour:
– RAL 9005

Supply includes:
– Assembly parts

For enclosure width mm	For enclosure height mm	Product-specific scope of supply	Packs of	Model No.
600	2000	–	1 pc(s).	**5501.805**
800	2000	6 blanking panels, 1 U	1 pc(s).	**5501.815**
600	2200	–	1 pc(s).	**5501.825**
800	2200	6 blanking panels, 1 U	1 pc(s).	**5501.835**





Air baffle plates

for TS IT 482.6 mm (19") mounting frames

With all-round brush strip for collision-free shielding with installed rail systems on the outer mounting level.

Applications:
– To separate the hot/cold zones within an enclosure with aisle containment or when using an LCP system

Material:
– Sheet steel
– Blanking panel: Plastic, to UL 94-V0
– Brush strip: Plastic, UL 94-V0

Surface finish:
– Spray-finished

Colour:
– RAL 9005

Supply includes:
– Air baffle plate with all-round brush strip
– Assembly parts

For enclosure width mm	For enclosure height mm	Product-specific scope of supply	Packs of	Model No.
600	1200	–	1 pc(s).	**5501.855**
800	1200	1 blanking panel, 3 U	1 pc(s).	**5501.865**
600	1800	–	1 pc(s).	**5501.875**
800	1800	2 blanking panels, 3 U	1 pc(s).	**5501.885**
600	2000	–	1 pc(s).	**5501.905**
800	2000	2 blanking panels, 3 U	1 pc(s).	**5501.915**
600	2200	–	1 pc(s).	**5501.925**
800	2200	2 blanking panels, 3 U	1 pc(s).	**5501.935**



482.6 mm (19") air duct

for horizontal air routing

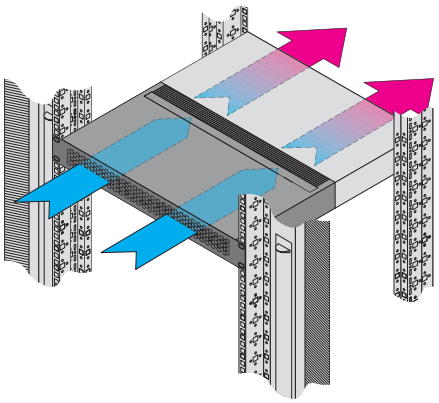
Air duct, passive, for cold air intake to 482.6 mm (19") IT equipment installed at the rear of server racks which draws in air from the front.

Benefits:
– For superior air infeed to the rear 482.6 mm (19") components
– Integral brush strip for cable entry of 482.6 mm (19") IT equipment
– Supports front-to-back air routing
– Depth-variable

Material:
– Sheet steel, spray-finished

Colour:
– RAL 9005

Width mm	Height U	Depth mm	Packs of	Model No.
482.6	1	223 – 356	1 pc(s).	**3301.391**



Air duct

for side air routing
Air duct, passive, for cold air intake to 482.6 mm (19") equipment with side air inlet.

Benefits:
– For superior air infeed to the rear 482.6 mm (19") equipment with side air routing
– Integral membrane cover allows cable entry to the rear
– Depth-variable

Installation options:
– for TS IT 482.6 mm (19") mounting angles
– for TS IT 482.6 mm (19") mounting frames

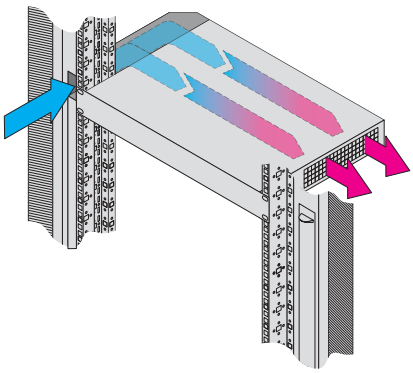
Material:
– Sheet steel, spray-finished

Colour:
– RAL 9005

Supply includes:
– Adaptor for attaching to 482.6 mm (19") mounting angles
– Magnetic strip to cover the remaining vertical openings in the air baffle plate

Also required:
– Air baffle plates for TS IT 482.6 mm (19") mounting frames, see page 812
– Air baffle plates for TS IT 482.6 mm (19") mounting angles, see page 812

Assembly instruction:
– Only suitable for fitting on the front 482.6 mm (19") installation level





Height U	Depth mm	For enclosures	For enclosure width mm	Packs of	**Model No.**
2	275 – 418	TS IT	800	1 pc(s).	**3301.392**

Cover, magnetic

For optionally covering the front system punchings in the event of complete air blocking of the front, or in the absence of installed cable fingers or dynamic rack control strip.
With numerical labelling on an imperial pitch pattern for clear identification of the various height units.
The double-sided labelling allows the counting direction to be freely selected from 1 – 56 U.

Length m	Packs of	**Model No.**
5	1 pc(s).	**5501.895**





482.6 mm (19") installation







Brush strip, vertical

for TS IT, TE

Within the network distributor, this serves as a flexible infill panel which stylishly conceals the cable management area to the side of the 482.6 mm (19") mounting level. The brush strip facilitates convenient cable routing from the side and rear distributor area to the front connection level. The clearance required in front of the mounting level is at least 75 mm.
Within the TS, the brush strip is mounted at the side on the vertical frame section, on horizontal or vertical punched sections. There is an additional mounting option directly on the 482.6 mm (19") mounting frame of the TS IT.

Material:
– Aluminium section with brush strip: Plastic, UL 94-V0

Supply includes:
– Length 950 mm each

For enclosure height mm	Packs of	Model No.
2000	4 pc(s).	**7827.544**





Mounting panel 482.6 mm (19"), 2 U

For fast integration of smaller mounting units within the 482.6 mm (19") level, such as potential equalisation rails, distributor boxes, small electrical components etc.
Simple screw-fastening of the components to the integral 25 mm system punchings.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Panel height U	Panel width mm	Packs of	Model No.
2	450	1 pc(s).	**7151.300**

Support

for small appliances

For secure attachment of non-482.6 mm (19")-compliant small appliances such as modems, power packs, routers etc. Angular support for mounting in the free space at the side between the 482.6 mm (19") level and the side panel on L-shaped mounting angles, mounting frames or punched sections. Attachment of the components and connection cables can be achieved quickly and easily using nylon tape or cable ties. Also suitable for cable routing in the enclosure depth.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

W x H x D mm	Packs of	**Model No.**
350 x 150 x 97	1 pc(s).	**7246.500**

Accessories:

– Nylon loop, see page 785
– Cable ties, see page 785





482.6 mm (19") fastener, 1 U

With contact

For simple screw connection of installation components within the 482.6 mm (19") mounting level. Simply slide onto the mounting angle from the inside and lock home.

Benefits:
– Fast positioning and installation instead of using individual cage nuts
– Integral contacting for potential equalisation
– Preconfigured 1 U support with 3 cage nuts, including centre attachment to standard EIA 310
– Supports multiple dismantling and reuse

Material:
– Sheet steel, zinc-plated

Note:
– All enclosures in the Rittal range have already been tested within their tolerances for the use of 482.6 mm (19") fasteners. Suitability for use in enclosures from other manufacturers cannot be guaranteed.

Thread	Packs of	**Model No.**
M5	24 pc(s).	**2090.000**

Also required:

– Assembly screws, see page 816
– Multi-tooth screws 7094.130, see page 816





Cage nuts M5/M6

For the attachment of rack-mounted electronic equipment, 482.6 mm (19") installed equipment and blanking plates to mounting angles, 482.6 mm (19"). For use with metal thickness from 0.8 – 2.0 mm. In areas of narrow tolerance, cage nuts for metal thicknesses of 1.2 – 1.5 mm should be used. Optionally with or without contact of the installed equipment to the 482.6 mm (19") section/enclosure.

Cage nut M5

Version	For metal thicknesses mm	Packs of	**Model No.**
With contact	0.8 – 2.0	50 pc(s).	**2094.500**
Without contact	0.8 – 2.0	50 pc(s).	**2092.500**

Cage nut M6

Version	For metal thicknesses mm	Packs of	**Model No.**
With contact	0.8 – 2.0	50 pc(s).	**2094.200**
Without contact	0.8 – 2.0	50 pc(s).	**2092.200**
With contact	1.2 – 1.5	50 pc(s).	**2094.300**
Without contact	1.2 – 1.5	50 pc(s).	**2092.300**



482.6 mm (19") installation



Multi-tooth screws

M5 x 16 mm/M6 x 16 mm
For optimum transmission of torques, an extended tool life and increased safety and reliability when tightening and loosening screw connections.

Supply includes:
– 50 plastic washers
– 50 assembly screws

	Bit size	Packs of	Model No.
M5	Multi-tooth 25	50 pc(s).	**7094.130**
M6	Multi-tooth 30	50 pc(s).	**7094.140**



Assembly screws

M5 x 16 mm/M6 x 16 mm
For electronic equipment, 482.6 mm (19") installed components and blanking plates.

Supply includes:
– 50 plastic washers
– 50 assembly screws

Version	Packs of	Model No.
Phillips-head screw M5	50 pc(s).	**7094.120**
Cheese-head screw M6	50 pc(s).	**7094.110**
Phillips-head screw M6	50 pc(s).	**7094.100**







Front-mounting cage nut, 482.6 mm (19")

The front-mounting cage nut consists of an expanding cage which is simply inserted into the square attachment hole at the front and then secured with the assembly screw.
When tightening the screw, the cage expands and thus secures the required components.
Clamping range from 1.2 – 4.5 mm.
Multi-tooth screw head, bit size T 30.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– 50 expanding cages
– 50 assembly screws
– 50 plastic washers

Dimensions mm	Size of mounting hole mm	Packs of	Model No.
M6 x 16	9.5 x 9.5	50 pc(s).	**2094.400**



Spring nuts with screws

M6 x 10 mm for T-slot mounting angle
The spring nuts ensure flexible, secure mounting of accessory components on the T-slot mounting angles.

Supply includes:
– 50 spring nuts
– 50 screws, 10 mm, self-locking

Version	Packs of	Model No.
Phillips-head, M6	50 pc(s).	**7000.990**

Blanking panel, 482.6 mm (19")

As an extension cover or for population as required.

Material:
– Sheet steel



Colour: RAL 7035

U	Installation height mm	Packs of	Model No.
1	44	2 pc(s).	**7151.035**
1.5	66	2 pc(s).	**7157.035**
2	88	2 pc(s).	**7152.035**
3	132.5	2 pc(s).	**7153.035**
6	266	2 pc(s).	**7156.035**



Colour: RAL 9005

U	Installation height mm	Packs of	Model No.
1	44	2 pc(s).	**7151.005**
2	88	2 pc(s).	**7152.005**
3	132.5	2 pc(s).	**7153.005**
6	266	2 pc(s).	**7156.005**

Blanking panel, 3 U

Tool-free attachment, 482.6 mm (19")
The blanking panel is used to seal unused areas within the 482.6 mm (19") mounting level. Quick tool-free attachment means that it is easily integrated anywhere, and can also be removed again if necessary. The consistent use of blanking panels ensures targeted air routing in partially populated racks.

Benefits:
– Fire protection: Self-extinguishing to UL 94 HB
– May be adjusted individually to size by snapping off prepunched 1 U elements
– Each individual element is self-supporting and may therefore be combined into larger units in conjunction with other elements



Packs of	Model No.
3 pc(s).	**7151.305**

Material:
– Plastic

Colour:
– RAL 9005

Supply includes:
– Blanking panel, 3 U, with integral quick-fastening

Splicing boxes





Fibre-optic splicing box, depth-variable

The 482.6 mm (19") splicing box is designed to accommodate splicing cassettes and can be installed in any network distributor with 482.6 mm (19") accommodation and used as a fibre-optic termination or distributor. The variable cassette fixture permits twist-proof installation of all standard splicing cassettes. The rear section of the splicing box is completely open for cable entry; a rubber cable clamp strip provides protection against dust. The fibre-optic cables can be secured with cable ties or cable clamps.
The splicing box is infinitely depth-adjustable up to 100 mm within the 482.6 mm (19") flanges. In addition, the splicing box may be fully withdrawn from the 482.6 mm (19") flanges. Two strain relief clips and cable routing clips for the fibre stock provide a solution to suit any fibre-optic wiring system.

U	Maximum no. of splicing cassettes	Packs of	**Model No.**
1	2	1 pc(s).	**7241.005**

Installation depth:
– 302 mm

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Supply includes:
– Splicing box
– 3 cable routing clips
– Cassette cover
– Mounting accessories for patch panel

Note:
– Supplied without patch panel and splicing cassettes

Also required:

– Patch panels for fibre-optic splicing box, depth-variable, see page 818



Fibre-optic breakout box, 1 U

For splice-free cabling of fibre-optic breakout cables.
Cable bundles may be clamped onto the T-heads at the rear. 4 self-adhesive cable routing clips are supplied loose for cable clamping and for storing excess lengths inside the box.

Material:
– Sheet steel

Surface finish:
– Spray-finished

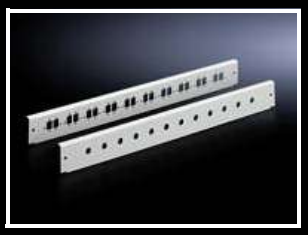
Colour:
– RAL 7035

Supply includes:
– Breakout box
– Cable routing clips
– Mounting accessories for patch panel

Installation depth	Packs of	**Model No.**
250 mm	1 pc(s).	**7241.500**

Also required:

– Patch panels for fibre-optic breakout box, see page 818



Patch panels

for
- **Fibre-optic splicing box, depth-variable**
- **Fibre-optic breakout box, 1 U**

With cut-outs for population with fibre-optic couplings.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

For coupling	No. of locations	U	Packs of	**Model No.**
E-2000, E-2000 duplex[1], SC or LC duplex	24	1	1 pc(s).	**7241.024**
SC duplex, LC quad	12	1	1 pc(s).	**7241.045**

[1] For E-2000 duplex, only half of the locations are available

Fibre-optic splicing box with telescopic pull-out

Lockable
The 482.6 mm (19") splicing box is designed to accommodate splicing cassettes and can be installed in any network distributor with 482.6 mm (19") accommodation and used as a fibre-optic termination or distributor. The telescopic pull-out provides optimum access to the splicing cassettes and cable clamp. The variable cassette fixture permits twist-proof installation of all standard splicing cassettes. The security lock fitted at the front protects against unauthorised access. The rear section of the splicing box is completely open for cable entry; a rubber cable clamp strip provides protection against dust. The fibre-optic cables can be secured with cable ties or cable clamps; two strain relief clips and cable routing clips for the fibre stock provide a solution to suit any fibre-optic wiring system.

Also required:

– Patch panels for fibre-optic splicing box, lockable, see page 819

U	Maximum no. of splicing cassettes	Packs of	Model No.
1	2	1 pc(s).	**7170.535**
2	4	1 pc(s).	**7470.535**

Installation depth:
– 363 mm

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Supply includes:
– Splicing box
– 3 cable routing clips
– Security lock
– Cassette cover
– Mounting accessories for patch panel

Note:
– Supplied without patch panel and splicing cassettes



Patch panels

for fibre-optic splicing box, lockable
For splicing boxes, there is a choice of multiple panels with different cut-outs for the installation of single or duplex fibre-optic couplings.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Note:
– For E-2000 duplex only half of the locations are available



For coupling	No. of locations	U	Packs of	Model No.
ST	24	2	1 pc(s).	**7474.535**
E-2000, SC, LC single or duplex	20	1	1 pc(s).	**7178.535**
	24	2	1 pc(s).	**7478.535**
SC duplex, LC quad	12	1	1 pc(s).	**7169.535**
	24	2	1 pc(s).	**7469.535**

Patch panels

for small fibre-optic distributors
Various patch panels with different connector types are available for individual configuration of small fibre-optic distributors.

Material:
– Sheet steel

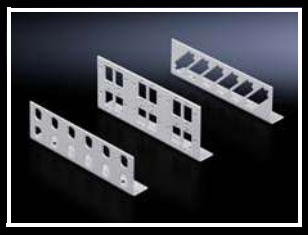
Surface finish:
– Spray-finished

Colour:
– RAL 7035

Supply includes:
– Patch panel without couplings
– Assembly parts

Note:
– For E-2000 duplex, only half of the locations are available

For coupling	Locations per patch panel	Locations per enclosure	Packs of	ModelNo.
ST	12	24	2 pc(s).	**7462.000**
SC, E-2000, E-2000 duplex	12/6	24/12	2 pc(s).	**7463.100**
SC duplex	6	12	2 pc(s).	**7463.200**



LSA technology



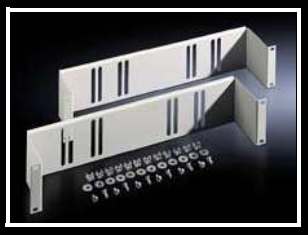
Support unit, 3 U

for LSA-Plus strips, max. 150 paired wires
To accommodate a maximum of 15 LSA-Plus strips (each with 10 paired wires). 3 x 5 LSA-Plus connection strips 2/10, series 2, may be installed horizontally. Strip length 124 mm, height pitch pattern 22.5 mm. The support unit may be integrated into all 482.6 mm (19") mounting levels. The mounting front is recessed 75 mm behind the 482.6 mm (19") flanges. Integral shunting rings enable tidy routing and distribution of the telecommunication cables.

Material:
– Stainless steel

Supply includes:
– Support unit
– 8 shunting rings:

U	Packs of	Model No.
3	1 pc(s).	**7050.100**





Fixture system, 2 U

For LSA mounting kit
To accommodate LSA support systems within the 482.6 mm (19") mounting level.

Size:
– Overall depth: 98.5 mm
– Height: 2 U

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Supply includes:
– Assembly parts

U	Packs of	Model No.
2	2 pc(s).	**7050.035**

Handle set

for Comfort Panel
For external mounting on corner pieces, also suitable for retro-fitting.

Material:
– Handle tube: Aluminium
– Handle holder: Die-cast zinc
– Covers: Polyamide

Surface finish:
– Handle tube: Natural anodised
– Handle holder: Powder-coated

Colour:
– Handle holder: RAL 7024
– Covers: Similar to RAL 7024

Supply includes:
– Handle tube, Ø 20 mm
– 2 handle holders
– 2 covers
– Assembly parts

For horizontal mounting

With front panel width	Packs of	Model No.
482.6 mm (19")	1 pc(s).	**6375.010**

Note:
– Shorter heights and widths can be achieved by cutting the handle tube to length
– For enclosures with 74 mm installation depth, cannot be mounted on the same side as the support arm connection

Accessories:
– Clipboard, see page 824
– Display board, see page 824





Handle set

for Optipanel
For external mounting on corner pieces, also suitable for retro-fitting.

Material:
– Handle tube: Aluminium
– Handle holder: Die-cast zinc
– Covers: Polyamide

Surface finish:
– Handle tube: Natural anodised
– Handle holder: Powder-coated

Colour:
– Handle holder: RAL 7035
– Covers: RAL 7024

Supply includes:
– Handle tube, Ø 25 mm
– 2 handle holders
– 2 covers
– Assembly parts

For horizontal mounting

With front panel width	Packs of	Model No.
482.6 mm (19")	1 pc(s).	**6385.010**

Note:
– Shorter heights and widths can be achieved by cutting the handle tube to length
– For enclosures with 100 mm installation depth, cannot be mounted on the same side as the support arm connection

Accessories:
– Clipboard, see page 824
– Display board, see page 824









Handle set

For vertical and horizontal mounting on all surfaces.

Overall length: 420 mm

Material:
– Handle tube: Aluminium
– Tube holder: Die-cast zinc

Surface finish:
– Handle tube: Natural anodised

Colour:
– Tube holder: RAL 7035

Supply includes:
– 4 tube holders
– 2 handle tubes

Packs of	**Model No.**
1 pc(s).	**2389.000**

Accessories:

– Clipboard, see page 824
– Display board, see page 824



TP aluminium strip

For retrofitting externally on:
- TP three-part/two-part
- TP one-piece console
- May be mounted on all enclosures/covers with 20 mm fold height (max. metal thickness 2 mm)

Length: 1750 mm
(easily cut to length for other dimensions)

Sufficient for desk sections and consoles:
– 3 x width 600 mm
– 2 x width 800 mm
– 1 x width 1000 mm + 1 x width 600 mm
– 1 x width 1200 mm
– 1 x width 1600 mm

Length mm	**Model No.**
1750	**6731.120**

Material:
– Aluminium strip: Extruded aluminium section
– Cover caps: Plastic

Surface finish:
– Aluminium strip: Natural anodised

Colour:
– Cover caps: RAL 7035

Supply includes:
– 1 aluminium section
– 6 plastic cover caps
– Drilling template
– Assembly parts

Handles

For horizontal or vertical attachment to the enclosure panel of:
- Comfort Panel
- Optipanel
- Other enclosures or
- Surfaces

Mounting holes and surfaces without fins are required for assembly purposes.
For the Comfort Panel version with fins, selectable via configurators at www.rittal.com, corresponding milling work may be carried out. To this end, please specify “Prepared for handle set 6107.XXX” for the command panel.

Material:
– Handle holder: Die-cast zinc
– Cover bungs: Plastic
– Handle tube: Aluminium

Surface finish:
– Handle tube: Powder-coated

Colour:
– Handle holder: RAL 7035
– Cover bungs: Similar to RAL 7035
– Handle tube: Similar to RAL 9006

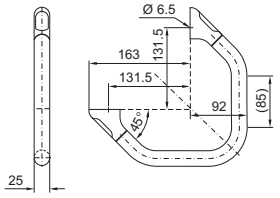
Corner handle

Supply includes:
– 4 handle holders
– 2 handle tubes
– Assembly parts

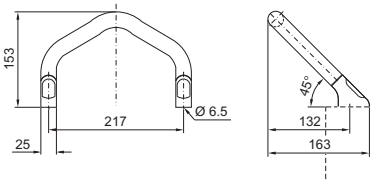
Packs of	**Model No.**
1 pc(s).	**6107.000**



Mounting on enclosure corner



External mounting on straight surface
(90° rotation of handle holder)





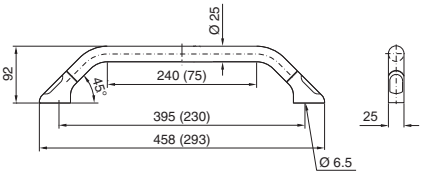
U handle

Supply includes:
– 2 handle holders
– 1 handle tube
– Assembly parts

For front panel size	Packs of	**Model No.**
≥ 7 U	1 pc(s).	**6107.100**
482.6 mm (19")	1 pc(s).	**6107.200**



Accessories:
– For 6107.200: Clipboard, see page 824
– For 6107.200: Display board, see page 824





Note:
– Dimensions in brackets for front size 7 U



Clipboard

For securing operating instructions or plans (A4 size) at eye level.
Prepared for mounting on the right-hand side; mounting on the left is also possible by unscrewing and moving the clip part.
For mounting purposes, a straight tube length of ≥ 200 mm, Ø 20 mm or Ø 25 mm is required.

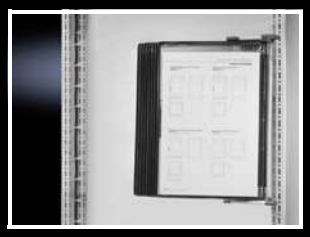
Material:
– Clipboard: Sheet steel
– Clip part: Aluminium

Surface finish:
– Clip part: Natural anodised

Colour:
– RAL 7035

Width mm	Height mm	Packs of	Model No.
225	315	1 pc(s).	**6013.000**

Also required:
– Handle set 2389.000, see page 822
or
– Handle set for Comfort Panel, see page 821
or
– Handle set for Optipanel, see page 821
or
– U handle 6107.200, see page 823



Display board

with wall bracket
To accommodate test plans, documents etc. in A4 format.

Mounting
- On surfaces
- On a 25 mm pitch pattern of the TS frame or rail system
- On handle set Ø 20 mm or Ø 25 mm

Supply includes:
– Display board
– Wall bracket
– Assembly parts

Packs of	Model No.
1 pc(s).	**6013.100**

Accessories:
– Handle set 2389.000, see page 822
or
– Handle set for Comfort Panel, see page 821
or
– Handle set for Optipanel, see page 821
or
– U handle 6107.200, see page 823





Enclosure surface connector

To accommodate keyboard support (2383.000, see page 833).

Material:
– Surface connector: Extruded aluminium section
– Side cover: Sheet steel

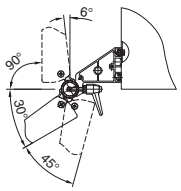
Surface finish:
– Surface connector: Natural anodised

Colour:
– RAL 7024

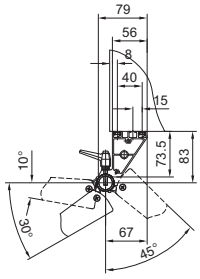
Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**2383.010**

External mounting on surfaces



Mounting underneath surfaces



Front panels

for Comfort Panel and Optipanel

Material:
– Aluminium, 3 mm

Surface finish:
– Natural anodised

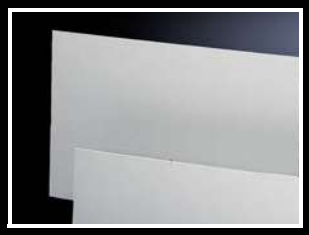
Note:
– Mounting kits included with the supply of 520 mm wide standard enclosures.

With threaded bolts M5

Width mm	Height mm	Model No.
482.6 (19")	155.0 (3.5 U)	**6027.010**
482.6 (19")	310.3 (7 U)	**6028.010**
520	400	**6028.014**
520	500	**6028.015**
520	600	**6028.016**

Also required:

– Mounting kit for Comfort Panel 6053.800, see page 826
– Mounting kit for Optipanel 6053.000/.500, see page 826



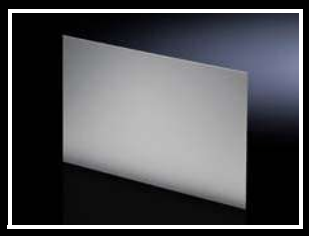
Front panels

for Compact Panel

Material:
– Aluminium, 3 mm

Surface finish:
– Natural anodised

Size W x H mm	To fit Compact Panel	Model No.
178 x 200	6340.000	**6028.500**
178 x 350	6340.100	**6028.510**
252 x 200	6340.300	**6028.530**
252 x 350	6340.400	**6028.540**



Cover plate

for support arm connection

For secure sealing of an unrequired support arm connection in the enclosure.

Material:
– Sheet steel

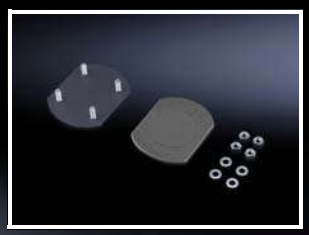
Supply includes:
– Seal and assembly parts

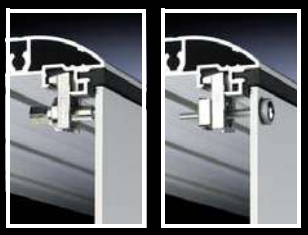
Note:
If with
– Comfort Panel
– Optipanel
– Compact Panel
If there are already 2 support arm cut-outs provided, a cover plate is included with the supply of the enclosure

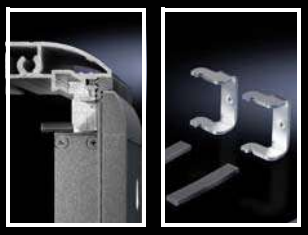
Support arm connection	Surface finish	Model No.
▭ 90 x 71 mm	Spray finished in RAL 7024	**6505.200**
Ø 130 mm	Zinc-plated, passivated	**6505.500**
▭ 120 x 65 mm	Zinc-plated, passivated	**6505.100**











Mounting kit

for Optipanel

For installation of
- Aluminium front panels
- Command panels
- Keyboards

for drilled holes

Supply includes:
– Packs of 30 retaining claws, cage nuts, screws and sealing washers

For front panels	Thread	Model No.
Others	M4	**6058.000**
Rittal and others	M5	**6053.000**

for threaded bolts

Supply includes:
– Packs of 10 retaining claws and cap screws

For front panels	Thread	Model No.
Others	M4	**6058.500**
Rittal and others	M5	**6053.500**[1)]

[1)] For the installation of TFT monitors 15", 17" and 19"

for screw clamp

Supply includes:
– Packs of 4 pressure plates, 4 attachment strips

Note:
– The command panels MP 377 12" Touch, MP 377 15" Touch are installed using an adaptor plate

For direct installation of	Model No.
Siemens Sinumerik: OP 010, OP 010C, OP 012, OP 015, OP 019, MCP 483, PP 012, Qwerty 19", KB 483C, TP 015A	**6053.210**
Siemens Simatic: Panel PC 477C, 577C, 677C: 12.1" Touch, 15.1" Touch, 12.1" Key, 15.1" Key, 19" Touch[1)], 22" Touch[1)], Flat Panel[1)] 12", 15", 19"	
Industrial Flat Panel: IFP 1200 Touch, IFP 1500 Touch, IFP 1200 Key, IFP 1500 Key, IFP 1900 Touch, IFP 2200 Touch	
Industrial Thin Client: ITC 1200, ITC 1500, ITC 1900, ITC 2200	

The mounting set can only be installed vertically
[1)] 2 packs are required





Mounting kit

for Comfort Panel

For the installation of aluminium front panels, command panels and keyboards.

Supply includes:
– 6053.800:
20 each of retaining claws, cage nuts, screws, nuts and sealing washers
– 6053.300:
8 medium retaining claws, 8 short retaining claws, 4 long retaining claws

1 6053.800

2 6053.300

For drilled holes/bolts/front panel mounting from behind

Thread	Model No.
M5	**6053.800**

For screw clamp

For installation of	Model No.
Siemens Sinumerik: OP 010, OP 010 C, OP 012, OP 015, OP 015 A, OP 019, MCP 483 C, MCP 483, PP 012, PP 012 extension, MCP, KB 483 C, Qwerty 19"	**6053.300**
Siemens Simatic: TP 900 Comfort, KP 900 Comfort, TP 1200 Comfort, KP 1200 Comfort, KTP 1000 Basic, KTP 1500 Basic	
Panel PC 477C, 577C, 677C: 12.1" Key, 12.1" Touch, 15.1" Key, 15.1" Touch, 19" Touch, 22" Touch[1)]	
MP 377 12" Touch, MP 377 15" Touch, MP 377 19" Touch	
Industrial Flat Panel: IFP 1200 Touch, IFP 1500 Touch, IFP 1200 Key, IFP 1500 Key, IFP 1900 Touch, IFP 2200 Touch	
Industrial Thin Client: ITC 1200, ITC 1500, ITC 1900, ITC 2200	
B & R: Automation Panel, Panel PC	

[1)] 2 packs are required

TFT monitor

Installation variant for surfaces and command panels.

Benefits:
- High-quality industrial design
- Reduced installation work thanks to integral front frame
- No additional ventilation required
- Very small installation depth (45 mm)
- Resistive touchscreen for operation with a pen, finger or glove

Material:
– Front frame: Aluminium

Surface finish:
– Powder-coated

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 65 (at the front)

Supply includes:
– Seal, hex nuts (for installation in surfaces), VGA cables, rear threaded bolts M5 (14). Touch variants additionally with integral connection cable and CD-ROM driver

Size	Width mm	Height mm	Model No.	
			Touch	
			Without[1)]	Resistive, USB
15"	430	343	**6450.010**	**6450.070**
17"	482.6	354.8	**6450.020**	**–**
19"	482.6	399.3	**6450.170**	**–**

[1)] With anti-reflection coated safety glass screen

Note:
– Other variants as resistive touchscreen with serial or USB interface are also possible

Also required:
– Mounting kit 6053.800 (when installing in Comfort Panel), see page 826
– Mounting kit 6053.500 (when installing in Optipanel), see page 826
– Power pack 6450.050, see page 827 and
– Connection cable 6450.060, see page 827, if an operating voltage of only 100 – 240 V is available instead of 12 V (DC)

Technical specifications	15"	17"	19"
Resolution of display (max. pixels)	1024 x 768	1280 x 1024	1280 x 1024
Resolution of controller/million colours	VGA-XGA/16.2	VGA-SXGA/16.7	VGA-SXGA/16.2
Brightness cd/m²	400	350	250
Contrast ratio	700:1	1000:1	500:1
H-Sync. kHz/V-Sync. Hz	31.4 – 80/60 – 75	31.4 – 80/60 – 75	31.5 – 80/60 – 75
Reading angle horizontal (right/left)	80°/80°	85°/85°	88°/88°
Reading angle vertical (top/bottom)	70°/70°	80°/80°	88°/88°
Backlight/operating time h	LED/min. 50,000	LED/min. 50,000	Tubes/min. 40,000
On-screen display (OSD)	Operating buttons on the rear		
VGA input/DVI-D	D-SUB HD 15-pole/DVI-D jack		
Rated voltage V (DC)	12		
Power consumption (W)	15	20	40
Operating temperature/storage temperature	0°C…+50°C/ -40°C…+85°C	0°C…+50°C/ -30°C…+85°C	0°C…+50°C/ -20°C…+60°C
Max. humidity during operation and storage, non-condensing	90% relative humidity for 240 h	80% rel. humidity for 300 h at 50°C	80% relative humidity



Power pack

for TFT monitor
- With IEC 60 320 connector C14 for C13 connection
- With cable (1.5 m) for connecting to the TFT monitor

Dimensions, W x H x D: 112 x 31 x 47 mm

Technical specifications:
– Input voltage: 100 – 240 V
– Output voltage: 12 V (DC)
– Operating temperature: 10°C…40°C
– Storage temperature: 10°C…40°C

Packs of	Model No.
1 pc(s).	**6450.050**

Material:
– Housing: Plastic



Connection cable

for power pack
With IEC 320 socket C13 at one end for C14 connectors.

Length: 1.5 m

Packs of	Model No.
1 pc(s).	**6450.060**







TFT holder

Suitable for mounting TFTs with VESA 75/100 adaptation up to 21" on
- Attachment CP 40, 6501.070, see page 179
- Attachment CP 60 for support arm connection ▭ 120 x 65 mm, 6206.360, see page 187
- Vertical support arm via tilting adaptor +100°/-60°, 6206.460, see page 187

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7024

Dimensions mm	Packs of	**Model No.**
477 x 372 x 110.5	1 pc(s).	**2383.030**





Keyboard, pull-out

with integral trackball

Super-slimline keyboard with cursor keys and trackball. The handle also serves as a hand rest.
The 10° angled pullout ensures ergonomic working.

For installation in:
- Any sufficiently large surface (e.g. door, side panel)
- Front panels
- Directly in a suitably sized Comfort Panel and Optipanel, selectable via configurators at www.rittal.com

Technical specifications:
Keyboard:
– 84 short-stroke keys, IBM-AT compatible (MF2), incl. cursor keys
– With integral 16 mm trackball
– Interface: 2 x USB
– Operating temperature: +5°C…+50°C
– Storage temperature: -10°C…+60°C
– Humidity: max. 95% (non-condensing)

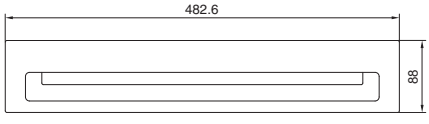
Keyboard layout	Packs of	**Model No.**
German	1 pc(s).	**6002.130**

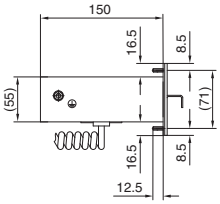
Material:
– Sheet steel

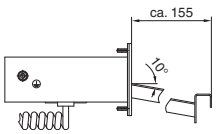
Surface finish:
– Front panel: Powder-coated

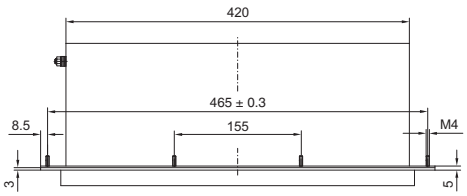
Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 65 (at the front, sealed)

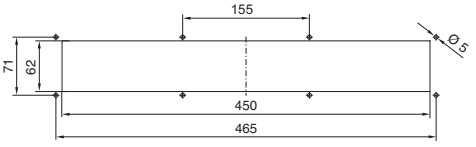








Mounting cut-out



Built-in keyboard 482.6 mm (19")/4 U

with integral touchpad

The integral touchpad eliminates the need to install an additional, correct protection category mouse, which in turn reduces cabling. The short stroke keys are easily identified by edge embossing, less force is required to operate them, and they have a good tactile action.

Benefits:
- The separate number pad enables the parameters to be entered quickly
- Sealed, wipeable surface finish
- High level of mechanical and chemical resistance as per DIN 42 115

Technical specifications:
- Number of keys: 105
- Front panel dimensions: 482.6 x 177.0 mm (19" x 4 U)
- Keyboard depth: 30 mm
- Installation depth: 27 mm
- 12 M5 x 20 threaded bolts at the rear
- Actuation travel/force: 0.3 mm/2.6 N
- Service life: 3 million switching cycles
- Operating temperature: -40°C…+90°C
- Touchpad resolution, capacitive: 40 pixels/mm
- Interfaces: USB

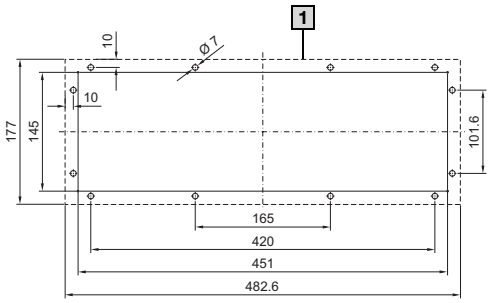
Material:
- Front panel: Aluminium

Protection category IP to IEC 60 529:
- IP 65 (at the front)

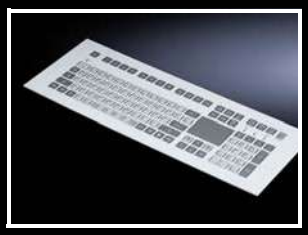
Supply includes:
- USB connection cable, length 1.8 m
- Seal
- Drilling template
- Assembly parts for surfaces

Keyboard layout	Packs of	**Model No.**
German	1 pc(s).	**6446.030**

Also required:
- Mounting kit 6053.800 (when installing in Comfort Panel), see page 826
- Mounting kit 6053.500 (when installing in Optipanel), see page 826



1 Support surface





Fold-out tray

for keyboard and mouse

For installation in
- 600 and 800 mm wide doors
- 482.6 mm (19") swing frames and enclosures

Standard double-bit lock insert may be exchanged for lock inserts 27 mm, version A, see page 680 and for lock cylinder 2571.000, see page 681

Material:
- Flap: Sheet steel
- Side parts: Cast aluminium
- Tray: Extruded aluminium section

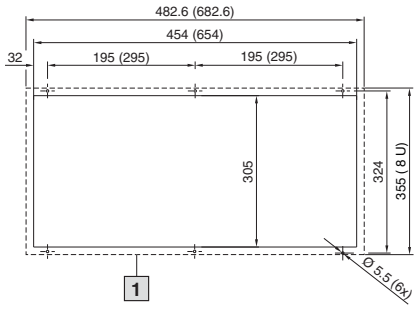
Surface finish:
- Flap, side parts: Textured paint
- Tray: Natural anodised

Colour:
- Cover, side parts: RAL 7035

Protection category IP to IEC 60 529:
- IP 55 to IEC 60 529

Accessories:
- Mousepad support, pull-out, see page 830

Mounting cut-out



1 Support surface





For door width mm	External dimensions W x H x D mm	Installation depth mm	Max. keyboard dimensions W x H x D mm	**Model No.**
600	482.6 (19") x 355 (8 U) x 126	93	405 x 50 x 250 405 x 50 x 195[1)]	**2379.600**
800	682.6 x 355 (8 U) x 126	93	605 x 50 x 250 605 x 50 x 195[1)] 475[1)] x 50 x 250	**2379.800**

[1)] Maximum keyboard size with holder for mouse



Support for mousepad, pull-out

with mouse holder
For screw-fastening into the fold-out tray 2379.600/ 2379.800, see page 829.
To fit all standard mousepads up to 250 x 205 mm.

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**2379.900**





Support

For keyboards
Up to a max. of 473 x 210 mm.
Prepared for
- Cable gland
- Mousepad support, vertically hinged 2383.020

Material:
– Side parts: Sheet steel
– Front and rear: Extruded aluminium section

Surface finish:
– Side parts: Textured paint
– Front and rear: Natural anodised

Colour:
– Side parts: RAL 7024

Supply includes:
– 2 clamping screws, end stoppers, cover plate, cable entry grommet and nylon tape

Packs of	Model No.
1 pc(s).	**2383.000**

Also required:
– For external mounting on surfaces using enclosure surface connectors, see page 824

Accessories:
– Mousepad support, vertically hinged, see page 834





Utility bars, vertically hinged

To support standard keyboards during programming and servicing work.
Mounting distance of utility bars for problem-free insertion: at least 300 mm.
Depth adequate for keyboards up to max. 210 mm.

For mounting beneath
- Comfort Panel[1)]
- Optipanel[2)]
- Any sufficiently large surface, such as:
  – Worktops IW
  – Command panels with handle strips

on
- Vertical surfaces (doors/side panels)

Min. front panel width
[1)] 385 mm
[2)] 405 mm

After use, the utility bars fit securely and neatly under the mounting surface, thus giving the operator more space to move around.

Packs of	Model No.
2 pc(s).	**6514.200**

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Drawer 482.6 mm (19")/2 U

for keyboard and mouse

For installation in:
- Any sufficiently large surface (e.g. door, side panel)
- 482.6 mm (19") system punchings
- Front panels
- Directly in a suitably sized Comfort-Panel or Optipanel, selectable via configurators at www.rittal.com

Suitable for
- Accommodation of keyboards up to max. 390 x 32 x 139 mm
- Support of standard commercially-available mouse or trackball

Design:
– Drawer: With stay
– Front panel: With security lock (lock no. 12321) and handle strip

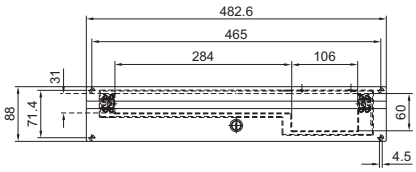
Width mm	U	Depth mm	Model No.
482.6 (19")	2	150	**6002.000**

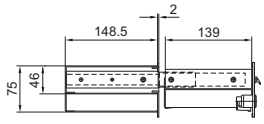


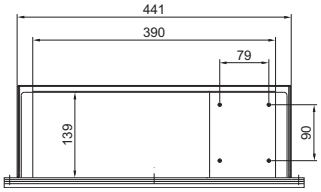
Material:
– Drawer housing: Sheet steel
– Drawer and front panel: Aluminium

Surface finish:
– Drawer housing: Zinc-plated
– Drawer and front panel: Natural anodised

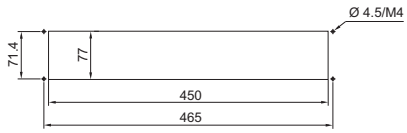
Supply includes:
– Assembly parts for installation in Comfort Panel/ Optipanel command panels







Mounting cut-out
(for installation in surfaces)





Drawer for keyboard and mouse

with mousepad support

For installation in:
- Any sufficiently large surface (e.g. door, side panel)
- Front panels

Suitable for accommodating
- Keyboards up to a maximum of 460 x 42 x 170 mm
- Standard mouse and mousepad

Design:
– Drawer and housing: With side pull-out mouse-pad support and tray
– Front panel: With 3 mm double-bit lock insert, folds out as handrest

Width mm	U	Depth mm	Model No.
482.6 (19")	3.5	261	**6003.000**

Material:
– Drawer and enclosure: Sheet steel
– Front panel: Aluminium

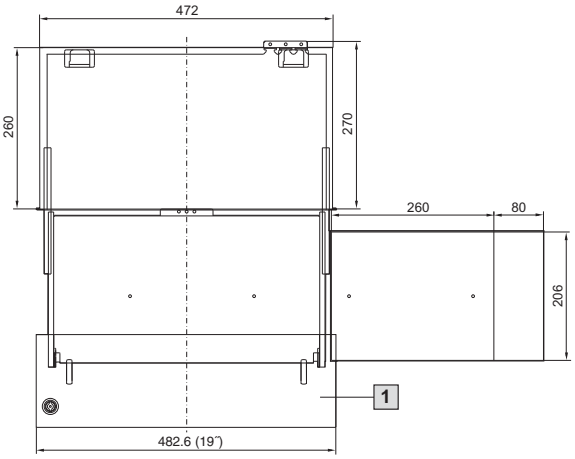
Surface finish:
– Drawer and housing: Textured paint
– Front panel: Natural anodised.

Protection category IP to IEC 60 529:
– IP 54

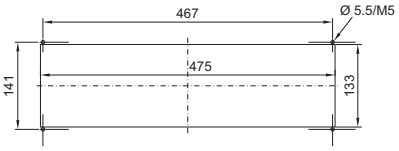
Supply includes:
– Assembly parts

Note:
– Not suitable for installation in a 482.6 mm (19") frame

Accessories:
– Standard double-bit lock insert may be exchanged for 27 mm lock inserts, type A, see page 680



Mounting cut-out
for installation in surfaces



1 Front trim panel





Keyboard drawer 1 U

for two 482.6 mm (19") mounting levels

This space-saving keyboard drawer is screw-fastened to the front and rear 482.6 mm (19") mounting levels. The installation spacing is infinitely adjustable from 460 – 800 mm. It is fully extendible, lockable, with strain relief and hinged cable support. The drawer is suitable for accommodating 482.6 mm (19") keyboards.

Interior dimensions:
– W x H x D approx. 420 x 40 x 220 mm

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Assembly parts, excluding keyboard

Note:
– Monitor/keyboard unit, 1 U, see page 563

Distance between levels mm	Model No.
460 – 800	**7281.200**

Keyboard drawer 2 U

for one 482.6 mm (19") mounting level
For keyboards up to 430 mm wide and 250 mm deep with the front panel folded over.

Material:
– Sheet steel with aluminium front

Surface finish:
– Spray-finished

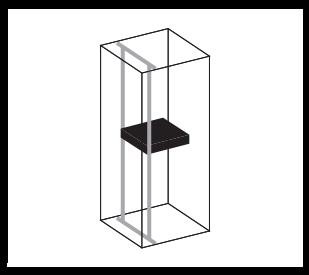
Colour:
– RAL 7035

Supply includes:
– Lockable drawer with handles
– Folding front
– Pull-out mousepad
– Mouse support
– Practical cable entry
– and strain relief

Height	Packs of	Model No.
2 U	1 pc(s).	**7281.035**

Installation depth: 390 mm





Support for mousepad

for command panels and surfaces
The angle of the mousepad support is individually adjustable. Two holes are needed on the enclosure for attachment purposes.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Weight kg	Packs of	Model No.
1.0	1 pc(s).	**2381.000**

Accessories:
– Holder for mouse, see page 834





Keyboard support

for command panels or surfaces

Benefits:
– Adjustable to different keyboard depths via a simple slide function
– Connection to command panels with support arm connection at the top or bottom
– Easily adjustable tilt angle
– Open support at the side prevents dirt from being deposited

Installation options:
– Command panels with handle strips
– Command panel for desktop TFT up to 24"
– External mounting on vertical surfaces and beneath horizontal surfaces

Technical specifications:
– Support surface fully depth adjustable from 128 – 228 mm

Material:
– Sheet steel
– Handrest: Extruded aluminium section

Surface finish:
– Textured paint
– Handrest: Natural anodised

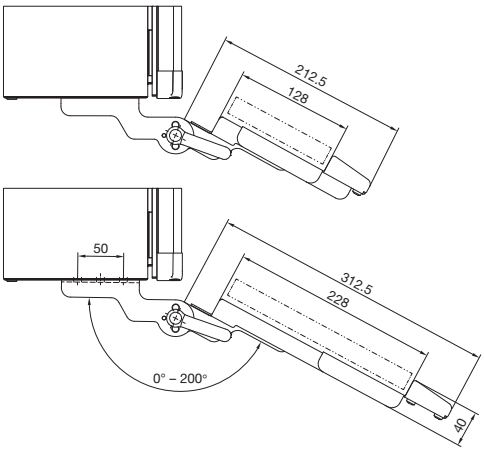
Colour:
– RAL 7035

Width mm	Weight kg	Packs of	Model No.
430	3.0	1 pc(s).	**6321.010**

Supply includes:
– Support fully preassembled
– Nylon tape for attaching the keyboard
– Assembly parts

Accessories:
– Mousepad support, vertically hinged, see page 834









Mousepad support, vertically hinged

For mounting on the left/right, beneath the keyboard support. Latches home automatically, both when retracted and extended. With mounting holes for holder for mouse 2382.000.

Material:
– Sheet steel

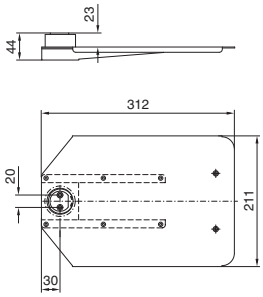
Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts and mousepad, stuck on with adhesive

Packs of	Model No.
1 pc(s).	**2383.020**

Accessories:

– Holder for mouse, see page 834







Holder for mouse

To fit mousepad support and for secure accommodation of a standard mouse.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Weight kg	Packs of	Model No.
0.3	1 pc(s).	**2382.000**

Also required:

– Mousepad support, see page 833
or
– Mousepad support, vertically hinged, see page 834



Paper removal flap

For installation in surfaces
Facilitates easy removal of pages from the printer without opening the enclosure door. Acrylic glazed flap with magnetic lock.

Paper removal flap	Colour RAL	Packs of	Model No.
A4	7015	1 pc(s).	**6903.200**



Base

for tubular door frame
The space-saving alternative instead of component shelves to accommodate tower PCs (maximum 20 kg). For screw-fastening to the tubular door frame of 600 mm wide enclosures based on TS.

Load capacity:
– 20 kg

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7015

Supply includes:
– Retaining strap and assembly parts

Width x height x depth mm	Packs of	Model No.
445 x 159 x 230	1 pc(s).	**6902.950**

Also required:

– TS support strips for direct screw-fastening to the tubular door frame, see page 685

Interface extension with wall connection and built-in RJ 45 module

For extending the internal enclosure interfaces – e.g. of industrial PCs and switches – up to the outside of the enclosure. The wall connection only needs the same space as a switch.

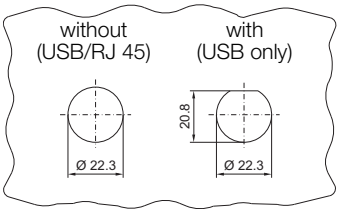
Benefits:
- Rapid access for maintenance work
- The protection category of the enclosure is preserved
- The lock nut cuts automatically into the spray-finish or eloxal layer, thereby creating a conductive connection
- Captive protective cap

Material:
– Housing: Brass
– Cover: Aluminium
– Seal: Polyamide

Surface finish:
– Enclosure: Nickel-plated
– Cover: Natural anodised

Protection category IP to IEC 60 529:
– IP 66/67 (with protective cap closed)

Anti-twist guard



Material thickness: 1 – 6 mm





Version	Wall connection	Inside	Length m	Packs of	Model No.
USB	Type A jack	Type A connector	0.5	1 pc(s).	**2482.210**
			1.0	1 pc(s).	**2482.220**
			2.0	1 pc(s).	**2482.230**
RJ 45	Jack	Connector	0.5	1 pc(s).	**2482.700**
			1.0	1 pc(s).	**2482.710**
			2.0	1 pc(s).	**2482.720**
RJ 45	Jack	Jack	–	1 pc(s).	**2482.730**

Interface flap

For RC circuit-breakers
According to standard EN 60 204-1, all circuits with a rated current of ≤ 20 A that supply sockets in or on machine enclosures must be fused with a residual-current circuit-breaker with a rated differential current of ≤ 30 mA. Prepared for the installation of standard, 2-pole RCBO circuit-breakers.

Applications:
– As programming interface for controllers
– As maintenance access for networks
– For temporary connection of additional equipment
– For quick connection to existing network structures
– For programming and maintenance of integral components

Design:
– Spring-action terminals max. 2 x 2.5 mm, connection at rear

Benefits:
– Protection against fault currents and overload
– Standard-compliant fuse to EN 60 204
– The RC switch may be reset without opening the enclosure
– Spring mechanism raises the unlocked cover by 30°, ensuring that you do not forget to close the cover

Functions:
– A snap fastener ensures reliable sealing. This may be locked if required.

Material:
– Mounting frame: Plastic PBT (black)
– Plastic flap: Polycarbonate (semi-transparent)

Protection category IP to IEC 60 529:
– IP 65

Supply includes:
– Interface flap, complete, consisting of plastic frame, socket (VDE), RJ 45 (jack/jack, Cat 5e) and cut-out for RC circuit-breaker
– Knockout provided for USB A (jack/jack)
– 3 mm double-bit with slot-in rotary knob

Note:
– Interface flap may only be used with fitted RC circuit-breaker



Width mm	Height mm	Required mounting cut-out mm	Installation depth mm	Rated operating voltage V, ~, Hz	Rated current A	Packs of	Model No.
131	127	117 x 91	70	250, 1~, 50/60	10 – 16	1 pc(s).	**2482.600**




1


2


3


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11


12

Interface flaps, modular

For universal use in all situations where rapid access to interfaces and sockets is needed. The affected enclosure remains closed and is therefore protected from ambient influences and unauthorised access.
Space-saving installation e.g.

- in **small enclosures and compact enclosures** as a programming interface for controllers
- in **IT and industrial distributors** as maintenance access for networks
- in **PC enclosures and console systems** for the temporary connection of additional equipment
- in mobile **industrial workstations** for rapid connection to existing network structures
- in **command panel systems** for programming and maintenance of integral components

The mounting frame has a flap which snaps into position at various opening angles from 90 to 180°. A snap fastener ensures reliable sealing. This may be locked if required.

Material:
– Mounting frame and metal flap: Die-cast zinc
– Plastic flap: Polycarbonate (semi-transparent)
– Lock: Polycarbonate, RAL 7024

Surface finish:
– Mounting frame and metal flap: Matt nickel-plated

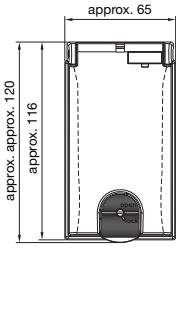
Colour:
– Lock: RAL 7024

Protection category IP to IEC 60 529:
– IP 65 (with sealed flap and proper assembly)

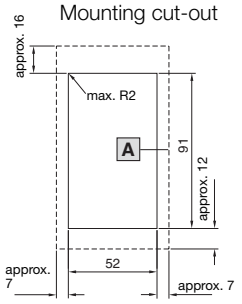
Description	cUR	UR	Packs of	Model No.
Mounting frame[1)]				
1 Single, with plastic flap (semi-transparent)			1 pc(s).	**2482.300**
Double, with plastic flap (semi-transparent)			1 pc(s).	**2482.310**
2 Single, with metal flap	■	■	1 pc(s).	**2482.320**
3 Double, with metal flap	■	■	1 pc(s).	**2482.330**
Socket modules				
4 Germany (VDE), spring-action terminals max. 2 x 2.5 mm², connection at rear			1 pc(s).	**2482.400[3)]**
5 Germany (VDE), screw terminals max. 6 mm², connection at rear, colour: yellow (RAL 1016), for installation in front of master switch			1 pc(s).	**2482.410[3)]**
Interface inserts				
6 2 x SUB-D9 (jack/pin)	■	■	1 pc(s).	**2482.500**
7 SUB-D9 (jack/jack)	■	■	1 pc(s).	**2482.510**
8 2 x USB A (jack/jack)	■	■	1 pc(s).	**2482.540[2)]**
9 RJ45 (jack/jack, Cat. 5e), SUB-D9 (jack/jack), SUB-D9 (pin/pin)	■	■	1 pc(s).	**2482.550**
10 2 x RJ45 (jack/jack, Cat. 5e)	■	■	1 pc(s).	**2482.560[2)]**
11 USB A (jack/jack), RJ45 (jack/jack, Cat. 5e), SUB-D9 (jack/pin)	■	■	1 pc(s).	**2482.570[2)]**
12 Blanking plate (slimline), for individual population, usable area: 45 x 75 mm	■	■	1 pc(s).	**2482.590**

[1)] Electrically conductive
[2)] Conductively linked to mounting frame
[3)] Rated voltage: 250 V, rated current: 10 – 16 A
All SUB-D interfaces may be rotated while in use

Interface flap, single

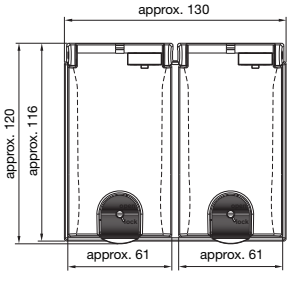


Mounting cut-out

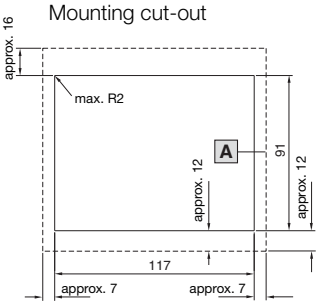


Permissible material thickness: 1 – 5 mm
A Contact surface

Interface flap, double



Mounting cut-out



Further technical information available on the Internet.

Signal pillars, LED compact



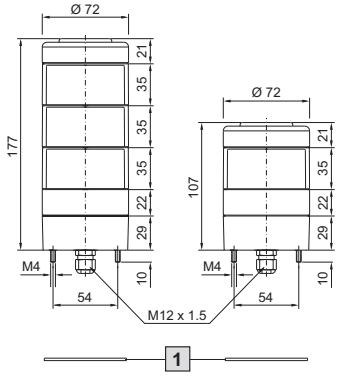
Benefits:
- Complete, ready-to-connect solution
- Minimal build height
- Extremely long service life of the LEDs (at least 70,000 h), therefore maintenance-free
- Minimal assembly work and warehousing costs

Technical specifications:
– Operating voltage: 24 V AC/DC
– Electrical connection: Screw clamps
– Light: LED
– Transmission angle: 3 x 120°
– Operating temperature: -20…+70°C
– Flashing function: Controllable via PLC
– Cable entry: Metric screwed cable gland M12 x 1.5 for cable diameter 3.0 – 6.5 mm

Protection category IP to IEC 60 529:
– IP 65

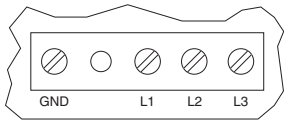
Version	Packs of	H mm	Model No.
3-stage, red, yellow, green	1 pc(s).	177	**2372.100**
1-stage, red	1 pc(s).	107	**2372.130**

Also required:
– For wall mounting: Bracket for wall mounting, see page 841
– For conduit mounting/support arm systems: Busbar connection adaptor, see page 837
– Other mounting components, see page 841/842



1 Seal

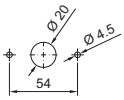
Connection plan 2372.100/.130



GND – 0 V (Ground)

L1 – L3 – +24 V (DC) (LED light stages, from bottom to top, unneeded contacts are left free)

Mounting cut-out



Connection adaptor

for signal pillar, LED compact
For conduit mounting and mounting on support arm systems.

Material:
– Plastic

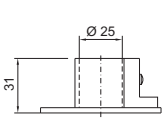
Colour:
– Black

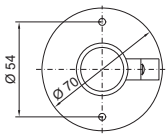




Packs of	Model No.
1 pc(s).	**2372.120**

Accessories:
– Mounting components for conduit mounting, see page 842
– Mounting components for support arm system, see page 841







Signal pillars, modular

Benefits:
- Simple assembly and contact via bayonet fastener
- Configuration of up to five components with the same voltage
- Flashing and stroboscopic light element incl. lamp, suitable for direct use
- Components are available in a range of colours and voltages

For modular configuration of
- Connection components
- Optical components
- Incandescent lamps
- Acoustic components
- Label panel



Connection component

for signal pillars, modular
- Optionally for conduit or wall/base mounting
- Screw terminals in the connection component
- With cover for optical components
- Contact hazard protection to VDE

Material:
– Enclosure of polyamide

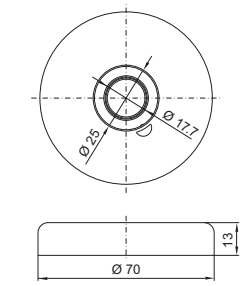
Colour:
– Black

Protection category IP to IEC 60 529:
– IP 54

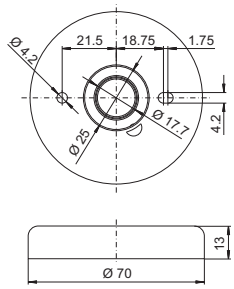
Connection component	**Model No.**
for conduit mounting	**2368.000**
for wall/base mounting	**2368.010**

Accessories:
- Mounting components for wall/base mounting, see page 841
- Mounting components for conduit mounting, see page 842
- Mounting components for support arm system, see page 841

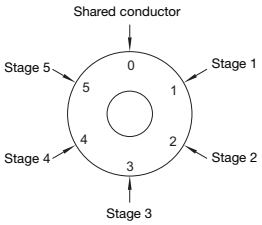
Connection component
for conduit mounting
2368.000



Connection component
for wall/base mounting
2368.010



Connection diagram



1 Seal

Optical components

for signal pillars, modular

- With 360° signal transmission thanks to optimised prism system
- No. of potential stages = 5 components, with identical voltage

Material:

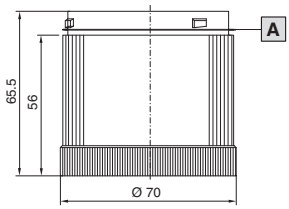
– Housing: Polyamide
– Cap: Transparent polycarbonate

Protection category IP to IEC 60 529:

– IP 54 if a cover or acoustic component is fitted at the top

Also required:

– Incandescent lamps for steady light component, see page 839



A Pre-configured seal









1 Steady light component 12 – 240 V AC/DC[1)]

Model No.				
Red	Green	Yellow	Clear	Blue
2369.000	**2369.010**	**2369.020**	**2369.030**	**2369.040**

1) Incandescent lamps not included with the supply

2 LED steady light component 24 V AC/DC, 25 mA

Model No.				
Red	Green	Yellow	Clear	Blue
2372.000	**2372.010**	**2372.020**	**2372.030**	**2372.040**

3 LED steady light component 230 V

Model No.				
Red	Green	Yellow	Clear	Blue
2370.150	**2370.160**	**2370.170**	**–**	**–**

4 LED stroboscopic light component 24 V AC/DC

Model No.				
Red	Green	Yellow	Clear	Blue
2370.500	**2370.510**	**2370.520**	**2370.530**	**2370.540**

5 LED stroboscopic light component 230 V

Model No.				
Red	Green	Yellow	Clear	Blue
2370.550	**2370.560**	**2370.570**	**–**	**–**

6 Stroboscopic light component 24 V (DC), 125 mA

Model No.				
Red	Green	Yellow	Clear	Blue
2371.000	**–**	**2371.020**	**–**	**–**

7 Stroboscopic light component 230 V DC, 15 mA

Model No.				
Red	Green	Yellow	Clear	Blue
2371.050	**–**	**2371.070**	**–**	**–**

Incandescent lamps

for steady light components
With BA 15d base/plinth.

Incandescent lamp	Packs of	Model No.
24 V, 5 W	3 pc(s).	**2374.060**
230 V, 5 W	3 pc(s).	**2374.070**





Acoustic components

for signal pillars, modular
To indicate warnings or malfunctions.

Material:
– Housing: Polyamide

Colour:
– Black

Note:
– For mounting only on the upper end of the optical components or directly on the connection component

24 V AC/DC

Acoustic components	Packs of	Model No.
85 dB[1] max. 25 mA	1 pc(s).	**2376.000**
100 dB[2] max. 25 mA	1 pc(s).	**2376.010**

[1] Continuous tone or pulsating
[2] Volume and 8 tones may be set

230 V

Acoustic components	Packs of	Model No.
85 dB[1] max. 25 mA	1 pc(s).	**2376.020**
100 dB[2] max. 25 mA	1 pc(s).	**2376.030**

[1] Continuous tone or pulsating
[2] Volume and 8 tones may be set



Label panel

for signal pillars, modular
For text additions for up to 5 optical components, with break point for any fields that are not required (50 x 150 mm), including clamping section for base or conduit with a diameter of 25 mm.

Material:
– Acrylic, transparent

Label panel	Model No.
for 5 optical components	**2374.150**

Mounting components

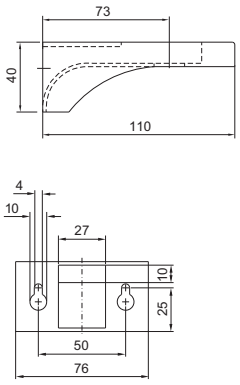
for wall/base mounting

Fig.	Mounting component	Colour	Suitable for signal pillar		Model No.
			LED compact	Modular	
1	Bracket for wall mounting, including rubber gland for concealed cable routing	black	■	–	**2372.110**
2	Bracket for connection component	black	–	■[1)]	**2374.040**
3	For side cable outlet	black	–	■[1)]	**2374.080**

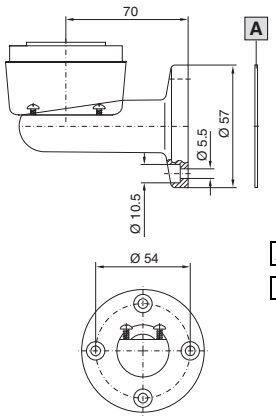
Also required:

– [1)] Connection component 2368.010, see page 838

Bracket for wall mounting

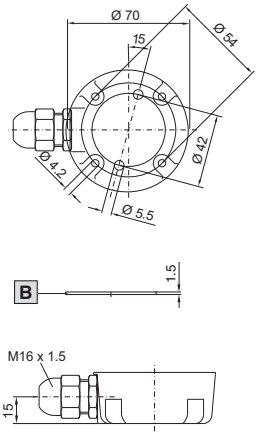


Bracket for connection component



A Seal
B Flat seal

For side cable outlet















Mounting components

for support arm systems

For external mounting of a signal pillar on the plastic cover of the support arm components.

Fig.	Mounting component	Colour	Suitable for signal pillar		Model No.
			LED compact	Modular	
4	For support arm system CP 40, steel – Angle piece 90° 6501.140	RAL 7024 (graphite grey)	■[1)]	■[2)]	**2375.030**
5	For support arm system CP 60 – Angle adaptor 90° for support arm combination CP 60 to CP 40 6206.640 – Angle coupling 90° 6206.380 – Angle piece 90° 6206.600 – Intermediate hinge 6206.620 – Wall mounted hinge 6206.740 – Top mounted joint 6206.700	RAL 7024 (graphite grey)	■[1)]	■[2)]	**6206.900**
6	For support arm system CP 120 – Angle coupling 90° 6212.380 – Angle piece 90° 6212.600 – Intermediate hinge 6212.620 – Wall-mounted hinge 6212.740 – Top-mounted joint 6212.700	RAL 7024 (graphite grey)	■[1)]	■[2)]	**6212.900**
	For support arm system CP 180 – Angle piece 90° 6218.700, – Top-mounted joint 6218.700	RAL 7024 (graphite grey)	■[1)]	■[2)]	**6212.900**

Also required:

– [1)] Connection adaptor 2372.120, see page 837
– [2)] Connection component 2368.000, see page 838

























Mounting components

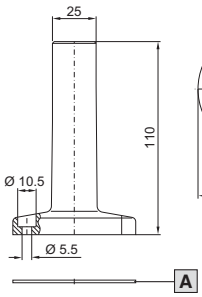
for conduit mounting

Fig.	Mounting component	Colour	Suitable for signal pillar		Model No.
			LED compact	modular	
8	Base with integral conduit, Ø 25 mm, 110 mm long	black	■[1)]	■[2)]	**2374.000**
9	Individual base	black	■	■	**2374.010**
10	Individual conduit, 250 mm long	Aluminium	■[1)]	■[2)]	**2374.020**
	Individual conduit, 400 mm long	Aluminium	■[1)]	■[2)]	**2374.030**
11	Angle bracket for conduit mounting	black	■	■	**2374.050**

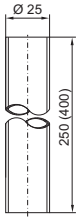
Also required:

– [1)] Connection adaptor 2372.120, see page 837
– [2)] Connection component 2368.000, see page 838

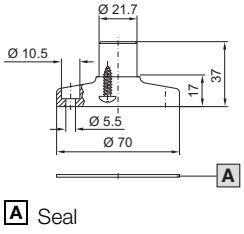
Base with integral conduit



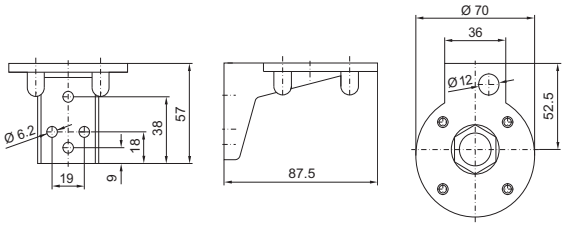
Individual conduit



Individual base, plastic



Angle bracket for conduit mounting



Rittal – The System.

Faster – better – everywhere.

System accessories – for maximum flexibility



ENCLOSURES | POWER DISTRIBUTION | CLIMATE CONTROL | IT INFRASTRUCTURE | SOFTWARE & SERVICES

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AUTOMATION

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New business unit “Rittal Automation Systems”

Rittal automates enclosure manufacturing

The new Rittal Automation Systems business unit extends Rittal’s comprehensive range of solutions for control and switchgear engineering. By taking over the entire product range of its sister company Kiesling, Rittal is continuing to expand “The System”, offering a comprehensive range of equipment for professional workshop operation. Alongside the potential efficiency gains from using assembly-friendly enclosure systems, an extensive range of system accessories and intelligent software solutions, there is also a growing focus on the automation of manual tasks. In order to accelerate individual production stages, Rittal Automation Systems offers a range of automation concepts which may be cost-effectively adapted, depending on requirements and the size of the company. The product portfolio ranges from manual tools through to fully automated machining centres.

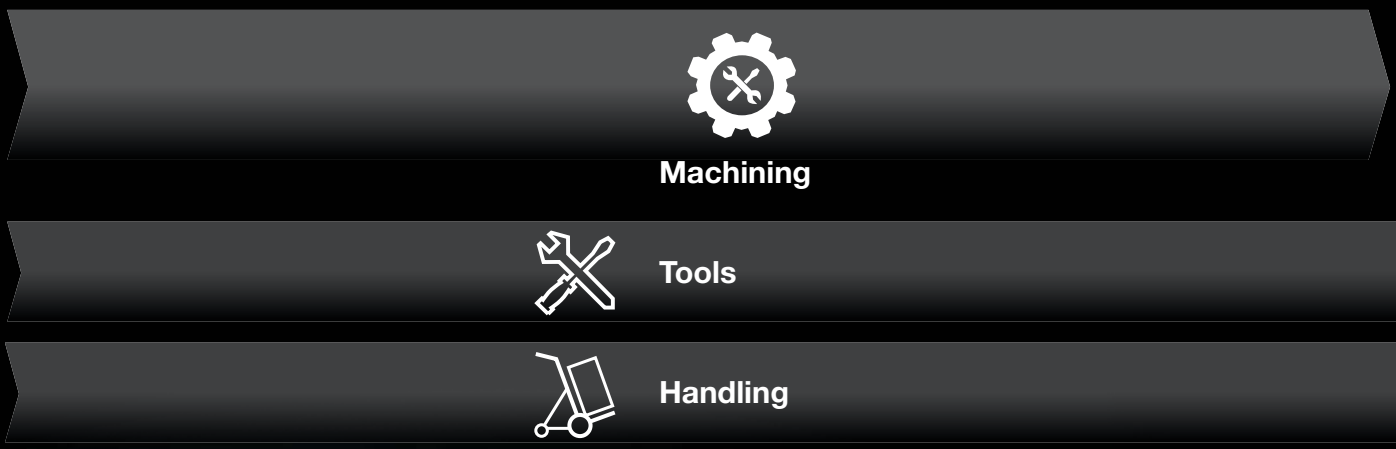


Automation

Optimisation of the complete workflow in enclosure manufacturing

The Rittal Automation Systems business unit with its portfolio of services supports all process stages in control and switchgear engineering. From manual tools through to fully automated systems, find your customised solutions for process-optimised workshop operations.

- Machining of enclosures and components
- Assembly of terminal blocks on DIN rails
- Wire processing
- Fully automated wiring of mounting plates
- Handling systems and tools



Machining:

Discover our solutions for the fully automated, fast, precise and reliable milling or laser machining of enclosures and cases, plus cut-optimised machining of cable ducts and DIN rails.

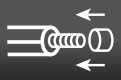
- **Perforex BC –** Milling, thread tapping, drilling
- **Perforex LC –** Laser cutting of stainless steel and powder-coated sheet steel enclosures
- **Secarex –** For cutting cable ducts and DIN rails to length

..... from page 850

Optimisation of the complete workflow in enclosure manufacturing



Assembly



Wire processing



Tools



Handling

Assembly:

Our component mounting products are used for the automated manufacturing of terminal strips in control and switchgear engineering.

- **Athex –** Terminal configuration and labelling

..... from page 856

Wire processing:

Take advantage of our professional, rational solutions in wire processing.

- **Cutting machine**
- **Stripping machine and crimping machines**

..... from page 858

Tools:

The right tool for every application.

- **Screwdrivers**
- **Pliers**
- **Insulation stripping and crimping tools**
- **Hole punching tools**

..... from page 865



Wiring



Tools



Handling

Wiring:

Benefit from our mounting plate wiring solutions. The efficient interplay between handling, assembly and hand tools makes your wiring process swift, ergonomic and safe.
To complete the process chain, our automation team are dedicated to the development of pioneering wiring solutions through to full automation.

Handling:

We support you with ergonomic, efficient handling systems for a wide range of transport and lifting operations in the workshop.

- **LUT 1000 –** Warehousing and order picking
- **Assembly frames –** Ergonomic assembly and wiring

..... from page 862

Automation in enclosure manufacturing

Perforex machining centres

Perforex machining centres were designed specifically for panel building and switchgear manufacturing to optimise the machining of enclosure panels and cases in the workshop and boost efficiency. Perforex machining centres can automatically create holes, threads and milled surfaces in the workpiece. All standard materials used in enclosure manufacturing, such as steel, stainless steel, aluminium and copper, as well as various plastics and other machinable materials, mounting plates, chamfered and spray-finished doors, covers, console plates, housings etc. may be machined.

Software

The user interface of a Perforex machining centre is an intuitive workshop programming system which supports remote maintenance. The software is networkable, uses a central database, and may be used on an unlimited number of different PCs within the company.
This means that all programmed jobs are immediately available on the machine and can be reused. Alternatively, almost any standard CAD and E-planning system can be used for programming.
Ask about our interfaces.

Hardware

Depending on the model, enclosure panels up to (W x H) 3400 x 1700 mm and enclosures up to (W x H x D) 2200 x 2300 x 2300 mm may be clamped and pneumatically secured. As standard, the tool magazine can simultaneously accommodate 18 or 20 tools. Up to 40 tools are optionally available. With the motorised depth adjustment for enclosures and a wide range of options, Perforex machines are equipped for the optimum handling of all parts.

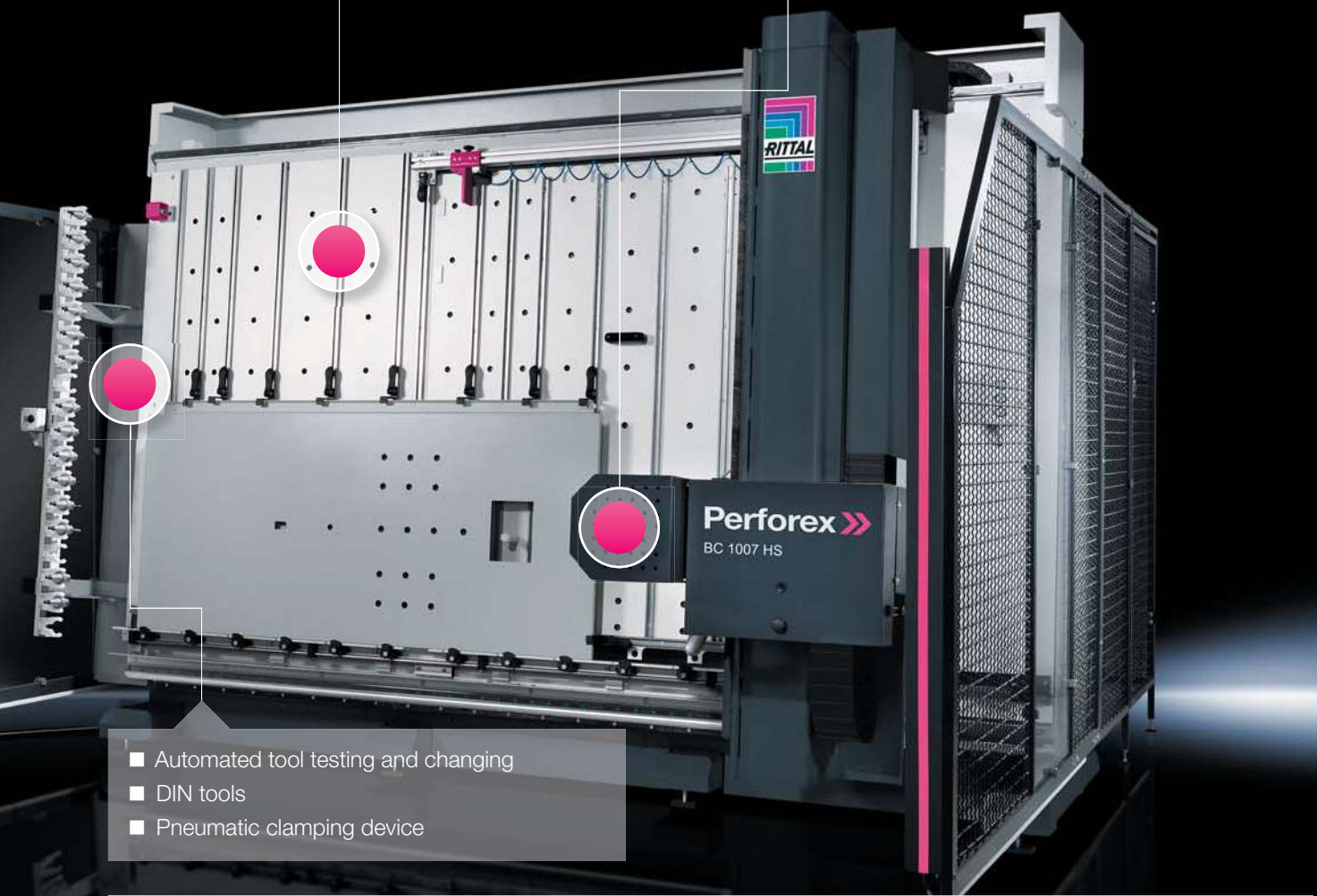
- User-friendly workshop programming with interfaces to all standard CAD systems (DXF import), plus direct transfer of the drilling data from EPLAN Pro Panel



Item name	Perforex BC 1001 HS	Perforex BC 1007 HS	Perforex BC 1008 HS	Perforex BC 2007 HS	Perforex BC 2014 HS
Clampable enclosure panels (W x H) mm	2500 x 1500	2450 x 1700	2300 x 1550	3600 x 1700	3600 x 2300
Maximum machinable area for panels (W x H) mm	2230 x 1500	2200 x 1700	2300 x 1700	3400 x 1700	3400 x 2300
Clampable cubic parts (W x H x D) mm	1200 x 1400 x 1200	1400 x 1600 x 1600	2300 x 1600 x 1600	1600 x 1600 x 1600	1400 x 2300 x 2200
Option of extended carriage (W x H x D) mm	–	1400 x 1600 x 2000	2300 x 1600 x 2200	1600 x 1600 x 2000	–
Maximum machinable area for cubic parts (W x H) mm	720 x 1400	1200 x 1600	2300 x 1600	1200 x 1600	1400 x 2300
Two-door option	–	–	–	–	2800 x 2300
Model No.	**4050.101**	**4050.107**	**4050.108**	**4050.207**	**4050.230**

- Performance Package for fast, low-vibration, noise-optimised milling, comprised of brush strips and special milling cutters

- Patented plate with integral extraction of the milling swarf
- High-performance spindle including minimal quantity lubrication for drilling, milling, thread tapping and thread forming



- Automated tool testing and changing
- DIN tools
- Pneumatic clamping device

Item name	Options	BC 1001 HS	BC 1007 HS	BC 1008 HS	BC 2007 HS	BC 2014 HS
Performance package		4050.041	4050.042	4050.044	4050.046	4050.045
Enclosure machining	For machining fully welded enclosures (door)	4050.010	Standard	Standard	Standard	Standard
Motorised depth adjuster 1600 mm	Electric depth adjustment of the end stop in enclosure machining	–	4050.020	Standard	Standard	Standard
Depth adjuster extension 2000 mm	Motorised depth adjuster extension for enclosures up to 2000 mm	–	4050.022	–	4050.022	–
Circular thread milling tool		4050.050	4050.050	4050.050	4050.050	4050.050
Aluminium and plastic machining		4050.051	4050.051	4050.051	4050.051	4050.051
Mounting aid for tools		4050.030	4050.030	4050.030	4050.030	4050.030
Magnetic swarf wand		4050.067	4050.067	4050.067	4050.067	4050.067
Swivel stops for multiple machining		4050.066	4050.066	4050.066	4050.066	4050.066
Clamping height extension 1700 mm		–	–	4050.035	–	–

Automation in enclosure manufacturing

Perforex LC 3015 machining centre

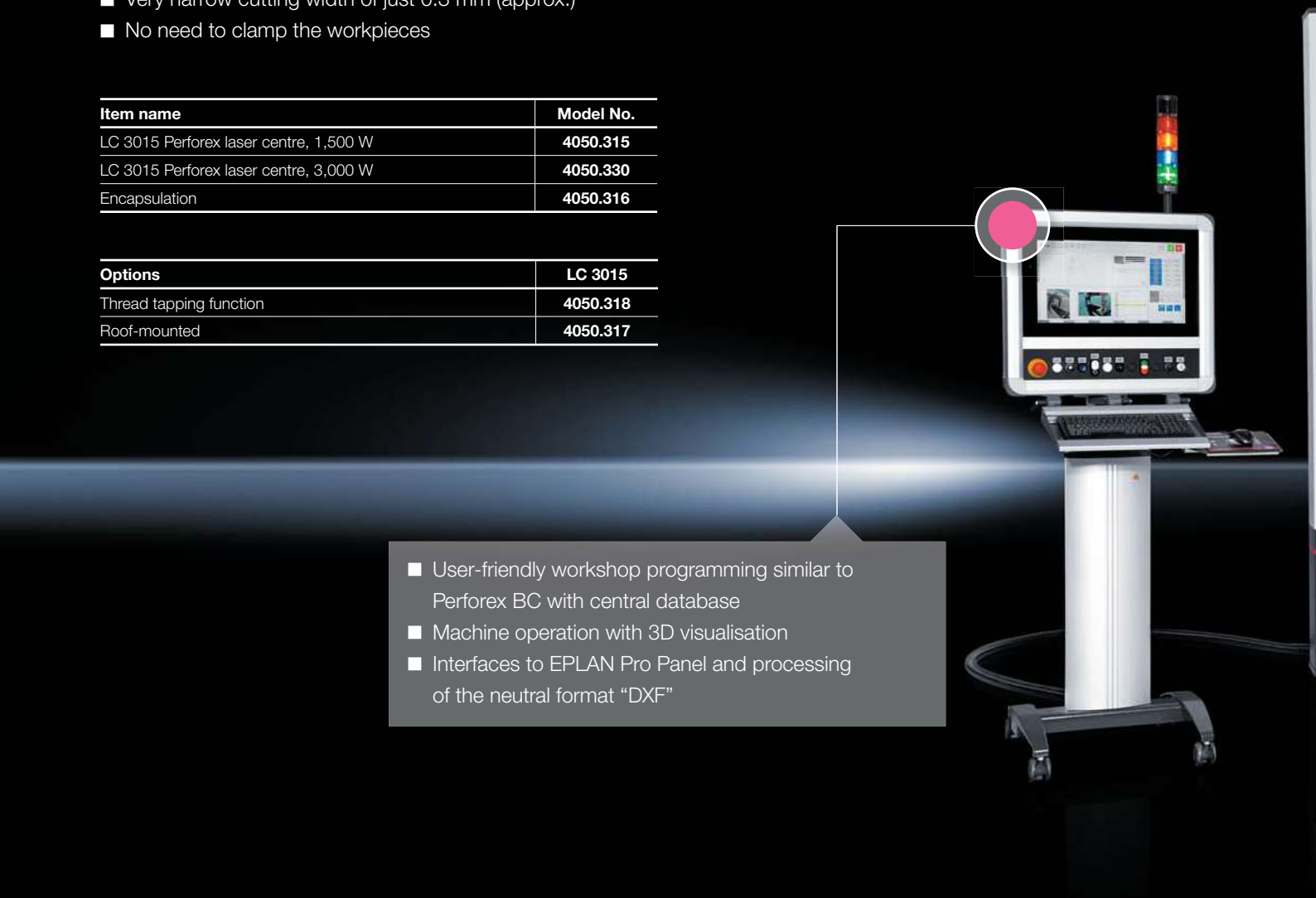
The 3D laser technology in the Perforex LC 3015 is ideally suited to the machining of stainless steel and sheet steel, as well as powder-coated metals such as enclosure doors, side panels etc. Spray-finished metal parts are cut without any visible paint damage or discolouration, even with delicate contours. What is more, there is no tarnishing of the cut edges when machining stainless steel. The Perforex LC 3015 is cost-effective from machining volumes of around 150 stainless steel enclosures or 300 sheet steel enclosures per annum.

Technical specifications

- Machining of material thicknesses up to 5 mm
- Machining range (W x H x D) 2300 mm x 1270 mm x 800 mm for product ranges from AE to TS 8
- Machining of cubes on all sides
- Very narrow cutting width of just 0.3 mm (approx.)
- No need to clamp the workpieces

Item name	Model No.
LC 3015 Perforex laser centre, 1,500 W	**4050.315**
LC 3015 Perforex laser centre, 3,000 W	**4050.330**
Encapsulation	**4050.316**

Options	LC 3015
Thread tapping function	**4050.318**
Roof-mounted	**4050.317**

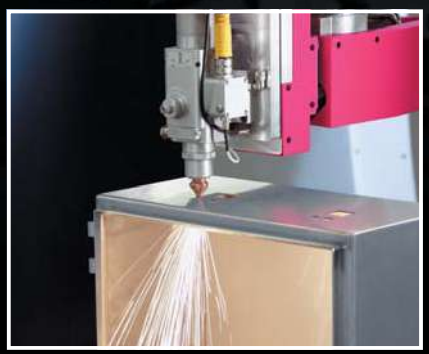


- User-friendly workshop programming similar to Perforex BC with central database
- Machine operation with 3D visualisation
- Interfaces to EPLAN Pro Panel and processing of the neutral format “DXF”

- Simple attachment of enclosures
- Contactless, low-vibration manufacturing process
- Simultaneous machining of 5 surfaces

- Clean, non-wearing cutting without coolant/lubricant
- Machining speed in stainless steel 10x faster than with conventional milling process





- 3D laser machining

- Ergonomic design, thanks to the extendible support surface for enclosure machining

Automation in enclosure manufacturing

Secarex AC 15 cutting centre

No lengthy times spent on measuring and cutting, and no complicated handling – the Secarex cutting centre is convenient to use and cuts wiring ducts, cable duct covers and support rails to length quickly, precisely and reliably. The cutting centre contributes to improved quality, an optimisation of cutting waste, lower costs and an accelerated overall process.

Function

After cutting, the machine stop retracts automatically to release the cut parts for simple removal.
Pneumatic cutting to size of cable ducts and DIN rails.

Options

- Label printer

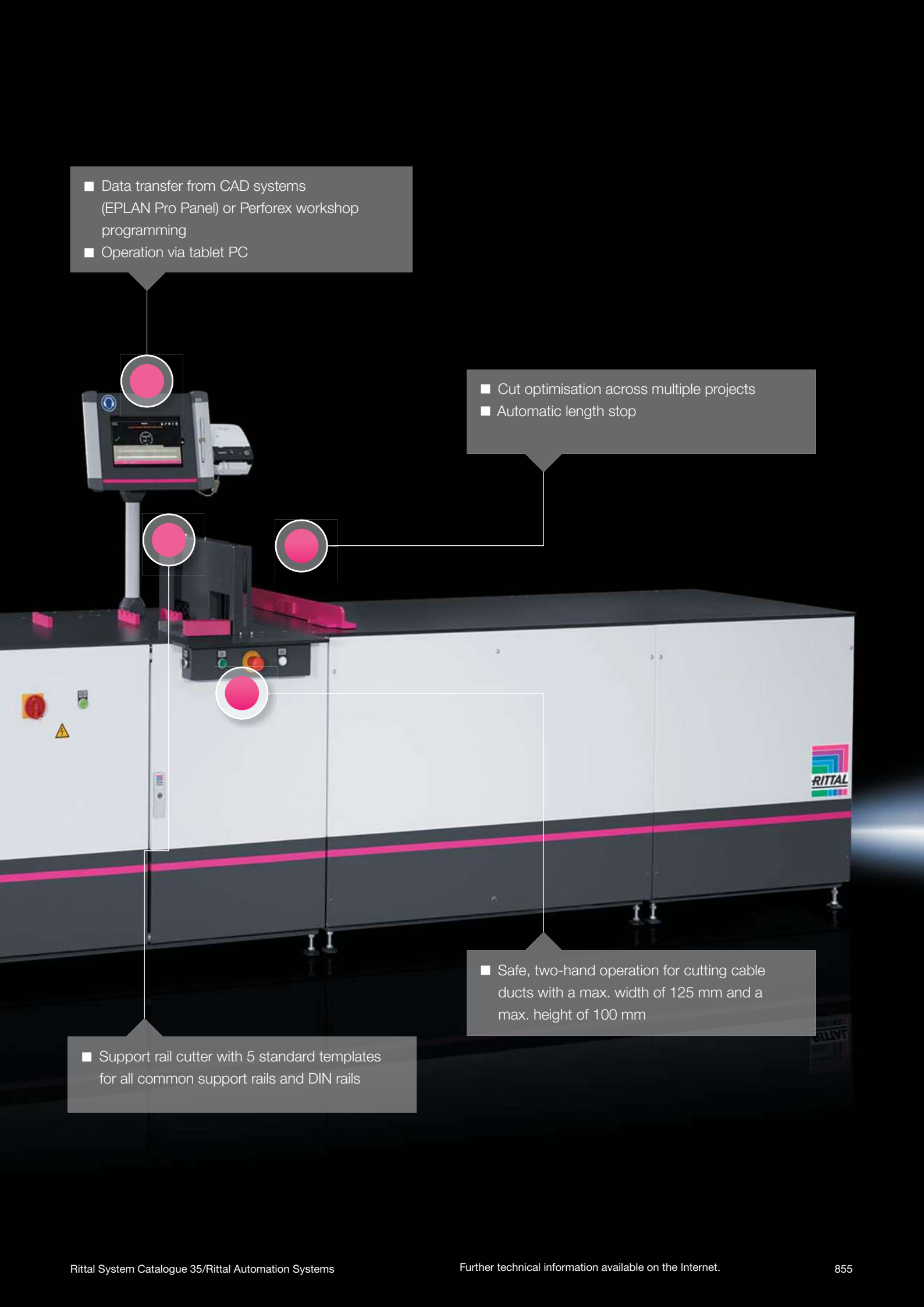
Benefits

- Touchscreen terminal with user-friendly interface
- Very low costs for cutting waste thanks to optimisation of the cutting process
- Significant time savings compared to manual cutting
- Clean cuts with high-performance tools
- Support rail cutter with 5 standard templates for all popular support rails without changing the template.
- Optical and acoustic display for material changes

Item name	Model No.
Secarex AC 15 cutting centre	**4050.400**

Options	LC 3015
Label printer	**4050.440**




■ Data transfer from CAD systems (EPLAN Pro Panel) or Perforex workshop programming
■ Operation via tablet PC
■ Cut optimisation across multiple projects
■ Automatic length stop
■ Safe, two-hand operation for cutting cable ducts with a max. width of 125 mm and a max. height of 100 mm
■ Support rail cutter with 5 standard templates for all common support rails and DIN rails
RITTAL

Automation in enclosure manufacturing

Athex TC 80 CS terminal block assembly machine

Focus:
The Athex terminal block assembly machine is the flexible, universal solution for automated production of terminal blocks in controlgear manufacturing. The integral cutting centre is designed for the automatic cutting of support rails, including labelling.

Machining operations:
The Athex prints and configures terminals according to a CAD template or manual configuration on the support rail. The terminal magazines may be exchanged and refilled with the system operational, and can accommodate different terminal types from all well-known manufacturers. During assembly, they may optionally be labelled with an inkjet printer. The integral cutting centre transports support rails out of a magazine into the infeed unit, cuts them to the correct length, and labels them with an engraved needle matrix for a solvent-resistant finish.

Flexibility:
The use of different terminal types and magazines, coupled with automated support rail machining, leads to enhanced productivity. Idle time and waiting time are minimised, and throughput times are reduced.

Equipment

- Assembly arm for manufacturer-independent machining of terminals in the following sizes:
  Terminal width 40 – 110 mm
  Terminal height 28 – 80 mm
  Terminal thickness 3.5 – 20 mm
- Up to a max. of 80 terminal magazines on 5 levels
- Machining of support rails from a length of 100 mm
- Horizontal storage module with 28 storage spaces for support rails
- Standard module for a rail length of 2 m (optionally extendible up to 3 m)
- Electric cutting module for the use of standard market cutting plates
- Needle marking system for labelling the rail undersides
- Management of offcuts from a minimum length of 230 mm

Technical specifications

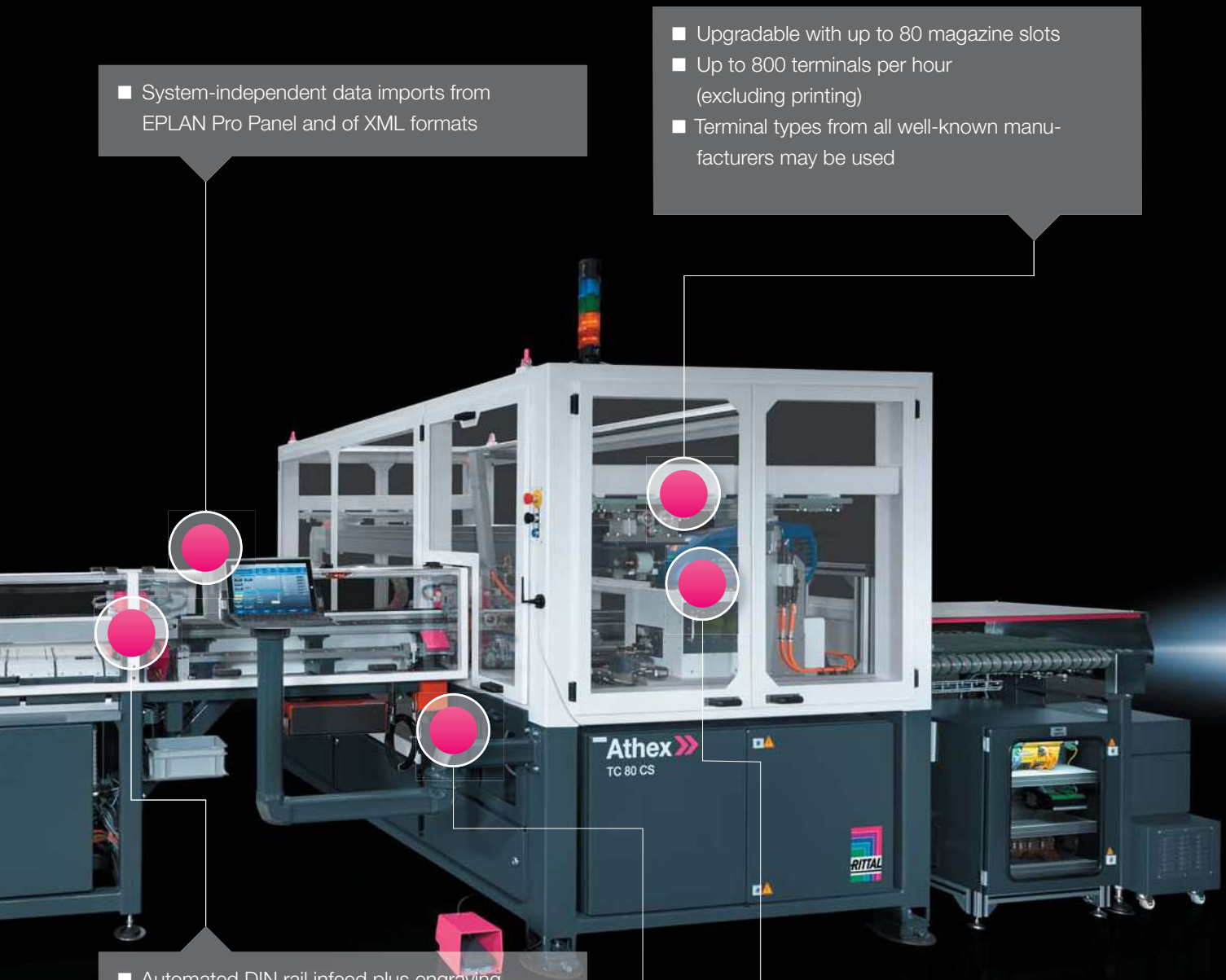
- Machine dimensions (W x H x D):
  6266 x 2354 x 3138 mm, width dimension without support console (max. bar length 2 m; may optionally be extended by 927 mm to a bar length of 3 m).
- Weight (excluding terminal magazines): 2820 kg
- Connected load: 3 x 400 VAC + N + PE; 8 kW
- Compressed air: 6 – 10 bar, dry and unoiled
- Air consumption:
  approx. 60 l/min (at full load)
- Network connection:
  Ethernet RJ 45



Item name	Model No.
Athex TC 80 CS terminal block assembly machine	**4050.505**

Benefits

- Process automation for quantities of 1 or more
- Consistent quality, due to fully automated process
- Universal applications and manufacturer-independent terminal processing allow flexible process management
- Uncomplicated connection to third-party systems/software for importing existing terminal block data
- Optimum accessibility across the entire workspace
- Simple installation options for extending the terminal magazine
- Saves manpower thanks to process automation
- Impressive time savings, e.g. no need to adjust the end stop to the correct length
- Consistent quality and avoidance of measurement errors due to controlled axes
- Direct printing of user-defined information onto the support rails for subsequent reuse
- Fully automated measurement of rail offcuts for excellent cut optimisation



- System-independent data imports from EPLAN Pro Panel and of XML formats
- Upgradable with up to 80 magazine slots
- Up to 800 terminals per hour (excluding printing)
- Terminal types from all well-known manufacturers may be used
- Automated DIN rail infeed plus engraving function
- Engraving function for order picking
- Labelling of terminals during assembly, thanks to a special printer solution

Wire processing in enclosure manufacturing

Cutting machine C 8

The cutting machine C 8 is sure to impress with its simple, reliable handling. Wires with up to 8 mm or 10 mm^2 diameter may be cut to an individually set length, ensuring more efficient operating processes for medium to large batch sizes. Additionally, excellent repetition accuracy is guaranteed thanks to the precise servo DC drive. Cutting jobs from the cutting machine can also be managed, documented and transmitted with a PC via a USB interface.

- Jobs are easily programmed and executed with an integrated operating terminal
- EPLAN Pro Panel interface

- Simple opening of the feed rollers
- Cable diameters up to 8 mm or 10 mm^2

- Controllable pressing force of the feed rollers



- Simple insertion of the wires

Item name	Model No.
Cutting machine C 8	**4050.450**
Wire dispenser	**4050.463**

Accessories	
Spare blade	**4050.465**



- Optional accessories for convenient removal and dispensing of cables and wires

Wire processing in enclosure manufacturing

Stripping machine S 22

The stripping machine S 22 is electrically driven. It ensures accurate, careful stripping of the insulation from your wires. The draw-off and stripping length is set with linear control. The stripping machine also features a pre-integrated spare blade inside the enclosure. You benefit from the running total counter and daily counter, which are easily read from the touch display.

- Device connection and cross-section adjustment at the side
- Pull-off length adjustable from 3 – 20 mm via the rotary knob



- Rotary knob allows the stripping length to be set from 3 – 20 mm
- Central insertion of wire cross-sections from 0.05 – 6 mm²
- Insertion length 22 mm

Item name	Model No.
Stripping machine S 22	**4050.451**

Accessories	
Titanium Insulation stripping blade	**4050.464**

Wire processing in enclosure manufacturing

Crimping machine L 8 and R 8

Electropneumatically driven wire stripping and crimping machine for safe, fast processing of insulated wire end ferrules. The particular value-added feature of the electropneumatic crimping machines is its fully automated detection of the wire cross-section and processing of the wire end ferrules, with no tool changes required. Thanks to linear adjustment of the blades and the high force of the pneumatically driven crimping unit, all standard cables as well as special ferrules (AWG) in the application range from 0.5 to 2.5 mm^2 (AWG 20 – 14) may be processed with a crimping length of 8 mm.
The integrated daily unit counter ensures you have an overview of your project quantities at all times.

- Wire cross-sections from 0.5 to 2.5 mm^2 can be machined
- Automatic detection of cross-sections
- Handling of special wires supported

- Simple filling and processing of loose wire end ferrules

- User-friendly operation via touch display
- Simple menu prompting





Item name	Model No.
Crimping machine L 8	**4050.452**

Accessories	
Oscillating conveyor 0.5 – 1.5 mm^2	**4050.467**
Oscillating conveyor 1.5 – 2.5 mm^2	**4050.468**
Insulation stripping blade kit	**4050.466**

Item name	Model No.
Crimping machine R 8	**4050.453**

Accessories	
Insulation stripping blade kit	**4050.466**

Wire processing in enclosure manufacturing

Crimping machine R 8E

Electrically powered wire stripping and crimping machine for taped wire end ferrules on a reel. The R 8E crimping machine is suitable for fast, careful processing of insulated wire end ferrules and standard PVC cables in cross-sections ranging from 0.5 to 2.5 mm^2 (AWG 20 – 14) with a crimping length of 8 mm. The electric drive allows it to be used flexibly in the workshop.



Note:
Wire end ferrules for crimping machines, see page 878
Standard crimping form:
Trapezoid – others available on request



- Taped wire end ferrules on a reel

- Easy replacement of consumables
- Simple adjustment
- Flexible use in the workshop

Item name	Model No.
Crimping machine R 8E	**4050.454**

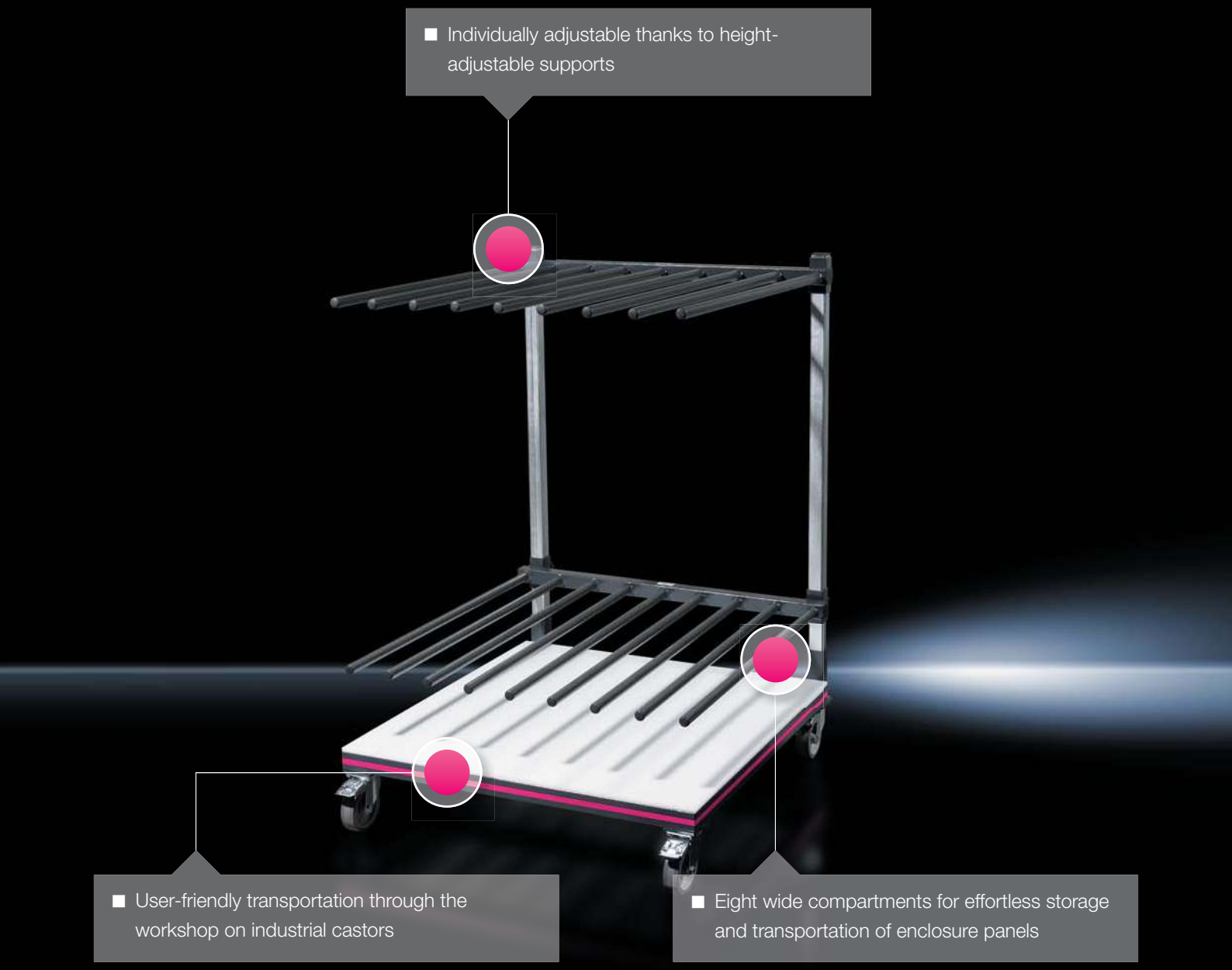
Ergonomics in enclosure manufacturing

Assembly frames and LT 1000 storage and transport trolley

When it comes to the automation and rationalisation of processes throughout every stage of machining, assembly, wiring and testing of enclosures, we have the right ergonomic solution for you. Our assembly frames are mobile, tiltable and (depending on the version) height-adjustable frames for mounting plates and enclosures. All types offer simple, variable fixing of mounting plates using quick-release fasteners, are independent from the mains power, and take up minimal space when not in use. For easier handling of enclosure panels, we additionally offer the storage and transport trolley LT 1000.



Item name	Assembly frame 150 MN	Assembly frame 200 EN	Assembly frame 300 ENH
Adjustment range	Infinitely adjustable from the vertical to the horizontal using a crank handle	Infinitely adjustable tilt angle via battery-powered electric motor	Infinitely adjustable height and tilt angle via battery-powered electric motor
Working height	1 m	0.90 m	0.80 – 1.10 m
Tilt adjustment	approx. 0 – 80°	approx. 0 – 80°	approx. 0 – 80°
Max. support load	150 kg	200 kg	300 kg
Model No.	**4050.150**	**4050.200**	**4050.300**



Item name	Model No.
LT 1000 storage and transport trolley	**4050.000**

Practical and mobile

Functional trolley

The functional trolley is a veritable multi-talent. Whether for transporting materials and tools to the installation site or for commissioning, the functional trolley is perfectly suited for assembly technicians and service personnel.
The refined system with its fold-out concept is the ideal solution when you are on the road, and its compact dimensions mean it can be transported by car.



Item name	Model No.
Functional trolley	**4050.130**



- Surface suitable for computer mouse
- Made from V2A stainless steel for robustness and durability
- Converts from a transport function to a desk by simply unfolding

All from a single source

The right tool for every application!

Rittal offers a comprehensive range of hand-held tools for professional support with your work operations. All the machining and handling technology you need for time-saving and cost-cutting manufacturing processes, all from a single source.





Tool bag

configured

Configured tool bag comprising a selected range of Rittal hand tools, designed especially for electricians. The practical, high-quality shoulder bag may be used either as a tool bag or laptop case.

Design:
- 19 separate compartments for tools
- Cushioned compartment for laptop or tablet
- Document wallet
- Two additional storage pockets inside

Benefits:
- Careful storage
- Shoulder pad for comfortable carrying
- Flexible use

Material:
- Polyester

Supply includes:
- Screwdriver, insulated SL 3.5 x 0.6 (Model No.: 4052.102), SL 6 x 1.2 (Model No.: 4052.107), PZ 2 (Model No.: 4052.122)
- Screwdriver, non-insulated PZ 2 (Model No.: 4052.022), SL 6 x 1.2 (Model No.: 4052.011), TX 20 (Model No.: 4052.055), TX 25 (Model No.: 4052.056), TX 30 (Model No.: 4052.058)
- Bit holder with handle, magnetic (Model No.: 4053.300)
- Bit set with bit holder, 7-piece (Model No.: 4053.420)
- Crimping pliers for wire end ferrules, for cross-section 0.5 - 6 mm^2, square crimp (Model No.: 4054.001)
- Wire stripper for wire end ferrules, for cross-section 0.02 - 11 mm^2 (Model No.: 4054.300)
- Stripping tools for cables Ø 2.5 - 11 mm (Model No.: 4054.400), for cables Ø 8 - 13 mm (Model No.: 4054.405)
- Side cutter for cables Ø 0.2 - 11 mm (Model No.: 4054.600)
- Electrician's scissors for cables Ø 0.1 - 3.7 mm (Model No.: 4054.700)
- Combination pliers with insulated handle (Model No.: 4054.800)
- Needle-nose pliers with insulated handle (Model No.: 4054.850)
- Tool bag (Model No.: 4053.000)

Packs of	**Model No.**
1 pc(s).	**4053.500**



Tool bag

unconfigured

The practical, high-quality shoulder bag may be used either as a tool bag or laptop case.

Design:
- 19 separate compartments for tools
- Cushioned compartment for laptop or tablet
- Document wallet
- Two additional storage pockets inside

Benefits:
- Careful storage
- Shoulder pad for comfortable carrying
- Flexible use

Material:
- Polyester

Packs of	**Model No.**
1 pc(s).	**4053.000**

Screwdriver

insulated
With a long, slender handle and high-performance tip with non-transfer insulation.

Benefits:
– Minimal force required, thanks to ergonomically styled handle
– Handle head with anti-roll protection and clear screw labelling
– Black coated blade tip to preserve precision and accuracy of fit
– Handle 30% and insulation up to 50% slimmer than comparable tools
– Optimum interconnection of hand and handle supports higher torques and longer, fatigue-free working

Material:
– Blade: Chrome-molybdenum-vanadium alloy
– Handle core: Hard plastic
– Handle body: Elastic, highly flexible plastic

Colour:
– Handle: Anthracite and Rittal pink

Standards:
– IEC 60 900
– VDE
– GS





For slot-head screws

Blade tip	Blade (width x thickness) mm	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	**Model No.**
SL	3 x 0.5	100	3.5	105	25	1 pc(s).	**4052.101**
SL	3.5 x 0.6	100	3.5	105	25	1 pc(s).	**4052.102**
SL	4 x 0.8	100	4	105	25	1 pc(s).	**4052.104**
SL	5.5 x 1	125	5.5	115	27	1 pc(s).	**4052.106**
SL	6.5 x 1.2	125	6.5	115	27	1 pc(s).	**4052.107**

For pozidrive screws

Blade tip	Blade (width x thickness)	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	**Model No.**
PZ 1	–	80	4.5	105	25	1 pc(s).	**4052.121**
PZ 2	–	100	6	115	27	1 pc(s).	**4052.122**

For Phillips-head screws

Blade tip	Blade (width x thickness)	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	**Model No.**
PH 1	–	80	4.5	105	25	1 pc(s).	**4052.131**
PH 2	–	100	6	115	27	1 pc(s).	**4052.132**

For plus/minus

Blade tip	Blade (width x thickness)	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	**Model No.**
Z 1	–	80	4.5	105	25	1 pc(s).	**4052.141**
Z 2	–	100	6	115	27	1 pc(s).	**4052.142**



Screwdriver set

insulated
Multi-part screwdriver set. With a long, slender handle and high-performance tips with non-transfer insulation.

Benefits:
– Minimal force required, thanks to ergonomically styled handle
– Handle head with anti-roll protection and clear screw labelling
– Black coated blade tip to preserve precision and accuracy of fit
– Handle 30% and insulation up to 50% slimmer than comparable tools

Material:
– Blade: Chrome-molybdenum-vanadium alloy
– Handle core: Hard plastic
– Handle body: Elastic, highly flexible plastic

Colour:
– Handle: Anthracite and Rittal pink

Supply includes:
– Set with 5 screwdrivers

Standards:
– IEC 60 900
– VDE
– GS

Blade tip	Packs of	**Model No.**
SL 3 x 0.5 mm SL 4 x 0.8 mm SL 5.5 x 1 mm PH 1 PH 2	1 pc(s).	**4052.210**
SL 3 x 0.5 mm SL 4 x 0.8 mm SL 5.5 x 1 mm PZ 1 PZ 2	1 pc(s).	**4052.211**
SL 3 x 0.5 mm SL 4 x 0.8 mm PH 1 PH 2 Z 2	1 pc(s).	**4052.212**

Screwdriver

uninsulated
Ergonomic screwdriver which adapts perfectly to the hand, thereby minimising the force required.

Benefits:
– Handle head with anti-roll protection and clear screw labelling
– Black coated blade tip to preserve precision and accuracy of fit
– Optimum interconnection of hand and handle supports higher torques and longer, fatigue-free working

Material:
– Blade: Chrome-molybdenum-vanadium alloy
– Handle core: Hard plastic
– Handle body: Elastic, highly flexible plastic

Colour:
– Handle: Anthracite and Rittal pink

Standards:
– GS







For slot-head screws

Blade tip	Blade (width x thickness) mm	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	Model No.
SL	2.5 x 0.4	75	2.5	86	25	1 pc(s).	**4052.001**
SL	3.5 x 0.6	100	3.5	86	25	1 pc(s).	**4052.003**
SL	4 x 0.8	100	4	94	30	1 pc(s).	**4052.004**
SL	5.5 x 1	150	5	101	33	1 pc(s).	**4052.007**
SL	6.5 x 1.2	150	6	106	36	1 pc(s).	**4052.011**
SL	8 x 1.2	175	7	112	39	1 pc(s).	**4052.014**
SL	5.5 x 1	25	5	60	21	1 pc(s).	**4052.018**

For pozidrive screws

Blade tip	Blade (width x thickness)	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	Model No.
PZ 1	–	80	4.5	94	30	1 pc(s).	**4052.021**
PZ 2	–	100	6	106	36	1 pc(s).	**4052.022**

For Phillips-head screws

Blade tip	Blade (width x thickness)	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	Model No.
PH 1	–	80	4.5	94	30	1 pc(s).	**4052.031**
PH 2	–	100	6	106	36	1 pc(s).	**4052.032**
PH 2	–	25	6	60	21	1 pc(s).	**4052.038**

For multi-tooth screws

Blade tip	Blade (width x thickness)	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	Model No.
TX 10	–	100	3.5	86	25	1 pc(s).	**4052.053**
TX 15	–	100	4	94	30	1 pc(s).	**4052.054**
TX 20	–	100	5	101	33	1 pc(s).	**4052.055**
TX 25	–	100	5	106	36	1 pc(s).	**4052.056**
TX 30	–	115	6	112	39	1 pc(s).	**4052.058**



Screwdriver set

uninsulated
Multi-part screwdriver set.

Benefits:
– Minimal force required, thanks to ergonomically styled handle
– Handle head with anti-roll protection and clear screw labelling
– Black coated blade tip to preserve precision and accuracy of fit

Material:
– Blade: Chrome-molybdenum-vanadium alloy
– Handle core: Hard plastic
– Handle body: Elastic, highly flexible plastic

Colour:
– Handle: Anthracite and Rittal pink

Standards:
– GS

Blade tip	Product-specific scope of supply	Packs of	**Model No.**
SL 3.5 x 0.6 mm SL 6.5 x 1.2 mm PZ 1 PZ 2 PH 1 PH 2	6-part set	1 pc(s).	**4052.200**
PH 1 PH 2 TX 15 TX 20 TX 25 TX 30	6-part set	1 pc(s).	**4052.201**
TX 10 TX 15 TX 20 TX 25 TX 30	5-part set	1 pc(s).	**4052.202**





Interchangeable screwdriver set

uninsulated
13-piece tool set with comfortable, foldable, lockable handle.

Technical specifications:
– PH 1 - SL 4 x 0.8 mm
– PH 2 - PH 3
– PZ 1 - SL 5 x 0.8 mm
– PZ 2 - SL 6 x 1 mm
– PZ 3 - SL 7 x 1.2 mm
– TX 6 - TX 7
– TX 8 - TX 9
– TX 10 - TX 15
– TX 20 - TX 25
– TX 30 - TX 40
– Hex socket 3 mm - hex socket 4 mm
– Hex socket 5 mm - hex socket 6 mm

Material:
– Blade: Chrome-molybdenum-vanadium alloy
– Handle core: Hard plastic
– Handle body: Elastic, highly flexible plastic

Colour:
– Handle: Anthracite and Rittal pink

Supply includes:
– Combined blade holder: Screwdriver and T-handle
– 12 blades each with 2 tips
– Storage box

Blade length mm	Handle length mm	Handle dia. mm	Packs of	**Model No.**
160	105	39	1 pc(s).	**4053.450**

Hex wrench set

for Allen screws
Hex wrench with optimum, narrow-tolerance hexagonal profiles and precise ballhead geometry. The extra-long design achieves a greater leverage effect.

Benefits:
– Up to 30% more corrosion resistance
– Optimum hardness and elasticity
– Intensive leverage effect
– Special geometry in the critical zone

Technical specifications:
– For hex socket: 1.27 - 1.5 - 2.0 - 2.5 - 3.0 - 3.5 - 4.0 - 4.5 - 5.0 - 5.5 - 6.0 - 7.0 - 8.0 - 9.0 - 10.0 mm

Supply includes:
– 15 hex wrenches
– Storage box

Packs of	**Model No.**
1 pc(s).	**4052.480**









Industrial bit for cordless screwdrivers

with long shaft
Precisely manufactured screwdriver with a long shaft for industrial use.

Benefits:
– Maximum hardness and torque values

Technical specifications:
– Tool adaptation E 6.3 (¼")

Material:
– High-quality special tool steel

For slot-head screws

Blade tip	Blade (width x thickness) mm	Length mm	Blade dia. mm	Packs of	**Model No.**
SL	3.5 x 0.6	73	6.3	3 pc(s).	**4053.002**
SL	4 x 0.8	73	6.3	3 pc(s).	**4053.003**

For pozidrive screws

Blade tip	Blade (width x thickness)	Length mm	Blade dia. mm	Packs of	**Model No.**
PZ 1	–	73	6.3	3 pc(s).	**4053.011**
PZ 2	–	73	6.3	3 pc(s).	**4053.012**

For Phillips-head screws

Blade tip	Blade (width x thickness)	Length mm	Blade dia. mm	Packs of	**Model No.**
PH 1	–	73	6.3	3 pc(s).	**4053.021**
PH 2	–	73	6.3	3 pc(s).	**4053.022**

For plus/minus

Blade tip	Blade (width x thickness)	Length mm	Blade dia. mm	Packs of	**Model No.**
Z 1	–	73	6.3	3 pc(s).	**4053.031**
Z 2	–	73	6.3	3 pc(s).	**4053.032**

For multi-tooth screws

Blade tip	Blade (width x thickness)	Length mm	Blade dia. mm	Packs of	**Model No.**
TX 10	–	73	6.3	3 pc(s).	**4053.041**
TX 15	–	73	6.3	3 pc(s).	**4053.042**
TX 20	–	73	6.3	3 pc(s).	**4053.043**
TX 25	–	73	6.3	3 pc(s).	**4053.044**
TX 27	–	73	6.3	3 pc(s).	**4053.045**
TX 30	–	73	6.3	3 pc(s).	**4053.046**
TX 40	–	73	6.3	3 pc(s).	**4053.047**

Industrial bit set for cordless screwdriver

with long shaft
Precisely manufactured screwdriver with a long shaft for industrial use.

Benefits:
– Robust viewing box
– Secure storage

Technical specifications:
– Tool adaptation E 6.3 (¼")

Material:
– High-quality special tool steel

Supply includes:
– Set with 6 bits
– Viewing box

Blade tip	Length mm	Packs of	**Model No.**
SL 3.5 x 0.6 mm SL 4 x 0.8 mm SL 5.5 x 1 mm PH 1 PH 2 Z 2	73	1 pc(s).	**4053.400**
TX 10 TX 15 TX 20 TX 25 TX 30 TX 40	73	1 pc(s).	**4053.410**



Bit set

with bit holder
7-piece bit set with a practical assortment of quality bits with a short shaft and magnetic holder.

Benefits:
– One-handed operation
– Function as auxiliary screwdriver

Technical specifications:
– Tool adaptation C 6.3 (¼")

Supply includes:
– Set with 6 bits
– Bit holder

Blade tip	Length mm	Packs of	**Model No.**
TX 25 TX 30 TX 40 PH 1 PH 2 PH 3	25	1 pc(s).	**4053.420**



Bit holder

with handle, magnetic
Ergonomic, adaptable bit holder with handle.

Benefits:
– Extra-strong magnet for optimum retention force
– Precise concentricity
– Handle for anti-roll protection

Technical specifications:
– Tool adaptation C 6.3 (¼")
– Tool adaptation E 6.3 (¼")

Material:
– Handle core: Hard plastic
– Handle body: Elastic, highly flexible plastic

Colour:
– Handle: Anthracite and Rittal pink



Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	**Model No.**
100	6.3	101	33	1 pc(s).	**4053.300**



Bit holder

magnetic
Magnetic holder with hex drive to hold bits securely.

Benefits:
– Extra-strong magnet for optimum retention force
– Precise concentricity

Technical specifications:
– Tool adaptation E 6.3 (¼")

Material:
– High-quality special tool steel

Blade length mm	Blade dia. mm	Packs of	**Model No.**
47	6.3	1 pc(s).	**4053.310**

Crimping pliers

for wire end ferrules
For use with wire end ferrules with no insulating collar to DIN 46228 Part 1 and wire end ferrules with insulating collar to DIN 46228 Part 4.

Benefits:
– Minimal effort required with large conductor cross-sections
– Uniformly high quality compression
– Marked die stations for precise machining of the relevant cross-sections
– Releasable ratchet

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal pink

Accessories:

– Wire end ferrules, see page 888






For cross-section mm²	AWG	Direction of cable entry	Compression	Length mm	Design	Packs of	**Model No.**
0.25 - 6	24 - 10	Side	Trapezoid crimp	198	Angled	1 pc(s).	**4054.000**
0.5 - 6	22 - 10	Front	Square crimp	198	Angled	1 pc(s).	**4054.001**
10 - 25	8 - 4	Side	WM crimp	256	Straight	1 pc(s).	**4054.004**
35 - 50	2 - 1	Side	WM crimp	256	Straight	1 pc(s).	**4054.008**

Crimping pliers

for crimp tab terminals
For use with non-insulated crimp tab terminals.

Benefits:
– Releasable ratchet
– Marked die stations for precise machining of the relevant cross-sections

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal pink





For cross-section mm²	AWG	Compression	Length mm	Design	Packs of	**Model No.**
0.1 - 1.5	26 - 16	B-crimp	198	Angled	1 pc(s).	**4054.080**
0.5 - 6	22 - 10	B-crimp	256	Straight	1 pc(s).	**4054.081**











Crimping pliers

for ring terminals
For use with non-insulated ring terminals.

Benefits:
– Releasable ratchet
– Optimised lever transmission means that only minimal actuator forces are required, even with large cross-sections

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal pink

For cross-section mm^2	AWG	Compression	Length mm	Design	Packs of	**Model No.**
0.35 - 2.5	22 - 14	Indent crimp	198	Angled	1 pc(s).	**4054.020**
0.35 - 6	22 - 10	Indent crimp	198	Angled	1 pc(s).	**4054.021**
4 - 10	12 - 8	Double-indent crimp	256	Straight	1 pc(s).	**4054.023**
10 - 25	8 - 4	Indent crimp	256	Straight	1 pc(s).	**4054.024**

Crimping pliers

for ring terminals
For use with insulated ring terminals and connectors.

Benefits:
– Clear allocation of cross-sections, thanks to colour coding on the dies
– Releasable ratchet
– Releases as soon as the required pressure is reached, to prevent underpressing

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal pink

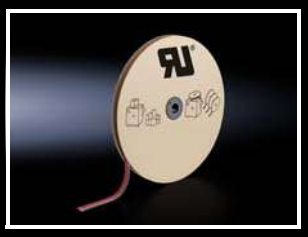






For cross-section mm^2	AWG	Compression	Length mm	Design	Packs of	**Model No.**
0.75 - 2.5	22 - 14	Oval crimp	198	Angled	1 pc(s).	**4054.140**
0.75 - 6	22 - 10	Oval crimp	256	Straight	1 pc(s).	**4054.141**





Wire end ferrules

According to DIN colour code
With plastic collar.

Technical specifications:
– Heat-resistant to 105°C

Material:
– E-Cu, galvanic tin-plated
– Plastic collar: Polypropylene

Note:
– UL-certified in conjunction with the relevant tools, such as crimping machines.

Standards:
– DIN

Approvals:
– UL
– CSA

For crimping machines

For cross-section mm^2	AWG	Length mm	Colour	Delivery form	Packs of	**Model No.**
0.5	20	8	White	Loose	500 pc(s).	**4050.730**
0.75	18	8	Grey	Loose	500 pc(s).	**4050.731**
1	18	8	Red	Loose	500 pc(s).	**4050.732**
1.5	16	8	Black	Loose	500 pc(s).	**4050.733**

For crimping machines

For cross-section mm^2	AWG	Length mm	Colour	Delivery form	Packs of	**Model No.**
0.5	20	8	White	Taped	5000 pc(s).	**4050.746**
0.75	18	8	Grey	Taped	5000 pc(s).	**4050.747**
1	18	8	Red	Taped	5000 pc(s).	**4050.748**
1.5	16	8	Black	Taped	5000 pc(s).	**4050.749**
2.5	14	8	Blue	Taped	3000 pc(s).	**4050.750**

For manual wire processing (AWG cables) and crimping machines 0.5 - 1.5 mm^2

For cross-section mm^2	AWG	Length mm	Colour	Delivery form	Packs of	**Model No.**
0.5	20	8	White	Loose	500 pc(s).	**4050.742**
0.75	18	8	Grey	Loose	500 pc(s).	**4050.743**
1	18	8	Red	Loose	500 pc(s).	**4050.744**
1.5	16	8	Black	Loose	500 pc(s).	**4050.745**

For manual wire processing

For cross-section mm^2	AWG	Length mm	Colour	Delivery form	Packs of	**Model No.**
0.5	20	10	White	Loose (10 packs of 100)	1000 pc(s).	**4051.638**
0.5	20	12	White	Loose (10 packs of 100)	1000 pc(s).	**4050.737**
0.75	18	10	White	Loose (10 packs of 100)	1000 pc(s).	**4051.641**
0.75	18	12	Grey	Loose (10 packs of 100)	1000 pc(s).	**4050.738**
1	18	10	Red	Loose (10 packs of 100)	1000 pc(s).	**4051.644**
1	18	12	Red	Loose (10 packs of 100)	1000 pc(s).	**4050.739**
1.5	16	10	Black	Loose (10 packs of 100)	1000 pc(s).	**4051.647**
1.5	16	12	Black	Loose (10 packs of 100)	1000 pc(s).	**4050.740**
2.5	14	10	Blue	Loose (10 packs of 100)	1000 pc(s).	**4051.525**
2.5	14	12	Blue	Loose (10 packs of 100)	1000 pc(s).	**4050.741**
4	12	12	Grey	Loose	500 pc(s).	**4050.783**
6	10	12	Yellow	Loose	100 pc(s).	**4050.736**

Wire end ferrules



According to Rittal colour code
With plastic collar.

Technical specifications:
– Heat-resistant to 105°C

Material:
– E-Cu, galvanic tin-plated
– Plastic collar: Polypropylene

Note:
– UL-certified in conjunction with the relevant tools, such as crimping machines.

Approvals:
– UL
– CSA

For manual wire processing and crimping machines 0.5 - 2.5 mm²

For cross-section mm²	AWG	Length mm	Colour	Delivery form	Packs of	**Model No.**
0.14	26	8	Grey	Loose	500 pc(s).	**4050.752**
0.25	24	8	Light blue	Loose	500 pc(s).	**4050.754**
0.34	22	8	Turquoise	Loose	500 pc(s).	**4050.757**
0.5	20	8	orange	Loose	500 pc(s).	**4050.760**
0.5	20	10	orange	Loose	500 pc(s).	**4050.761**
0.75	18	8	White	Loose	500 pc(s).	**4050.764**
0.75	18	10	White	Loose	500 pc(s).	**4050.766**
1	18	8	Yellow	Loose	500 pc(s).	**4050.769**
1	18	10	Yellow	Loose	500 pc(s).	**4050.770**
1.5	16	8	Red	Loose	500 pc(s).	**4050.773**
1.5	16	10	Red	Loose	500 pc(s).	**4050.774**
2.5	14	8	Blue	Loose	500 pc(s).	**4050.734**
2.5	14	10	Blue	Loose	500 pc(s).	**4050.779**
4	12	8	Grey	Loose	500 pc(s).	**4050.782**
4	12	10	Grey	Loose	500 pc(s).	**4050.735**
6	10	12	Black	Loose	500 pc(s).	**4050.785**



Wire stripper

For stripping cables and conductors. Self-adjusting, with ergonomically styled handle, replaceable insulation stripping blade.

Benefits:
- Flexible end stop for the insulation stripping length
- Practical integrated wire cutter
- Automatic adjustment mechanism for a wide range of insulations and conductor diameters
- Dies compatible with all types of pliers, may be replaced in a few actions
- Two-component handle with anti-slip soft zone

Colour:
- Handle: Anthracite and Rittal pink

Accessories:
- Spare blade, see page 881

For cross-section mm^2	AWG	Length mm	Note	Packs of	**Model No.**
0.02 - 10	34 - 8	191	–	1 pc(s).	**4054.300**
0.1 - 4	28 - 12	191	Also suitable for rubber and silicone insulation	1 pc(s).	**4054.310**
4 - 16	12 - 5	191	–	1 pc(s).	**4054.305**



Stripping tool

for cables Ø 2.5 - 11 mm

For stripping cables. Vertically hinged blade for creating round, longitudinal and spiral cuts.

Colour:
- Handle: Anthracite and Rittal pink

For cable diameters mm	Length mm	Packs of	**Model No.**
2.5 - 11	90.5	1 pc(s).	**4054.400**

Accessories:
- Spare blade, see page 881



Stripping tool

for cables Ø 8 - 13 mm

For stripping single- and multi-wire signal, pilot and fibreglass cables.

Colour:
- Handle: Anthracite and Rittal pink

For cable diameters mm	Length mm	Packs of	**Model No.**
8 - 13	125	1 pc(s).	**4054.405**

Stripping tool

for cables Ø 4.5 - 40 mm

For stripping installation cables and wires.

Colour:

– Handle: Anthracite and Rittal pink

For cable diameters mm	Length mm	Packs of	Model No.
4.5 - 40	167	1 pc(s).	**4054.410**

Accessories:

– Spare blade, see page 881



Spare blade

for wire strippers

To fit Model No.	For cross-section mm^2	Colour	Packs of	Model No.
4054.300	0.02 - 10	Black	1 pc(s).	**4054.500**
4054.310	0.1 - 4	Blue	1 pc(s).	**4054.510**
4054.305	4 - 16	Red	1 pc(s).	**4054.505**







Spare blade

for stripping tools

To fit Model No.	For cable diameters mm	Packs of	Model No.
4054.400	2.5 - 11	1 pc(s).	**4054.520**
4054.410	4.5 - 40	1 pc(s).	**4054.530**







Side cutter

For copper and aluminium conductors.

Benefits:
– Guarantees long-term stable cutting performance and a clean cut
– Ergonomically styled handles for fatigue-free, non-slip working

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal pink

For cable diameters mm	Length mm	Design	Packs of	**Model No.**
0.2 - 11	180	Straight	1 pc(s).	**4054.600**



Electronic side cutter

With pointed head, 21° angled blades and small chamfer.

Benefits:
– Even, smooth-running opening with opening spring
– Ergonomically styled handles
– Box-joint for permanent stability and optimum force progression

Material:
– High-quality special tool steel

Surface finish:
– Polished, oiled

Colour:
– Handle: Anthracite and Rittal pink

Length mm	Packs of	**Model No.**
115	1 pc(s).	**4054.750**



Cable cutter

For copper and aluminium conductors.

Benefits:
– Ergonomically styled handles for fatigue-free, non-slip working

Material:
– High-quality special tool steel

Colour:
– Handle: Anthracite and Rittal pink



For cross-section mm^2	For cable diameters mm	Length mm	Design	Packs of	**Model No.**
0.5 - 35	12	200	Straight	1 pc(s).	**4054.650**
0.5 - 50	18	160	Angled	1 pc(s).	**4054.660**

Electrician's scissors

For cutting copper, aluminium, Kevlar and plastic.

Benefits:
– High cutting performance thanks to micro-serration in the cutting zone
– Ergonomically styled handles
– Two-component handle with anti-slip soft zone
– Adjustable screw joint

Material:
– High-quality special tool steel

Surface finish:
– Brushed

Colour:
– Handle: Anthracite and Rittal pink

For cable diameters mm	Length mm	Packs of	**Model No.**
0.1 - 3.7	180	1 pc(s).	**4054.700**



Pliers



Combination pliers

With serrated gripping surface and integral ring spanner M8 to M10.

Benefits:
– Ergonomically styled handles for fatigue-free, non-slip working
– Favourable transmission ratios for good holding and cutting performance
– Minimal force required

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal pink

Length mm	Packs of	**Model No.**
160	1 pc(s).	**4054.800**



Needle-nose pliers

With serrated gripping surface.

Benefits:
– Ergonomically styled handles for fatigue-free, non-slip working

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal pink

Length mm	Packs of	**Model No.**
180	1 pc(s).	**4054.850**



Electronic needle-nose pliers

With smooth gripping surface.

Benefits:
– Ergonomically styled handles for fatigue-free, non-slip working
– Even, smooth-running opening with opening spring

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal pink

Length mm	Packs of	**Model No.**
120	1 pc(s).	**4054.860**

Slip-joint pliers

For width across flats 10 - 36 mm.

Benefits:
– Ergonomically styled handles for fatigue-free, non-slip working
– Smooth cheeks avoid the usual damage caused by wrenches and pipe wrenches on screws/nuts
– QuickSnap ratcheting for fast adjustment to the workpiece with no push-button
– Robust box-joint

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal pink

Length mm	Packs of	**Model No.**
260	1 pc(s).	**4054.900**



Hydraulic punches









Manual hydraulic punch

For punching round, square and rectangular cut-outs.

Benefits:
– Extend tool life with a built-in overpressure valve

Punching capacity:
– Round punch up to Ø 82 mm
– Square punch up to 68 x 68 mm
– Rectangular punch up to 46 x 86 mm
– Punching force 75 kN

Material:
– Aluminium

Supply includes:
– Manual hydraulic punch
– Hydraulic screw Ø 19 mm
– Hydraulic screw Ø 9.5 / 19 mm
– HSS pilot drill Ø 11 mm
– Spacer sleeve set (3-part)
– Plastic case

Note:
– Matching accessories may be found on the following pages.

Design	Packs of	Model No.
Straight	1 pc(s).	**4055.000**
With 90° angled and 360° rotating cylinder head	1 pc(s).	**4055.010**
Flexible, with hydraulic hose and separate cylinder	1 pc(s).	**4055.020**





Electric hydraulic punch

For punching round and square cut-outs.

Benefits:
– Extend tool life with a built-in overpressure valve
– High-performance drive motor with ergonomically styled handle
– Slide in the battery packs from two sides to balance the weight

Punching capacity:
– Round punch up to Ø 82 mm
– Square punch up to 68 x 68 mm
– Punching force 75 kN

Material:
– Aluminium

Supply includes:
– Electric hydraulic punch with 2 NiMH batteries, 18 V
– Charging device 18 - 28 V
– Hydraulic screw Ø 9.5 / 19 mm
– Hydraulic screw Ø 19 mm
– Spacer sleeve set (3-part)
– HSS pilot drill Ø 11 mm
– Plastic case

Note:
– Matching accessories may be found on the following pages.

Packs of	Model No.
1 pc(s).	**4055.040**

Manual hydraulic punch set, M16 - M63



For threads	Ø punch mm	Packs of	Model No.
M16 M20 M25 M32 M40 M50 M63	16.2 20.4 25.4 32.5 40.5 50.5 63.5	1 pc(s).	**4055.070**

Manual hydraulic punch in a practical set with hole punches for sheet steel. Maximum machinable material thickness 2 or 3 mm.

Benefits:
– Extend tool life with a built-in overpressure valve

Supply includes:
– Manual hydraulic punch, straight
– 7 splitter hole punches, triple splitting
– Hydraulic screw Ø 19 mm
– Hydraulic screw Ø 9.5 / 19 mm
– HSS pilot drill Ø 10 mm
– Spacer sleeve set (3-part)
– Plastic case

Note:
– Matching accessories may be found on the following pages.

Manual hydraulic punch set, M16 - M40



For threads	Ø punch mm	Packs of	Model No.
M16 M20 M25 M32 M40	16.2 20.4 25.4 32.5 40.5	1 pc(s).	**4055.080**

Manual hydraulic punch in a practical set with hole punches for sheet steel. Maximum machinable material thickness 2 or 3 mm.

Design:
– With 90° angled and 360° rotating cylinder head

Benefits:
– Extend tool life with a built-in overpressure valve

Supply includes:
– Manual hydraulic punch
– 5 splitter hole punches, triple splitting
– Hydraulic screw Ø 19 mm
– Hydraulic screw Ø 9.5 / 19 mm
– HSS pilot drill Ø 10 mm
– Spacer sleeve set (3-part)
– Plastic case

Note:
– Matching accessories may be found on the following pages.

Manual hydraulic punch set, PG 9 - PG 48



For PG	Ø punch mm	Packs of	Model No.
9 11 13 16 21 29 36 42 48	15.2 18.6 20.4 22.5 28.3 37 47 54 60	1 pc(s).	**4055.085**

Manual hydraulic punch in a practical set with hole punches for sheet steel. Maximum machinable material thickness 2 or 3 mm.

Design:
– With 90° angled and 360° rotating cylinder head

Benefits:
– Extend tool life with a built-in overpressure valve

Supply includes:
– Manual hydraulic punch
– 9 splitter hole punches, triple splitting
– Hydraulic screw Ø 19 mm
– Hydraulic screw Ø 9.5 / 19 mm
– HSS pilot drill Ø 10 mm
– Spacer sleeve set (3-part)
– Plastic case

Note:
– Matching accessories may be found on the following pages.

Hole punches





Hole punch, round

for sheet steel
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With 3 cutting points

Supply includes:
– Die
– Stamp
– Tension screw without ball bearing

Note:
– When operating with wrenches, tension screws with ball bearings should be used.

Accessories:
– Tension screws, see page 897
– Hydraulic tension screw, see page 897

For threads	For PG	Ø punch mm	Tension screw (Ø x L) mm	Tension screw with ball bearing, Model No.	Hydraulic tension screw Ø mm	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
M12	7	12.7	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.212**
–	9	15.2	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.215**
M16	–	16.2	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.216**
–	11	18.6	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.218**
M20	13	20.4	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.220**
–	16	22.5	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.222**
M25	–	25.4	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.225**
–	21	28.3	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.228**
–	–	30.5	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.230**
M32	–	32.5	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.232**
–	–	34.6	19 x 55	4055.633	19	4055.663	3	1 pc(s).	**4055.234**
–	29	37	19 x 55	4055.633	19	4055.663	3	1 pc(s).	**4055.237**
M40	–	40.5	19 x 55	4055.633	19	4055.663	3	1 pc(s).	**4055.240**
–	–	43.2	19 x 55	4055.633	19	4055.663	3	1 pc(s).	**4055.243**
–	36	47	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.247**
–	–	49.6	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.249**
M50	–	50.5	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.250**
–	42	54	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.254**
–	48	60	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.260**
–	–	61.5	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.261**
M63	–	63.5	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.263**

Hole punch set, metric



for sheet steel
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With 3 cutting points

Supply includes:
– 5 dies
– 5 stamps
– Plastic case

Note:
– When operating with wrenches, tension screws with ball bearings should be used.

Accessories:

– Tension screws, see page 897
– Hydraulic tension screw, see page 897

For threads	Ø punch mm	Tension screw with ball bearing, Model No.	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
M16	16.2	4055.631	4055.661	2	1 pc(s).	**4055.480**
M20	20.4	4055.631	4055.661	2		
M25	25.4	4055.631	4055.661	2		
M32	32.5	4055.631	4055.661	2		
M40	40.5	4055.633	4055.663	3		

Hole punch set, PG



for sheet steel
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With 3 cutting points

Supply includes:
– 5 dies
– 5 stamps
– 2 tension screws with ball bearing Ø 9.5 x 50 mm
– HSS pilot drill Ø 11 mm
– 1 tube of lubricant paste
– Plastic case

Note:
– When operating with wrenches, tension screws with ball bearings should be used.

Accessories:

– Hydraulic tension screw, see page 897

For PG	Ø punch mm	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
9	15.2	4055.661	2	1 pc(s).	**4055.481**
11	18.6				
13	20.4				
16	22.5				
21	28.3				

Hole punches





Splitter hole punch, round

for sheet steel, with triple splitting
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With triple splitting

Supply includes:
– Die
– Stamp

Note:
– When operating with wrenches, tension screws with ball bearings should be used.

Accessories:

– Tension screws, see page 897 897
– Hydraulic tension screw, see page 897

For threads	For PG	Ø punch mm	Tension screw (Ø x L) mm	Tension screw with ball bearing, Model No.	Hydraulic tension screw Ø mm	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
M12	–	12.5	6 x 40	4055.630	6/19	4055.660	1.5	1 pc(s).	**4055.512**
–	9	15.2	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.515**
M16	–	16.2	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.516**
–	11	18.6	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.518**
M20	13	20.4	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.520**
–	16	22.5	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.522**
M25	–	25.4	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.525**
–	21	28.3	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.528**
–	–	30.5	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.530**
M32	–	32.5	19 x 55	4055.633	19	4055.663	3	1 pc(s).	**4055.532**
–	–	34.6	19 x 55	4055.633	19	4055.663	3	1 pc(s).	**4055.534**
–	29	37	19 x 55	4055.633	19	4055.663	3	1 pc(s).	**4055.537**
M40	–	40.5	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.540**
–	–	43.2	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.543**
–	36	47	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.547**
–	–	49.6	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.549**
M50	–	50.5	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.550**
–	42	54	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.554**
–	48	60	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.560**
–	–	61.5	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.561**
M63	–	63.5	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.563**

Splitter hole punch set, M16 to M40

for sheet steel, with triple splitting
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With triple splitting

Supply includes:
– 5 dies
– 5 stamps
– Plastic case

Note:
– When operating with wrenches, tension screws with ball bearings should be used.

Accessories:

– Tension screws, see page 897
– Hydraulic tension screw, see page 897



For threads	Ø punch mm	Tension screw with ball bearing, Model No.	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
M16	16.2	4055.631	4055.661	2	1 pc(s).	**4055.580**
M20	20.4	4055.631	4055.661	2		
M25	25.4	4055.631	4055.661	2		
M32	32.5	4055.633	4055.663	3		
M40	40.5	4055.634	4055.663	3		

Splitter hole punch set, M12 to M40

for sheet steel, with triple splitting
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With triple splitting

Supply includes:
– 6 dies
– 6 stamps
– Tension screw with ball bearing Ø 6 x 40 mm
– Tension screw with ball bearing Ø 9.5 x 50 mm
– Tension screw with ball bearing Ø 19 x 55 mm
– HSS pilot drill Ø 10 mm
– 1 can of lubricant paste
– Plastic case

Note:
– When operating with wrenches, tension screws with ball bearings should be used.

Accessories:

– Hydraulic tension screw, see page 897



For threads	Ø punch mm	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
M12	12.5	4055.660	1.5	1 pc(s).	**4055.581**
M16	16.2	4055.661	2		
M20	20.4	4055.661	2		
M25	25.4	4055.661	2		
M32	32.5	4055.663	3		
M40	40.5	4055.663	3		

Hole punches



Splitter hole punch set, PG 9 to PG 21

for sheet steel, with triple splitting
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With triple splitting

Supply includes:
– 6 dies
– 6 stamps
– 2 tension screws with ball bearing Ø 9.5 x 50 mm
– HSS pilot drill Ø 10 mm
– 1 tube of lubricant paste
– Plastic case

Note:
– When operating with wrenches, tension screws with ball bearings should be used.

Accessories:
– Hydraulic tension screw, see page 897

For PG	Ø punch mm	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
9 11 13 16 21	15.2 18.6 20.4 22.5 28.3 30.5	4055.661	2	1 pc(s).	**4055.582**

Splitter hole punch, round

for stainless steel, round, with triple splitting
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With triple splitting

Supply includes:
– Die
– Stamp

Note:
– When operating with wrenches, tension screws with ball bearings should be used.

Accessories:

– Tension screws, see page 897
– Hydraulic tension screw, see page 897





For threads	For PG	Ø punch mm	Tension screw (Ø x L) mm	Tension screw with ball bearing, Model No.	Hydraulic tension screw Ø mm	Hydraulic tension screw Model No.	Maximum machinable material thickness, stainless steel mm	Packs of	**Model No.**
–	9	15.2	11.1 x 60	4055.632	11.1/19	4055.665	2	1 pc(s).	**4055.115**
M16	–	16.2	11.1 x 60	4055.632	11.1/19	4055.665	2	1 pc(s).	**4055.116**
–	11	18.6	11.1 x 60	4055.632	11.1/19	4055.665	2	1 pc(s).	**4055.118**
M20	13	20.4	11.1 x 60	4055.632	11.1/19	4055.665	2	1 pc(s).	**4055.120**
–	16	22.5	11.1 x 60	4055.632	11.1/19	4055.665	2	1 pc(s).	**4055.122**
M25	–	25.4	11.1 x 60	4055.632	11.1/19	4055.665	2	1 pc(s).	**4055.125**
–	21	28.3	19 x 55	4055.633	19	4055.663	2.5	1 pc(s).	**4055.128**
–	–	30.5	19 x 55	4055.633	19	4055.663	2.5	1 pc(s).	**4055.130**
M32	–	32.5	19 x 55	4055.633	19	4055.663	2.5	1 pc(s).	**4055.132**
–	–	34.6	19 x 55	4055.633	19	4055.663	2.5	1 pc(s).	**4055.134**
–	29	37	19 x 55	4055.633	19	4055.663	2.5	1 pc(s).	**4055.137**
M40	–	40.5	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.140**
–	–	43.2	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.143**
–	36	47	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.147**
–	–	49.6	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.149**
M50	–	50.5	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.150**
–	42	54	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.154**
–	48	60	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.160**
–	–	61.5	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.161**
M63	–	63.5	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.163**

Hole punches





Splitter hole punch set, metric

for stainless steel, round, with triple splitting
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With triple splitting

Supply includes:
– 5 dies
– 5 stamps
– Plastic case

Note:
– When operating with wrenches, tension screws with ball bearings should be used.

Accessories:
– Tension screws, see page 897
– Hydraulic tension screw, see page 897

For threads	Ø punch mm	Tension screw with ball bearing, Model No.	Hydraulic tension screw Model No.	Maximum machinable material thickness, stainless steel mm	Packs of	**Model No.**
M16	16.2	4055.632	4055.665	2	1 pc(s).	**4055.180**
M20	20.4	4055.632	4055.665	2		
M25	25.4	4055.632	4055.665	2		
M32	32.5	4055.633	4055.663	2.5		
M40	40.5	4055.634	4055.663	2.5		







Hole punch, square

for sheet steel
For punching square cut-outs. The hole punch is operated with a hydraulic punch.

Benefits:
– With side ejector for the waste
– No jamming of the die

Supply includes:
– Die
– Stamp
– Tension bolts
– Lock nut
– Plastic case

☐ punch mm	Maximum machinable material thickness, sheet steel mm	Product-specific scope of supply	Operation, manual	Operation, hydraulic	Packs of	**Model No.**
22.2 x 22.2	2	Pressure nut with ball bearing Adaptor for hydraulics	■	■	1 pc(s).	**4055.322**
45.5 x 45.5	3	–	–	■	1 pc(s).	**4055.345**
46 x 46	3	–	–	■	1 pc(s).	**4055.346**
50.8 x 50.8	3	–	–	■	1 pc(s).	**4055.350**
68 x 68	3	–	–	■	1 pc(s).	**4055.368**
92 x 92	3	–	–	■	1 pc(s).	**4055.392**

Hole punch, rectangular

for sheet steel

For punching rectangular cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Benefits:
- With side ejector for the waste
- No jamming of the die

Supply includes:
- Die
- Stamp
- Tension bolts
- Lock nut
- Plastic case



▭ punch mm	Maximum machinable material thickness, sheet steel mm	Product-specific scope of supply	Operation, manual	Operation, hydraulic	Packs of	**Model No.**
22 x 30	2	Pressure nut with ball bearing Adaptor for hydraulics	■	■	1 pc(s).	**4055.400**
22 x 42	2	Pressure nut with ball bearing Adaptor for hydraulics	■	■	1 pc(s).	**4055.401**
45 x 92	2	–	–	■	1 pc(s).	**4055.402**
46 x 92	2	–	–	■	1 pc(s).	**4055.403**

Hole punch, special contour

for sheet steel

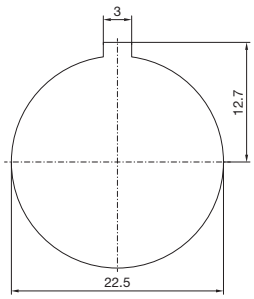
For punching cut-outs with a special contour. The hole punch is operated with a wrench or hydraulic punch.

Benefits:
- With side ejector for the waste
- No jamming of the die

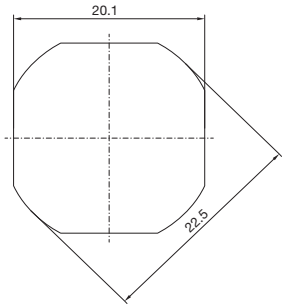
Supply includes:
- Die
- Stamp
- Tension bolts
- Lock nut
- Pressure nut with ball bearing
- Adaptor for hydraulics
- Plastic case



4055.440



4055.441



Design	Ø punch mm	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
With 3 mm lug	22.5	2	1 pc(s).	**4055.440**
Flattened to 20.1 mm on 4 sides	22.5	2	1 pc(s).	**4055.441**

Hole punches



Hole punch, heavy connectors

for sheet steel
For punching rectangular cut-outs for connectors.
The hole punch is operated with a hydraulic punch.

Benefits:
– With side ejector for the waste
– No jamming of the die
– When the die and stamp are compressed, the mounting holes for connectors are marked on the metal sheet between them.

Supply includes:
– Die
– Stamp
– Tension bolts
– Lock nut

▭ punch mm	No. of poles	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
36 x 52	6-pole	2	1 pc(s).	**4055.460**
36 x 65	10-pole	2	1 pc(s).	**4055.461**
36 x 86	16-pole	2	1 pc(s).	**4055.463**
36 x 112	24-pole	2	1 pc(s).	**4055.465**







Hole punch, sub-D

for sheet steel and stainless steel
For punching rectangular cut-outs for connectors.
The hole punch is operated with a wrench or hydraulic punch.

Benefits:
– With side ejector for the waste
– No jamming of the die
– Anti-twist axles for stamps and dies are used as tension bolts.

Supply includes:
– Die
– Stamp
– Tension bolts
– Lock nut
– Pressure nut with ball bearing
– Adaptor for hydraulics
– Plastic case

▭ punch mm	No. of poles	Maximum machinable material thickness, sheet steel mm	Maximum machinable material thickness, stainless steel mm	Packs of	**Model No.**
19.8 x 11.3	9-pole	2	1.5	1 pc(s).	**4055.470**
28.2 x 11.3	15-pole	2	1.5	1 pc(s).	**4055.471**
41.9 x 11.3	25-pole	1.75	1.25	1 pc(s).	**4055.472**
58.4 x 11.3	37-pole	1.75	1.25	1 pc(s).	**4055.473**
55.7 x 13.9	50-pole	1.65	1	1 pc(s).	**4055.474**

Tension screws

Accessories for hole punches. Required as a connecting part between the die and stamp.

Note:
– For operation with wrench

Tension screw (Ø x L) mm	Packs of	Model No.
9.5 x 40	1 pc(s).	**4055.600**
9.5 x 50	1 pc(s).	**4055.601**
19 x 55	1 pc(s).	**4055.602**
19 x 75	1 pc(s).	**4055.603**



Tension screws

with ball bearing
Accessories for hole punches. Required as a connecting part between the die and stamp.

Note:
– For operation with wrench

Tension screw (Ø x L) mm	Packs of	Model No.
6 x 40	1 pc(s).	**4055.630**
9.5 x 50	1 pc(s).	**4055.631**
11.1 x 60	1 pc(s).	**4055.632**
19 x 55	1 pc(s).	**4055.633**
19 x 75	1 pc(s).	**4055.634**





Hydraulic tension screw

Accessories for hole punches. Required as a connecting part between the die and stamp.

Note:
– For operation via hydraulic punch

Hydraulic tension screw Ø mm	Product-specific scope of supply	Packs of	Model No.
6/19	Adaptor for hydraulics	1 pc(s).	**4055.660**
9.5/19	Adaptor for hydraulics	1 pc(s).	**4055.661**
11.1/19	Adaptor for hydraulics	1 pc(s).	**4055.662**
19	–	1 pc(s).	**4055.663**



Hole punches



Hydraulic tension screws for higher loads

Accessories for hole punches. Required as a connecting part between the die and stamp.

Benefits:
– Hydraulic tension screw made from high-alloy tool steel for higher loads

Note:
– For operation via hydraulic punch

Hydraulic tension screw Ø mm	Packs of	**Model No.**
9.5/19	1 pc(s).	**4055.664**
11.1/19	1 pc(s).	**4055.665**



Notching pliers

Punches slots quickly and easily. Saves the time-consuming process of filing the grooves for anti-twist protection of push buttons, switches and instruments. Slots in sizes 3.2 mm and 4.8 mm can be created.

Benefits:
– Long service life
– Stamp and die made from hardened tool steel
– Easy punching with large leverage

Material:
– Handles: Plastic-coated

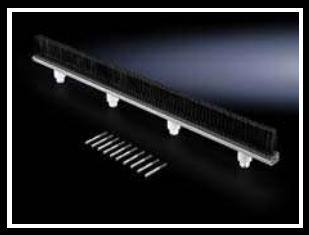
Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
2	1 pc(s).	**4055.690**

Performance package

for Perforex machining centre
For optimised workpiece machining on the Perforex machining centre.

Benefits:
– Reduced vibration
– Faster feed rates of up to 1.5 m/min
– Lower noise emissions
– Extended tool life
– Optimised handling with workpiece clamping

Supply includes:
– Brush strips
– Performance milling tool Ø 6 mm



To fit Model No.	For	No. of milling cutters	No. of brush strips	Packs of	**Model No.**
4050.101	BC 1001 HS	10	12	1 pc(s).	**4050.041**
4050.107	BC 1007 HS	10	22	1 pc(s).	**4050.042**
4050.108	BC 1008 HS	10	24	1 pc(s).	**4050.044**
4050.207	BC 2007 HS	10	30	1 pc(s).	**4050.046**
4050.230	BC 2014 HS	10	51	1 pc(s).	**4050.045**

Circular screw cutting tool

Additional tool for Perforex machining centres.
For cutting metric threads of all sizes.

Machinable material:
– Sheet steel
– Stainless steel
– Aluminium

Supply includes:
– Circular thread milling cutter
– Collet
– Tool holder SK30

Packs of	**Model No.**
1 pc(s).	**4050.050**



Standard milling cutter

Spare milling cutter for Perforex machining centre.

Machinable material:
– Sheet steel
– Stainless steel

Ø mm	Packs of	**Model No.**
6	10 pc(s).	**4050.818**



for machining centre



End mill

Spare milling cutter for Perforex machining centre.

Machinable material:
– Aluminium
– Plastic

Ø mm	Packs of	Model No.
6	5 pc(s).	**4050.819**
4	5 pc(s).	**4050.820**



Performance milling tool

Spare milling cutter for Perforex machining centre.

Benefits:
– Faster feed rates of up to 1.5 m/min

Machinable material:
– Sheet steel
– Stainless steel

Ø mm	Packs of	Model No.
6	5 pc(s).	**4050.891**



Twist drill

HSS machine twist drill for Perforex machining centre.

Machinable material:
– Steel
– Stainless steel
– Aluminium
– Plastic
– Copper

Ø mm	Packs of	Model No.
2.6	10 pc(s).	**4050.801**
3.3	10 pc(s).	**4050.802**
4.2	10 pc(s).	**4050.803**
5	10 pc(s).	**4050.804**
6	10 pc(s).	**4050.805**
6.8	10 pc(s).	**4050.806**
8.5	10 pc(s).	**4050.807**



Machine thread tap

HSS machine thread tapper for Perforex machining centre.

Thread	Packs of	Model No.
M3	3 pc(s).	**4050.811**
M4	3 pc(s).	**4050.812**
M5	3 pc(s).	**4050.813**
M6	3 pc(s).	**4050.814**
M8	3 pc(s).	**4050.815**



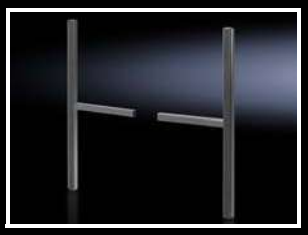
Support pegs

Spare support pegs for Perforex machining centre.

To fit Model No.	For	Length mm	Design	Packs of	**Model No.**
4050.101	BC 1001 HS	54	plug-type	10 pc(s).	**4050.847**
–	BC 1001 S BC 2001 L	66	plug-type	10 pc(s).	**4050.848**
4050.107/ 4050.108/ 4050.207	BC 1007 HS BC 1008 HS BC 2007 HS	78	Internal thread	10 pc(s).	**4050.842**
4050.107/ 4050.108/ 4050.207	BC 1007 HS BC 1008 HS BC 2007 HS	90	plug-type	10 pc(s).	**4050.841**

Accessories

for assembly frame



Assembly frame extension

To widen assembly frames 150 MN, 200 EN, 300 ENH to a maximum width of 1900 mm.

To fit Model No.	Packs of	**Model No.**
4050.150/ 4050.200/ 4050.300	2 pc(s).	**4050.210**



Enclosure set

for assembly frame

For secure attachment of an enclosure such as AE to assembly frame 150 MN, 200 EN, 300 ENH.

To fit Model No.	Packs of	**Model No.**
4050.150/ 4050.200/ 4050.300	1 pc(s).	**4050.211**



Wire routing

for assembly frame

For user-friendly handling of wires on assembly frame 150 MN, 200 EN, 300 ENH.

To fit Model No.	Packs of	**Model No.**
4050.150/ 4050.200/ 4050.300	1 pc(s).	**4050.212**





Clamping unit

for assembly frame

For secure attachment of a mounting plate onto assembly frame 150 MN, 200 EN, 300 ENH.

To fit Model No.	For	Design	Product-specific scope of supply	Packs of	**Model No.**
4050.150/ 4050.200/ 4050.300	Mounting plate TS/SE	Top	–	1 pc(s).	**4050.213**
4050.150/ 4050.200/ 4050.300	Mounting plate TS/SE	Bottom	1 clamping unit pack, bottom	1 pc(s).	**4050.214**

Wire reel holder

for assembly frame
For adapting wire reels or drums on assembly frame 150 MN, 200 EN, 300 ENH.

To fit Model No.	Packs of	Model No.
4050.150/ 4050.200/ 4050.300	1 pc(s).	**4050.216**



Spare battery

for assembly frame
Battery to fit electrical tilt/height adjuster for assembly frame 200 EN, 300 ENH.

To fit Model No.	Packs of	Model No.
4050.200/ 4050.300	1 pc(s).	**4050.217**



Screw adaptor

for spindle hoist
For operating the assembly frame spindle drive using a cordless screwdriver. To fit assembly frame 150 MN.

To fit Model No.	Packs of	Model No.
4050.150	1 pc(s).	**4050.218**



Roller conveyor

for assembly frame
For inserting the mounting plate sideways into the enclosure. To fit assembly frame 150 MN, 200 EN, 300 ENH.

To fit Model No.	Packs of	Model No.
4050.150/ 4050.200/ 4050.300	1 pc(s).	**4050.220**



Set of brackets

for assembly frame
For secure attachment of a mounting plate onto assembly frame 150 MN, 200 EN, 300 ENH.

Supply includes:
- 4 cover caps
- 12 handles
- 2 holders
- 16 washers
- 12 sliding blocks

To fit Model No.	For	Packs of	Model No.
4050.150/ 4050.200/ 4050.300	Mounting plate AE	1 pc(s).	**4050.221**



The 3-phase coating procedure

Coating procedure	Technical properties	Technical specifications	
Degreasing, nanoceramic pretreatment, rinsing	Used as corrosion protection and to improve paint adhesion.	Nanoceramic conversion layer	
Anodic dipcoat priming	Even layer formation on all surfaces, edges and in cavities, which produces a high level of corrosion protection even at the assembly stage.	Erichsen cupping test to DIN EN ISO 1520	≥ 4 mm
		Buchholz hardness to DIN EN ISO 2815	≥ 80
		Cross cutting to DIN EN ISO 2409	Gt 0
	The primer is readily overpainted and free from heavy metals, chromate and silicone.		
Stove enamelling			
Textured powder coating	Powder-coating is distinguished by a high level of mechanical resistance, excellent corrosion protection, good resistance to chemicals and temperature, and its facility for decontamination.	Erichsen cupping test to DIN EN ISO 1520	≥ 3.5 mm
		Buchholz hardness to DIN EN ISO 2815	≥ 80
		Cross cutting to DIN EN ISO 2409	Gt 0
		Salt spray test to DIN EN ISO 9227 NSS	Test period: 168 hrs
		Condensate test to DIN EN ISO 6270-2 CH	Test period: 500 hrs
		Condensate test to DIN EN ISO 6270-2 AHT	Test period: 20 cycles
	The powder coating is readily overpainted and is free from heavy metals, chromate and silicone.		
Stove enamelling			

The coating is resistant to:
- Mineral oils
- Lubricants
- Machine emulsions
- Alcohol-based solvents (briefly, e.g. during cleaning)
- Weak acids and alkalines

Primer or powder coating suitable for overpainting

After careful cleaning of the surface, the standard coating may be overpainted with
- DD gloss paints
- Single and dual-component gloss paints
- Car repair paints
- Powder paints
- Water-based paints

If in doubt, perform a compatibility test. Always follow the paint manufacturer's instructions. When overpainting, take care not to exceed 180°C and a baking time of 15 minutes.

Outdoor use of enclosures

In order to guarantee satisfactory long-term function of enclosures in outdoor use, the relevant environmental factors must be taken into account.

These include:
- UV radiation, the corrosive action of air pollution, rain, icing, snow, wind or other factors in special climatic conditions.

Condensation inside the enclosure
Condensation must be prevented by means of appropriate measures, e.g. by venting or heating the enclosure.

Protection category
The enclosure may be exposed to extreme weather conditions during outdoor use.
Long periods of rain, snow, ice, high winds and temperature fluctuations place particularly high demands on the enclosure sealing. The protection category IP X3 as envisaged for external weather conditions in DIN VDE 0100, part 737, point 5.2 is often insufficient to provide permanent protection for electrical equipment.

Protection categories to IEC 60 529 (EN 60 529)

The IP protection category is characterised by 2 numbers.	
Example of a protection category, e.g. IP 43:	
Code letters IP	
First numeral 4	Second numeral 3

Degrees of protection for protection against contact and foreign bodies: First numeral			**Degrees of protection for protection against water: Second numeral**		
First numeral	Degree of protection		Second numeral	Degree of protection	
	Description	Explanation		Description	Explanation
1	Protected against solid foreign objects with a diameter of 50 mm and greater	The object probe, a sphere 50 mm in diameter, must not penetrate fully[1)]	1	Protected against vertically falling water drops	Vertically falling drops shall have no harmful effects
2	Protected against solid foreign objects with a diameter of 12.5 mm and greater	The object probe, a sphere 12.5 mm in diameter, must not penetrate fully[1)]. The articulated test finger may penetrate up to its length of 80 mm, but adequate distance from hazardous parts must be adhered to.	2	Protected against vertically falling water drops when the enclosure is tilted up to 15°	Vertically falling drops must not have any harmful effects when the enclosure is tilted up to 15° on either side of the vertical
3	Protected against solid foreign objects with a diameter of 2.5 mm and greater	The object probe, a sphere 2.5 mm in diameter, must not penetrate at all[1)]	3	Protected against sprayed water	Water sprayed at an angle of up to 60° on either side of the vertical shall have no harmful effects
4	Protected against solid foreign objects with a diameter of 1.0 mm and greater	The object probe, a sphere 1.0 mm in diameter, must not penetrate at all[1)]	4	Protected against splashed water	Water splashed on the enclosure from any direction shall have no harmful effects
5	Dust-protected	The ingress of dust is not fully prevented, but dust shall not enter to such an extent as to impair satisfactory operation of the device or safety	5	Protected against water jets	Water directed at the enclosure from any direction in a jet shall have no harmful effects
6	Dust-tight	No ingress of dust at a partial vacuum of 20 mbar inside the enclosure	6	Protected against powerful water jets	Water directed at the enclosure from every direction in a powerful jet shall have no harmful effects
			7	Protected against temporary immersion in water	Water must not ingress to such an extent as to cause harmful effects when the enclosure is temporarily immersed in water under standardised pressure and time conditions
			8	Protected against continuous immersion in water	Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is continuously immersed in water under conditions to be agreed between the manufacturer and the user. However, the conditions must be more difficult than for numeral 7.
			9	Protected against high-pressure and high-temperature water jets	Water projected at high pressure and high temperature against the enclosure from any direction shall not have harmful effects.

[1)] The full diameter of the object probe must not pass through an opening of the enclosure.

NEMA

The **N**ational **E**lectrical **M**anufacturers **A**ssociation (NEMA) is a standards organisation in Washington, USA, which publishes a number of technical standards but does not test or certify products itself.

The following NEMA classification outlines the protection of individuals from accidental contact with equipment and the protection of an enclosure from external factors.

Further information on protection categories may be found on the Internet at: **www.rittal.com**

UL/NEMA Type	Intended use and description
1	Enclosures for use predominantly indoors Protection against the penetration of foreign bodies
3	Enclosures for use predominantly outdoors Protection from rain, hail, dust, icing and the damage caused by icing
3R	Enclosures for use predominantly outdoors Protection from rain, hail, icing and the damage caused by icing
3S	Enclosures for use predominantly outdoors Protection from rain, hail and dust External mechanisms remain usable despite being coated in ice
4	Enclosures for indoor or outdoor use Protection against rain, foreign bodies, splashed water and hosed water and against damage caused by icing on the exterior of the enclosure
4X	Enclosures for indoor or outdoor use Protection against rain, foreign bodies, splashed water and hosed water and against damage caused by icing on the exterior of the enclosure Increased protection from corrosion
12, 12K	Enclosures for use predominantly indoors Protection against dust deposits, foreign bodies and non-corrosive dripping liquids
13	Enclosures for use predominantly indoors Protection against dust deposits, sprayed water, oil, and non-corrosive coolants

The UL/NEMA classifications are not directly comparable with IP protection categories, since both the test conditions and the evaluation of the test results are different

Approvals and permits

Product certifications and approvals are pivotal to the global acceptance of industrial products.
Rittal products meet the highest internationally recognised quality yardsticks. All components are subjected to the most stringent testing in accordance with international standards and regulations.
The consistently high product quality is ensured by a comprehensive quality management system. Regular production inspections by external test institutes also guarantee compliance with global standards

A precise allocation of products to marks of conformity can be found on our product and service pages on the Internet.
www.rittal.com

Earthing

The PE conductor connection must be designed by the manufacturer of switchgear in accordance with the relevant VDE and/or local regulations.
The enclosure packs generally contain earthing materials (screws, nuts, washers). The assembly instructions contain recommendations on installing a protective earth.
The pre-assembled earth straps, available as accessories in various cross-sections and lengths, are intended to make assembly of a PE conductor easier.

Further information can be found in our technical documentation “PE conductor connection, current carrying capacity”.

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3201.970	SK	471
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3590.005	SV	308
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8208.500	TS	84
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8613.160	TS	808
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8800.050	TS	703
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8800.090	TS	703
8800.100	TS	768
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8800.120	TS	768
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8800.410	TS	653
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8800.470	TS	656
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8800.500	TS	653
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8800.630	TS	703
8800.640	TS	723
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8800.660	TS	759
8800.670	TS	657
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8800.865	TS	658
8800.870	TS	657
8800.885	TS	658
8800.900	PC	740
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9340.120	SV	312
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9340.350	SV	274
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9340.380	SV	274
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9340.400	SV	274
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9340.660	SV	276
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9340.860	SV	319
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9650.150	SV	354
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RAL colours

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	5018	turquoise blue
	7001	silver grey
	7015	slate grey
	7022	umbra grey
	7024	graphite grey
	7030	stone grey
	7032	pebble grey
	7033	cement grey
	7035	pale grey
	8019	grey brown
	9005	jet black
	9006	white aluminium
	9011	graphite black
	9017	traffic black

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