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Faster – better – everywhere.

Supplement to
Catalogue 2014/2015

► Innovations 2015



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

FRIEDHELM LOH GROUP



Rittal – The System.

Faster – better – everywhere.



ENCLOSURE

POWER DISTRIBUTION

CLIMATE CONTROL

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The whole is more than the sum of its parts

The same is true of “Rittal – The System.” With this in mind, we have bundled our innovative enclosure, power distribution, climate control and IT infrastructure products together into a single system platform. Complemented by our extensive range of software tools and global service, we create unique added value for all industrial applications: Production plant, test equipment, facility management and data centres. In accordance with our simple principle, “Faster – better – everywhere”, we are able to combine innovative products and efficient service to optimum effect.

Faster – with our “Rittal – The System.” range of modular solutions, which guarantees fast planning, assembly, conversion and commissioning with its system compatibility.

Better – by being quick to translate market trends into products. In this way, our innovative strength helps you to secure competitive advantages.

Everywhere – thanks to global networking across 150 locations. Rittal has over 60 subsidiaries, more than 150 service partners with over 1,000 service engineers worldwide. For more than 50 years, we have been on hand to offer advice, assistance and product solutions.

IT INFRASTRUCTURE

SOFTWARE & SERVICES



Our expertise. Your benefit.

Only Rittal gives you more benefits with every product, available off the shelf for immediate delivery.

- The most efficient cooling units in the world
- The TS 8 flexible baying enclosure system with infinite installation possibilities
- The 185 mm Ri4Power system with optimum contact hazard protection
- The TS IT with over 100 variants and tool-free interior installation

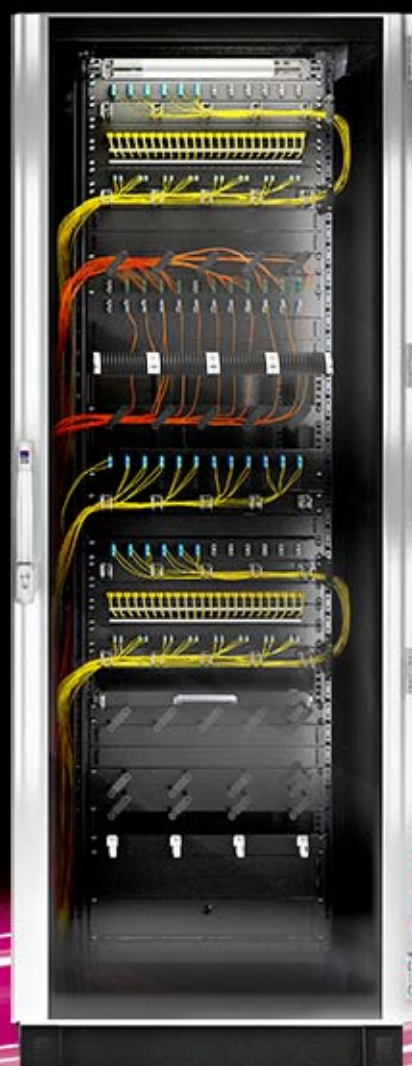


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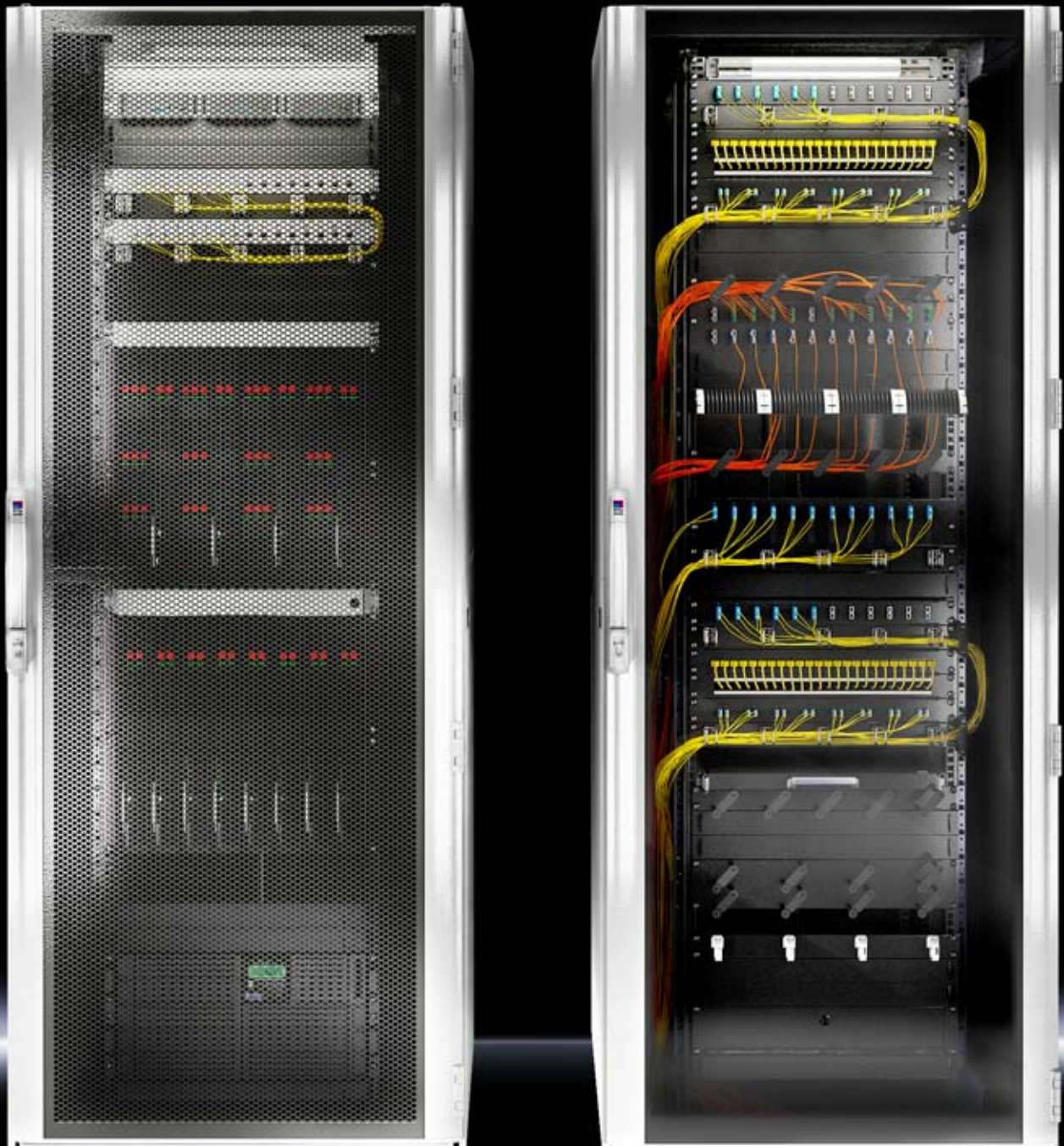


IT INFRASTRUCTURE

SOFTWARE & SERVICES



Network/server enclosures TS IT



The benefits at a glance

■ Individual configuration

The ideal basis for virtually all network and server technology requirements

■ High load capacity

and variable interior installation

Load capacity of up to 1,500 kg and tool-free adjustment of the 482.6 mm (19") mounting levels.

■ Tool-free installation

System accessory mounting using new, time-saving snap-in technology (available for component shelves, cable conduits, etc.)

■ Intelligent cable management

Multi-functional roof for side cable entry, ensures maximum user-friendliness and free air flow for active components

■ Fast side panel assembly

Divided side panel with quick-release fasteners, integral lock and internal latch

■ Convincing door concept

Glazed door for high-performance server applications with LCP climate control or vented doors for room climate control

■ Divided rear doors

Divided rear doors from a height of 1,800 mm for space-optimised positioning

■ Intelligent accessories

Simple and quick selection of system accessories using the new TS IT concept

■ Simple positioning

Labelling of the height units and pitch pattern in the depth for simple adjustment of the distance between 482.6 mm (19") levels

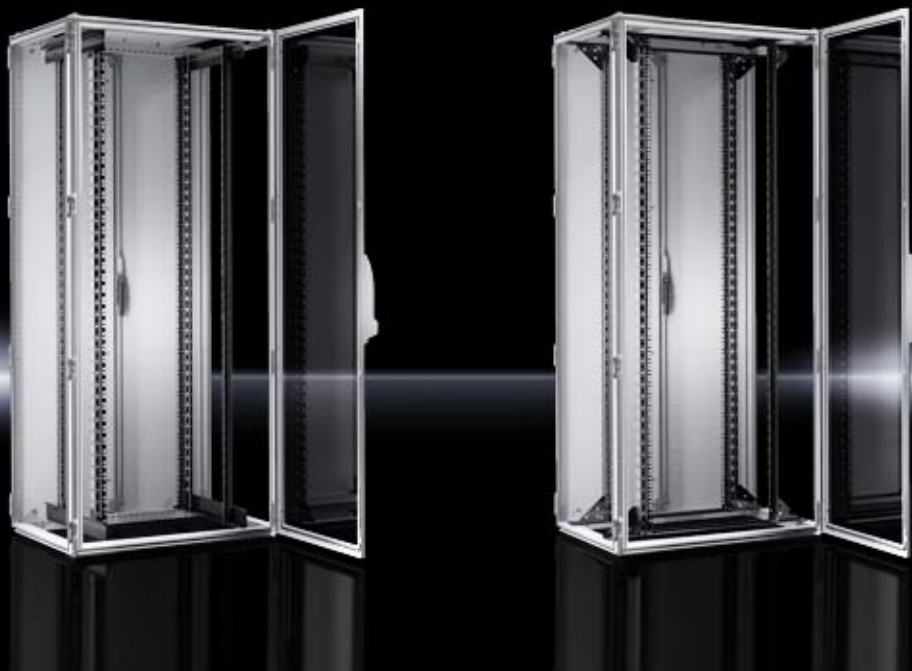
■ Enhanced safety



Variants with protection category IP 55, both with and without 482.6 mm (19") interior installation

■ Pre-configured complete packages

More than 100 different variants available for fast delivery across Europe





Network/server enclosures TS IT



482.6 mm (19") installation		With 482.6 mm (19") mounting angles		With 482.6 mm (19") mounting frame		
						
Front door		Glazed door	Vented door	Glazed door	Vented door	
Variants		55XX.120	55XX.110	55XX.141	55XX.181	
Product-specific scope of supply						
Base	Open	■	■	■	■	
	Solid	–	–	–	–	
Rear door	One-piece, solid	■	–	■	–	
	Two-piece, 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		10	13	16	19	

Network/server enclosures TS IT



	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
					
	Glazed door	Vented door	Glazed door	Glazed door	Glazed door
	55XX.151	55XX.161	55XX.170	55XX.131	55XX.790

	—	—	—	—	—
	—	—	—	■	■
	■	—	—	■	■
	■	—	—	—	—
	—	—	—	—	—
	—	■	—	—	—
	—	—	■	—	—
	■	■	■	—	—
	—	—	—	■	■
	■	■	■	—	—
	■	—	—	—	—
	—	■	■	—	—
	■	■	■	—	—
	22	24	25	26	28

Network/server enclosures TS IT



IT power Cat. 34, page 407 **IT cooling** Cat. 34, page 427 **IT monitoring** Cat. 34, page 445 **System accessories** Cat. 34, page 507

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

Load capacity of the 482.6 mm (19") mounting angles:

- 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 the siting type and location, the door opening 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	Cat. 34, 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	
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	536
Side panels, divided		–	–	–	–	–	
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.010	5502.010	5502.020	5502.020	5502.010	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	8100.600	8100.600	8100.800	see page	8100.600	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.602	8100.802	8100.802	8100.602	511
Base mount	2 pc(s).	5501.300	5501.300	5501.310	5501.320	5501.300	524
Gland plates	1 pc(s).	–	–	5502.530	5502.550	–	529
Air baffle plates		–	–	–	–	–	
Cable route		–	–	–	–	–	
C rails	4 pc(s).	7828.060	7828.060	7828.080	see page	7828.060	613
Cable clamp rails	4 pc(s).	7828.062	7828.062	7828.082	see page	7828.062	669

Network/server enclosures TS IT

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

Units U	Packs of	38	38	42	42	Cat. 34, 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	
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	536
Side panels, divided	1 pc(s).	5501.000	5501.000	5501.010	5501.020	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.010	5502.020	5502.010	5502.010	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	see page	8100.800	8100.600	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	see page	8100.802	8100.602	see page	511
Base mount	2 pc(s).	5501.310	5501.310	5501.300	5501.310	524
Gland plates	1 pc(s).	–	5502.530	–	–	529
Air baffle plates	1 pc(s).	–	–	5501.805	5501.805	692
Cable route	1 pc(s).	–	–	5502.120	5502.120	672
C rails	4 pc(s).	see page	7828.080	7828.060	see page	613
Cable clamp rails	4 pc(s).	see page	7828.082	7828.062	see page	669

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

Units U	Packs of	42	42	42	42	Cat. 34, 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	
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	536
Side panels, divided	1 pc(s).	5501.030	5501.040	5501.010	5501.020	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.010	5502.010	5502.010	5502.020	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	see page	see page	see page	8100.800	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.602	see page	8100.802	511
Base mount	2 pc(s).	5501.320	5501.350	5501.300	5501.310	524
Gland plates	1 pc(s).	5502.540	5502.560	5502.510	5502.530	528
Air baffle plates	1 pc(s).	5501.805	5501.805	5501.815	5501.815	692
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	see page	see page	see page	7828.080	613
Cable clamp rails	4 pc(s).	see page	see page	see page	7828.082	669

Network/server enclosures TS IT

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

Units U	Packs of	42	42	47	47	Cat. 34, 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	
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	536
Side panels, divided	1 pc(s).	5501.030	5501.040	5501.050	5501.060	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.020	5502.020	5502.010	5502.010	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed		see page	see page	see page	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.802	8100.802	see page	8100.602	511
Base mount	2 pc(s).	5501.320	5501.350	5501.310	5501.320	524
Gland plates	1 pc(s).	5502.550	5502.570	–	5502.540	530
Air baffle plates	1 pc(s).	5501.815	5501.815	5501.825	5501.825	692
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	672
C rails		see page	see page	see page	see page	613
Cable clamp rails		see page	see page	see page	see page	669

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

Units U	Packs of	47	47	47	47	Cat. 34, 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	
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	–	536
Side panels, divided	1 pc(s).	5501.070	5501.050	5501.060	5501.070	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.010	5502.020	5502.020	5502.020	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	see page	8100.800	see page	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.802	8100.802	8100.802	511
Base mount	2 pc(s).	5501.350	5501.310	5501.320	5501.350	524
Gland plates	1 pc(s).	5502.560	5502.530	5502.550	5502.570	529
Air baffle plates	1 pc(s).	5501.825	5501.835	5501.835	5501.835	692
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	see page	7828.080	see page	see page	613
Cable clamp rails	4 pc(s).	see page	7828.082	see page	see page	669



IT power Cat. 34, page 407 **IT cooling** Cat. 34, page 427 **IT monitoring** Cat. 34, page 445 **System accessories** Cat. 34, page 507

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

Load capacity of the 482.6 mm (19") mounting angles:

- 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 the siting type and location, the door opening 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	Cat. 34, 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	
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	536
Side panels, divided	1 pc(s).	–	–	–	–	5501.000	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.010	5502.020	5502.020	5502.010	5502.010	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	8100.600	8100.800	see page	8100.600	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.802	8100.802	8100.602	see page	511
Base mount	2 pc(s).	5501.300	5501.310	5501.320	5501.300	5501.310	524
Gland plates	1 pc(s).	–	5502.530	5502.550	–	–	529
Air baffle plates		–	–	–	–	–	
Cable route		–	–	–	–	–	
C rails	4 pc(s).	7828.060	7828.080	see page	7828.060	see page	613
Cable clamp rails	4 pc(s).	7828.062	7828.082	see page	7828.062	see page	669

Network/server enclosures TS IT

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

Units U	Packs of	38	42	42	42	42	Cat. 34, 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	
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	–	536
Side panels, divided	1 pc(s).	5501.000	5501.010	5501.020	5501.030	5501.040	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.020	5502.010	5502.010	5502.010	5502.010	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	8100.800	8100.600	see page	see page	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.802	8100.602	see page	8100.602	8100.602	511
Base mount	2 pc(s).	5501.310	5501.300	5501.310	5501.320	5501.350	524
Gland plates	1 pc(s).	5502.530	–	–	5502.540	5502.560	529
Air baffle plates	1 pc(s).	–	5501.805	5501.805	5501.805	5501.805	692
Cable route	1 pc(s).	–	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	7828.080	7828.060	see page	see page	see page	613
Cable clamp rails	4 pc(s).	7828.082	7828.062	see page	see page	see page	669

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

Units U	Packs of	42	42	42	42	47	Cat. 34, 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	
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	536
Side panels, divided	1 pc(s).	5501.010	5501.020	5501.030	5501.040	5501.050	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.010	5502.020	5502.020	5502.020	5502.010	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	see page	8100.800	see page	see page	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	see page	8100.802	8100.802	8100.802	see page	511
Base mount	2 pc(s).	5501.300	5501.310	5501.320	5501.350	5501.310	524
Gland plates	1 pc(s).	5502.510	5502.530	5502.550	5502.570	–	528
Air baffle plates	1 pc(s).	5501.815	5501.815	5501.815	5501.815	5501.825	692
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	see page	7828.080	see page	see page	see page	613
Cable clamp rails	4 pc(s).	see page	7828.082	see page	see page	see page	669

Network/server enclosures TS IT

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

Units U	Packs of	47	47	47	47	47	Cat. 34, 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	
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	–	536
Side panels, divided	1 pc(s).	5501.060	5501.070	5501.050	5501.060	5501.070	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.010	5502.010	5502.020	5502.020	5502.020	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	see page	see page	8100.800	see page	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.602	8100.802	8100.802	8100.802	511
Base mount	2 pc(s).	5501.320	5501.350	5501.310	5501.320	5501.350	524
Gland plates	1 pc(s).	5502.540	5502.560	5502.530	5502.550	5502.570	529
Air baffle plates	1 pc(s).	5501.825	5501.825	5501.835	5501.835	5501.835	692
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	see page	see page	7828.080	see page	see page	613
Cable clamp rails	4 pc(s).	see page	see page	7828.082	see page	see page	669

New



PDU – Power Distribution Unit

see Cat. 34, page 416

Network/server enclosures TS IT



IT power Cat. 34, page 407 **IT cooling** Cat. 34, page 427 **IT monitoring** Cat. 34, page 445 **System accessories** Cat. 34, page 507

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

Load capacity of the 482.6 mm (19") mounting angles:

- 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 the siting type and location, the door opening 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	Cat. 34, 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	
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	536
Side panels, divided	1 pc(s).	–	–	–	–	5501.000	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.010	5502.020	5502.020	5502.010	5502.010	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	8100.600	8100.800	see page	8100.600	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.802	8100.802	8100.602	see page	511
Base mount	2 pc(s).	5501.300	5501.310	5501.320	5501.300	5501.310	524
Gland plates	1 pc(s).	–	5502.530	5502.550	–	–	529
Air baffle plates	1 pc(s).	5501.855	5501.865	5501.865	5501.875	5501.875	692
Cable route		–	–	–	–	–	672
C rails	4 pc(s).	7828.060	7828.080	see page	7828.060	see page	613
Cable clamp rails	4 pc(s).	7828.062	7828.082	see page	7828.062	see page	669

Network/server enclosures TS IT

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

Units U	Packs of	38	42	42	42	42	Cat. 34, 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	
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	–	536
Side panels, divided	1 pc(s).	5501.000	5501.010	5501.020	5501.030	5501.040	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.020	5502.010	5502.010	5502.010	5502.010	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	8100.800	8100.600	see page	see page	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.802	8100.602	see page	8100.602	8100.602	511
Base mount	2 pc(s).	5501.310	5501.300	5501.310	5501.320	5501.350	524
Gland plates	1 pc(s).	5502.530	–	–	5502.540	5502.560	529
Air baffle plates	1 pc(s).	5501.885	5501.905	5501.905	5501.905	5501.905	692
Cable route	1 pc(s).	–	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	7828.080	7828.060	see page	see page	see page	613
Cable clamp rails	4 pc(s).	7828.082	7828.062	see page	see page	see page	669

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

Units U	Packs of	42	42	42	42	47	Cat. 34, 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		345	545	745	745	545	
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	536
Side panels, divided	1 pc(s).	5501.010	5501.020	5501.030	5501.040	5501.050	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.010	5502.020	5502.020	5502.020	5502.010	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	see page	8100.800	see page	see page	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	see page	8100.802	8100.802	8100.802	see page	511
Base mount	2 pc(s).	5501.300	5501.310	5501.320	5501.350	5501.310	524
Gland plates	1 pc(s).	5502.510	5502.530	5502.550	5502.570	–	528
Air baffle plates	1 pc(s).	5501.915	5501.915	5501.915	5501.915	5501.925	692
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	see page	7828.080	see page	see page	see page	613
Cable clamp rails	4 pc(s).	see page	7828.082	see page	see page	see page	669

Network/server enclosures TS IT

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

Units U	Packs of	47	47	47	47	47	Cat. 34, 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	
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	–	536
Side panels, divided	1 pc(s).	5501.060	5501.070	5501.050	5501.060	5501.070	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.010	5502.010	5502.020	5502.020	5502.020	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	see page	see page	8100.800	see page	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.602	8100.802	8100.802	8100.802	511
Base mount	2 pc(s).	5501.320	5501.350	5501.310	5501.320	5501.350	524
Gland plates	1 pc(s).	5502.540	5502.560	5502.530	5502.550	5502.570	529
Air baffle plates	1 pc(s).	5501.925	5501.925	5501.935	5501.935	5501.935	692
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	see page	see page	7828.080	see page	see page	613
Cable clamp rails	4 pc(s).	see page	see page	7828.082	see page	see page	669

New



LCP – Liquid Cooling Package

see Cat. 34, page 429



IT power Cat. 34, page 407 **IT cooling** Cat. 34, page 427 **IT monitoring** Cat. 34, page 445 **System accessories** Cat. 34, page 507

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

Load capacity of the 482.6 mm (19") mounting angles:

- 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 the siting type and location, the door opening 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	Cat. 34, 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	
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	536
Side panels, divided	1 pc(s).	–	–	–	–	5501.000	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.010	5502.020	5502.020	5502.010	5502.010	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	8100.600	8100.800	see page	8100.600	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.802	8100.802	8100.602	see page	511
Base mount	2 pc(s).	5501.300	5501.310	5501.320	5501.300	5501.310	524
Gland plates	1 pc(s).	–	5502.530	5502.550	–	–	529
Air baffle plates	1 pc(s).	5501.855	5501.865	5501.865	5501.875	5501.875	692
Cable route		–	–	–	–	–	672
C rails	4 pc(s).	7828.060	7828.080	see page	7828.060	see page	613
Cable clamp rails	4 pc(s).	7828.062	7828.082	see page	7828.062	see page	669

Network/server enclosures TS IT

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

Units U	Packs of	38	42	42	42	42	Cat. 34, 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	
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	–	536
Side panels, divided	1 pc(s).	5501.000	5501.010	5501.020	5501.030	5501.040	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.020	5502.010	5502.010	5502.010	5502.010	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	8100.800	8100.600	see page	see page	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.802	8100.602	see page	8100.602	8100.602	511
Base mount	2 pc(s).	5501.310	5501.300	5501.310	5501.320	5501.350	524
Gland plates	1 pc(s).	5502.530	–	–	5502.540	5502.560	529
Air baffle plates	1 pc(s).	5501.885	5501.905	5501.905	5501.905	5501.905	692
Cable route	1 pc(s).	–	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	7828.080	7828.060	see page	see page	see page	613
Cable clamp rails	4 pc(s).	7828.082	7828.062	see page	see page	see page	669

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

Units U	Packs of	42	42	42	42	47	Cat. 34, 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		345	545	745	745	545	
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	536
Side panels, divided	1 pc(s).	5501.010	5501.020	5501.030	5501.040	5501.050	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.010	5502.020	5502.020	5502.020	5502.010	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	see page	8100.800	see page	see page	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.802	8100.802	8100.802	8100.802	see page	511
Base mount	2 pc(s).	5501.300	5501.310	5501.320	5501.350	5501.310	524
Gland plates	1 pc(s).	5502.510	5502.530	5502.550	5502.570	–	528
Air baffle plates	1 pc(s).	5501.915	5501.915	5501.915	5501.915	5501.925	692
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	see page	7828.080	see page	see page	see page	613
Cable clamp rails	4 pc(s).	see page	7828.082	see page	see page	see page	669

Network/server enclosures TS IT

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

Units U	Packs of	47	47	47	47	47	Cat. 34, 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	
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	–	536
Side panels, divided	1 pc(s).	5501.060	5501.070	5501.050	5501.060	5501.070	536
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Fan mounting plates	1 pc(s).	5502.010	5502.010	5502.020	5502.020	5502.020	437
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	see page	see page	8100.800	see page	see page	511
Flex-Block trim panels, 100 mm, vented	2 pc(s).	8100.602	8100.602	8100.802	8100.802	8100.802	511
Base mount	2 pc(s).	5501.320	5501.350	5501.310	5501.320	5501.350	524
Gland plates	1 pc(s).	5502.540	5502.560	5502.530	5502.550	5502.570	529
Air baffle plates	1 pc(s).	5501.925	5501.925	5501.935	5501.935	5501.935	692
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	see page	see page	7828.080	see page	see page	613
Cable clamp rails	4 pc(s).	see page	see page	7828.082	see page	see page	669

New



PSM – MID measuring module

see Cat. 34, page 421

Network/server enclosures TS IT



IT power Cat. 34, page 407 **IT cooling** Cat. 34, page 427 **IT monitoring** Cat. 34, page 445 **System accessories** Cat. 34, page 507

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

Load capacity of the 482.6 mm (19") mounting angles:

- 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
 - Levelling feet (including base/plinth adaptor) 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 the siting type and location, the door opening 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	Cat. 34, 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	
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 plates	1 pc(s).	5502.010	5502.020	5502.020	5502.010	5502.010	437
Gland plates	1 pc(s).	–	5502.530	5502.550	–	–	529
Air baffle plates	1 pc(s).	5501.855	5501.865	5501.865	5501.875	5501.875	692
Cable route		–	–	–	–	–	672
C rails	4 pc(s).	7828.060	7828.080	see page	7828.060	see page	613
Cable clamp rails	4 pc(s).	7828.062	7828.082	see page	7828.062	see page	669

Network/server enclosures TS IT

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

Units U	Packs of	38	42	42	42	42	Cat. 34, 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	
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 plates	1 pc(s).	5502.020	5502.010	5502.010	5502.010	5502.010	437
Gland plates	1 pc(s).	5502.530	–	–	5502.540	5502.560	529
Air baffle plates	1 pc(s).	5501.885	5501.905	5501.905	5501.905	5501.905	692
Cable route	1 pc(s).	–	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	7828.080	7828.060	see page	see page	see page	613
Cable clamp rails	4 pc(s).	7828.082	7828.062	see page	see page	see page	669

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

Units U	Packs of	42	42	42	42	47	Cat. 34, 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		345	545	745	745	545	
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 plates	1 pc(s).	5502.010	5502.020	5502.020	5502.020	5502.010	437
Gland plates	1 pc(s).	5502.510	5502.530	5502.550	5502.570	–	528
Air baffle plates	1 pc(s).	5501.915	5501.915	5501.915	5501.915	5501.925	692
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	see page	7828.080	see page	see page	see page	613
Cable clamp rails	4 pc(s).	see page	7828.082	see page	see page	see page	669

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

Units U	Packs of	47	47	47	47	47	Cat. 34, 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	
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 plates	1 pc(s).	5502.010	5502.010	5502.020	5502.020	5502.020	437
Gland plates	1 pc(s).	5502.540	5502.560	5502.530	5502.550	5502.570	529
Air baffle plates	1 pc(s).	5501.925	5501.925	5501.935	5501.935	5501.935	692
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	see page	see page	7828.080	see page	see page	613
Cable clamp rails	4 pc(s).	see page	see page	7828.082	see page	see page	669

Network/server enclosures TS IT



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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

Load capacity of the 482.6 mm (19") mounting angles:

- 10000 N

Supply includes:

- TS 8 enclosure frame with doors and roof plate
- 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)
- Levelling feet incl. 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 the siting type and location, the door opening may vary for selected applications

Approvals:

- UL
- cUL

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

Units U	Packs of		Cat. 34, 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	
Model No.	1 pc(s).	5509.161	
Accessories			
Fan mounting plates	1 pc(s).	5502.020	437
Air baffle plates	1 pc(s).	5501.915	692
Cable route	1 pc(s).	5502.120	672
C rails		see page	613
Cable clamp rails		see page	669

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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

Load capacity of the 482.6 mm (19") mounting angles:

- 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)
- Levelling feet incl. 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 the siting type and location, the door opening 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	Cat. 34, Page
Width mm		800	
Height mm		2000	
Height including base/plinth mm		2100	
Depth mm		800	
Model No.	1 pc(s).	5507.170	
Accessories			
Fan mounting plates	1 pc(s).	5502.020	437
Cable route	1 pc(s).	5502.120	672
C rails	4 pc(s).	7828.080	613
Cable clamp rails	4 pc(s).	7828.082	669
Slide rails	2 pc(s).	7063.000	
Swing frame stay	5 pc(s).	1979.200	681
Ergoform-S lock system	1 pc(s).	2435.000	568

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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

Load capacity of the 482.6 mm (19") mounting angles:

- 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 the siting type and location, the door opening 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	Cat. 34, 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	
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	534
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	8100.600	8100.800	see page	8100.600	see page	511
Air baffle plates	1 pc(s).	5501.855	5501.865	5501.865	5501.875	5501.875	692
Cable route		–	–	–	–	–	
C rails	4 pc(s).	7828.060	7828.080	see page	7828.060	see page	613
Cable clamp rails	4 pc(s).	7828.062	7828.082	see page	7828.062	see page	669

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

Units U	Packs of	38	42	42	42	42	Cat. 34, 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	
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	–	534
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	8100.800	8100.600	see page	see page	see page	511
Air baffle plates	1 pc(s).	5501.885	5501.905	5501.905	5501.905	5501.905	692
Cable route	1 pc(s).	–	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	7828.080	7828.060	see page	see page	see page	613
Cable clamp rails	4 pc(s).	7828.082	7828.062	see page	see page	see page	669

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

Units U	Packs of	42	42	42	42	47	Cat. 34, 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		345	545	745	745	545	
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	534
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	see page	8100.800	see page	see page	see page	511
Air baffle plates	1 pc(s).	5501.915	5501.915	5501.915	5501.915	5501.925	692
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	see page	7828.080	see page	see page	see page	613
Cable clamp rails	4 pc(s).	see page	7828.082	see page	see page	see page	669

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

Units U	Packs of	47	47	47	47	47	Cat. 34, 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	
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	–	–	534
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	see page	see page	8100.800	see page	see page	511
Air baffle plates	1 pc(s).	5501.925	5501.925	5501.935	5501.935	5501.935	692
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	5502.120	672
C rails	4 pc(s).	see page	see page	7828.080	see page	see page	613
Cable clamp rails	4 pc(s).	see page	see page	7828.082	see page	see page	669

Network/server enclosures TS IT



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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 the siting type and location, the door opening 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	600	600	600	Cat. 34, Page
Height mm		800	1200	1800	2000	1800	
Depth mm		600	600	600	600	800	
Model No.	1 pc(s).	5525.790	5526.790	5527.790	5529.790	5528.790	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s).	8173.235	8170.235	8186.235	8106.235	8188.235	534
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	8800.490	544
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	8100.600	8100.600	8100.600	8100.600	see page	511
Cable route	1 pc(s).	–	–	–	5502.120	–	672
C rails	4 pc(s).	7828.060	7828.060	7828.060	7828.060	see page	613
Cable clamp rails	4 pc(s).	7828.062	7828.062	7828.062	7828.062	see page	669
Component shelf for frame attachment	1 pc(s).	7165.035	7165.035	7165.035	7165.035	7166.735	627

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with glazed door, IP 55, empty enclosure

Width mm	Packs of	600	600	600	600	Cat. 34, Page
Height mm		2000	2200	2000	2200	
Depth mm		800	800	1000	1000	
Model No.	1 pc(s).	5530.790	5531.790	5508.790	5513.790	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s).	8108.235	8128.235	8100.235	–	534
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	544
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed		see page	see page	see page	see page	511
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	672
C rails		see page	see page	see page	see page	613
Cable clamp rails		see page	see page	see page	see page	669
Component shelf for frame attachment	1 pc(s).	7166.735	7166.735	7166.735	7166.735	627

with glazed door, IP 55, empty enclosure

Width mm	Packs of	600	600	800	800	Cat. 34, Page
Height mm		2000	2200	2000	1200	
Depth mm		1200	1200	600	800	
Model No.	1 pc(s).	5510.790	5515.790	5506.790	5503.790	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s).	–	–	8106.235	8175.235	534
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	544
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	see page	see page	see page	8100.800	511
Cable route	1 pc(s).	5502.120	5502.120	5502.120	–	672
C rails	4 pc(s).	see page	see page	see page	7828.080	613
Cable clamp rails	4 pc(s).	see page	see page	see page	7828.082	669
Component shelf for frame attachment	1 pc(s).	7166.735	7166.735	7185.035	7186.735	627

with glazed door, IP 55, empty enclosure

Width mm	Packs of	800	800	800	800	Cat. 34, Page
Height mm		1800	2000	2200	1200	
Depth mm		800	800	800	1000	
Model No.	1 pc(s).	5505.790	5507.790	5512.790	5504.790	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s).	8188.235	8108.235	8128.235	8176.235	534
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	544
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed	2 pc(s).	8100.800	8100.800	8100.800	see page	511
Cable route	1 pc(s).	–	5502.120	5502.120	–	672
C rails	4 pc(s).	7828.080	7828.080	7828.080	see page	613
Cable clamp rails	4 pc(s).	7828.082	7828.082	7828.082	see page	669
Component shelf for frame attachment	1 pc(s).	7186.735	7186.735	7186.735	7186.735	627

with glazed door, IP 55, empty enclosure

Width mm	Packs of	800	800	800	800	Cat. 34, Page
Height mm		2000	2200	2000	2200	
Depth mm		1000	1000	1200	1200	
Model No.	1 pc(s).	5509.790	5514.790	5511.790	5516.790	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s).	8100.235	–	–	–	534
Baying connector, external	6 pc(s).	8800.490	8800.490	8800.490	8800.490	544
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	8100.000	8100.000	8100.000	511
Flex-Block trim panels, 100 mm, sealed		see page	see page	see page	see page	511
Cable route	1 pc(s).	5502.120	5502.120	5502.120	5502.120	672
C rails		see page	see page	see page	see page	613
Cable clamp rails		see page	see page	see page	see page	669
Component shelf for frame attachment	1 pc(s).	7186.735	7186.735	7186.735	7186.735	627

PC enclosure systems



Monitors, keyboards Cat. 34, page 706 **Climate control** Cat. 34, page 307 **PC enclosure system, stainless steel** Cat. 34, page 187

For the use of monitors up to 24"

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
- Sheet steel
- Handles, decorative trim panels: Plastic
- Door trim panels: Aluminium

Surface finish:

- Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint

Colour:

- Enclosure, door, decorative trim panels: RAL 7035
- Handle: Similar to RAL 9006
- Central door section: 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

Technical details:

Available on the Internet

Width 800 mm

			
Width mm	Packs of	800	Cat. 34, Page
Height mm		1600	
Depth mm		636	
Material		Mounting compartment, support: Sheet steel Viewing window: Single-pane safety glass	
Surface finish		Mounting compartment, support: powder-coated	
Product-specific scope of supply			
Glazed door, top		■	
Keyboard drawer		■	
Component shelf		■	
Model No.	1 pc(s).	5386.000	
Max. keyboard dimensions (WxHxD) mm		480 x 70 x 260	
Weight kg		117.6	
Accessories			
Base/plinth components, front and rear, 100 mm	2 pc(s).	8601.800	513
Base/plinth trim panels, side, 100 mm	2 pc(s).	8601.060	514
Base/plinth components, front and rear, 200 mm	2 pc(s).	8602.800	513
Base/plinth trim panels, side, 200 mm	2 pc(s).	8602.060	514
Flex-Block corner pieces, 100 mm	4 pc(s).	8100.000	511
Flex-Block trim panels, 100 mm, sealed		see page	511
Flex-Block corner pieces, 200 mm	4 pc(s).	8200.000	511
Flex-Block trim panels, 200 mm, sealed		see page	511
Partial mounting plates	1 pc(s).	8614.880	596
Paper removal flap	1 pc(s).	6903.200	713
Socket strips		see page	422
Comfort handle		see page	561

Support section CP 60

Open

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. Open cable duct for easy servicing access and for pre-assembled cables with connectors; lockable via cover section.

Material:

- Support section: Extruded aluminium section
- Clamping elements: Steel

Colour:

- Support section: RAL 7035
- Cover: RAL 7024

Supply includes:

- Support section
- Clamping elements for stability
- Clip-in lid

Length mm	Weight kg	Packs of	Model No.
1000	5.2	1 pc(s).	6206.110



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

Material:

- Steel

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



Intermediate hinge CP 120

without height offset

For vertically hinged connection of horizontal support sections within the support arm system.

Material:

- Intermediate hinge: Cast steel
- Concertina section: Plastic

Colour:

- Intermediate hinge: RAL 7035
- Concertina section: RAL 7024

Rotation range:

- approx. 180°
- Adjustable to a limited extent by means of 2 slotted steel discs

Supply includes:

- Seals
- Concertina section
- Slotted discs and screws for restricting rotation range
- Adjusting screws
- Self-tapping screws for support section attachment

Rotating/tilting	Packs of	Model No.
■	1 pc(s).	6212.680



System accessories



Wall-mounted hinge CP 120

Horizontal outlet, without height offset

For swivel mounting of the support arm on vertical surfaces.

Material:

- Wall-mounted hinge: Cast steel
- Concertina section: Plastic

Colour:

- Wall-mounted hinge: RAL 7035
- Concertina section: RAL 7024

Rotation range:

- approx. 180°
- Adjustable to a limited extent by means of 2 slotted steel discs

Supply includes:

- Seals
- Concertina section
- Screws for restricting rotation range
- Adjusting screws
- Self-tapping screws for support section attachment

Rotating/tilting	Packs of	Model No.
■	1 pc(s).	6212.780



Coupling CP 180

for support arm connection Ø 130 mm

For swivel mounting the enclosure on the vertical section of the support arm system CP 180.

Material:

- Die-cast zinc

Colour:

- RAL 7035

Rotation range:

- approx. 310°, lockable via clamping levers
- The range of rotation can be limited by inserting the grub screws provided

Supply includes:

- Seals
- Grub screws
- Self-tapping screws for support section attachment

Weight kg	Rotating/tilting	Packs of	Model No.
5.3	■	1 pc(s).	6218.300



Pivot

with/without jib

For direct, vertically hinged integration into machines and systems.

Applications:

- Enclosure suspended or top-mounted

Benefits:

- With integral rotation range restricter

Installation options:

- To fit enclosures with support arm connection Ø 130 mm

Load capacity:

- 700 N

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



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:

- For connecting an operating housing to
- 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:

- Natural anodised

Supply includes:

- Adaptor for IP compartmentalisation
- Seals
- Assembly screws

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



Keyboard support

for command panels or surfaces

Benefits:

- Adjustable to different keyboard depths via a simple slide function
- Connection to operating housings 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:

- Operating housing with handle strips
- Operating housing 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

Supply includes:

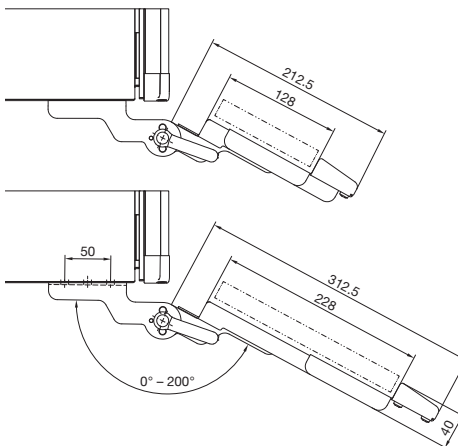
- Support fully preassembled
- Nylon tape for attaching the keyboard
- Assembly parts

Width mm	Weight kg	Packs of	Model No.
430	3.0	1 pc(s).	6321.010



Accessories:

- Support for mousepad, vertically hinged, see Catalogue 34, page 713



System accessories



Flex-Block trim panels, 100 mm, with brush strip

for Flex-Block corner pieces

For easy entry and exit of cables. 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

Height 100 mm

For enclosure width/depth mm	Packs of	Model No.
1000	2 pc(s).	8100.105
1200	2 pc(s).	8100.125
600	2 pc(s).	8100.605
800	2 pc(s).	8100.805



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. This ensures the 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 Catalogue 34, page 524



Accessories:

- Filter mat, see page 34



Filter mat

for gland plate, one-piece, vented

The filter mat is easily 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

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:

- Chromium-free passivated

Supply includes:

- 1 rail
- 2 retaining brackets
- Assembly parts

Technical details:

Available on the Internet

For enclosure width mm	Packs of	Model No.
600	1 pc(s).	2388.650
800	1 pc(s).	2388.850
1000	1 pc(s).	2388.050
1200	1 pc(s).	2388.125



Also required:

- EMC shielding bracket, see Catalogue 34, page 641
- Cable clamps, see Catalogue 34, page 666



Accessories:

- Bracket/spacer, see Catalogue 34, page 621
- Quick-assembly block, see Catalogue 34, page 621
- Angle piece, see Catalogue 34, page 621
- Earth straps, see Catalogue 34, page 644
- Earthing strap, see Catalogue 34, page 644



Possible alternative:

- C rails 30/15, see Catalogue 34, page 612



System 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 plate
- Baying can even be achieved on sloping floors, thanks to a large levelling range of 55 mm
- Designed to EHEDG regulations, including certification

Material:

- Stainless steel 1.4301 (AISI 304)

Load capacity:

- Max. 7000 N static per levelling foot

Supply includes:

- Assembly parts and seals

Design	Thread		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



Mounting angles additional fastening attachment

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



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

Note:

- Use baying connector TS 8800.490. Not suitable for use in conjunction with a baying seal. Any seals that may be present must be removed prior to installation.

For enclosure height mm	For enclosure depth mm	Model No.
2200	1000	7831.725



Accessories:

- Baying connector, external, see Catalogue 34, page 544

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

Width:

- 482.6 mm

Material:

- Plastic

Colour:

- RAL 9005

Supply includes:

- 3 U blanking panel with integral quick-fastening

Packs of	Model No.
3 pc(s).	7151.305



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

Material:

- Die-cast zinc

Surface finish:

- Powder-coated

Colour:

- RAL 7035

Note:

- Only for use with VW, Audi, SEAT, SkodaAuto
- Supplied without key

For enclosure width mm	For enclosure height mm	Packs of	Model No.
≥ 300	≥ 380	1 pc(s).	2537.045



Corrosion protection primer

Single-component primers are ideal to protect against corrosion in areas where the paint has been removed due to cut-outs or similar. This serves to re-create corrosion resistance in the paint-free area. 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
- May be stored for up to 2 years

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



Rittal – The System.

Faster – better – everywhere.



ENCLOSURE

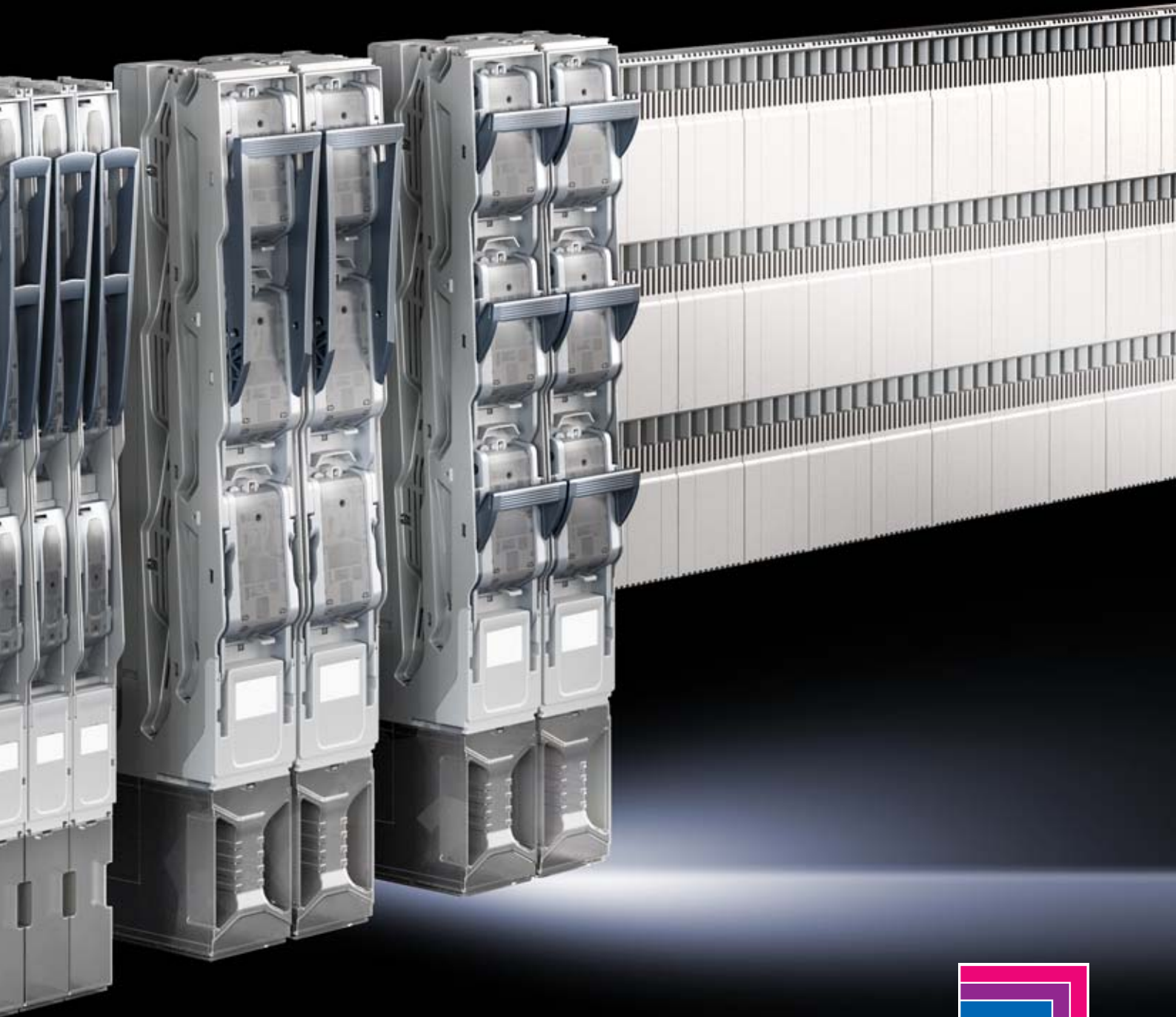
POWER DISTRIBUTION

CLIMATE CONTROL

FRIEDHELM LOH GROUP

The system – Simply secure

With due regard for financial aspects and the requirements of the current standard IEC 61439-1, the new Ri4Power busbar system with 185 mm bar centre distance is ideal for configuring a compact, secure power distributor system.



IT INFRASTRUCTURE

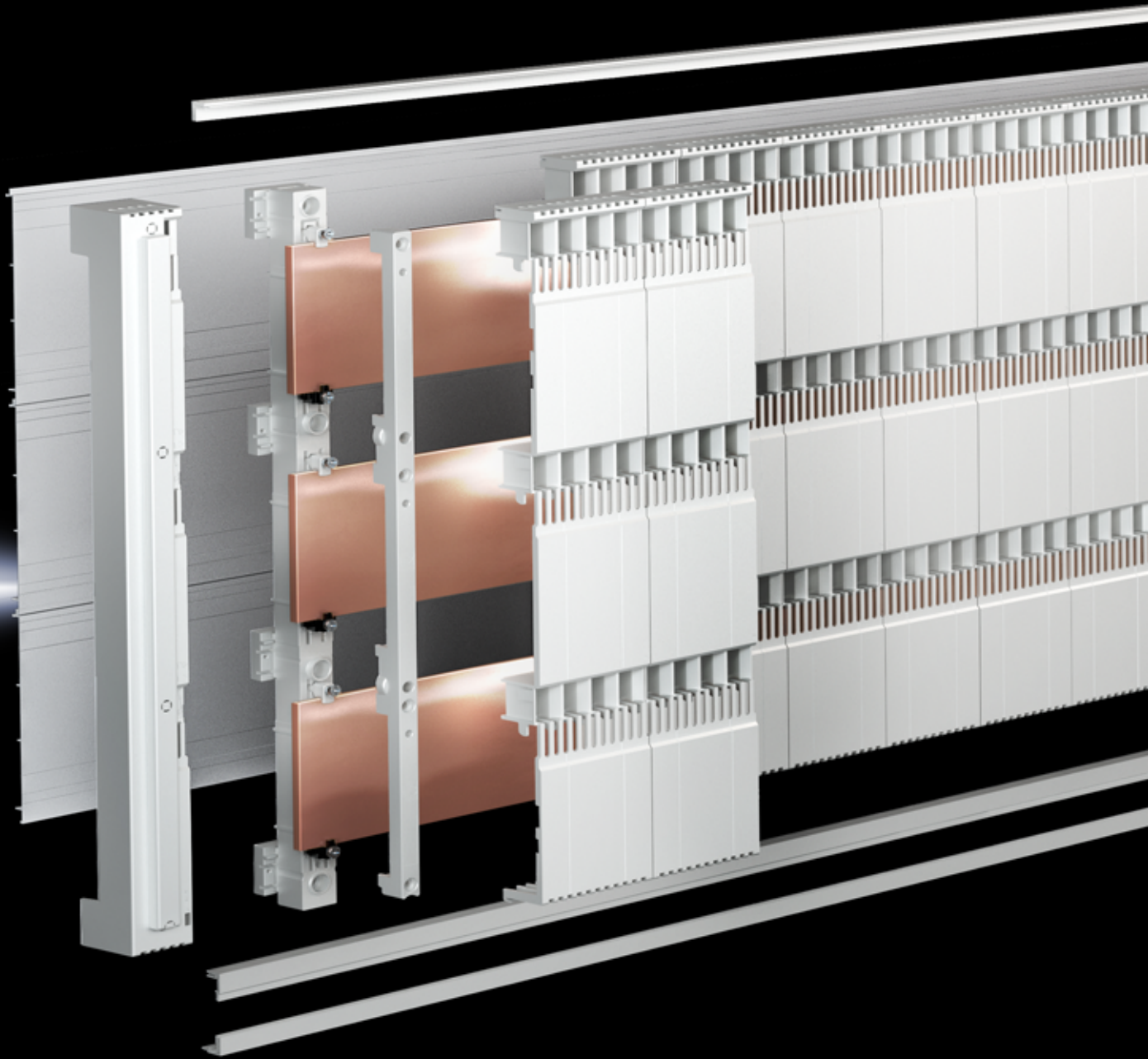
SOFTWARE & SERVICES



The system assembly – No drilling required

The busbar system may be 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 place



Busbar support

- 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 currents of the busbars up to 1600 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 width



The form-fit connection system

Component adaptor for the safe use of standard compact air circuit-breakers from a range of manufacturers.

- For circuit-breakers from 800 A to 1600 A
- User-friendly connection system
- Optimum contact hazard protection



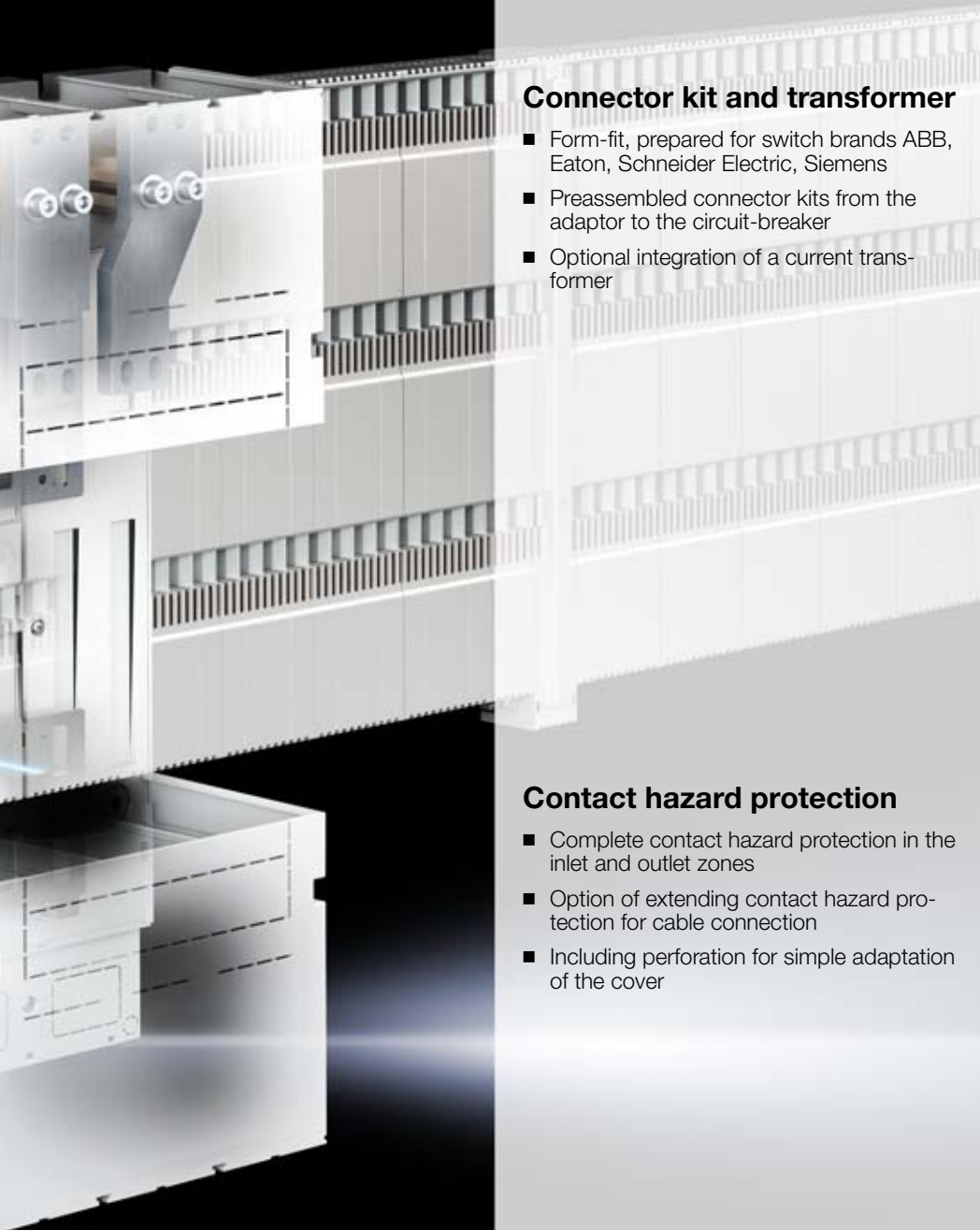
Component adaptors for compact circuit-breakers

- 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 circuit-breaker
- Optional integration of a current transformer



Contact hazard protection

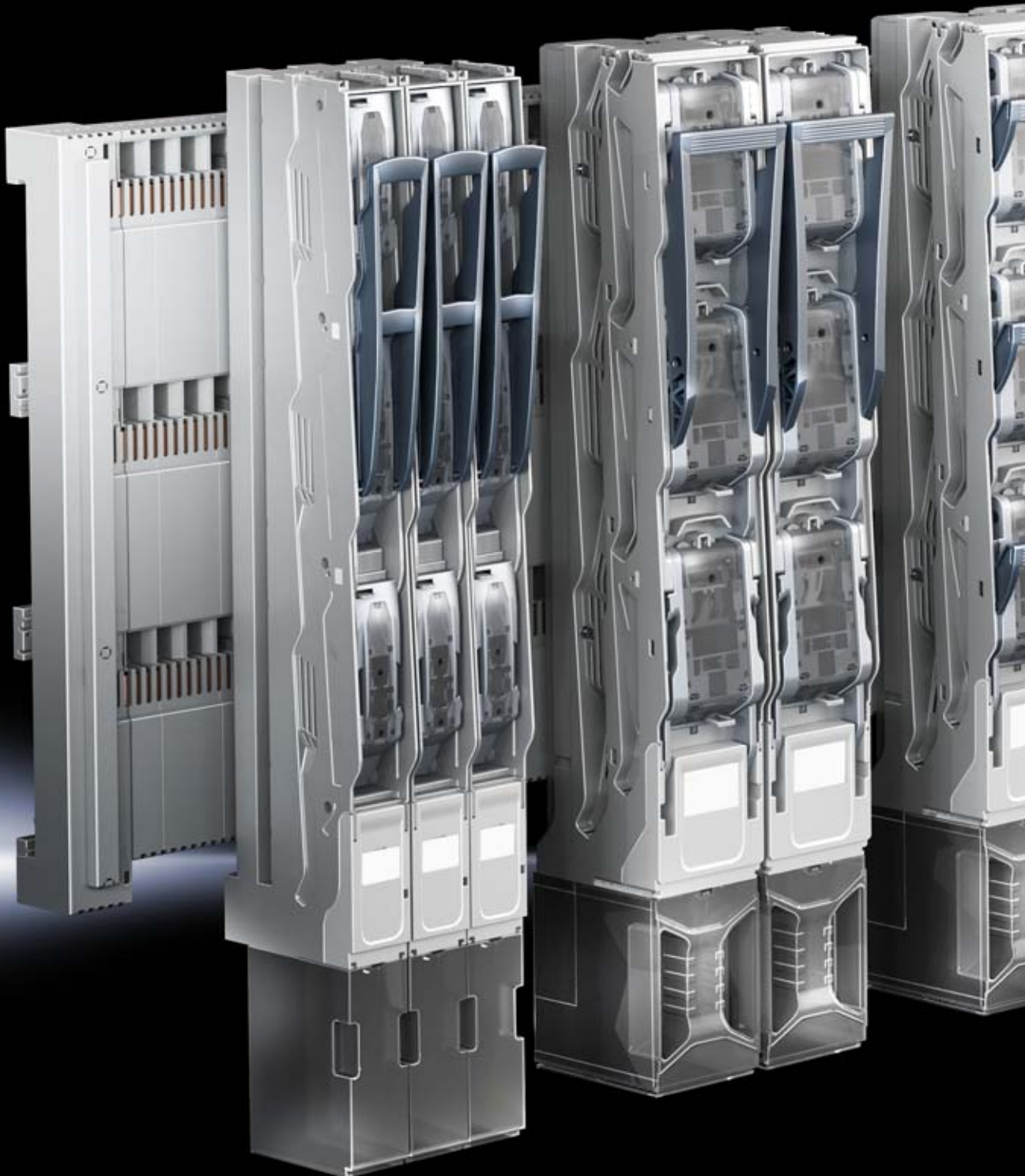
- Complete contact hazard protection in the inlet and outlet zones
- Option of extending contact hazard protection for cable connection
- Including perforation for simple adaptation of the cover



Fuse elements to suit all situations

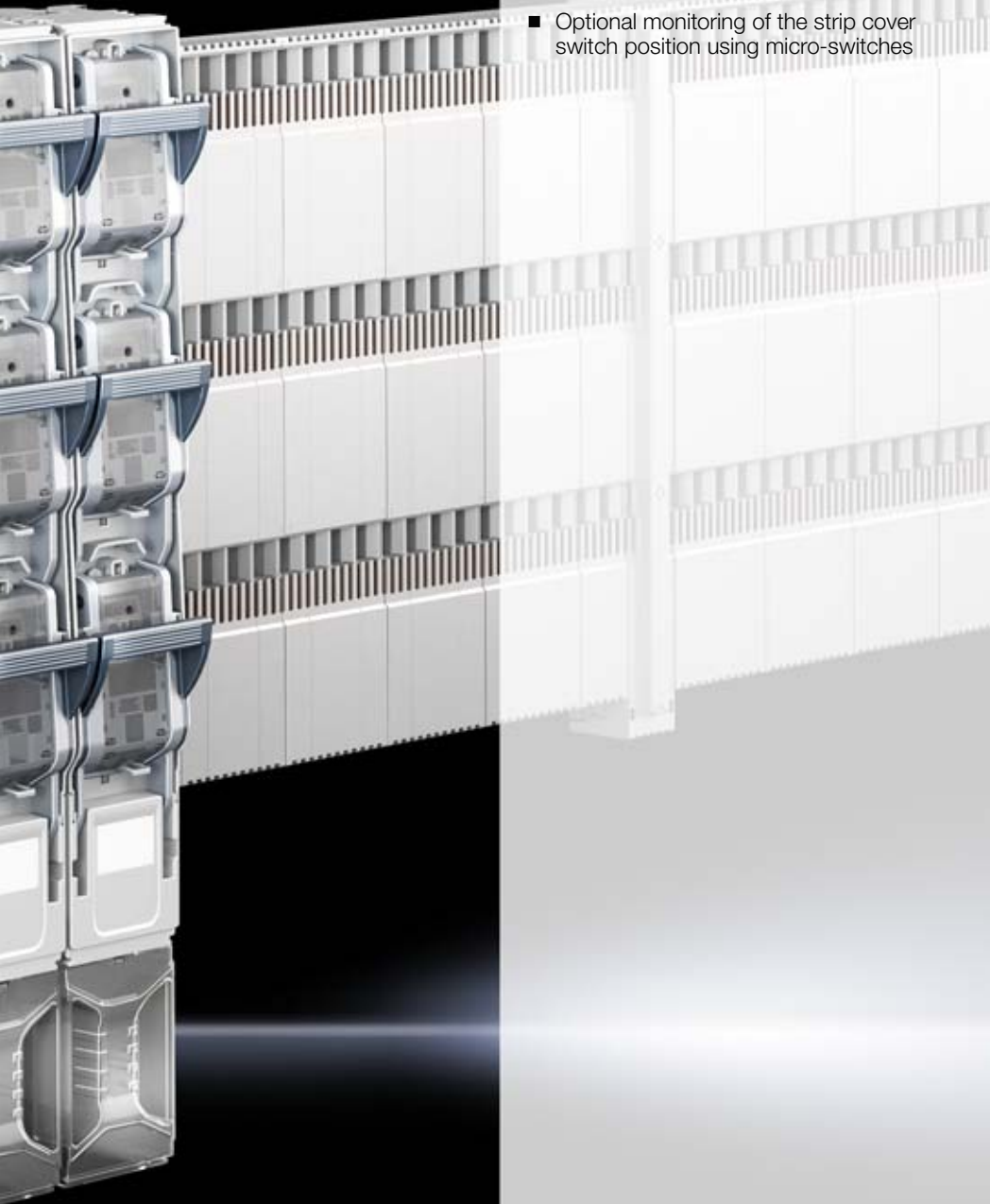
The new system of NH slimline fuse-switch disconnectors is based on separate air routing for heat dissipation, and targeted removal of switching gases.

- Simple device assembly
- Single-pole or 3-pole, switchable
- Optimum contact hazard protection

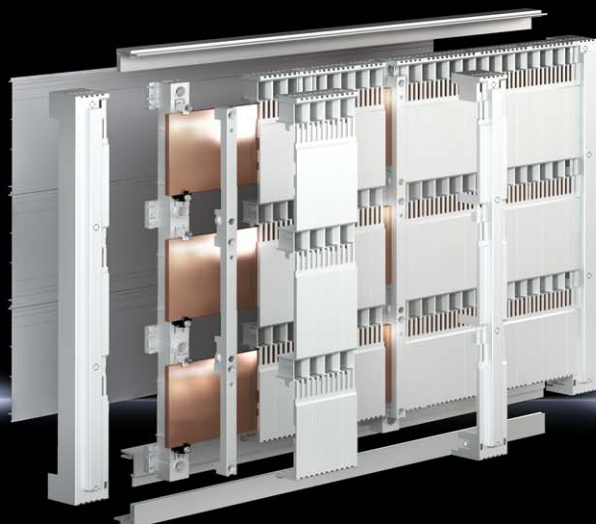


NH slimline fuse-switch disconnectors, sizes 00 to 3

- Single-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
- Multiple sealing and locking options with shackle locks
- 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 monitoring of the strip cover switch position using micro-switches



Busbar support (185 mm)



Component adaptor Page 48 **NH slimline fuse-switch disconnectors** Page 50

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	47
Contact hazard protection cover		see page	54
End covers	2 pc(s).	9677.600	53

Busbar system (185 mm)

Busbar support

Note:

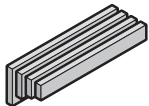
Required quantity for use in enclosure width

– 600/800 mm: 2 pc(s).

– 1000/1200 mm: 3 pc(s).

Number of poles	Packs of	3-pole	Page
Bar centre distance mm		185	
Model No.	2 pc(s).	9677.500	46


Busbars E-Cu, length: 2400 mm/bar

	Dimensions mm	Packs of	Model No.	Cat. 34, page
	40 x 10	3 pc(s).	3587.000	252
	60 x 10	2 pc(s).	3589.005	252
	80 x 10	1 pc(s).	3590.005	252
	100 x 10	1 pc(s).	3590.015	252
	120 x 10	1 pc(s).	3590.020	

Accessories

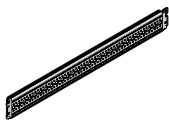
Busbar connector		see page	53
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System attachment

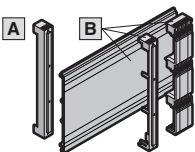
	For enclosure width mm	Packs of	Model No.	Page
	600	1 pc(s).	9677.510	53
	800	1 pc(s).	9677.520	53
	1000	1 pc(s).	9677.530	53
	1200	1 pc(s).	9677.540	53

Also required

TS punched section w. mounting flange, 17 x 73 m

	For enclosure depth mm	Packs of	Model No.	Cat. 34, page
	500	4 pc(s).	8612.150	606
	600	4 pc(s).	8612.160	606
	800	4 pc(s).	8612.180	606

Contact hazard protection

	Components	For enclosure width mm	Packs of	Model No.	Page
	A End covers l/r	–	2 pc(s).	9677.600	53
	B Cover plate, contact hazard protection (cover section, base tray, trim section)	600	1 pc(s).	9677.550	54
		800	1 pc(s).	9677.560	54
		1000	1 pc(s).	9677.570	54
		1200	1 pc(s).	9677.580	54

Component adaptor



Busbar system Page 46 **NH slimline fuse-switch disconnectors** Page 50

Material:

- Polyamide (PA 6.6)
- Fire protection corresponding to UL 94-V0

Colour:

- RAL 7035

Note:

- For mounting on busbar systems with or without cover section
- Suitable for the use of switchgear with front screw terminal
- Cable outlet: Switch outlet or as outgoing cable from the switchgear

Rated current max. 1000 – 1600 A, Clamping attachment

Rated current max. A	Packs of	1000	1600	Page
Rated operating voltage V, ~		690, 3~	690, 3~	
Number of poles		3-pole	3-pole	
Installation type		Clamping attachment	Clamping attachment	
Cable outlet		Bottom	Bottom	
For switchgear make (model)		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)	
For bar systems with centre-to-centre spacing mm		185	185	
For bar thickness mm		10	10	
Model No.	1 pc(s).	9677.700	9677.710	
Also required				
Connector kit		see page	see page	54
Contact hazard protection cover	1 pc(s).	9677.790	9677.790	55



Busbar system Page 46 **NH slimline fuse-switch disconnectors** Page 50

Material:

- Polyamide (PA 6.6)
- Fire protection corresponding to UL 94-V0

Colour:

- RAL 7035

Note:

- For attaching to busbars with holes. Please ensure that there is no cover section installed in the vicinity of the device.
- Suitable for the use of switchgear with front screw terminal
- Cable outlet: Switch outlet or as outgoing cable from the switchgear

Rated current max. 1000 – 1600 A, Screw attachment

Rated current max. A	Packs of	1000	1600	Page
Rated operating voltage V, ~		690, 3~	690, 3~	
Number of poles		3-pole	3-pole	
Installation type		Screw attachment	Screw attachment	
Cable outlet		Bottom	Bottom	
For switchgear make (model)		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)	
For bar systems with centre-to-centre spacing mm		185	185	
For bar thickness mm		10	10	
Model No.	1 pc(s).	9677.705	9677.715	
Also required				
Connector kit		see page	see page	54
Contact hazard protection cover	1 pc(s).	9677.790	9677.790	55

NH slimline fuse-switch disconnectors, sizes 00 to 3



Busbar system Page 46 **Component adaptor** Page 48

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 NH slimline fuse-switch disconnectors 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	
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	55
Contact terminal	3 pc(s).	9677.450	9677.460	9677.460	9677.460	55
Busbar terminal	3 pc(s).	9677.470	9677.480	9677.480	9677.480	56
Prism terminal	3 pc(s).	9677.420	–	–	–	56
V connection terminal	3 pc(s).	–	9677.430	9677.430	9677.440	56
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	3071.000	Cat. 34, 263
Current converter	1 pc(s).	9677.810	see page	see page	see page	57

NH slimline fuse-switch disconnectors, sizes 00 to 3

Size 00 – 2, Design 3-pole, switchable

Size	Packs of	00	00	1	2	Page
Twin track		–	–	–	–	
Rated operating current max. A		160	160	250	400	
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	Box terminal	Bolt M12	Bolt M12	
Connection of round conductors mm ²		1.5 - 95	1.5 - 95	6 - 240	6 - 240	
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).	9677.000	9677.025	9677.100	9677.200	
Accessories						
Connection space cover	1 pc(s).	see page	see page	9677.410	9677.410	55
Contact terminal	3 pc(s).	9677.450	9677.450	9677.460	9677.460	55
Busbar terminal	3 pc(s).	9677.470	9677.470	9677.480	9677.480	56
Prism terminal	3 pc(s).	9677.420	–	–	–	56
V connection terminal	3 pc(s).	–	–	9677.430	9677.430	56
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	3071.000	Cat. 34, 263
Current converter	1 pc(s).	9677.810	9677.810	see page	see page	57

Size 3, Design 3-pole, switchable

Size	Packs of	3	3	3	Page
Twin track		–	■	–	
Rated operating current max. A		630	1250	910	
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		Bolt M12	Bolt M12	Bolt M12	
Connection of round conductors mm ²		6 - 240	6 - 240	6 - 240	
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	Special design	
Model No.	1 pc(s).	9677.300	9677.340	9677.350	
Accessories					
Connection space cover	1 pc(s).	9677.410	9677.410	9677.410	55
Contact terminal	3 pc(s).	9677.460	9677.460	9677.460	55
Busbar terminal	3 pc(s).	9677.480	9677.480	9677.480	56
Prism terminal		–	–	–	56
V connection terminal	3 pc(s).	9677.440	9677.440	9677.440	56
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	Cat. 34, 263
Current converter		see page	see page	see page	57

NH slimline fuse-switch disconnectors, sizes 00 to 3



Busbar system Page 46 **Component adaptor** Page 48

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 NH slimline fuse-switch disconnectors 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	
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	55
Contact terminal	3 pc(s).	9677.450	9677.460	9677.460	9677.460	55
Busbar terminal	3 pc(s).	9677.470	9677.480	9677.480	9677.480	56
Prism terminal	3 pc(s).	9677.420	–	–	–	56
V connection terminal	3 pc(s).	–	9677.430	9677.430	9677.440	56
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	3071.000	Cat. 34, 263
Current converter	1 pc(s).	9677.810	see page	see page	see page	57

System attachment

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 square 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

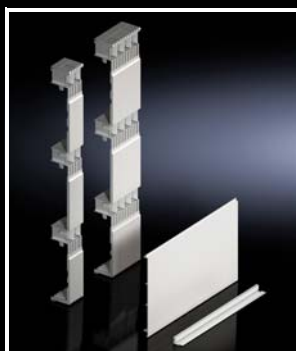
Supply includes:

- 1 end cover, left
- 1 end cover, right

To fit Model No.	Packs of	Model No.
9677.500	2 pc(s).	9677.600



Accessories



Contact hazard protection cover

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	600	800	1000	1200
Product-specific scope of supply	–	–	Centre cover for busbar support	Centre cover for busbar support
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Model No.	9677.550	9677.560	9677.570	9677.580



Contact hazard protection cover

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

To fit Model No.	Packs of	Model No.
9677.610/9677.620	1 pc(s).	9677.640



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

To fit Model No.	For switchgear make (model)	Packs of	Model No.
9677.700/9677.705	ABB (Tmax T7 - 800 A/1000 A) Schneider Electric (NS - 800 A/1000 A)	1 pc(s).	9677.730
9677.700/9677.705	Eaton (NZM4 - 800 A/1000 A) Siemens (VL1250/3VL7 - 1000 A)	1 pc(s).	9677.740
9677.710/9677.715	ABB (Tmax T7 - 1250 A/1600 A) Schneider Electric (NS - 1250 A/1600 A)	1 pc(s).	9677.750
9677.710/9677.715	Eaton (NZM4 - 1250 A/1600 A) Siemens (VL1250/3VL7 - 1250 A, VL1600/VL8 - 1600 A)	1 pc(s).	9677.760

Contact hazard protection cover

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

To fit Model No.	Packs of	Model No.
9677.700/9677.705/ 9677.710/9677.715	1 pc(s).	9677.790



Connection space cover

for NH slimline fuse-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	Packs of	Model No.
00	9677.000/ 9677.010/ 9677.015/ 9677.025	Bottom	1 pc(s).	9677.400
00	9677.000/ 9677.010/ 9677.015/ 9677.025	Top	1 pc(s).	9677.405
1 - 3	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.350	Top/ bottom	1 pc(s).	9677.410



Contact terminal

for NH slimline fuse-switch disconnectors

For mounting NH slimline fuse-switch disconnectors 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	To fit Model No.	Packs of	Model No.
00	9677.000/ 9677.010/ 9677.015/ 9677.025	3 pc(s).	9677.450
1 - 3	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340/ 9677.350	3 pc(s).	9677.460



Accessories



Busbar terminal

for NH slimline fuse-switch disconnectors

For mounting NH slimline fuse-switch disconnectors 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	To fit Model No.	Packs of	Model No.
00	9677.000/ 9677.010/ 9677.015/ 9677.025	3 pc(s).	9677.470
1 - 3	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340/ 9677.350	3 pc(s).	9677.480



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 mm ²	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 mm ²	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/ 9677.340/ 9677.350	120 - 400	3 pc(s).	9677.440

Current converter

for NH slimline fuse-switch disconnectors

Compact design without altering the installation depth via mechanical integration into the NH slimline fuse-switch disconnecter (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	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340/ 9677.350	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340/ 9677.350	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340/ 9677.350	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340/ 9677.350
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
Type of connection	Screw terminals	Round conductor 2.5 mm ² (length 1.5 m)	Round conductor 2.5 mm ² (length 1.5 m)	Round conductor 2.5 mm ² (length 1.5 m)	Round conductor 2.5 mm ² (length 1.5 m)
Connection of round conductors mm ²	2.5 - 4	–	–	–	–
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



OM adaptors



Busbar system Cat. 34, page 212

Material:

- Polyamide (PA 6.6)
- Fire protection corresponding to UL 94-V0

Colour:

- Chassis: RAL 7035

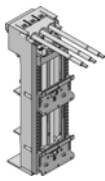
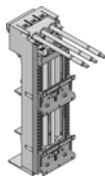
Note:

- The technical data may vary for UL applications

Technical details:

Available on the Internet

Rated current max. 16 – 32 A, with connection cables

				
Rated current max. A	Packs of	16	32	Cat. 34, Page
Rated operating voltage V, ~		690, 3~	690, 3~	
Number of poles		3-pole	3-pole	
Connection cables, Design		AWG 12	AWG 10	
Connection cables, Length mm		165	165	
With support frame mm		45 x 170	45 x 170	
Support rails Qty/height mm		2 / 10	2 / 10	
Support rail version		TS 45D TS 45D-V	TS 45D TS 45D-V	
Width mm		45	45	
Height mm		208	208	
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	9340.790	
Accessories				
Connection pin	20 pc(s).	9340.280	9340.280	260
Insert strip	2 pc(s).	9340.290	9340.290	259
Support rails 35 x 10 mm		see page	see page	259
OM supports		see page	see page	225
PinBlock	5 pc(s).	9342.800	9342.800	260



Busbar system Cat. 34, page 212

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	
For bar systems with centre-to-centre spacing mm		60	
For bar thickness mm		5 10	
Model No.	4 pc(s).	9345.040	



Functional space side panel modules

for internal compartmentalisation

Side divider panel for compartments, for locating into the TS pitch pattern. Prepared for the location of mounting brackets for horizontal functional space dividers or mounting plates. Two TS system punchings allow the use of additional TS accessories. The side panel modules for reduced functional space 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:

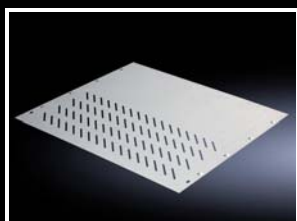
- Assembly parts



Accessories:

- Gland plates, see Cat. 34, page 284

Height mm	For functional space depth mm	With prepunched knockouts for M40 cable entries	With prepunched knockouts for gland plate, for cable entries	Packs of	Model No.
100	400	2	–	6 pc(s).	9673.041
150	400	–	2	6 pc(s).	9673.045
200	400	–	2	6 pc(s).	9673.042
300	400	–	1	2 pc(s).	9673.043
400	400	–	1	2 pc(s).	9673.044
600	400	–	3	2 pc(s).	9673.046



Functional space 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.

Material:

- Sheet steel, 1.25 mm

Surface finish:

- Zinc-plated



Also required:

- Mounting bracket, see page 61



Assembly instruction:

- 2 mounting brackets are required to install each compartment divider

Design with louvres

Width mm	Depth mm	For enclosure width mm	For functional space depth mm	Packs of	Model No.
306	370	400	400	4 pc(s).	9673.443
506	370	600	400	4 pc(s).	9673.463
706	370	800	400	4 pc(s).	9673.483

Mounting bracket

for functional space 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 functional space dividers.

Material:

- Sheet steel, 1.5 mm

Surface finish:

- Zinc-plated

Supply includes:

- Assembly parts

For functional space depth mm	Length mm	Packs of	Model No.
400	352	8 pc(s).	9673.404



Contact hazard protection cover

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 9349.160/9359.160.

Technical details:

Available on the Internet

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 61



Blanking cover

To cover free NH slimline fuse-switch disconnector slots.

Material:

- Sheet steel, 1.5 mm

Surface finish:

- Zinc-plated

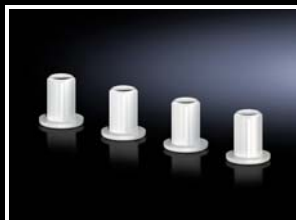
Supply includes:

- 2 cover brackets
- Assembly parts

Width mm	Packs of	Model No.
50	2 pc(s).	9674.905



Ri4Power accessories



Pressure stoppers

for roof plates, for pressure relief

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 arcing to IEC/TR 61641.

Material:

- Polyamide (PA 6.6)

Supply includes:

- 2 warning stickers

Note:

- 2 pressure stoppers and 1 warning sticker are required for one roof plate
- The arcing compliance limits are dependent on the busbar system used. For system data, please refer to Technical Details.

Packs of	Model No.
4 pc(s).	9674.790

Technical details:

Available on the Internet



Heavy current busbar systems for use on board ships



The busbar systems RiLine, Maxi-PLS and Flat-PLS have successfully passed the environmental test on "Vibration", satisfying the requirement of 0.7 g in the frequency range 5 – 100 Hz.

As such, these busbar systems and related components now have the required documentation for:

- Short-circuit resistance
 - Temperature rise
 - Dielectric strength
 - Thermal resistance
 - Use under vibration conditions
- and may be used on board ships in designated sealed areas, such as engine rooms, subject to observance of the required technical characteristics and the valid technical regulations.

Approvals for the following:

- Lloyds Register (LR)
 - Germanischer Lloyd (GL)
 - Det Norske Veritas (DNV)
 - American Bureau of Shipping (ABS)
- have been applied for. Design type approvals for these will make use of the busbar components in maritime applications much easier.



RiLine

U_e = up to 690 V AC, up to 1500 V DC
 U_i = up to 1000 V
 U_{imp} = up to 8 kV
 I_n = up to 1600 A
 I_{cw} = up to 50 kA, 1 sec.
 I_{pk} = up to 110 kA



Maxi-PLS

U_e = up to 690 V AC, up to 1000 V DC
 U_i = up to 1000 V
 U_{imp} = up to 8 kV
 I_n = up to 4000 A
 I_{cw} = up to 70 kA, 1 sec.
 I_{pk} = up to 154 kA

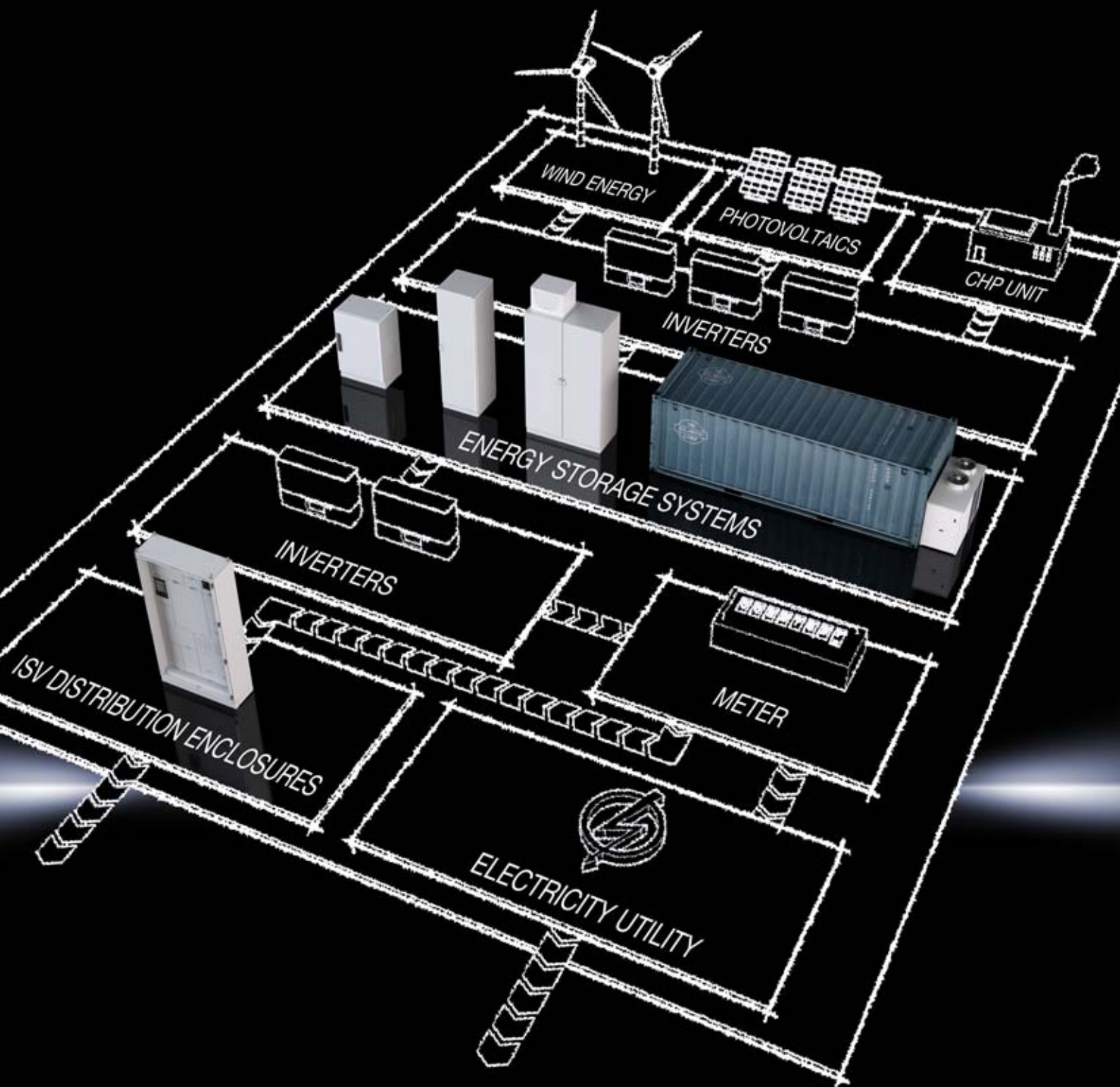


Flat-PLS

U_e = up to 690 V AC, up to 1000 V DC
 U_i = up to 1000 V
 U_{imp} = up to 8 kV
 I_n = up to 5500 A
 I_{cw} = up to 100 kA, 1 sec.
 I_{pk} = up to 220 kA

Rittal – The System.

Faster – better – everywhere.



ENCLOSURE

POWER DISTRIBUTION

CLIMATE CONTROL

FRIEDHELM LOH GROUP

Our expertise for your energy

The efficiency of any system powered by renewable energy depends to a large extent on whether the energy can be stored.

Only then will it still be possible to use the power generated even if the wind is not blowing, the sun is not shining or there is no biogas available. Rittal has the right system solutions to meet these storage tasks, be it for a photovoltaic system in a private residence, or an industrial-scale solar farm.

Compact and effective:

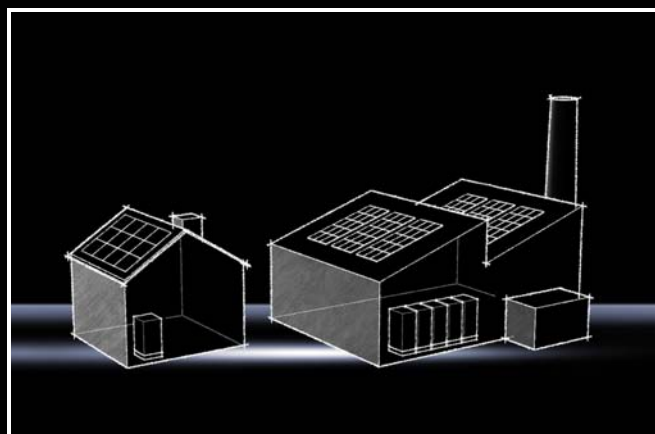
- Wall-mounted enclosures and floor-standing enclosures with high protection categories and international approvals
- Configured with heavy-duty shelves and 482.6 mm (19") system technology
- Perfect, efficient climate control – with climate control components precisely tailored to your required output. From simple fan-and-filter units, to cooling units, to chillers with a cooling output of up to 450 kW.

Modular and flexible:

- Bayed enclosure systems support flexible, infinite baying
- High protection category and international approvals
- UL-tested busbar systems
- Optimum climate control even at high heat losses
- Perfect integration into a standard container if required

Reliable distribution:

- ISV distribution enclosures for reliable power distribution at all building levels
- Design verification to IEC 61 439
- Choice of devices from many different manufacturers, including: ABB, Eaton, General Electric, Mitsubishi, Schneider Electric, Siemens and Terasaki



Rittal – The System.

Faster – better – everywhere.

Housings/enclosures/containers



ENCLOSURE

POWER DISTRIBUTION

CLIMATE CONTROL

Optimum configuration

Secure, robust enclosure solutions are crucial when it comes to “Home4Energy”. To ensure that everything is perfectly tailored to your specific requirements, we have a range of configuration solutions to suit everyone. Our extensive modular system allows us to meet almost any challenge in a short space of time. Please contact us for advice.

Configuration with heavy-duty shelves



Configuration with 482.6 mm (19") system engineering



Configuration with heavy-duty shelves and 482.6 mm (19") system engineering combined



IT INFRASTRUCTURE

SOFTWARE & SERVICES



Rittal – The System.

Faster – better – everywhere.

World's first

The Blue e+ cooling unit series – the ultimate in efficiency. Worldwide.

The principle:

- **Efficiency** – 75% energy saved due to speed-regulated components and heat pipe technology
- **Versatility** – Suitable for international use due to unique multi-voltage capability
- **Safety** – Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- **User-friendliness** – Intuitive operation due to touch display and intelligent interfaces

ENCLOSURE

POWER DISTRIBUTION

CLIMATE CONTROL



IT INFRASTRUCTURE

SOFTWARE & SERVICES





The  principle

A revolution in energy efficiency through innovative hybrid technology

Unbelievably efficient

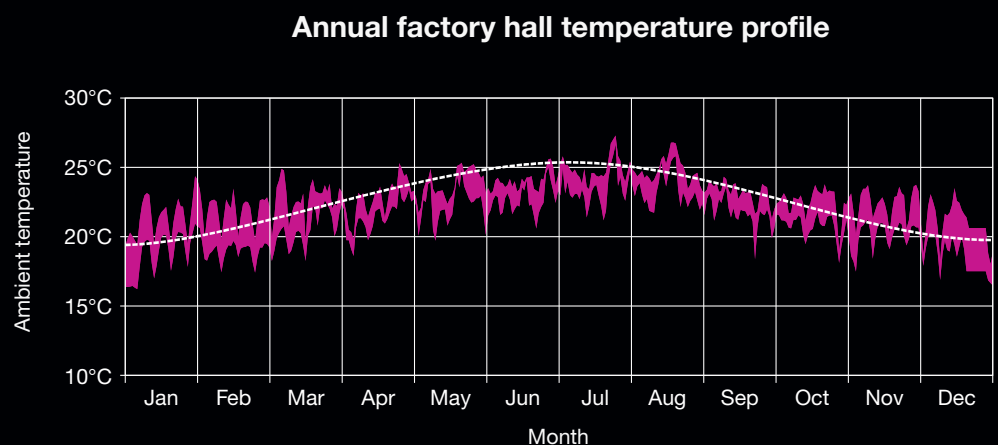
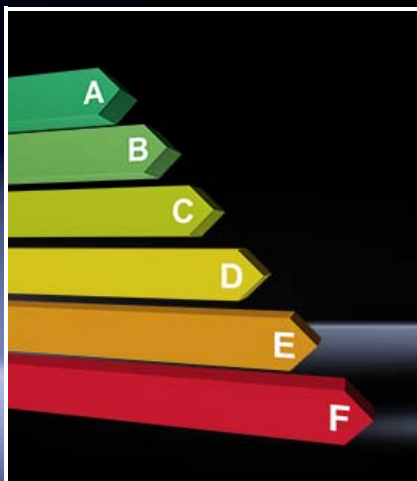
- Let hybrid technology take your cooling units' energy efficiency to a whole new level
- Active cooling circuit with speed-regulated components for demand-based cooling
- Integral heat pipe for passive cooling. Dissipates heat from the enclosure as soon as the ambient temperature falls below the setpoint.

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

Transparent efficiency comparisons

- Energy Efficiency Ratio: The standardised efficiency ratio
- Seasonal Energy Efficiency Ratio: The seasonal efficiency ratio for actual energy consumption





The **e+** principle

Simple operation with touch display and intelligent interfaces

Get information faster

- Contactless local information exchange – using an app via the NFC interface
- Fast device analysis with RiDiag software via the USB interface
- Remote monitoring via Ethernet

Easier to operate

- Fast parameterisation, data reading and plain-text system messages on the intelligent, multi-lingual, industrial-grade display





The **e+** principle

Versatility through standard assembly

Easy assembly

- 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 filter mat replacement, tool-free

Rapid assembly

- Handle for convenient transport and positioning
- Mounting clip as securing aid
- Eyebolts for easy mounting

Maximum flexibility with unique multi-voltage capability

- One device for all voltages and networks, suitable for worldwide use with:
 - 110 – 230 V, 1~, 50/60 Hz
 - 240 V, 2~, 50/60 Hz
 - 380 – 480 V, 3~, 50/60 Hz
- UL Listed approval



Wall-mounted cooling units Blue e+



Therm software Cat. 34, page 385

Benefits:

- 75% energy saved due to speed-regulated components and heat pipe technology
- Suitable for international use due to 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:

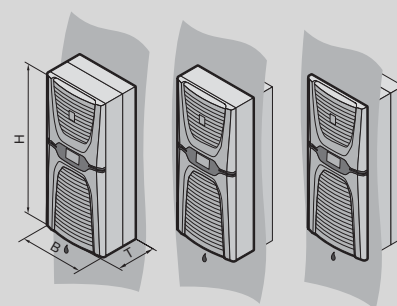
- RAL 7035

Protection category IP to IEC 60 529:

- External circuit IP 24
- Internal circuit IP 55

Supply includes:

- Drilling template
- Assembly parts



Output class 1500 W

Model No.	Packs of	3185.830	Page
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW		1.5	
Total cooling output 50/60 Hz L35 L35 kW		1.5 / 1.5	
Total cooling output 50/60 Hz L35 L50 kW		1 / 1	
Rated operating voltage V, ~, Hz		110 - 230, 1~, 50/60 240, 2~, 50/60 380 - 480, 3~, 50/60	
Width (B) mm		400	
Height (H) mm		950	
Depth (T) mm		305	
Rated output kW		0.70	
Power consumption P _{el} 50/60 Hz L35 L35 kW		0.50 / 0.50	
Power consumption P _{el} 50/60 Hz L35 L50 kW		0.70 / 0.70	
Operating temperature range		-30°C...+60°C	
Setting range		+20°C...+50°C	
Energy efficiency ratio (EER) 50 Hz L35 L35 to DIN EN 14511		3.00	
Refrigerant g		R134a, 640	
Permissible operating pressure (p. max.) bar		25	
Air throughput of fans (unimpeded air flow), Internal circuit/ external circuit m³/h		700 / 900	
Weight kg		38.0	
Accessories			
Filter mats	3 pc(s).	3285.800	80
Metal filters	1 pc(s).	3285.810	80
Door-operated switch	1 pc(s).	4127.010	Cat. 34, 639

Wall-mounted cooling units Blue e+



Therm software Cat. 34, page 385

Benefits:

- 75% energy saved due to speed-regulated components and heat pipe technology
- Suitable for international use due to 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:

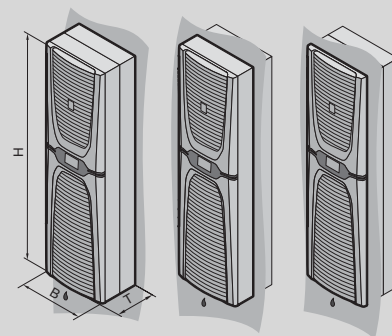
- RAL 7035

Protection category IP to IEC 60 529:

- External circuit IP 24
- Internal circuit IP 55

Supply includes:

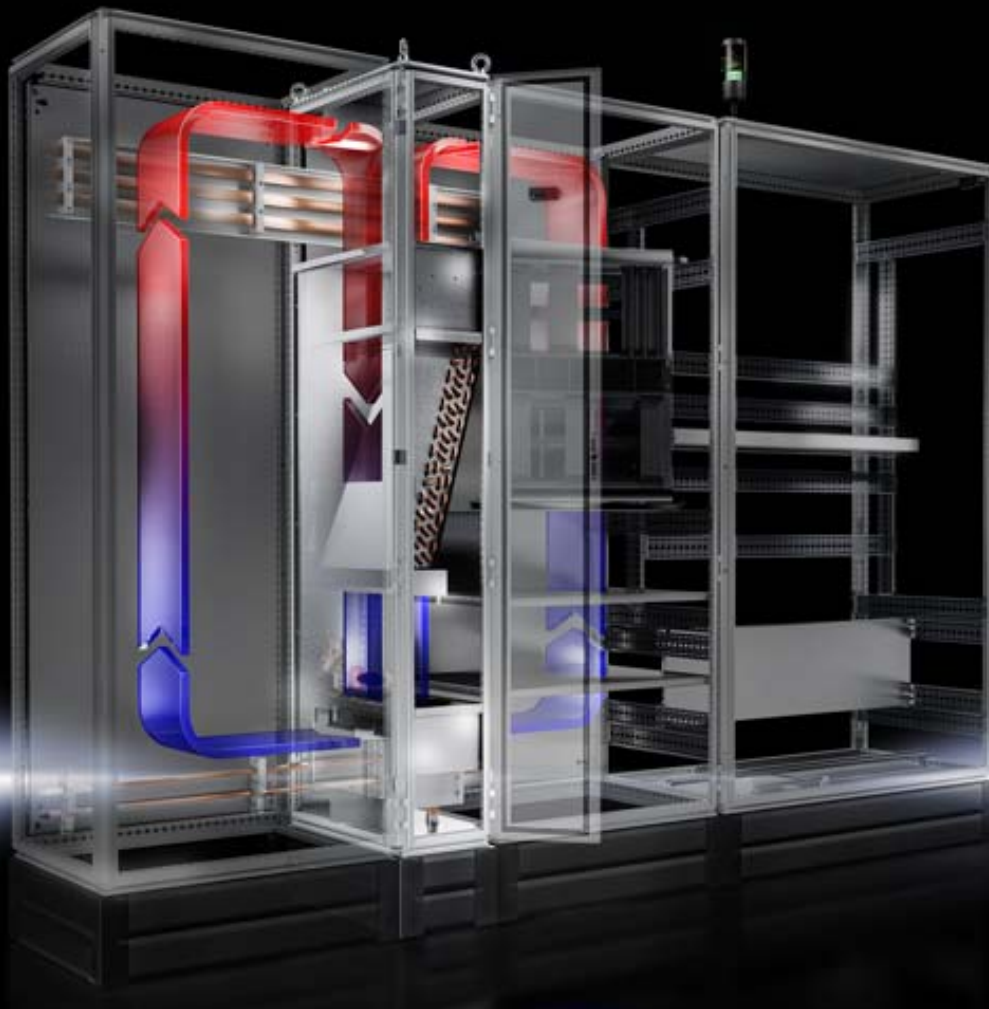
- Drilling template
- Assembly parts



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	2.5	4	6	
Total cooling output 50/60 Hz L35 L35 kW		2 / 2	2.5 / 2.5	4 / 4	6 / 6	
Total cooling output 50/60 Hz L35 L50 kW		1.4 / 1.4	1.65 / 1.65	2.8 / 2.8	3.5 / 3.5	
Rated operating voltage V, ~, Hz		110 - 230, 1~, 50/60 240, 2~, 50/60 380 - 480, 3~, 50/60	110 - 230, 1~, 50/60 240, 2~, 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		290	290	395	395	
Rated output kW		0.97	1.21	1.83	2.75	
Power consumption P _{el} 50/60 Hz L35 L35 kW		0.57 / 0.57	0.83 / 0.83	1.14 / 1.14	2.14 / 2.14	
Power consumption P _{el} 50/60 Hz L35 L50 kW		0.95 / 0.95	1.19 / 1.19	1.75 / 1.75	2.5 / 2.5	
Operating temperature range		-30°C...+60°C	-30°C...+60°C	-30°C...+60°C	-30°C...+60°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		3.50	3.00	3.50	2.80	
Refrigerant g		R134a, 1200	R134a, 1200	R134a, 1900	R134a, 1900	
Permissible operating pressure (p. max.) bar		25	25	25	25	
Air throughput of fans (unimpeded air flow), Internal circuit/external circuit m³/h		1250 / 1250	1250 / 1250	2300 / 2300	2300 / 2300	
Weight kg		55.0	57.0	84.0	85.0	
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	80
Metal filters	1 pc(s).	3285.910	3285.910	3285.910	3285.910	80
Door-operated switch	1 pc(s).	4127.010	4127.010	4127.010	4127.010	Cat. 34, 639

LCP – Liquid Cooling Package for industry



New features:

- Busbars and cables can easily be routed through the unit at the top and bottom so that now, even bayed enclosure suites can be integrated and supplied with a high cooling output
- EC fans and Comfort controllers for even greater efficiency

As before:

- Fits perfectly into the system
Bayable to all 600 or 800 mm deep, 2000 mm high TS 8 enclosures
- Maximum performance in a minimal space
Air outlet with either 5 kW on each side or 10 kW on one side only
- Flexible water connection
At either the top or bottom of the unit



Liquid Cooling Package



Accessories for climate control Cat. 34, page 369 **Chillers** Cat. 34, page 441 **Therm software** Cat. 34, page 385

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 54

Cooling medium:

- Water (see Internet for specifications)

Supply includes:

- Fully wired ready for connection (plug-in terminal strip)
- Front door

Note:

- Bayable by screw-fastening at the sides

Performance diagrams:

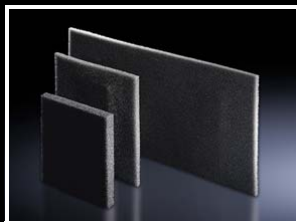
Available on the Internet

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

Output class 10 kW, LCP for industry

Model No.		Packs of	3378.200	3378.280	Cat. 34, Page
Design	Water-carrying parts, copper/brass (Cu/CuZn)		■	■	
Total cooling output L35 W10, 2000 l/h kW			10	10	
Power consumption P _{el} 50/60 Hz W			350 / 406	350 / 406	
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			3 / 3.5	3 / 3.5	
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	¾" connector sleeve		■	■	
	¾" internal thread		■	■	
Permissible operating pressure (p. max.) bar			1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow) m³/h			1950 / 1950	1950 / 1950	
Weight kg			121.0	130.0	
Accessories					
Base/plinth components, front and rear, 100 mm		2 pc(s).	8601.915	8601.915	513
Base/plinth trim panels, side, 100 mm		2 pc(s).	8601.060	8601.080	514
Base/plinth components, front and rear, 200 mm		2 pc(s).	8602.915	8602.915	513
Base/plinth trim panels, side, 200 mm		2 pc(s).	8602.060	8602.080	514
Side panels, screw-fastened, sheet steel		2 pc(s).	8106.235	8108.235	534
Condensate hose		1 pc(s).	3301.612	3301.612	377

Accessories for climate control



Filter mats

Rittal cooling units are low-maintenance and are supplied without filter mats. Filter mats may be used for extreme conditions.

Material:

- Open-celled polyurethane foamed plastic
- Thickness: 10 mm
- Temperature-resistant from -40°C...+80°C

For cooling units Blue e+

To fit Model No.	Packs of	Model No.
3185.830	3 pc(s).	3285.800
3186.930/3187.930/ 3188.940/3189.940	3 pc(s).	3285.900



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 solvents.

Material:

- Aluminium
- Thickness: 10 mm

For cooling units Blue e+

To fit Model No.	Packs of	Model No.
3185.830	1 pc(s).	3285.810
3186.930/3187.930/ 3188.940/3189.940	1 pc(s).	3285.910

Accessories for climate control

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/ 3363.XX0/3364.XX0/ 3373.XX0/3374.XX0/ 3375.XX0	3600	G ½" internal thread	1 - 10	1 pc(s).	3201.990



EC speed control

Control unit for EC fan-and-filter units

Temperature-dependent speed control for EC fan-and-filter units 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:

- 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	100 - 250	+5°C...+55°C	1 pc(s).	3235.440



Computer Room Air Conditioner



IT cooling Cat. 34, page 427

The precision climate control unit for cold water operation draws in warm air from the top of the equipment in the data centre, cools it with water in a closed heat exchanger, and blows the cooled air into the raised floor with overpressure. From there, the air is returned to the data centre via ventilation panels. The heated cooling water is cooled in an external recooling system outside of the building.

Colour:

- Substructure and frame: RAL 9005
- Metal parts: RAL 7015

Supply includes:

- Basic unit with EC fan

Optional:

- Vapour humidifier
- Reheater
- Serial interface BACnet, Ethernet, SNMP, TCP/IP
- Condensate drain pump
- Base frame

Note:

- Neutral conductor required

CRAC CW

Model No.	Packs of	3300.384	3300.385	3300.386	3300.387	3300.388	Page
Rated operating voltage V, ~, Hz		400, 3~, 50	400, 3~, 50	400, 3~, 50	400, 3~, 50	400, 3~, 50	
Width mm		1085	1305	1875	2499	2499	
Height mm		1925	1980	1980	1980	2580	
Depth mm		775	930	930	930	930	
Weight kg		313.0	366.0	513.0	640.0	555.0	
Cooling – cold water 7°C/12°C and air inlet 24°C/50% relative humidity							
Cooling output, total kW		34.1	60.9	98.9	130	167	
Cooling output, sensible kW		28.8	52.2	81.7	109	139	
Air throughput m³/h		6600	12200	18000	24200	30950	

Computer Room Air Conditioner



IT cooling Cat. 34, page 427

The CRAC DX precision climate control unit for direct evaporation draws in warm air from the top of the equipment in the data centre, cools it in a closed heat exchanger, and blows the cooled air into the raised floor with over-pressure. From there, the air is returned to the data centre via ventilation panels. It is connected to the air-cooled condenser via refrigerant lines. The condenser unit is positioned externally.

Colour:

- Substructure and frame: RAL 9005
- Metal parts: RAL 7015

Supply includes:

- Basic unit and external condenser unit

Optional:

- Vapour humidifier
- Reheater
- Serial interface BACnet, Ethernet, SNMP, TCP/IP
- Condensate drain pump
- Inverter-regulated compressors
- Base frame
- EC fan

Note:

- Neutral conductor required

CRAC DX

Model No.	Packs of	3300.394	3300.395	3300.396	3300.397	3300.398	Page
Rated operating voltage V, ~, Hz		400, 3~, 50	400, 3~, 50	400, 3~, 50	400, 3~, 50	400, 3~, 50	
Width mm		650	1085	1320	2155	2155	
Height mm		1925	1925	1980	1980	1980	
Depth mm		650	750	860	860	860	
Weight kg		198.0	317.0	442.0	591.0	694.0	
Cooling output L 24°C / 50%							
Cooling output, total kW		10.8	19	32.8	44.8	56.7	
Cooling output, sensible kW		9.54	18.2	28.3	41	51.7	
Refrigerant kg		R410a, 4.5	R410a, 6.8	R410a, 8.3	R410a, 18.4	R410a, 19.2	
Air throughput m³/h		2653	5460	7440	11310	14500	
Condenser units							
Rated operating voltage		230 V	230 V	230 V	230 V	230 V	
Width mm		875	1400	1600	1850	2320	
Height mm		727	1027	1027	1027	1140	
Depth mm		540	665	665	665	665	
Weight kg		54.5	102.0	153.0	175.0	214.0	

Liquid Cooling Package



Chillers for IT cooling Cat. 34, page 441 **Network/server enclosures TS IT** Page 10

Applications:

- Air/water heat exchanger for retrofitting to TS IT racks while operational

Benefits:

- Mounted on the rear of the server rack so that the thermal load of the server rack does not have to be dissipated by the ventilation system
- The heat pipe ensures even heat distribution in the heat exchanger, so that the heat exchanger always has a balanced heat load
- A door opening angle of 135° allows rear access to the server enclosure and makes assembly and configuration inside an enclosure easier
- Optimum energy efficiency, as there is no electrical power consumption whatsoever

Functions:

- The stand-alone unit replaces the rear door
- The waste air is cooled down to room temperature. The heat energy absorbed by the water is transported to the external cold water supply, where it is cooled back down to the required inlet temperature.
- The heat exchanger uses the airflow from the IT equipment and does not require any additional fans for cooling
- Minimal upstream and downstream pressure losses, despite the very compact design
- Water connection from below only

Colour:

- RAL 7035

Cooling medium:

- Water (see Internet for specifications)

Note:

- The air throughput (heated waste air) from the active 482.6 mm (19") components installed in the enclosure must be sufficient to overcome the pressure loss from the perforated heat exchanger rear door
- The total cooling output refers to an outlet temperature of 24°C

LCP Hybrid CW

Model No.	Packs of	3311.610	3311.600	3311.710	3311.700	Page
Total cooling output kW		10	20	10	20	
Width mm		600	600	600	600	
Height mm		2000	2000	2200	2200	
Depth mm		105	105	105	105	
Usable U		42	42	47	47	
Refrigerant g		R134a, 650	R134a, 650	R134a, 650	R134a, 650	
Water inlet temperature °C		15	15	15	15	
Volumetric flow of cooling water l/min		30	58	30	58	
Permissible operating pressure (p. max.) bar		6	6	6	6	
Fill quantity of heat exchanger l		8	8	8	8	
Maximum volumetric flow of water l/min		70	70	70	70	
Water connection		DN 25 (G 1")	DN 25 (G 1")	DN 25 (G 1")	DN 25 (G 1")	
Volumetric airflow (air from IT equipment) m³/h		2700	4000	2700	4000	
Room air temperature (air outlet temperature from LCP Hybrid) °C		24	24	24	24	
Relative humidity %		43	43	43	43	
Weight as delivered kg		76.0	76.0	78.0	81.0	
Accessories						
Connection hose	2 pc(s).	3301.351	3301.351	3301.351	3301.351	
Air routing kit	2 pc(s).	3311.160	3311.160	3311.160	3311.160	86

Liquid Cooling Package

LCP Hybrid CW

Model No.	Packs of	3311.810	3311.800	3311.910	3311.900	Page
Total cooling output kW		10	20	10	20	
Width mm		800	800	800	800	
Height mm		2000	2000	2200	2200	
Depth mm		105	105	105	105	
Usable U		42	42	47	47	
Refrigerant g		R134a, 650	R134a, 650	R134a, 650	R134a, 650	
Water inlet temperature °C		15	15	15	15	
Volumetric flow of cooling water l/min		30	58	30	58	
Permissible operating pressure (p. max.) bar		6	6	6	6	
Fill quantity of heat exchanger l		8	8	8	8	
Maximum volumetric flow of water l/min		70	70	70	70	
Water connection		DN 25 (G 1")	DN 25 (G 1")	DN 25 (G 1")	DN 25 (G 1")	
Volumetric airflow (air from IT equipment) m³/h		2700	4000	2700	4000	
Room air temperature (air outlet temperature from LCP Hybrid) °C		24	24	24	24	
Relative humidity %		43	43	43	43	
Weight as delivered kg		78.0	81.0	81.0	84.0	
Accessories						
Connection hose	2 pc(s).	3301.351	3301.351	3301.351	3301.351	
Air routing kit	2 pc(s).	3311.160	3311.160	3311.160	3311.160	86

Accessories



Therm software

see Cat. 34, page 385

Liquid Cooling Package

Accessories



Air routing kit

The air routing kit consists of two plug-in steel plates that are fitted in the rear section of the 482.6 mm (19") mounting frame, top and bottom. These plates route the airflow from IT equipment installed in the upper and lower section of the 482.6 mm (19") mounting frame into the heat exchanger of the LCP Hybrid without major loss of pressure. The air baffle plates are fitted between the support strips of the 482.6 mm (19") mounting frame and may be installed in 600 mm and 800 mm wide enclosures.

Material:

- Sheet steel

Colour:

- RAL 9005

Supply includes:

- Assembly parts

Width mm	Height mm	Packs of	Model No.
529	110	2 pc(s).	3311.160





Liquid Cooling Package Cat. 34, page 428 **Network/server enclosures TS IT** Cat. 34, page 89

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 plant, lengthening the investment cycle until a replacement needs to be purchased

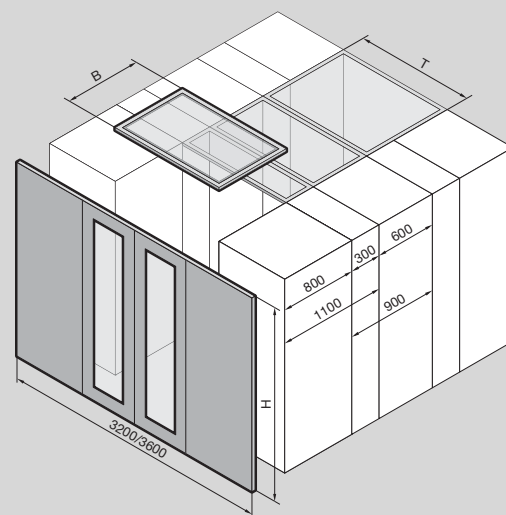
Functions:

- 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.

Note:

- Individual project planning only

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	
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	
For enclosure depth mm		1000	1200	–	–	–	–	–	–	–	
Weight as delivered kg		120.0	135.0	25.0	28.0	20.0	30.0	33.0	25.0	28.0	

Rittal – The System.

Faster – better – everywhere.

Power Distribution Unit – Efficient power distribution



Economical and safe, with measurement and monitoring

- Comprehensive management and monitoring functions
- Measurement of power, current, active and apparent power and power factor
- Measurement of energy consumption and neutral conductor current (with 3-phase PDUs)
- Connection options for CAN bus sensors (temperature/humidity/access)
- TCP/IP v4 and v6 plus SNMP
- High ease of use – with optional integration via the IP interface, e.g. into DCIM software (RiZone) or third-party systems
- Minimal energy consumption thanks to bistable relays

Fits everywhere

- Complete range of international power distribution products
- Various designs to suit every application
- Super-easy assembly – with time-saving, tool-free snap-in system in the TS IT rack
- Flexible installation at the required height in the zero-U space
- Two bayed PDUs may be mounted on the 486.2 mm (19") section in 800 mm wide racks



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

FRIEDHELM LOH GROUP



Sensors for direct connection

CMC III smoke detector

Optical component monitors the room air for smoke particles.

Operating temperature range:

- +5°C...+45°C

Connection:

- 2 x RJ 45: CAN bus

Material:

- Plastic

Colour:

- White

Supply includes:

- Mounting bracket
- Assembly parts

Packs of	PU Compact	PU	Model No.
	Max. no. of		
1 pc(s).	4	32	7030.400



Also required:

- CMC III Processing Unit/Compact 7030.000/7030.010, see Catalogue 34, from page 450



CMC III leakage 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.

Operating temperature range:

- +5°C...+45°C

Connection:

- 2 x RJ 45: CAN bus
- Terminal

Material:

- Plastic

Colour:

- Front and sensor head: RAL 9005
- Enclosure: RAL 7035

Supply includes:

- Sensor with connection cable, 3 m
- Mounting bracket
- Assembly parts
- Mounting clips for support rails

Packs of	PU Compact	PU	Model No.
	Max. no. of		
1 pc(s).	4	32	7030.430



Also required:

- CMC III Processing Unit/Compact 7030.000/7030.010, see Catalogue 34, from page 450



Assembly instruction:

- Optional: Mounting bracket 4597.000 for sensor, see Catalogue 34, page 617



CMC III leakage 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.

Operating temperature range:

- +5°C...+45°C

Connection:

- 2 x RJ 45: CAN bus
- Terminal

Material:

- Plastic

Colour:

- Front and detector cable: RAL 9005
- Enclosure: RAL 7035

Supply includes:

- Detector cable, 15 m
- Mounting bracket
- Assembly parts
- Mounting clips for support rails

Packs of	PU Compact	PU	Model No.
	Max. no. of		
1 pc(s).	4	32	7030.440



Also required:

- CMC III Processing Unit/Compact 7030.000/7030.010, see Catalogue 34, from page 450



CMC III

Accessories



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 SMS 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.

Packs of	Model No.
1 pc(s).	7030.570

Material:

- Plastic

Colour:

- Front: RAL 9005
- Enclosure: RAL 7035

Supply includes:

- RJ 12 cable
- GSM aerial
- Assembly parts

**Also required:**

- CMC III Processing Unit/Compact 7030.000/7030.010, see Catalogue 34, page 450
- Mounting bracket, see Catalogue 34, page 617



CMC III ISDN unit

For configuring a redundant transmission channel or, if there is no network infrastructure available, for alarm forwarding. The alarm signal is designed in SMS format.

Requirement for the ISDN connection:

- DSS1 (Euro-ISDN) must also be available when connecting to the ISDN system
- Point-to-multi-point configuration

Packs of	Model No.
1 pc(s).	7030.580

Material:

- Plastic

Colour:

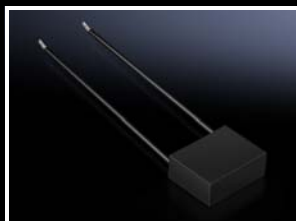
- Front: RAL 9005
- Enclosure: RAL 7035

Supply includes:

- RJ 12 cable
- Assembly parts

**Also required:**

- CMC III Processing Unit/Compact 7030.000/7030.010, see Catalogue 34, page 450
- Mounting bracket, see Catalogue 34, page 617



Interference suppressor for fans

for CMC III

For connecting fans via the CMC III Power Unit 7030.050. Prevents malfunctions when switching off the fan motor. One interference suppressor is required for each fan.

Packs of	Model No.
1 pc(s).	7030.051

Material:

- Plastic

Colour:

- RAL 9005

Supply includes:

- Assembly parts

Door control system

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 must activate 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, e.g. extinguisher systems

Activation in case of alarm:

- CMC III task
- DCM, integral temperature sensor
- DCM, digital input

Activation for user access:

- One door handle/comfort handle 7320.793/.794 per door, see Catalogue 34, page 460
- Coded lock/transponder reader 7030.220/230, see Catalogue 34, page 455



Also required:

- Door control module DCM, see page 92
- Door kits, see page 92
- Power supply units, see Catalogue 34, page 457
- Connection cables, see Catalogue 34, page 457
- Mounting unit 1 U, see Catalogue 34, page 458



Accessories:

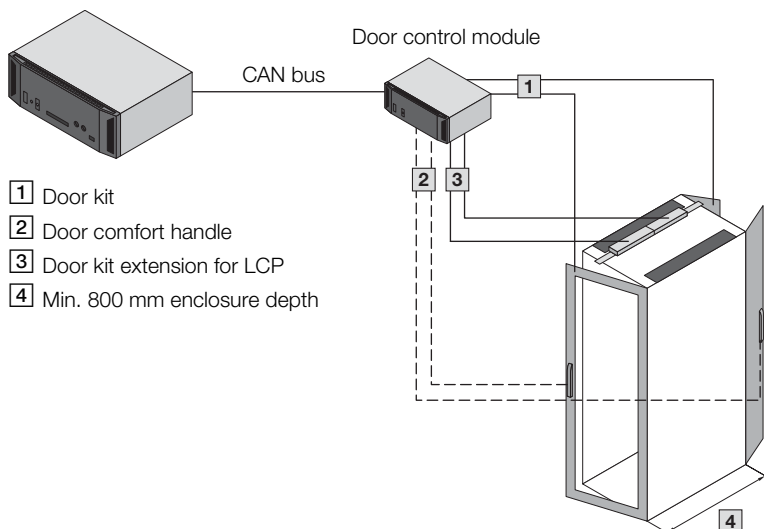
- CMC III Processing Unit/Compact with connection, power supply and mounting accessories, see Catalogue 34, from page 450
- Door switch/comfort handle, see Catalogue 34, page 460
- Coded lock/transponder reader, see Catalogue 34, page 455
- Access sensor, see Catalogue 34, from page 455



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



Door control system



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 92
- Power supply units, see Catalogue 34, page 457
- Connection cables, see Catalogue 34, page 457
- Mounting unit 1 U, see Catalogue 34, page 458



Accessories:

- CAN bus cable, see Catalogue 34, page 457
- Door switch/comfort handle, see Catalogue 34, page 460
- Coded lock/transponder reader, see Catalogue 34, page 452

Model No.	7030.500
Packs of	1 pc(s).
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 92
- For 7030.250: Tubular door frame, see Cat. 34, page 549



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 92
- Door kits, see page 92
- Power pack (with UPS protection), see Catalogue 34, page 457



DCIM – Data Centre Infrastructure Management

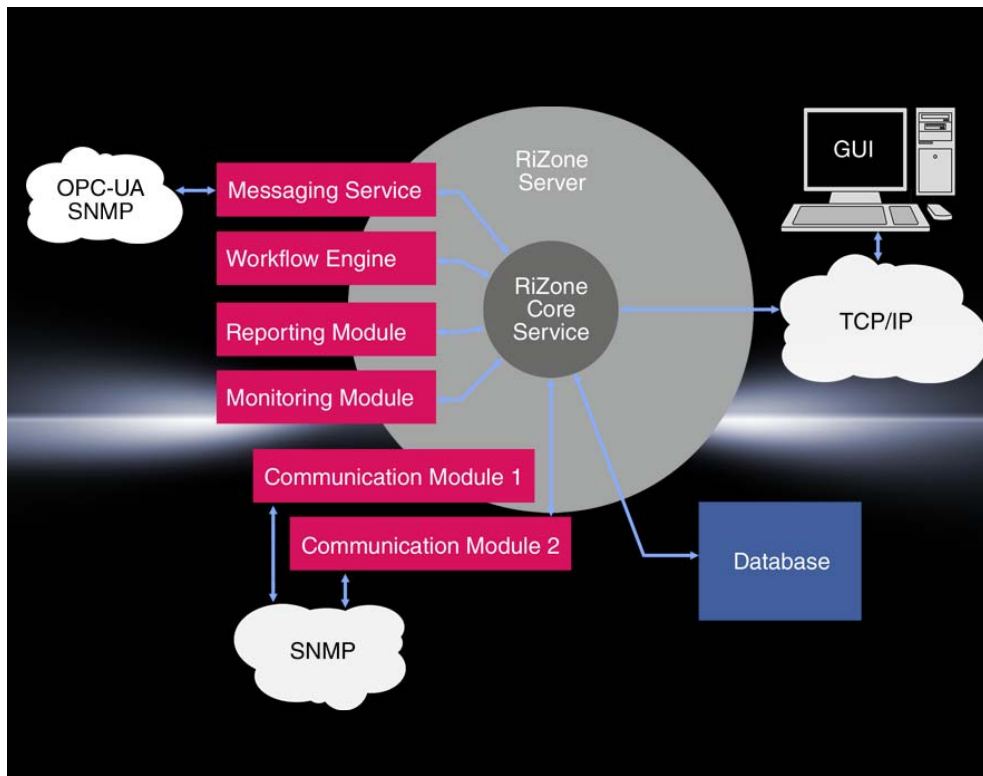
RiZone – Perfect support of IT infrastructure components

Now with new functions:

- User administration via active directory
- CMC III access
 - Central administration of the CMC III access control
 - Access administration does not require any switching between web pages or FTP uploads of access files

- 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
 - Photorealistic visualisation of the components in the rack representation (using templates)

The full range of functions and further information may be found in Catalogue 34, from page 498, or on the Internet.



RiMatrix S efficiency package

The efficiency package allows the electrical parameters in the RiMatrix S module to be logged, saved and visualised. The DCIM solution RiZone included with the package provides real-time calculation of the data centre's PUE (Power Usage Effectiveness).

Supply includes:

- Janitza UMG 604 power analyser
- Hardware appliance RiZone software
- PDU international, metered version

Version	Packs of	Model No.
Single 6	1 pc(s).	7998.905
Double 6	1 pc(s).	7998.906
Single 9	1 pc(s).	7998.907
Double 9	1 pc(s).	7998.908



Fire alarm and extinguisher system



System accessories Cat. 34, page 507 **Network/server enclosures TS IT** Cat. 34, page 89

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

Technical details:

Available on the Internet

DET-AC III master

Width mm	Packs of	482.6	Cat. 34, Page
Height mm		44	
Depth mm		660	
Weight kg		22.1	
Model No.	1 pc(s).	7338.121	
Temperature and setting range		+10°C...+40°C	
Storage temperature range		-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) 2x CAN connections for master-slave networking 2x connection (external alarm/manual triggering device) 1x voltage output for DET-AC slave III (24 V DC max. 500 mA) 1x USB CAN bus interface to CMC III (max. 32 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		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	455
CMC III CAN bus connection cable	1 pc(s).	7030.091	457
Pipe kit	1 pc(s).	7338.130	
Slide rails, depth-variable	2 pc(s).	5501.480	687

Early fire detection system



System accessories Cat. 34, page 507 **Network/server enclosures TS IT** Cat. 34, page 89

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

Technical details:

Available on the Internet

EFD III

Width mm	Packs of	482.6	Cat. 34, Page
Height mm		44	
Depth mm		490	
Weight kg		15.0	
Model No.	1 pc(s).	7338.221	
Temperature and setting range		+10°C...+40°C	
Storage temperature range		-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) 2x CAN connections for master-slave networking 3x connection (external alarm/manual triggering device/tank and fill level) 1x voltage output for DET-AC slave III (24 V DC max. 500 mA) 1x USB CAN bus interface to CMC III (max. 32 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	457
Pipe kit	1 pc(s).	7338.130	
Slide rails, depth-variable	2 pc(s).	5501.480	687

Add-on unit



System accessories Cat. 34, page 507 **Network/server enclosures TS IT** Cat. 34, page 89

This add-on unit to the DET AC III Master includes an additional extinguisher unit. In addition to the DET-AC III master 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

Technical details:

Available on the Internet

DET-AC III slave

Width mm	Packs of	482.6	Cat. 34, Page
Height mm		44	
Depth mm		660	
Weight kg		19.1	
Model No.	1 pc(s).	7338.321	
Temperature and setting range		+10°C...+40°C	
Storage temperature range		-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) 2x CAN connections for master-slave networking 2x connection (external alarm/manual triggering device) 1x voltage output for DET-AC slave III (24 V DC max. 500 mA) 1x USB CAN bus interface to CMC III (max. 32 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	455
Pipe kit	1 pc(s).	7338.130	
Slide rails, depth-variable	2 pc(s).	5501.480	687

List of model numbers

Model No.	Page	Model No.	Page	Model No.	Page	Model No.	Page	Model No.	Page
2388.050	35	5503.790	29	5513.110	15	5531.120	12	9677.210	50
2388.125	35	5504.110	13	5513.120	12	5531.131	27	9677.215	52
2388.650	35	5504.120	10	5513.131	27	5531.141	17	9677.300	51
2388.850	35	5504.131	26	5513.141	18	5531.151	23	9677.310	50
2436.800	37	5504.141	16	5513.151	23	5531.181	20	9677.315	52
2438.800	37	5504.151	22	5513.181	21	5531.790	29	9677.340	51
2537.045	37	5504.181	19	5513.790	29	6052.700	33	9677.350	51
3185.830	76	5504.790	29	5514.110	15	6206.110	31	9677.400	55
3186.930	77	5505.110	14	5514.120	12	6206.850	32	9677.405	55
3187.930	77	5505.120	11	5514.131	27	6206.870	32	9677.410	55
3188.940	77	5505.131	27	5514.141	18	6212.220	31	9677.420	56
3189.940	77	5505.141	17	5514.151	23	6212.680	31	9677.430	56
3201.990	81	5505.151	23	5514.181	21	6212.780	32	9677.440	56
3235.440	81	5505.181	20	5514.790	29	6218.300	32	9677.450	55
3285.800	80	5505.790	29	5515.110	15	6321.010	33	9677.460	55
3285.810	80	5506.110	14	5515.120	12	7030.051	90	9677.470	56
3285.900	80	5506.120	11	5515.131	27	7030.240	92	9677.480	56
3285.910	80	5506.131	27	5515.141	18	7030.241	92	9677.500	46
3300.384	82	5506.141	17	5515.151	23	7030.250	92	9677.510	53
3300.385	82	5506.151	23	5515.181	21	7030.261	92	9677.520	53
3300.386	82	5506.181	20	5515.790	29	7030.400	89	9677.530	53
3300.387	82	5506.790	29	5516.110	15	7030.430	89	9677.540	53
3300.388	82	5507.110	14	5516.120	12	7030.440	89	9677.550	54
3300.394	83	5507.120	11	5516.131	27	7030.500	92	9677.560	54
3300.395	83	5507.131	27	5516.141	18	7030.570	90	9677.570	54
3300.396	83	5507.141	17	5516.151	23	7030.580	90	9677.580	54
3300.397	83	5507.151	23	5516.181	21	7151.305	37	9677.600	53
3300.398	83	5507.170	25	5516.790	29	7338.121	94	9677.610	53
3311.160	86	5507.181	20	5525.120	10	7338.221	95	9677.620	53
3311.161	87	5507.790	29	5525.790	28	7338.321	96	9677.640	54
3311.163	87	5508.110	14	5526.110	13	7831.725	36	9677.700	48
3311.170	87	5508.120	11	5526.120	10	7998.905	93	9677.705	49
3311.180	87	5508.131	27	5526.131	26	7998.906	93	9677.710	48
3311.190	87	5508.141	17	5526.141	16	7998.907	93	9677.715	49
3311.200	87	5508.151	23	5526.151	22	7998.908	93	9677.730	54
3311.210	87	5508.181	20	5526.181	19	8100.105	34	9677.740	54
3311.270	87	5508.790	29	5526.790	28	8100.125	34	9677.750	54
3311.280	87	5509.110	14	5527.110	13	8100.605	34	9677.760	54
3311.600	84	5509.120	12	5527.120	10	8100.805	34	9677.790	55
3311.610	84	5509.131	27	5527.131	26	9340.780	58	9677.810	57
3311.700	84	5509.141	17	5527.141	16	9340.790	58	9677.840	57
3311.710	84	5509.151	23	5527.151	22	9345.040	59	9677.860	57
3311.800	85	5509.161	24	5527.181	19	9673.041	60	9677.870	57
3311.810	85	5509.181	20	5527.790	28	9673.042	60	9677.880	57
3311.900	85	5509.790	29	5528.110	13	9673.043	60		
3311.910	85	5510.110	14	5528.120	11	9673.044	60		
3378.200	79	5510.120	11	5528.131	26	9673.045	60		
3378.280	79	5510.131	27	5528.141	16	9673.046	60		
4000.240	36	5510.141	17	5528.151	22	9673.404	61		
4000.250	36	5510.151	23	5528.181	19	9673.443	60		
5386.000	30	5510.181	20	5528.790	28	9673.463	60		
5501.225	36	5510.790	29	5529.110	14	9673.483	60		
5501.235	36	5511.110	14	5529.120	11	9674.790	62		
5502.310	34	5511.120	12	5529.131	27	9674.900	61		
5502.330	34	5511.131	27	5529.141	17	9674.905	61		
5502.340	34	5511.141	17	5529.151	23	9674.920	61		
5502.350	34	5511.151	23	5529.181	20	9674.960	61		
5502.360	34	5511.181	20	5529.790	28	9674.980	61		
5502.370	34	5511.790	29	5530.110	14	9677.000	51		
5502.380	34	5512.110	15	5530.120	11	9677.010	50		
5503.110	13	5512.120	12	5530.131	27	9677.015	52		
5503.120	10	5512.131	27	5530.141	17	9677.025	51		
5503.131	26	5512.141	18	5530.151	23	9677.100	51		
5503.141	16	5512.151	23	5530.181	20	9677.110	50		
5503.151	22	5512.181	21	5530.790	29	9677.115	52		
5503.181	19	5512.790	29	5531.110	14	9677.200	51		

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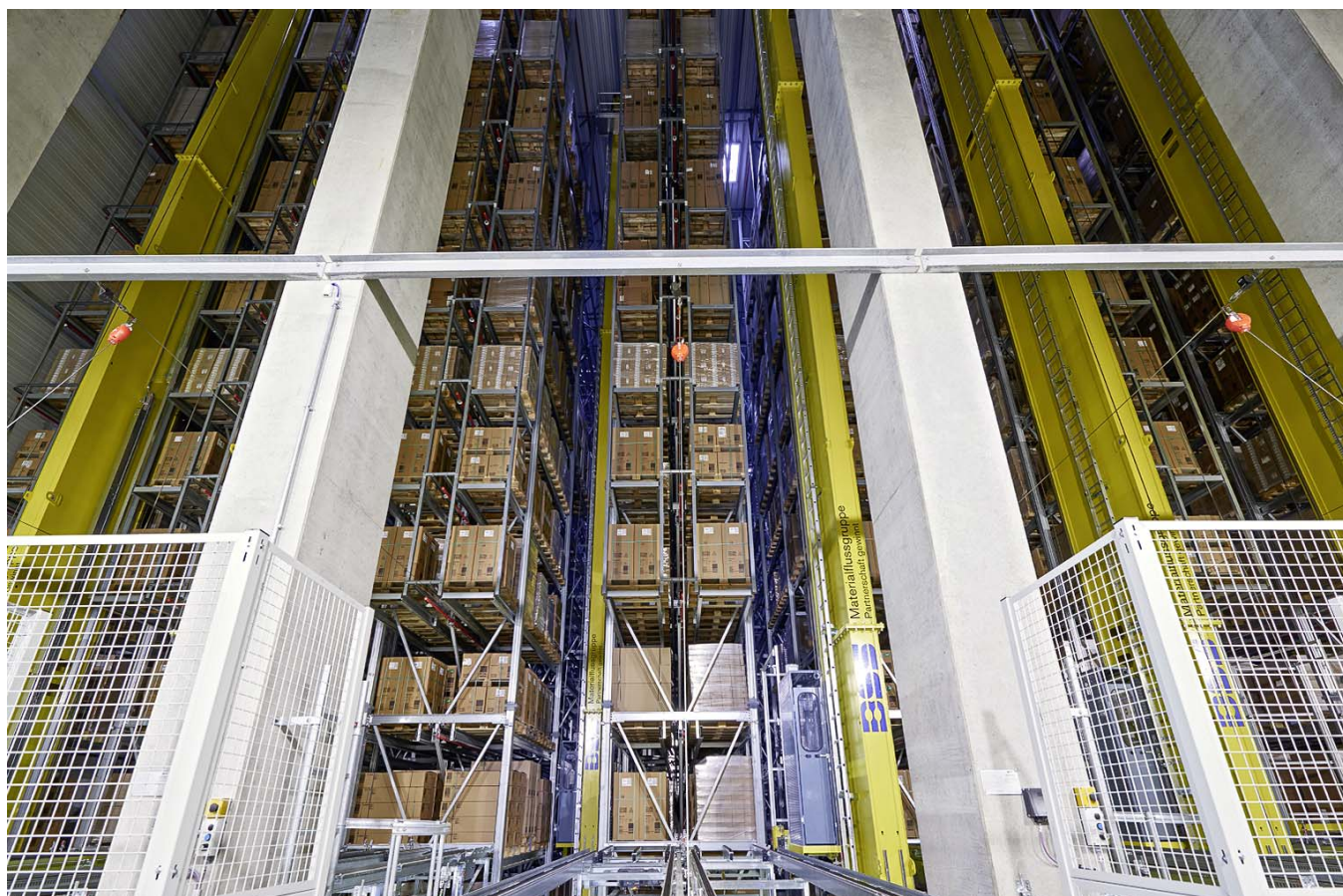
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