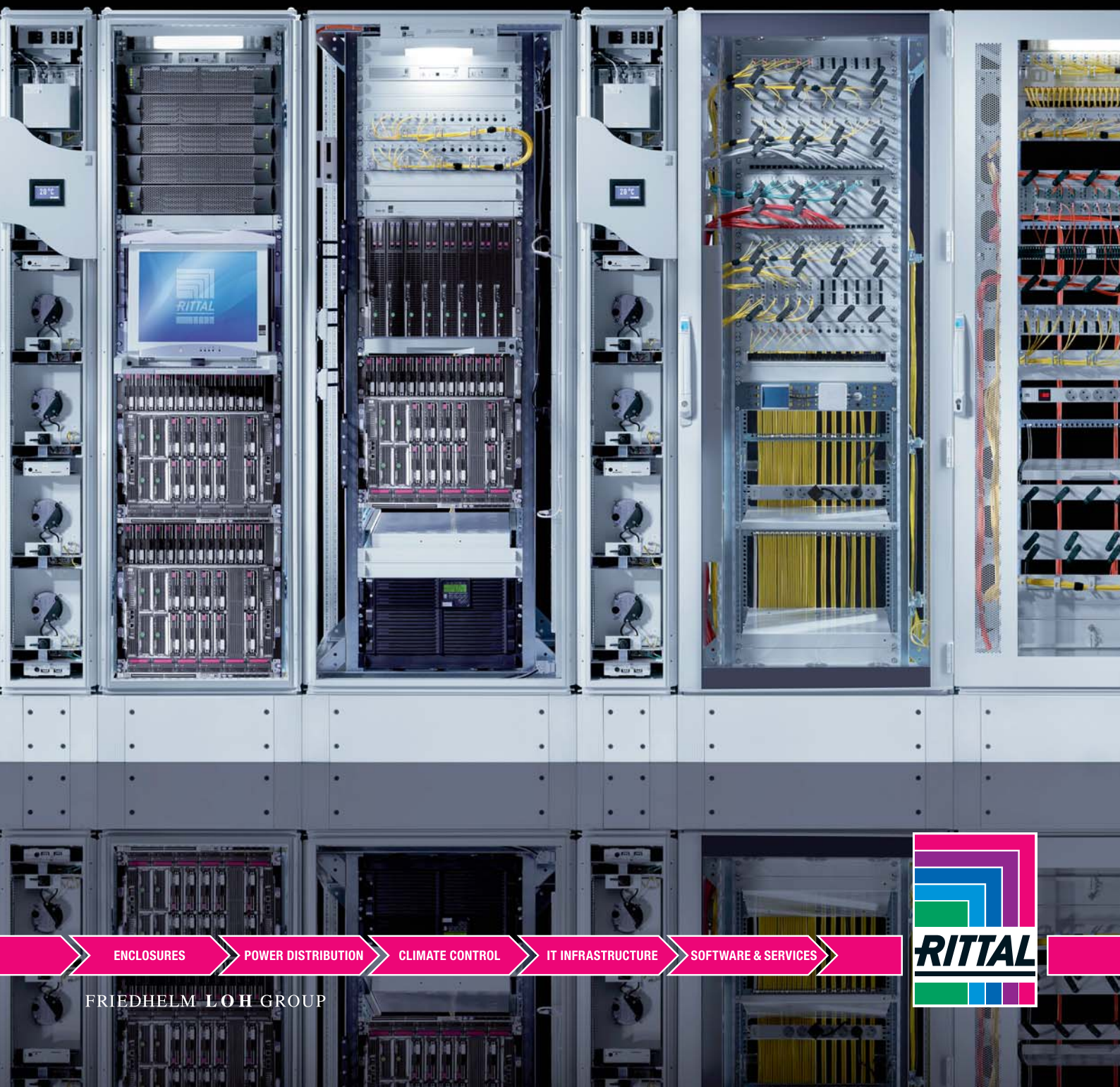
Rittal – The System.

Faster – better – worldwide.

Innovations 2012



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

FRIEDHELM LOH GROUP

Reliable through flexibility

IT solutions to suit every requirement.

Trust is a feeling. Reliability is an imperative. When the two come together, you have perfection. By choosing Rittal, you are opting for a partner that not only provides complete system technologies from a single source, but also combines intelligent solutions with the very highest standards of reliability. Rittal ensures maximum efficiency, perfect IT performance and global availability, including innovative software tools. It goes without saying that the very latest technologies such as cloud computing and virtualisation are also covered. Here too, Rittal provides solutions for every company, whatever its size, thereby ensuring reliability through flexibility.

Rimatrix – Data centres, scalable in five dimensions.
IT infrastructures for every size of company, to meet every requirement:

1. For small, decentralised applications in one rack
2. For small companies or remote locations in a security safe
3. For medium-sized applications in a bayed enclosure suite
4. For medium-sized IT solutions in a flexible container with climate control options
5. For large data centres with separate server and technology rooms

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Reliable through Innovation

On the following pages, discover the innovative and futuristic system platform “Rittal – The System.”, which combines power supply, cooling, monitoring and IT security components into a single, comprehensive, perfectly coordinated solution.

A global innovation from Rittal: The TS IT rack – Innovative and simple.

- Maximum flexibility – one basic system meets all network and server technology requirements
- Guaranteed system compatibility – may be combined with all system components
- Super-easy assembly – with time-saving, toolless snap-in technology
- Intelligent modular accessory system – with the new 482.6 mm (19˝) concept

Rittal – The System.

Faster – better – worldwide.

Reliable through efficiency

**Intelligent power distribution systems from Rittal:
PDU (Power Distribution Unit) – Efficient and futuristic.**

- Global power – with a comprehensive range of international sockets
- Easy assembly – with time-saving, toolless snap-in technology
- A reliable future – with optional integration into Rimatrix/CMC and third-party systems via the IP interface

Rittal – The System.

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Reliable through performance

Maximum energy efficiency from Rittal: Cooling concepts – Highly efficient and scalable.

- Top level – rack climate control with LCP (Liquid Cooling Package) solutions
- Full performance – climate control of bayed suites with cooling units of up to 60 kW
- Every environment – room climate control with CRAC systems
- Efficient cooling production – with IT chillers and innovative free cooling systems

Rittal – The System.

Faster – better – worldwide.

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Reliable in every detail

Security rooms from Rittal:
Modular safe Level B – Reliable and compatible.

- All-round protection – with a complete data centre in a protective physical cover
- Absolute compatibility – thanks to the basic TS 8 frame
- Sensationally efficient – with cost and assembly benefits

Rittal – The System.

Faster – better – worldwide.

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Reliable through integration

Modular monitoring systems from Rittal: CMC III (Computer Multi Control) – Integratable and flexible.

- Super-easy assembly – based on the CAN bus
- Maximum flexibility – via integration into RiZone software
- The perfect option – thanks to a redundant power supply and PoE (Power over Ethernet)
- Versatile applications – with a broad range of sensors

THE NEW TS IT RACK

Simple – Faster – better – worldwide.

Tool-free assembly

- All the main components in the new TS IT support tool-free assembly as standard
- Depth-variable 482.6 mm (19″) sections – Loosen the attachment, position, latch – and it's done
- Slide rails and component shelves – Simply lock home into the rear sections, locate into the front sections – and it's done
- Side panels – Locate, snap shut – and it's done

Special configuration as standard

- Cable entry in the roof – Brush strips across the entire enclosure depth
- Comfort handle front and rear – For individual locks
- Divided rear door – Space-saving and ideal for securing escape routes
- Consistent labelling of height units

One rack for all IT tasks

- Server enclosure and network enclosure in one, with glazed door or vented door as standard
- UL and cUL certified

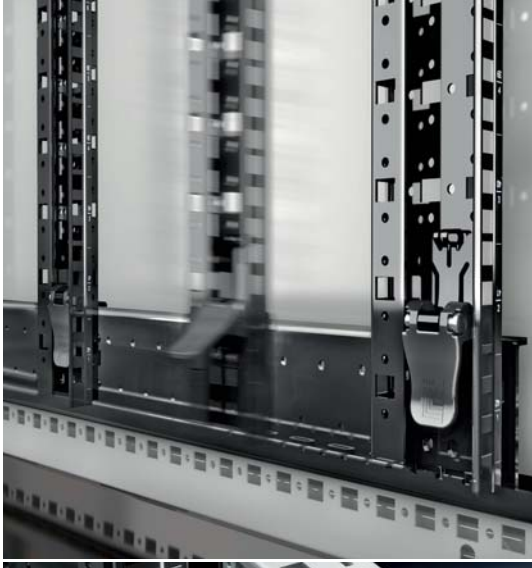
GLOBAL PREMIERE

THE NEW TS IT RACK

More functional – Faster – better – worldwide.

Fast and reliable

- Loosen the 482.6 mm (19″) quick-release fastener, slide into the correct position, and latch
- Maximum load capacity up to 15,000 N



Convenience in perfection

- Asymmetrical interior installation and alternative mounting dimensions easily achieved with side offset
- Direct determination of the distance between levels with integral pitch pattern
- U labelling front and rear that may be read from the front

Convincing door concept

- Glazed door or vented door
- All doors with 180° hinges and comfort handles, prepared for individual locks
- Divided rear door for space-optimised positioning
- High air throughput with open surface area 85% perforated

Multi-functional roof

- Brush strips for cable entry across the entire enclosure depth
- Cable clamping directly behind the brush strip
- Cut-out for fan mounting plate pre-integrated, for active and passive climate control

THE NEW TS IT RACK

Profitable – Faster – better – worldwide.

Tool-free installation

- Tool-free installation of slide rails, component shelves, telescopic slides and much more
- Simply locate into the rear mounting angle, extend to the required size, and secure at the front

Quick-assembly side panel

- Divided side panel for simple one-man assembly
- Locate the upper side panel, slot in the lower side panel and it's done – no screw-fastening required
- Quick-release fasteners with integral lock additionally with internal latch for increased security

Built-in added value

- Prepared for Dynamic Rack Control or cable management
- Direct, space-saving, clip-on mounting of the Rittal PDU busbar on both sides in the zero-U space between the mounting angle and side panel

Maximum energy efficiency thanks to compartmentalisation with maximum flexibility

- For rack/suite and room cooling
- Variable termination at the sides with all-round brush strip
- 6 U mounting space additionally integrated into the compartmentalisation

TS IT

Accessories Page 24 – 35

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

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

Colour:
– Frame and enclosure panels: RAL 7035
– Interior installation: RAL 9005

Supply includes:
Product-specific supply scope, see table.

Load capacity of the 482.6 mm (19˝) mounting level:
15,000 N

Distance between levels as delivered:
– Depth ≤ 800: 545 mm
– Depth ≥ 1000: 745 mm

Approvals:
UL/cUL

Detailed drawings:
Available on the Internet.

With glazed door for rack climate control

U	Packs of	24	24	38	42	42	Page
Width mm		800	800	800	800	800	
Height mm		1200	1200	1800	2000	2000	
Depth mm		800	1000	800	600	800	
Glazed aluminium door at the front (180°), with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	■	■	■	
Sheet steel door at the rear (180°), with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	–	–	–	
Sheet steel door at the rear (180°), vertically divided, with comfort handle for semi-cylinder and security lock 3524 E	1	–	–	■	■	■	
482.6 mm (19˝) mounting level at the front and rear, on depth stays with quick-release fasteners, depth-variable	2	■	■	■	■	■	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1	■	■	■	■[1)]	■	
Model No. DK	1	**5503.120**	**5504.120**	**5505.120**	**5506.120**	**5507.120**	
Included with the supply, not pre-installed							
Spacers for passive cooling	4	■	■	■	■	■	
Earthing set with central earthing point	1 set	■	■	■	■	■	
Multi-tooth screws M5, cage nuts M5, conductive	50	■	■	■	■	■	
Accessories							
Side panels 2-part	1	–	–	2 x 5501.000	2 x 5501.010	2 x 5501.020	28
Side panels 1-part	2	8175.235	8176.235	–	–	–	567[2)]
Base mount	2	5501.310	5501.320	5501.310	5501.300	5501.310	28
Gland plates, modular	see from page 24						
Base/plinth	see Cat. 33, page 542						
Fan mounting plate for TS IT including thermostat	1	5502.020	5502.020	5502.020	5502.010	5502.020	29
Air baffle plate	1 set	–	–	–	5501.815	5501.815	34
Cable route	1	–	–	–	5502.120	5502.120	31
Cable duct	1	–	–	–	5502.105	5502.105	30
Component shelves	see from page 29						
Slide rails	see from page 34						
Cable clamp rails, C rails, punched sections with mounting flanges	see Cat. 33, from page 644						
Cable shunting ring	see Cat. 33, from page 724						
Cable management panel	see page 33						
Power distribution unit PDU	see page 39						

■ Included with the supply. [1)] Cable entry, rear. [2)] See Catalogue 33.

With glazed door for rack climate control

U	Packs of	42	42	42	42	47	Page
Width mm		600	800	600	800	800	
Height mm		2000	2000	2000	2000	2200	
Depth mm		1000	1000	1200	1200	800	
Glazed aluminium door at the front (180°), with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	■	■	■	
Sheet steel door at the rear (180°), vertically divided, with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	■	■	■	
482.6 mm (19˝) mounting level at the front and rear, on depth stays with quick-release fasteners, depth-variable	4	■	■	■	■	■	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1	■	■	■	■	■	
Model No. DK	1	**5508.120**	**5509.120**	**5510.120**	**5511.120**	**5512.120**	
Included with the supply, not pre-installed							
Spacers for passive cooling	4	■	■	■	■	■	
Earthing set with central earthing point	1 set	■	■	■	■	■	
Multi-tooth screws M5, cage nuts M5, conductive	50	■	■	■	■	■	
Accessories							
Side panels, 2-part	1	2 x 5501.030	2 x 5501.030	2 x 5501.040	2 x 5501.040	2 x 5501.050	28
Base mount	2	5501.320	5501.320	5501.350	5501.350	5501.310	28
Gland plates, modular	see from page 24						
Base/plinth	see Cat. 33, page 542						
Fan mounting plate for TS IT including thermostat	1	5502.010	5502.020	5502.010	5502.020	5502.020	29
Air baffle plate	1 set	5501.805	5501.815	5501.805	5501.815	5501.835	34
Cable route	1	5502.120	5502.120	5502.120	5502.120	5502.120	31
Cable duct	1	–	5502.105	–	5502.105	5502.145	30
Component shelves	see from page 29						
Slide rails	see from page 34						
Cable clamp rails, C rails, punched sections with mounting flanges	see Cat. 33, from page 644						
Cable shunting ring	see Cat. 33, from page 724						
Cable management panel	see page 33						
Power distribution unit PDU	see page 39						

■ Included with the supply.

TS IT

Accessories Page 24 – 35

Material:
Sheet steel

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

Colour:
– Frame and enclosure panels: RAL 7035
– Interior installation: RAL 9005

Supply includes:
Product-specific supply scope, see table.

Load capacity of the 482.6 mm (19˝) mounting level:
15,000 N

Distance between levels as delivered:
745 mm

Approvals:
UL/cUL

Detailed drawings:
Available on the Internet.

With vented door for room climate control

U	Packs of	24	42	42	42	42	Page
Width mm		800	600	800	600	800	
Height mm		1200	2000	2000	2000	2000	
Depth mm		1000	1000	1000	1200	1200	
Sheet steel door vented[1], at the front (180°), with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	■	■	■	
Sheet steel door, vented[1], at the rear (180°), with comfort handle for semi-cylinder and security lock 3524 E	1	■	–	–	–	–	
Sheet steel door, vented[1], at the rear (180°), vertically divided, with comfort handle for semi-cylinder and security lock 3524 E	1	–	■	■	■	■	
482.6 mm (19˝) mounting level at the front and rear, on depth stays with quick-release fasteners, depth-variable	2	■	■	■	■	■	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1	■	■	■	■	■	
Model No. DK	1	**5504.110**	**5508.110**	**5509.110**	**5510.110**	**5511.110**	
Included with the supply, not pre-installed							
Spacers for passive cooling	4	■	■	■	■	■	
Earthing set with central earthing point	1 set	■	■	■	■	■	
Multi-tooth screws M5, cage nuts M5, conductive	50	■	■	■	■	■	
Accessories							
Side panels 2-part	1	–	2 x 5501.030	2 x 5501.030	2 x 5501.040	2 x 5501.040	28
Side panels 1-part	2	8176.235	–	–	–	–	567[2]
Base mount	2	5501.320	5501.320	5501.320	5501.350	5501.350	28
Gland plates, modular	see from page 26						
Base/plinth	see Cat. 33, page 542						
Fan mounting plate for TS IT including thermostat	1	5502.020	5502.010	5502.020	5502.010	5502.020	29
Air baffle plate	1 set	–	5501.805	5501.815	5501.805	5501.815	34
Cable route	1	–	5502.120	5502.120	5502.120	5502.120	31
Cable duct	1	–	–	5502.105	–	5502.105	30
Component shelves	see from page 29						
Slide rails	see from page 34						
Cable clamp rails, C rails, punched sections with mounting flanges	see Cat. 33, from page 644						
Cable shunting ring	see Cat. 33, from page 724						
Cable management panel	see page 33						
Power distribution unit PDU	see page 39						

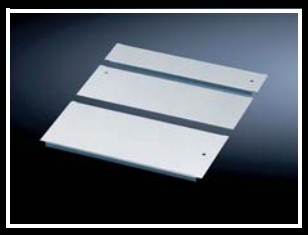
■ Included with the supply. [1] Vented surface area approx. 85% perforated. [2] See Catalogue 33.

With vented door for room climate control

U	Packs of	47	47	47	47	Page
Width mm		600	800	600	800	
Height mm		2200	2200	2200	2200	
Depth mm		1000	1000	1200	1200	
Sheet steel door, vented[1)], at the front (180°), with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	■	■	
Sheet steel door, vented[1)], at the rear (180°), vertically divided, with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	■	■	
482.6 mm (19″) mounting level at the front and rear, on depth stays with quick-release fasteners, depth-variable	2	■	■	■	■	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1	■	■	■	■	
Model No. DK	1	**5513.110**	**5514.110**	**5515.110**	**5516.110**	
Included with the supply, not pre-installed						
Spacers for passive cooling	4	■	■	■	■	
Earthing set with central earthing point	1 set	■	■	■	■	
Multi-tooth screws M5, cage nuts M5, conductive	50	■	■	■	■	
Accessories						
Side panels, 2-part	1	2 x 5501.060	2 x 5501.060	2 x 5501.070	2 x 5501.070	28
Base mount	2	5501.320	5501.320	5501.350	5501.350	28
Gland plates, modular	see from page 26					
Base/plinth	see Cat. 33, page 542					
Fan mounting plate for TS IT including thermostat	1	5502.010	5502.020	5502.010	5502.020	29
Air baffle plate	1 set	5501.825	5501.835	5501.825	5501.835	34
Cable route	1	5502.120	5502.120	5502.120	5502.120	31
Cable duct	1	–	5502.145	–	5502.145	30
Component shelves	see from page 29					
Slide rails	see from page 34					
Cable clamp rails, C rails, punched sections with mounting flanges	see Cat. 33, from page 644					
Cable shunting ring	see Cat. 33, from page 724					
Cable management panel	see page 33					
Power distribution unit PDU	see page 39					

■ Included with the supply. [1)] Vented surface area approx. 85% perforated.

Accessories



Gland plate

for TS IT

Potential equalisation is provided via assembly components and earthing points.

- **Gland plate set**
  To conceal the entire base opening.
- **Gland plate modules**
  Select suitable gland plates depending on the application.

Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
Assembly parts.

Accessories:

Clips for gland plates,
see Catalogue 33, page 559.

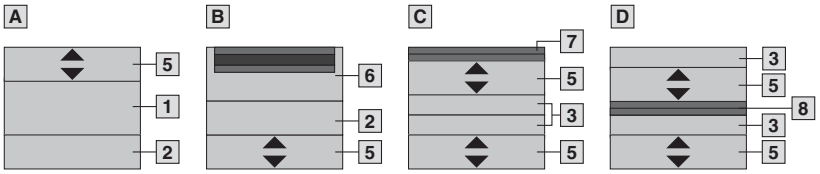
For enclosure depth 600 mm

A Gland plate set	Packs of	Required packs	For enclosure width mm	
			600	800
			Model No.	
Gland plate, solid with sliding panel, multi-piece	1 set	1	–	5502.510

Gland plate modules		Packs of	Required packs	For enclosure width mm	
				600	800
B 1 module plate as selected				Model No.	
Gland plate, depth 150 mm		1	1	5001.218	5001.219
Sliding panel, depth 150 mm		1	1	5001.239	5001.240
Module plate, depth 237.5 mm	Airflow regulator	1	1	7825.366	7825.386
	Cable entry			7825.361	7825.381
	Vented			7825.360	7825.380
	Cable entry, super-airtight			7825.367	7825.387
	Cable entry, side			–	7825.388

C Cable entry, rear or front			Model No.	
Gland plate, depth 100 mm	1	2	5001.214	5001.215
Sliding panel, depth 150 mm	1	2	5001.239	5001.240
Self-adhesive foam cable clamp strip	3 m	1	2573.000	2573.000

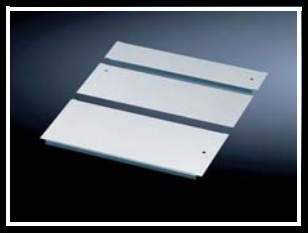
D Cable entry, centre			Model No.	
Gland plate, depth 100 mm	1	2	5001.214	5001.215
Sliding panel, depth 150 mm	1	2	5001.239	5001.240
Section for cable entry, centre	1 set	1	8802.060	8802.080



1 Gland plate, depth 250 mm
2 Gland plate, depth 150 mm
3 Gland plate, depth 100 mm
4 Gland plate, depth 50 mm
5 Sliding panel, depth 150 mm
6 Module plate, depth 237.5 mm
7 Self-adhesive foam cable clamp strip
8 Section for cable entry, centre

Also required:

Base mount, see page 28.



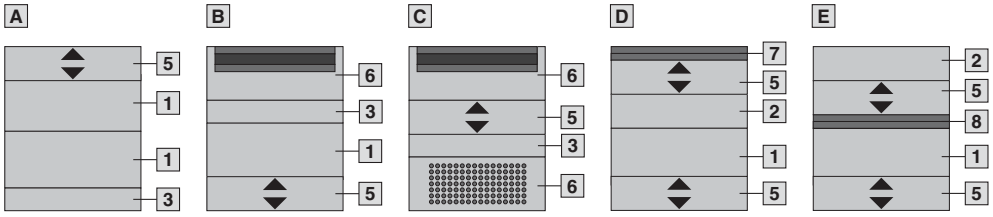
For enclosure depth 800 mm

A Gland plate set	Packs of	Required packs	For enclosure width mm	
			600	800
			Model No.	
Gland plate, solid with sliding panel, multi-piece	1 set	1	–	**5502.530**

Gland plate modules		Packs of	Required packs	For enclosure width mm	
				600	800
B 1 module plate as selected				**Model No.**	
Gland plate, depth 250 mm		1	1	**5001.222**	**5001.223**
Gland plate, depth 100 mm		1	1	**5001.214**	**5001.215**
Sliding panel, depth 150 mm		1	1	**5001.239**	**5001.240**
Module plate, depth 237.5 mm	Airflow regulator	1	1	**7825.366**	**7825.386**
	Cable entry			**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			–	**7825.388**
C 2 module plates as selected				**Model No.**	
Gland plate, depth 100 mm		1	1	**5001.218**	**5001.219**
Sliding panel, depth 150 mm		1	1	**5001.239**	**5001.240**
Module plate, depth 237.5 mm	Airflow regulator	1	2	**7825.366**	**7825.386**
	Cable entry			**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			–	**7825.388**

D Cable entry, rear or front			Model No.	
Gland plate, depth 250 mm	1	1	**5001.222**	**5001.223**
Gland plate, depth 150 mm	1	1	**5001.218**	**5001.219**
Sliding panel, depth 150 mm	1	2	**5001.239**	**5001.240**
Self-adhesive foam cable clamp strip	3 m	1	**2573.000**	**2573.000**

E Cable entry, centre			Model No.	
Gland plate, depth 250 mm	1	1	**5001.222**	**5001.223**
Gland plate, depth 150 mm	1	1	**5001.218**	**5001.219**
Sliding panel, depth 150 mm	1	2	**5001.239**	**5001.240**
Section for cable entry, centre	1 set	1	**8802.060**	**8802.080**

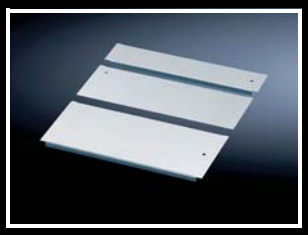


1 Gland plate, depth 250 mm
2 Gland plate, depth 150 mm
3 Gland plate, depth 100 mm
4 Gland plate, depth 50 mm
5 Sliding panel, depth 150 mm
6 Module plate, depth 237.5 mm
7 Self-adhesive foam cable clamp strip
8 Section for cable entry, centre

! Also required:

Base mount, see page 28.

Accessories



For enclosure depth 1000 mm

A Gland plate set	Packs of	Required packs	For enclosure width mm	
			600	800
			Model No.	
Gland plate, solid with sliding panel, multi-piece	1 set	1	**5502.540**	**5502.550**

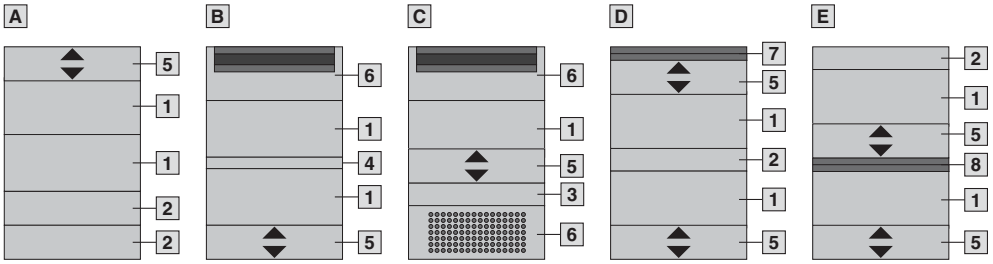
Gland plate modules	Packs of	Required packs	For enclosure width mm	
			600	800

B 1 module plate as selected				Model No.	
Gland plate, depth 250 mm		1	2	**5001.222**	**5001.223**
Gland plate, depth 50 mm		1	1	**5001.210**	**5001.211**
Sliding panel, depth 150 mm		1	1	**5001.239**	**5001.240**
Module plate, depth 237.5 mm	Airflow regulator	1	1	**7825.366**	**7825.386**
	Cable entry			**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			–	**7825.388**

C 2 module plates as selected				Model No.	
Gland plate, depth 250 mm		1	1	**5001.222**	**5001.223**
Gland plate, depth 100 mm		1	1	**5001.214**	**5001.215**
Sliding panel, depth 150 mm		1	1	**5001.239**	**5001.240**
Module plate, depth 237.5 mm	Airflow regulator	1	2	**7825.366**	**7825.386**
	Cable entry			**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			–	**7825.388**

D Cable entry, rear or front			Model No.	
Gland plate, depth 250 mm	1	2	**5001.222**	**5001.223**
Gland plate, depth 100 mm	1	1	**5001.214**	**5001.215**
Sliding panel, depth 150 mm	1	2	**5001.239**	**5001.240**
Self-adhesive foam cable clamp strip	3 m	1	**2573.000**	**2573.000**

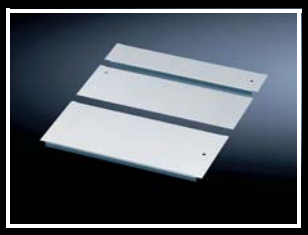
E Cable entry, centre			Model No.	
Gland plate, depth 250 mm	1	2	**5001.222**	**5001.223**
Gland plate, depth 100 mm	1	1	**5001.214**	**5001.215**
Sliding panel, depth 150 mm	1	2	**5001.239**	**5001.240**
Section for cable entry, centre	1 set	1	**8802.060**	**8802.080**



1 Gland plate, depth 250 mm
2 Gland plate, depth 150 mm
3 Gland plate, depth 100 mm
4 Gland plate, depth 50 mm
5 Sliding panel, depth 150 mm
6 Module plate, depth 237.5 mm
7 Self-adhesive foam cable clamp strip
8 Section for cable entry, centre

! Also required:

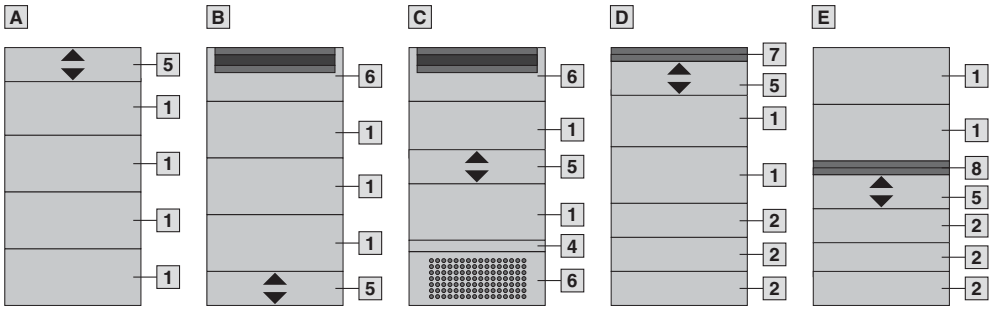
Base mount, see page 28.



For enclosure depth 1200 mm

A Gland plate set	Packs of	Required packs	For enclosure width mm	
			600	800
			Model No.	
Gland plate, solid with sliding panel, multi-piece	1 set	1	**5502.560**	**5502.570**

Gland plate modules		Packs of	Required packs	For enclosure width mm	
				600	800
B 1 module plate as selected				**Model No.**	
Gland plate, depth 250 mm		1	3	**5001.222**	**5001.223**
Sliding panel, depth 150 mm		1	1	**5001.239**	**5001.240**
Module plate, depth 237.5 mm	Airflow regulator	1	1	**7825.366**	**7825.386**
	Cable entry			**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			**–**	**7825.388**
C 2 module plates as selected				**Model No.**	
Gland plate, depth 250 mm		1	2	**5001.222**	**5001.223**
Gland plate, depth 50 mm		1	1	**5001.210**	**5001.211**
Sliding panel, depth 150 mm		1	1	**5001.239**	**5001.240**
Module plate, depth 237.5 mm	Airflow regulator	1	2	**7825.366**	**7825.386**
	Cable entry			**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			**–**	**7825.388**
D Cable entry, rear or front				**Model No.**	
Gland plate, depth 250 mm		1	2	**5001.222**	**5001.223**
Gland plate, depth 150 mm		1	3	**5001.218**	**5001.219**
Sliding panel, depth 150 mm		1	1	**5001.239**	**5001.240**
Self-adhesive foam cable clamp strip		3 m	1	**2573.000**	**2573.000**
E Cable entry, centre				**Model No.**	
Gland plate, depth 250 mm		1	2	**5001.222**	**5001.223**
Gland plate, depth 150 mm		1	3	**5001.218**	**5001.218**
Sliding panel, depth 150 mm		1	1	**5001.239**	**5001.240**
Section for cable entry, centre		1 set	1	**8802.060**	**8802.080**



1 Gland plate, depth 250 mm
2 Gland plate, depth 150 mm
3 Gland plate, depth 100 mm
4 Gland plate, depth 50 mm
5 Sliding panel, depth 150 mm
6 Module plate, depth 237.5 mm
7 Self-adhesive foam cable clamp strip
8 Section for cable entry, centre

Also required:

Base mount, see page 28.

Accessories

Base mount

To accommodate gland plate modules.

- Tool-free mounting or screw-fastening
- Easily retrofitted and combined with stabiliser

Material:
Sheet steel

Surface finish:
Spray-finished

Colour:
RAL 7035

Supply includes:
2 mounting rails including assembly parts.

For enclosure depth mm	Packs of	Model No. DK
600	2	**5501.300**
800	2	**5501.310**
1000	2	**5501.320**
1200	2	**5501.350**

Side panel, divided

- Easy handling and tool-free assembly
- Quick-release fastener including security lock 3524 E
- Internal latch included (no key required)
- Lock with chassis, cable clamp rail may be top-mounted on the outer mounting level
- Suitable for IT climate control and rack extinguishing

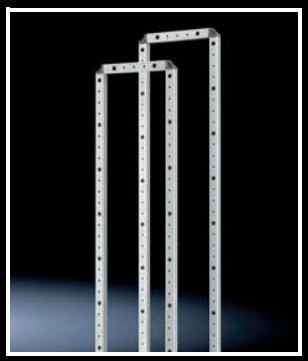
Material:
Sheet steel

Surface finish:
Spray-finished

Colour:
RAL 7035

Supply includes:
– 1 top panel
– 1 bottom panel
– Earth conductor
– Assembly parts

For enclosures		Packs of	Model No. DK
Height mm	Depth mm		
1800	800	1	**5501.000**
2000	600	1	**5501.010**
2000	800	1	**5501.020**
2000	1000	1	**5501.030**
2000	1200	1	**5501.040**
2200	800	1	**5501.050**
2200	1000	1	**5501.060**
2200	1200	1	**5501.070**



Tubular door frame

for TS IT for rear door, vertically divided, solid

Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
Assembly parts.

For enclosures		Packs of	Model No. DK
Width mm	Height mm		
600	2000	1 set	**5501.200**
800	2000	1 set	**5501.210**

Note:
Required for use of the automatic door opener.

Fan mounting plate

For active ventilation of the TS IT. For use in the cut-out integrated into the roof plate. The unit may optionally be extended with additional fans.

Technical specifications for one fan:
Fan expansion kit, DK 7980.000,
see Catalogue 33, page 404.

Technical specifications of thermostat:
– Rated operating voltage: 250 V
– Temperature range: +5°C to +55°C

Colour:
RAL 7035

Supply includes:
– Fan unit
– 2 fans
– 1 thermostat
– Open connection cable
– Assembly parts

Note:
Connection via distributor box or country-specific connector.

Accessories:

Fan expansion kit,
see Catalogue 33, page 404.

W x D mm	Number of pre-wired fans	Possible number of fans	**Model No. DK**
800 x 600, 600 x 1000, 600 x 1200	2	3	**5502.010**
800 x 800, 800 x 1000, 800 x 1200	2	6	**5502.020**

Component shelves, 2 U, static installation

482.6 mm (19˝)
For mounting between 482.6 mm (19˝) mounting angles.

Load capacity:
25 kg surface load, static

Material:
Sheet steel

Surface finish:
Spray-finished

Colour:
RAL 9005

Supply includes:
Assembly parts.

Component shelf depth mm	Packs of	**Model No. DK**
250	1 set	**5501.615**
400	1 set	**5501.625**

Component shelves, depth-variable

482.6 mm (19˝)
for TS IT, L-shaped mounting angles,
482.6 mm (19˝) mounting frame
For static installation between two 482.6 mm (19˝) mounting levels.

- Depth-variable to adapt to individual distances between levels
- Tool-free, time-saving one-man assembly

Material:
Sheet steel

Surface finish:
Spray-finished

Colour:
RAL 9005

Supply includes:
Assembly parts.

Distance between levels mm	Load capacity, static kg	Height U	Packs of	**Model No. DK**
400 – 600	50	1/2	1 set	**5501.655**
600 – 900	50	1/2	1 set	**5501.665**
400 – 600	100	1	1 set	**5501.695**
600 – 900	100	1	1 set	**5501.705**

Accessories

Component shelves, pull-out

482.6 mm (19˝)
for TS IT, L-shaped mounting angles, 482.6 mm (19˝) mounting frame
For mounting between two 482.6 mm (19˝) mounting angles.

- Depth-variable to adapt to individual distances between levels
- Tool-free, time-saving one-man assembly from the enclosure front
- Self-locking
- Fully extendible

Material:
Sheet steel

Surface finish:
Spray-finished

Colour:
RAL 9005

Supply includes:
– Installation kit
– Telescopic slide with mounting kit
– Assembly parts

Distance between levels mm	Load capacity, static kg	Height U	Depth mm	Packs of	Model No. DK
400 – 600	50	1	500	1 set	**5501.675**
600 – 900	50	1	700	1 set	**5501.685**
400 – 600	100	1 1/2	500	1 set	**5501.715**
600 – 900	100	1 1/2	700	1 set	**5501.725**

Cable duct

for TS IT, DK-TS, TE

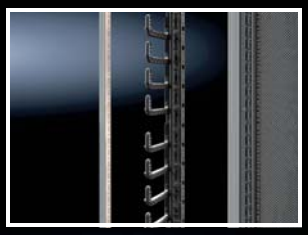
- High packing density due to U-based cable routing
- Removable duct cover hinged on both sides
- Optional cable holders may be used (DK 7827.330, see Catalogue 33, page 728)
- Suitable for back-to-back baying
- Simple assembly with tool-free quick-release fastening
- Alternatively suitable for screw-fastening

Material:
Sheet steel, plastic UL 94-V0

Colour:
RAL 9005

Supply includes:
Cover and assembly parts.

For enclosure height mm	U	Packs of	Model No. DK
2000	36	1	**5502.105**
2200	42	1	**5502.145**



Cable finger 6 U

for TS IT

- For U-based cable routing
- Simple, tool-free assembly
- Cable routing possible in conjunction with air baffle plates

Material:
Plastic, UL 94-V0

Colour:
RAL 9005

Packs of	Model No. DK
14	**5502.115**

Cable manager

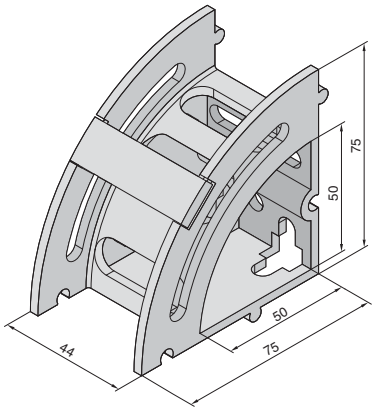
- For system-compatible cable deflection while complying with minimal bending radii and to accommodate surplus cables and excess length. The elements may optionally be used individually or in combination for cable routing. They may be combined into semi-circular or circular elements.
- Supports use on corners and edges to allow protected cable routing around them.
- Mounting clips for use above the arc hold the routed cables back within the elements. The elements are also bayable in an axial direction to allow U-based cable routing to the mounting level, or channelling of the cable sections.

Material:
Plastic, UL 94-V0

Colour:
RAL 9005

Supply includes:
Including mounting clips and assembly parts.

Packs of	Model No. DK
20	**5502.405**



Cable route

- For cable clamping and routing with network and server applications
- Mounting across the entire depth with 800 mm width, mounting only behind the second 482.6 mm (19˝) pair of mounting angles with 600 mm width.
- Tool-free quick assembly
- Alternatively suitable for screw-fastening
- Multi-functional punchings for cable management accessories

Material:
Sheet steel

Colour:
RAL 9005

Height mm	Packs of	Model No. DK
2000 – 2200	1	**5502.120**

Accessories:

– Cable ties, nylon tape,
see Catalogue 33, page 720
– Shunting rings,
see Catalogue 33, from page 723
– Cable routing bars,
see Catalogue 33, page 727

Nylon tape supports

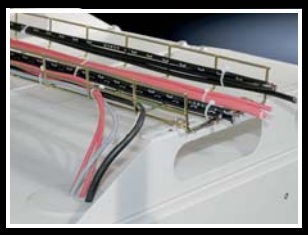
- For simple, fast cable attachment
- Tool-free mounting in the system punchings with 10.5 x 12.5 mm, with a quarter rotation
- Direct use on the horizontal TS section, on the support strips and mounting angles of the 482.6 mm (19˝) interior installation on the cable route or on punched sections with mounting flanges.

Material:
Plastic

Supply includes:
10 supports including nylon tape

Packs of	Model No. DK
10	**5502.155**

Accessories



System supports for cable routes

for TS IT

The depth-variable support system may be attached to all 800 – 1200 mm deep TS enclosures with external screw-fastening of the roof plate. The integral system punchings, for screws or cage nuts, support the attachment of most common cable route systems.

- May be combined with TS IT fan mounting plate
- In combination with punched rail, suitable for accommodating additional cable guide rails or conduits.

Material:
Sheet steel

Surface finish:
Powder-coated

Colour:
RAL 7035

Packs of	Model No. DK
1	**7831.472**

Accessories:

– Metal multi-tooth screws 5.5 x 13 mm, SZ 2486.500, see Catalogue 33, page 666.
– Cage nuts M6, TS 8800.340, see Catalogue 33, page 665.

Cable management panel

for TS IT
482.6 mm (19˝)

For horizontal management of the patch cables, with 5 cable shunting rings.

Material:
– Panel: Sheet steel
– Ring: Steel

Surface finish:
Ring: Zinc-plated

Colour:
RAL 9005

U	Ring size mm	Packs of	Model No. DK
1	43 x 55	1	**5502.205**
1	43 x 105	1	**7257.005**
2	85 x 125	1	**7257.105**

Cable management panel with cable routing bars

482.6 mm (19˝)

For horizontal management of the patch cables with cable routing bars. Opening the individual cable routing bars allows user-friendly modification and extension of the cabling.

Material:
– Panel: Sheet steel, spray-finished
– Cable routing bars: Plastic

Colour:
– Panel: RAL 9005
– Cable routing bars: Black

U	Bar depth mm	No. of bars/U	Packs of	Model No. DK
1	approx. 80	5	1	**5502.225**

Cable management panel, 2 U

482.6 mm (19˝)
The cable management panel has cut-outs from above, into which the patch cables can be inserted. The cable management panel is equipped with a flap and quick-release fasteners at the front, for optimum access to the cables. From the rear, the cables can be inserted via a cut-out with brush strips. With accommodation facility for cable clamp straps DK 7610.000 or DK 7611.000.

Material:
Sheet steel

Colour:
RAL 9005

U	Depth mm	Packs of	Model No. DK
2	85	1	**5502.235**

Accessories:

Cable clamp straps,
see Catalogue 33, page 725.

Cable routing channel

482.6 mm (19˝)
To hold the patching cables.

Material:
Sheet steel

Colour:
RAL 9005

U	Depth mm	Packs of	Model No. DK
1	85	1	**5502.245**

Cable entry panel

482.6 mm (19˝)
Cut-out 390 x 40 mm (2 U) or 390 x 20 mm (1 U) with brush insert. With accommodation facility for cable clamp straps DK 7610.000 or DK 7611.000.

Material:
Sheet steel

Colour:
RAL 9005

U	Packs of	Model No. DK
1	1	**5502.255**
2	1	**5502.265**

Accessories:

Cable clamp straps,
see Catalogue 33, page 725.

Drawer, 2 U, 3 U

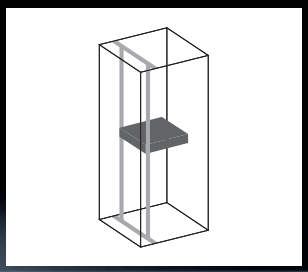
for a 482.6 mm (19˝) attachment level
For front attachment to mounting angles, 482.6 mm (19˝). With cover and telescopic slides to accommodate assignment lists, operating manuals and small parts. The small version of the 2 U variant is also suitable for mounting inside a swing frame.

Material:
Sheet steel

Colour:
RAL 9005

Supply includes:
Fully assembled,
including assembly parts.

Height	Clearance openings		Installation depth mm	Packs of	Model No. DK
	Width mm	Depth mm			
2 U	411	419	427	1	**5502.305**
3 U	411	419	427	1	**5502.325**



Accessories

Air baffle plate

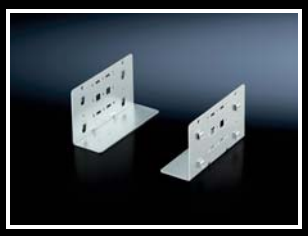
for TS IT

- To separate the hot/cold zones within an enclosure with containment housing or when using an LCP system
- With all-round brush strip for collision-free shielding with installed bar systems on the outer mounting level
- For width 800 mm, 6 U blanking panel additionally included

Material:
Sheet steel, plastic UL 94-V0

Supply includes:
Assembly parts.

Width x height mm	Packs of	Model No. DK
600 x 2000	1 set	**5501.805**
800 x 2000	1 set	**5501.815**
600 x 2200	1 set	**5501.825**
800 x 2200	1 set	**5501.835**



Slide rails, static installation

482.6 mm (19˝)
for TS IT
For mounting between 482.6 mm (19˝) mounting angles.

- System punchings for mounting accessories and cooling active components

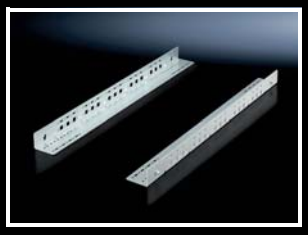
Technical specifications:
Load capacity: 30 kg, static

Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
Assembly parts.

Length	Packs of	Model No. DK
150	2	**5501.400**



Slide rails, static installation

482.6 mm (19˝)
for TS IT
For mounting between a front and rear pair of mounting angles.

- To support heavy installed equipment
- Side system punchings for mounting accessories and cooling components that expel to the side
- Simply locate into the system punchings of the TS IT

Technical specifications:
Load capacity: 80 kg, static

Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
Assembly parts.

Distance between 482.6 mm (19˝) levels mm	Packs of	Model No. DK
345	2	**5501.410**
445	2	**5501.420**
545	2	**5501.430**
645	2	**5501.440**
745	2	**5501.450**

Depth-variable slide rails

482.6 mm (19˝)
for TS IT, L-shaped mounting angles, 482.6 mm (19˝) mounting frame
For mounting between a front and rear pair of mounting angles.

- To support heavy installed equipment
- To adapt to individual distances between levels
- Tool-free, time-saving one-man assembly from the enclosure front
- All three mounting holes in the EIA system punchings are available for screw-fastening the equipment

Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
Assembly parts.

Distance between 482.6 mm (19˝) levels mm	Load capacity kg	Packs of	Model No. DK
400 – 600	80	2	**5501.460**
600 – 900	150	2	**5501.480**

Cover, magnetic

For optionally covering the front system punchings in the event of complete air blocking of the front, or in the absence of installed cable fingers or dynamic rack control strip.

Length m	Packs of	Model No. DK
5	1	**5501.895**

PSM mounting kit

for TS IT

- For tool-free mounting of the PSM busbar on the horizontal TS 8 frame
- Orientation of the PSM busbar either to the enclosure centre or to the rear

Material:
Sheet steel, zinc-plated

Supply includes:
Assembly parts.

Packs of	Model No. DK
1 set	**7856.029**

Cage nuts M5/M6

for quick fastening
For the installation of components within 482.6 mm (19˝) or metric installation systems. Conveniently used from the front, by slotting diagonally into the 9.5 mm² mounting hole. After slotting in, the cage nut is rotated through 45° and thereby secured. Integral contact wings ensure a conductive connection between the connection components. This ensures potential equalisation between clear chromated, zinc-plated or spray-finished surfaces. The cage nuts may be used in metal/section thicknesses of 0.5 – 2.8 mm.

Thread size	Design	Packs of	Model No. DK
M5	With contact	50	**7094.550**
M6		50	**7094.650**

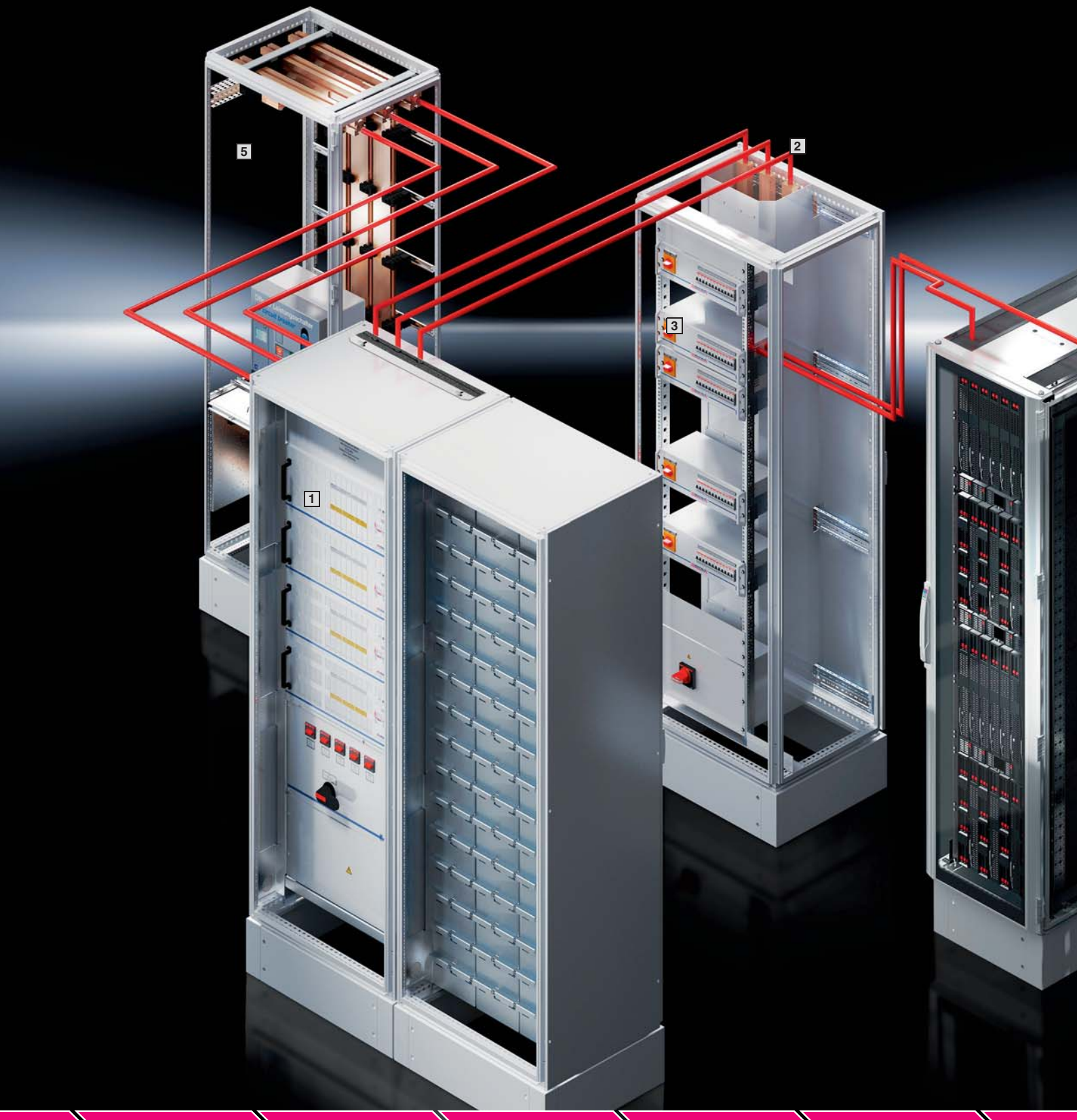
Material:
Steel

Surface finish:
Zinc-plated

Supply includes:
50 cage nuts

Rittal IT power supply

As large or as small as you need it



Rittal – The System.

Faster – better – worldwide.

- Holistic, systematic energy management concepts
- Comprehensive, complete solutions for power distribution and back-up, consistently modular, and flexibly extendible at any time
- Optimum energy and cost efficiency with maximum availability of the entire system
- Reduced costs for installation, administration and manpower

Sample applications

1 Power Modular Concept PMC 200, see Catalogue 33, page 376

2 Power Distribution Rack PDR, see Catalogue 33, page 382

3 Power Distribution Module PDM, see Catalogue 33, page 382

4 Power System Module PSM, see Catalogue 33, page 383

5 Power distribution, see Catalogue 33, page 265

UPS – Power Modular Concept

- Extensive configuration options thanks to parallel switchability and rack-mounted modular construction
- Fail-safe maximised, thanks to redundancy. Every module has a decentralised parallel architecture (DPA)
- UPS modules are transformerless, genuine double conversion systems (classification VFI-SS-111 to IEC/EN 62 040-3)
- Every UPS rack additionally has a mechanical maintenance bypass.
  If a separate battery concept is also added (available on request), the overall system will have no single point of failure, and is ideally suited to critical applications
- As your performance requirements grow, the UPS grows with you thanks to its flexible scalability, thereby keeping investment costs low

Benefits:
- High operating ratio of up to 96%, even in part-load operation
- Different battery concepts may be implemented
- Minimal space requirements, and therefore a high UPS performance density
- Various different battery concepts (joint/separate) are possible
- Various climate control concepts, e.g. water-cooled UPS system with Rittal LCP
- Extendible while operational, minimal capital tie-up
- Only the front needs to be accessible for installation and maintenance

Supply includes:
UPS rack for the mounting of 5 UPS modules

Protection category:
IP 20 to EN 60 529

Note:
– Only UPS modules with an identical output may be combined.
– Special parallel adaptors and cables are required for connecting several UPS racks in parallel.

Technical information:
Available on the Internet.

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

PMC 200, 3-phase, 24 – 1000 kW

Dimensions (UPS rack, without base/plinth) width x height x depth mm	Packs of	600 x 2000 x 800	600 x 2000 x 1000
Model No. UPS basic rack (max. 5 UPS modules)		**7857.585**	**7857.580**
Model No. UPS battery rack[1], max. 120 batteries, type 12 V/28 Ah, width 600 mm (joint battery configuration)		**on request**	**7857.590**
Model No. UPS battery rack[1], max. 150 batteries, type 12 V/28 Ah, width 800 mm (joint battery configuration)		**7040.361**	**7857.364**
Model No. PMC 200 24 kW (30 kVA) UPS output module	1	**7857.230**	**7857.230**
Model No. PMC 200 32 kW (40 kVA) UPS output module	1	**7857.235**	**7857.235**
Model No. PMC 200 40 kW (50 kVA) UPS output module	1	**7857.240**	**7857.240**
Max. number of UPS output modules per rack		5	
Max. UPS output per rack (with 24 kW/32 kW/40 kW modules)		120/160/200 kW	
Max. UPS output per rack (with 30 kVA/40 kVA/50 kVA modules, cos phi 0.8)		150/200/250 kVA	
UPS output per rack with n+1 redundancy (with 24 kW/32 kW/40 kW modules)		96/128/160 kW	
Accessories			
Battery rack connection cable (joint batteries, length 4 m)	1	7857.687	7857.687
Batteries for battery rack (type 12 V/28 Ah EUROBAT10, packs of 10) Note: Order the required number of batteries as per the configuration table (see Internet)!	10	7857.373	7857.373
UPS monitoring card (SNMP monitoring card)	1	7857.420	7857.420
RCCMD software, bundle with 5 licences for selective shutdown of 5 computers (only available in conjunction with UPS hardware)	1	7857.423	7857.423
RCCMD software, bundle with 25 licences for selective shutdown of 25 computers (only available in conjunction with UPS hardware)	1	7857.424	7857.424
Base/plinth components, front and rear, RAL 7035, 800 mm wide, 100 mm high	1 set	8601.805	8601.805
Base/plinth trim panels, side, RAL 7035, 800/1000 mm deep, 100 mm high	1 set	8601.085	8601.815

[1] Batteries not included with the supply of the battery rack.
Separate battery configuration available on request.

Power PDU

Configuration examples Page 42

Benefits:
- Thanks to the compact PDU, any IT rack may be easily equipped with a professional power distribution system. With the TS IT rack, assembly is even tool-free
- Compact design
- Easy to assemble
- Power-saving design, minimal consumption by the PDU itself, thanks to the use of bistable relays and OLED display with power-saving function
- Integral Web server for direct network connection with extensive user administration (not PDU basic/slave PDU)
- Redundant power supply from all 3 phases and additionally via an existing PoE (Power over Ethernet) network
- Extensive management and monitoring functions
- High-MTBF and measurement accuracy of 1%
- CAN bus for connecting slave PDUs (not with PDU basic)
- Ambient monitoring with up to 4 CMC III sensors (e.g. temperature, humidity, access)

PDU design variants:
PDU basic
Robust, compact basic power distributor for the IT environment

PDU metered
Energy measurement per phase, i.e. output requirement of an entire IT rack

PDU switched
Measurement function per phase and individually switchable output slots

PDU managed
High-end IT rack, power distribution with energy measurement and monitoring functions for each individual output slot

Material:
Extruded aluminium section, anodised

Protection category:
IP 20 to EN 60 529

Standards:
– IEC 60 950
– IEC 61 000-4
– IEC 61 000-6
– EN 55 022

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

PDU international, basic version

Power		Pin patterns			Dimensions		Model No. DK
No. of phases	Phase current	Input	Outputs C13	Outputs C19	PDU length mm	Minimum enclosure height mm	
1	16 A	CEE	24	4	1110	1200	**7955.110**
1	32 A	CEE	24	4	1255	1400	**7955.111**
3	16 A	CEE	18	3	980	1200	**7955.131**
3	16 A	CEE	24	6	1300	1400	**7955.132**
3	32 A	CEE	24	6	1575	1800	**7955.133**
3	32 A	CEE	36	6	1910	2000	**7955.134**
3	16 A	CEE	42	none	1580	1800	**7955.135**

Power PDU

PDU international, metered version

Power		Pin patterns			Dimensions		Model No. DK
No. of phases	Phase current	Input	Outputs C13	Outputs C19	PDU length mm	Minimum enclosure height mm	
1	16 A	C20	12	none	700	800	**7955.201**
1	16 A	CEE	24	4	1270	1400	**7955.210**
1	32 A	CEE	24	4	1420	1600	**7955.211**
3	16 A	CEE	18	3	1135	1400	**7955.231**
3	16 A	CEE	24	6	1460	1600	**7955.232**
3	32 A	CEE	24	6	1730	2000	**7955.233**
3	32 A	CEE	36	6	2110	2200	**7955.234**
3	16 A	CEE	42	none	1730	2000	**7955.235**
3	32 A	CEE	48	none	2110	2200	**7955.236**
3	63 A	CEE	12	12	–	1200	**7955.238**

PDU international, switched version

Power		Pin patterns			Dimensions		Model No. DK
No. of phases	Phase current	Input	Outputs C13	Outputs C19	PDU length mm	Minimum enclosure height mm	
1	16 A	C20	12	none	695	800	**7955.301**
1	16 A	CEE	24	4	1270	1400	**7955.310**
1	32 A	CEE	24	4	1420	1600	**7955.311**
3	16 A	CEE	18	3	1135	1400	**7955.331**
3	16 A	CEE	24	6	1460	1600	**7955.332**
3	32 A	CEE	24	6	1730	2000	**7955.333**
3	32 A	CEE	36	6	2110	2200	**7955.334**
3	16 A	CEE	42	none	1730	2000	**7955.335**
3	32 A	CEE	48	none	2110	2200	**7955.336**

PDU international, managed version

Power		Pin patterns			Dimensions		Model No. DK
No. of phases	Phase current	Input	Outputs C13	Outputs C19	PDU length mm	Minimum enclosure height mm	
1	16 A	C20	12	none	695	800	**7955.401**
1	16 A	CEE	24	4	1270	1600	**7955.410**
1	32 A	CEE	24	4	1420	1600	**7955.411**
3	16 A	CEE	18	3	1135	1400	**7955.431**
3	16 A	CEE	24	6	1460	1800	**7955.432**
3	32 A	CEE	24	6	1730	1800	**7955.433**
3	32 A	CEE	36	6	2110	2200	**7955.434**
3	16 A	CEE	42	none	1730	2000	**7955.435**
3	32 A	CEE	48	none	2110	2200	**7955.436**

Slave PDU international, managed version

Power		Pin patterns			Dimensions		Model No. DK
No. of phases	Phase current	Input	Outputs C13	Outputs C19	PDU length mm	Minimum enclosure height mm	
1	16 A	C20	12	none	695	800	**7955.901**
1	16 A	CEE	24	4	1270	1600	**7955.910**
1	32 A	CEE	24	4	1420	1600	**7955.911**
3	16 A	CEE	18	3	1135	1400	**7955.931**
3	16 A	CEE	24	6	1460	1600	**7955.932**
3	32 A	CEE	24	6	1730	2000	**7955.933**

PDU UK, basic version

Power		Pin patterns			Dimensions		Model No. DK
No. of phases	Phase current	Input	Outputs UK connector	Outputs C19	PDU length mm	Minimum enclosure height mm	
1	13 A	UK	6	none	555	600	**7955.510**
1	13 A	UK	8	none	645	600	**7955.511**
1	13 A	UK	10	none	735	800	**7955.512**
1	13 A	UK	12	none	825	800	**7955.513**

PDU UK, metered version

Power		Pin patterns			Dimensions		Model No. DK
No. of phases	Phase current	Input	Outputs UK connector	Outputs C19	PDU length mm	Minimum enclosure height mm	
1	13 A	UK	16	none	1165	1400	**7955.520**
1	16 A	CEE	24	4	1270	1600	**7955.521**
1	32 A	CEE	24	4	1420	1600	**7955.522**

PDU UK, switched version

Power		Pin patterns			Dimensions		Model No. DK
No. of phases	Phase current	Input	Outputs UK connector	Outputs C19	PDU length mm	Minimum enclosure height mm	
1	16 A	CEE	16	4	1020	1200	**7955.530**
1	32 A	CEE	16	4	1020	1200	**7955.531**
1	13 A	UK	16	none	1165	1200	**7955.532**

PDU UK, managed version

Power		Pin patterns			Dimensions		Model No. DK
No. of phases	Phase current	Input	Outputs UK connector	Outputs C19	PDU length mm	Minimum enclosure height mm	
1	16 A	CEE	16	4	1020	1200	**7955.540**
1	32 A	CEE	16	4	1020	1200	**7955.541**
1	13 A	UK	16	none	1165	1600	**7955.542**

Slave PDU UK, managed version

Power		Pin patterns			Dimensions		Model No. DK
No. of phases	Phase current	Input	Outputs UK connector	Outputs C19	PDU length mm	Minimum enclosure height mm	
1	13 A	UK	16	none	965	1200	**7955.940**
1	16 A	CEE	16	4	1010	1200	**7955.941**
1	32 A	CEE	16	4	1010	1200	**7955.942**

PDU accessories

	Packs of	Model No. DK
Covers for C13 socket, lockable	10	**7955.010**
Covers for C19 socket, lockable	10	**7955.015**
Connector, universal lock for C14/C20 connector	20	**7955.020**
Connection cable D/C20	1	**7200.216**

CMC III sensors

CMC III/PDU sensor type	Packs of	Model No. DK
Temperature sensor	1	**7030.110**
Temperature/humidity sensor (combi-sensor)	1	**7030.111**
Infrared access sensor	1	**7030.120**
Vandalism sensor	1	**7030.130**
CMC III CAN bus connection cable RJ 45 (1 m long)	1	**7030.091**[1)]

[1)] Other cable lengths may be found under CMC III accessories in Catalogue 33, page 774.

Power PDU

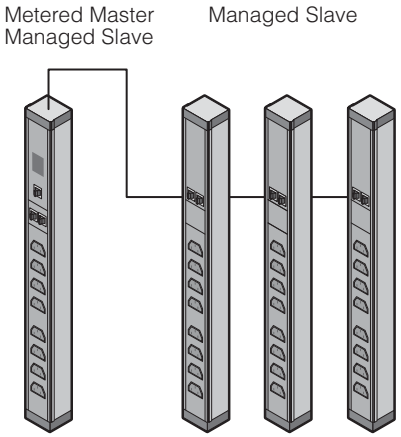
Configuration examples

PDU version[1)]	managed	switched	metered	basic
Mechanical				
May be fitted in the Zero-U space in the 600 mm wide Rittal IT rack	■	■	■	■
Colour coding of phases and fuse circuits (depending on PDU version)	■	■	■	■
Connection cable, static, 3 m, with CEE connector (IEC 60 309) or C20	■	■	■	■
Electromagnetic safety switch, 16 A, type C (only with 32 A/63 A PDU versions)	■	■	■	■
Connector lock for C13 and C19 pin patterns (optional)	■	■	■	■
Lockable cover for unneeded slots (for C13/C19)	■	■	–	–
PDU slave version without display and Ethernet connection for use with PDU master and CMC III	■	–	–	–
Electrical				
Power supply 110 V – 230 V/400 V, inherent consumption approx. 15 W	■	■	■	–
Rated current 16 A/32 A, single-phase/3-phase	■	■	■	■
Version additionally 63 A/3-phase (blade PDU, no Zero-U)	–	–	■	–
PDU self-supplied, no external power supply required	■	■	■	–
PDU power supply redundant across all phases (with 3-phase PDUs)	■	■	■	–
Emergency power supply to PDU web server via PoE (Power over Ethernet), remains accessible even in the event of a mains failure	■	■	■	–
Switching function per output slot	■	■	–	–
Sequential activation of the outputs once the power is resumed (avoids overload peaks)	■	■	–	–
Switching states are saved even in the event of a power failure	■	■	–	–
Bistable relays/minimal power consumption	■	■	–	–
Grouping (joint switching of several outputs)	■	■	–	–
Measurement functions				
Voltage (V), current (A), frequency (Hz)	■	■	■	–
Active power (kW), active energy (kWh), apparent power (VA), apparent energy (kVA)	■	■	■	–
Power factor (cos phi) and phase angle	■	■	■	–
Zero conductor measurement/load imbalance detection	■	■	■	–
Fuse monitoring (with 32 A/63 A versions)	■	■	■	–
Measurement per phase or infeed	–	■	■	–
Measurement per output slot	■	–	–	–
Measurement accuracy 1% (kWh) to IEC 50 430-1	■	■	■	–
Connectivity/management functions				
Powerful 400 MHz CPU and Linux operating system (not with slave versions)	■	■	■	–
Graphic OLED display 128 x 128 pixels (RGB) with back-lighting and energy-saving mode (display of output data and basic IP configuration)	■	■	■	–
Position sensor for display rotation (and correct visualisation in the DCIM software RiZone)	■	■	■	–
Multi-colour LEDs (green/amber/red) to indicate switching states and limits per phase or infeed	–	■	–	–
Multi-colour LEDs (green/amber/red) to indicate switching states and limits per individual output slot	■	–	–	–
Settable limits (warning/alarm)	■	■	■	–
Operating hours meter, total and cyclical (resettable)	■	■	■	–
Ethernet connection (RJ 45)	■	■	■	–
USB A-port for firmware update and datalogging functions	■	■	■	–
CAN bus interface (RJ 45)	■	■	■	–
Web server (HTTP, HTTPS, SSL, SSH) NTP, Telnet	■	■	■	–
TCP/IP v4 and v6, DHCP	■	■	■	–
SNMP v1, v2c and v3	■	■	■	–
FTP/SFTP (update/file transfer)	■	■	■	–
E-mail forwarding in case of alarm (SMTP)	■	■	■	–
User administration including rights management	■	■	■	–
LDAP(S)/Radius/Active Directory connection	■	■	■	–
Syslog server connection (max. 4 servers)	■	■	■	–
Plug & play drivers in the Rittal RiZone DCIM software	■	■	■	–
MIB for linking into 3rd party software	■	■	■	–
Suitable for connection to Rittal CMC III system	■	■	■	–
CMC III CAN bus sensors may be connected for ambient monitoring (max. 4 sensors)	■	■	■	–
CMC III sensors that may be used: Temperature sensor, temperature/humidity sensor, infrared access sensor, vandalism sensor	■	■	■	–
Ambient conditions				
Operating temperature	0 to 50°C	0 to 50°C	0 to 50°C	0 to 50°C
Storage temperature	–25 to +70°C	–25 to +70°C	–25 to +70°C	–25 to +70°C
Ambient humidity (non-condensing)	10 to 95%	10 to 95%	10 to 95%	10 to 95%
Protection category to IEC 60 529	IP 20	IP 20	IP 20	IP 20

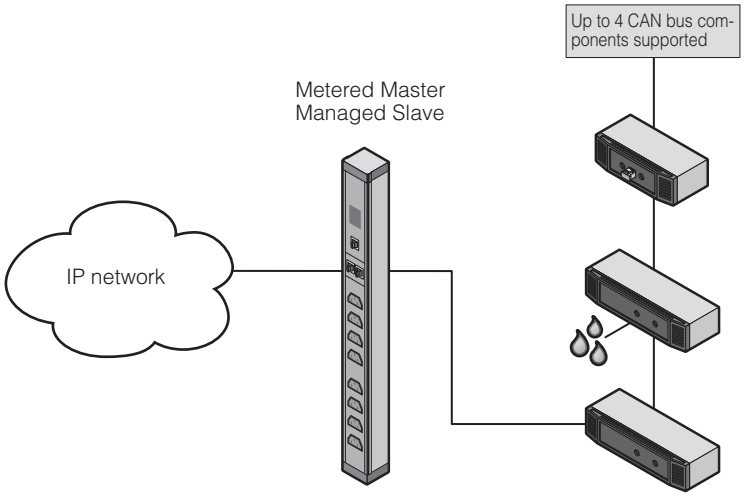
[1)] Special versions with UL approval or alternative slot configurations available on request.

Sample applications

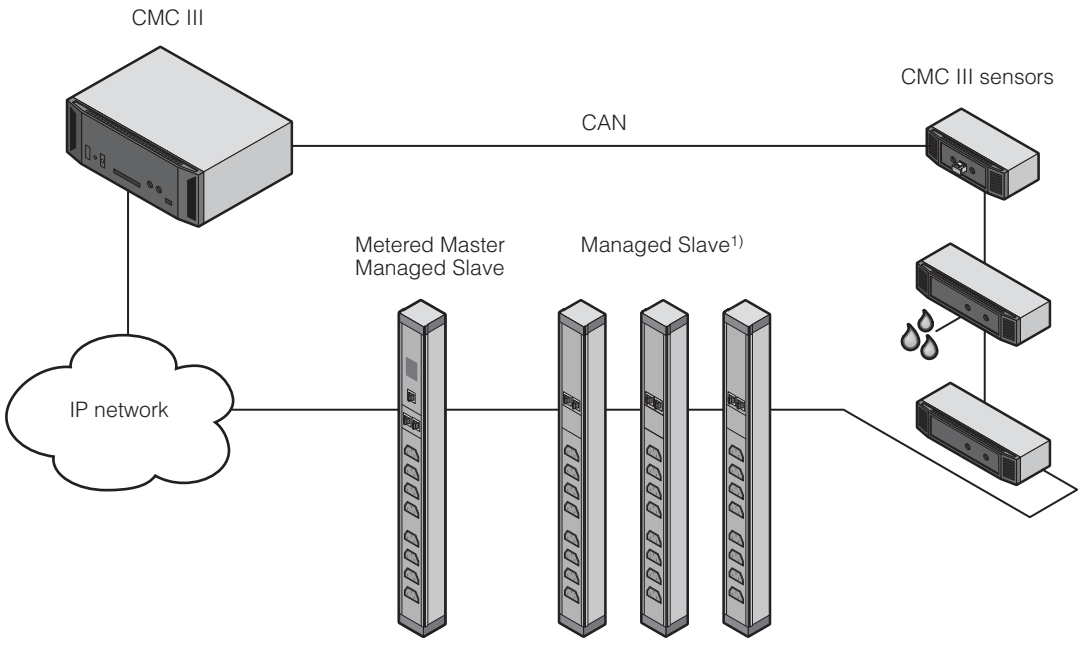
Master-slave principle
Up to 3 slave PDUs may be connected to one PDU.



Connection of CAN bus sensors
Up to 4 additional CMC III CAN bus sensors may be connected to the PDU master for ambient monitoring (temperature, humidity, access).



Configuration example for a redundant network structure
Monitoring across two separate networks.
The leading system is configurable.



1) No display and web server

Power System Module

Blade bars for direct connection without gateway to the Rittal CMC III system. With a PSM mounting kit, the blade bar may be vertically mounted in a 2000 mm high Rittal TS 8 or in the TS IT rack.
Display and monitoring of all major output parameters is supported, separated by phase and infeed. An integral display provides a local on-site display in the rack.
Remote administration and network connectivity are created via the CMC III system.

Benefits:
- Modular extendible system
- For 16 A and 32 A phase current
- Various PSM connection modules (pin patterns)
- PSM modules may be connected with the system operational
- VDE-tested, shock-hazard-protected system
- Easy to assemble
- CAN bus for connection to CMC III system
- Extensive management and monitoring functions (via CMC III)
- High-MTBF and measurement accuracy of 1%
- Energy-efficient electric design – minimal intrinsic consumption
- High-quality aluminium housing, for flexible mounting

Measurement functions:
- Voltage (V), current (A), frequency (Hz)
- Active power (kW), active energy (kWh), apparent power (VA), apparent energy (kVAh)
- Power factor (cos phi) and phase angle
- Zero conductor measurement/ load imbalance detection
- Measurement per phase or infeed
- Measurement accuracy 1% (kWh) to IEC 50 430-1

Material:
Extruded aluminium section, anodised

Protection category:
IP 20 to EN 60 529

Standards:
- IEC 60 950
- IEC 61 000-4
- IEC 61 000-6
- EN 55 022
- etc.

Safety directive:
2006/95/EC

PSM measurement bar for CMC III

Model No. DK	7859.050	7859.053
Version/rated current (per phase)	16 A	32 A
No. of infeeds (each 3-phase)	2	1
Connection cable, plug-in, various versions	■	–
Connection cable, static, 3 m, with CEE connector, 32 A, single-phase (IEC 60 309)	–	■
Electromagnetic safety switch (32 A, type C)	–	■
Input voltage 230 V/400 V (50/60 Hz)	■	■
Power supply via CMC III system (24 V DC)	■	■
CAN bus for direct connection to CMC III system (RJ 45, 2 x socket)	■	■
Maximum no. of systems that may be connected to one CMC-PU III	8	8
Ambient conditions		
Operating temperature/storage temperature	0 to 45°C/–25 to +70°C	
Ambient humidity (non-condensing)	10 to 95%	
Accessories		
PSM connection cable, 3-phase, with CEE connectors (IEC 60 309), length 3 m (2 x required when using both infeeds)	7856.025	Fixed installation
PSM mounting kit for mounting on the enclosure frame	7856.011	7856.011
PSM module 4 x earthing-pin, black	7856.100	7856.100
PSM module 4 x earthing-pin, red	7856.240	7856.240
PSM module 6 x C13	7856.080	7856.080
PSM module 4 x C19	7856.230	7856.230
PSM module 3 x UK connectors (BS 1363)	7856.160	7856.160
Other PSM modules	see Cat. 33, page 385	

■ Included with the supply.

CMC III monitoring system Page 58

For upgrading existing installations or for measuring individual 16 A/32 A equipment, the PSM 1 U MID measurement modules may be used. These are readily integrated into the 482.6 mm (19″) level or into the Zero-U space of the rack, and connected using suitable connection cables. These measurement modules have an MID-compliant active energy meter and are therefore suitable for energy billing purposes.
MID stands for “Measurement Instruments Directive” and regulates 10 types of measurement equipment based on EU Directive 2004/22/EC. MID-approved equipment is authorised for use throughout the EU.

Benefits:
- For 16 A and 32 A phase current
- Easy to assemble
- Billable MID measurement units
- CAN bus for connection to CMC III system
- Extensive management and monitoring functions (via CMC III)
- High-MTBF and measurement accuracy of 1%
- Energy-efficient electric design – minimal intrinsic consumption
- 1 U, 482.6 mm (19″) sheet steel enclosure, for flexible mounting

Measurement functions:
- Voltage (V), current (A), frequency (Hz)
- Active power (kW), active energy (kWh), apparent power (VA), apparent energy (kVA)
- Power factor (cos phi) and phase angle
- Zero conductor measurement/ load imbalance detection
- Measurement per phase or infeed
- Measurement accuracy 1% (kWh) to IEC 50 430-1
- MID certification of the active energy meter, suitable for energy billing purposes

Material:
Enclosure: Sheet steel

Colour:
RAL 9005

Protection category:
IP 51 to EN 60 529

Standards:
– IEC 60 950
– IEC 61 000-4
– IEC 61 000-6
– EN 55 022
– etc.

Safety directive:
2006/95/EC

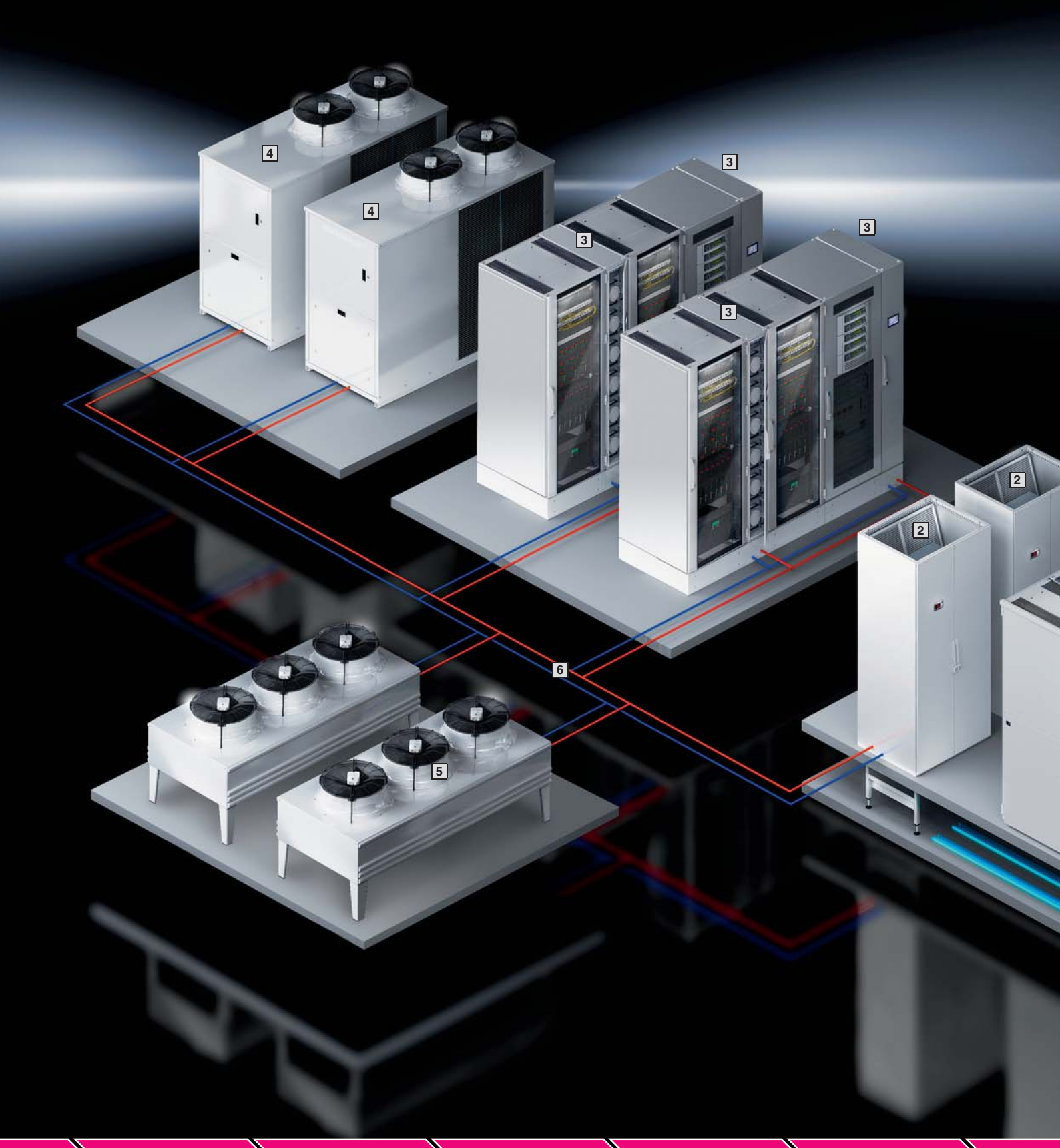
PSM MID measurement module for CMC III

Model No. DK	**7859.312**	**7959.332**
Design	16 A	32 A
Sheet steel enclosure 1 U for 482.6 mm (19″) mounting, approx. 200 mm deep	■	■
Assembly parts	■	■
Connection cable, plug-in, various versions	■	■
Input voltage 230 V/400 V (50/60 Hz)	■	■
No. of infeeds (each 3-phase)	2	2
Rated current (per phase)	16 A	32 A
Power supply across all 3 phases (internal power pack)	■	■
Maximum no. of systems that may be connected to one CMC-PU III	16	16
Ambient conditions		
Operating temperature	0 to 45°C	0 to 45°C
Storage temperature	–25 to +70°C	–25 to +70°C
Ambient humidity (non-condensing)	10 to 95%	10 to 95%
Accessories		
Connection cable kit, 1 x input 3 m/1 x output 1 m CEE (IEC 60 309) (2 x required when using both infeeds)	7859.315	7859.335
Connection cable for PSM bars (with Wago-X-Com connector) (2 x required when using both infeeds)	7859.316	–

■ Included with the supply.

Rittal IT climate control

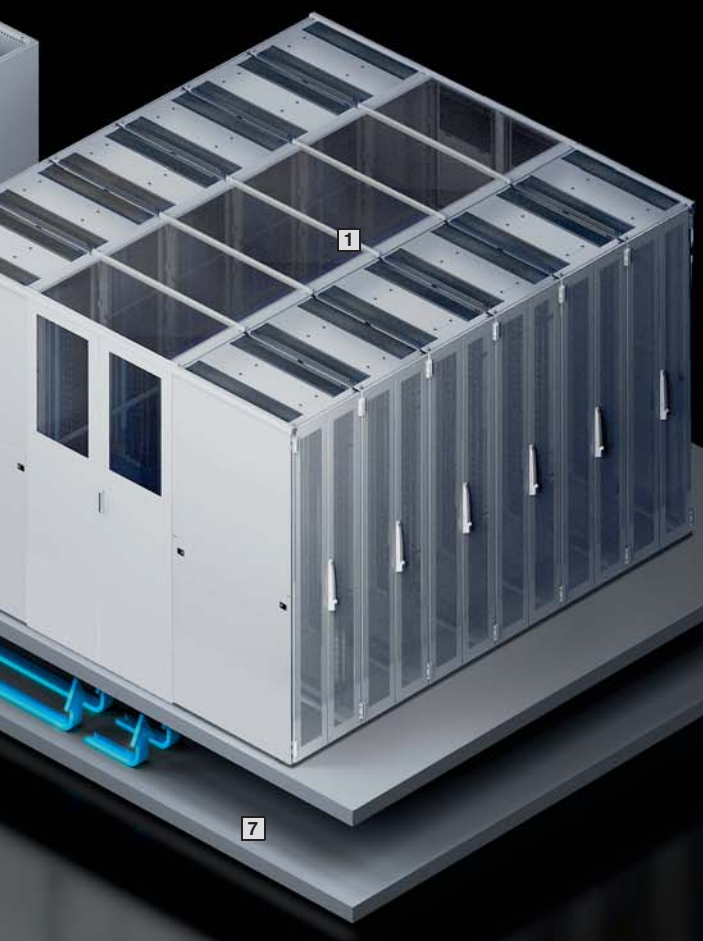
As individual as your requirements



Rittal – The System.

Faster – better – worldwide.

- State-of-the-art climate control technology, from cooling a single rack through to entire data centres
- Individual climate control concepts for rack, suite and room cooling
- Enhanced security plus superior energy and cost efficiency
- Optimisation with aisle containment and cross-system control concepts
- Planning, assembly, commissioning and servicing – all from a single supplier!



Sample applications

1 Aisle containment, see Catalogue 33, page 460
2 Rittal CRAC systems, see Catalogue 33, page 456
3 Liquid Cooling Package LCP, see page 48
4 IT chillers, see Catalogue 33, page 454
5 Free cooling
6 Pipework
7 Raised floor for cold air supply

Liquid Cooling Package

Accessories Page 50

Benefits:
- Maximum energy efficiency thanks to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Optimum adaptability thanks to dynamic, continuous control of the cold water volume flow
- By using high water inlet temperatures, the proportion of indirect free cooling is increased, which in turn reduces operating costs
- Targeted cooling output thanks to modular box-type plug-in fan units
- Box-type plug-in fan units configurable as n+1 redundancy
- Standard 3-phase connection for electrical redundancy
- With redundant temperature sensor integrated at the air end as standard
- The separation of cooling and rack prevents the ingress of water into the server enclosure
- Up to 55 kW cooling output on a footprint of just 0.36 m²
- Minimal area load thanks to low weight
- Touchscreen display may be retrofitted

Monitoring:
Monitoring of all system-relevant parameters such as:
- Server air intake temperature
- Server waste air temperature
- Water inlet/return temperature
- Water flow
- Cooling output
- Fan speed
- Leakage
- Optional sensors
- Direct connection of the unit via SNMP over Ethernet
- Integration into RiZone

Application and mode of operation:
The LCP draws in the air at the sides at the rear of the server enclosures, cools it using high-performance compact impellers, and blows the cooled air back into the front part of the server enclosure at the sides.

Colour:
- RAL 7035
- Special colours available on request.

Protection category:
IP 40 to EN 60 529

Technical information:
Available on the Internet.

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

TopTherm LCP Rack CW

Cooling medium		Water (for specifications see Internet)								
Model No. SK		**3311.130**			**3311.230**			**3311.260**		
Variant in relation to rack suite		Flush			Flush			Flush		
Rated operating voltage V, Hz		230, 1~, 50/60, 400, 3~, 50/60			230, 1~, 50/60, 400, 3~, 50/60			230, 1~, 50/60, 400, 3~, 50/60		
Dimensions mm	W x H x D	300 x 2000 x 1000			300 x 2000 x 1200			300 x 2000 x 1200		
	Height 2200	on request			on request			on request		
No. of fans in supplied state		1			1			4		
Useful cooling output		**10 kW**	**20 kW**	**30 kW**	**10 kW**	**20 kW**	**30 kW**	**40 kW**	**45 kW**	**55 kW**
Number of fans required		1	2	3	1	2	3	4	5	6
Air throughput, max.		4800 m³/h						8000 m³/h		
Water inlet temperature		15°C								
Permissible operating pressure		6 bar								
Duty cycle		100%								
Electrical connection		Connector								
Water connection		1 1/2″ external thread								
Weight, max.		200 kg	207 kg	214 kg	200 kg	207 kg	214 kg	221 kg	228 kg	235 kg
Temperature control		Linear fan control								
		Two-way control valve								
Fans may be exchanged with the system operational		yes			yes			yes		
EC fan		■			■			■		

Accessories	Packs of				Page
Fan module	1	3311.010	3311.010	3311.010	50
Touchscreen display, colour	1	3311.030	3311.030	3311.030	465[1)]
Connection hose, top	2	3311.040	3311.040	3311.040	465[1)]

■ Included with the supply. [1)] See Catalogue 33.

Liquid Cooling Package

Accessories Page 50

Benefits:
- Maximum energy efficiency thanks to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Optimum adaptability thanks to dynamic, continuous control of the cold water volume flow
- By using high water inlet temperatures, the proportion of indirect free cooling is increased, which in turn reduces operating costs
- Targeted cooling output thanks to modular box-type plug-in fan units
- Box-type plug-in fan units configurable as n+1 redundancy
- Standard 3-phase connection for electrical redundancy
- With redundant temperature sensor integrated at the air end as standard
- The separation of cooling and rack prevents the ingress of water into the server enclosure
- Up to 55 kW cooling output on a footprint of just 0.36 m^2
- Minimal area load thanks to low weight
- Touchscreen display may be retrofitted

Monitoring:
Monitoring of all system-relevant parameters such as:
- Server air intake temperature
- Server waste air temperature
- Water inlet/return temperature
- Water flow
- Cooling output
- Fan speed
- Leakage
- Optional sensors
- Direct connection of the unit via SNMP over Ethernet
- Integration into RiZone

Note:
Height 2200 mm available on request.

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

Application and mode of operation:
The LCP is designed for siting within a bayed enclosure suite. The hot air is drawn in from the room or hot aisle at the rear of the device and expelled at the front into the cold aisle after cooling. The LCP achieves maximum performance and efficiency in conjunction with aisle containment. A raised floor is not required.

Colour:
- RAL 7035
- Special colours available on request.

Protection category:
IP 40 to EN 60 529

Technical information:
Available on the Internet.

TopTherm LCP Inline CW

Cooling medium		Water (for specifications see Internet)								
Model No. SK		**3311.530**			**3311.540**			**3311.560**		
Variant in relation to rack suite		Set forward			Flush			Set forward		
Rated operating voltage V, Hz		230, 1~, 50/60, 400, 3~, 50/60			230, 1~, 50/60, 400, 3~, 50/60			230, 1~, 50/60, 400, 3~, 50/60		
Dimensions mm	W x H x D	300 x 2000 x 1200			300 x 2000 x 1200			300 x 2000 x 1200		
No. of fans in supplied state		1			Available on request.			4		
Useful cooling output		**10 kW**	**20 kW**	**30 kW**	**30 kW**	**30 kW**	**30 kW**	**40 kW**	**45 kW**	**55 kW**
Number of fans required		1	2	3	–	–	–	4	5	6
Air throughput, max.		4800 m^3/h						8000 m^3/h		
Water inlet temperature		15°C								
Permissible operating pressure		6 bar								
Duty cycle		100%								
Electrical connection		Connector								
Water connection		$1^1/_2$″ external thread								
Weight, max.		200 kg	207 kg	214 kg	–	–	–	221 kg	228 kg	235 kg
Temperature control		Linear fan control								
		Two-way control valve								
Fans may be exchanged with the system operational		yes			yes			yes		
EC fan		■			■			■		

Accessories	Packs of				
Fan module	1	3311.010	on request	3311.010	50
Touchscreen display, colour	1	3311.030	3311.030	3311.030	465[1)]
Connection hose, top	2	3311.040	3311.040	3311.040	465[1)]
Rear adaptor for LCP Inline	1	3311.080	–	3311.080	50

■ Included with the supply. [1)] See Catalogue 33.

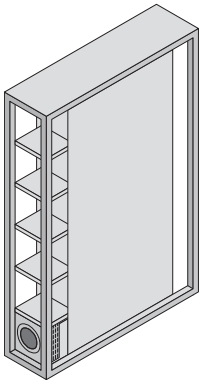
Accessories

Fan module

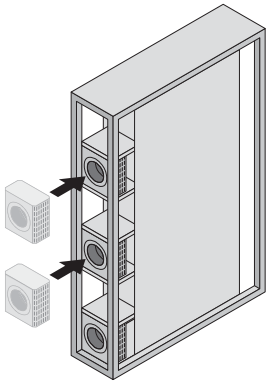
for LCP

To increase the cooling output, individual fan modules may be retro-fitted into the LCPs. Additional integration can also achieve redundancy or reduce the electric power consumption of the LCPs.

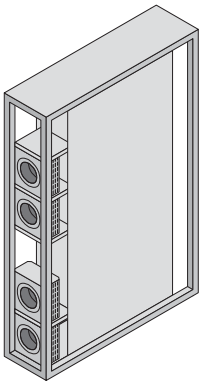
For LCP	Packs of	Model No. SK
SK 3311.130, SK 3311.230, SK 3311.260, SK 3311.530, SK 3311.560	1	**3311.010**



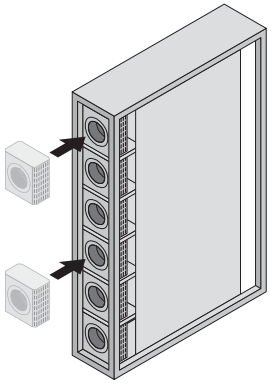
The LCP SK 3311.130/.230/.530 (max. 30 kW) is supplied with one fan module as standard.



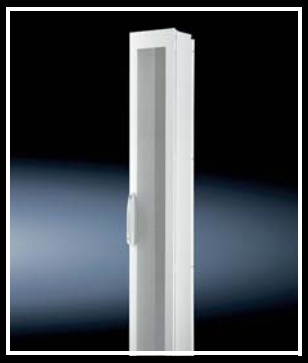
To achieve the max. cooling output of 30 kW, the customer/service needs to install two additional fan modules.



The LCP SK 3311.260/.560/.530 (max. 55 kW) is supplied with four fan modules as standard.



To achieve the max. cooling output of 55 kW, the customer/service needs to install two additional fan modules.



Rear adaptor

for LCP Inline

May be positioned to the rear of the set forward LCP Inline to close the existing gap in the rear section.

For LCP	Packs of	Model No. SK
SK 3311.530, SK 3311.560	1	**3311.080**

The IT roof-mounted cooling unit, with its regulated air intake and front-to-back air routing, is specifically designed for the energy-efficient climate control of IT racks.

Technical specifications:
– Duty cycle: 100%
– Type of connection: Plug-in terminal strip

Protection category:
– External circuit IP 34 to EN 60 529
– Internal circuit IP 54 to EN 60 529

Supply includes:
– Nano-coated condenser
– Integral electric condensate evaporation
– Fully wired ready for connection
– Drilling template
– Assembly parts

Approvals:
Available on the Internet.

Detailed drawings:
Available on the Internet.

Performance diagrams:
Available on the Internet.

TopTherm, useful cooling output 3000 W

Model No. SK		**3301.800**	Cat. 33, page
Material		Sheet steel	
Colour		RAL 7035	
Rated operating voltage V, Hz		230, 1~, 50	
Dimensions mm	W x H x D	597 x 417 x 895	
Useful cooling output $\dot{Q}_K$ to DIN 3168	**L 35 L 35** **L 35 L 50**	**3000 W** **3200 W**	

Rated current max.		9.2 A	
Start-up current		36.0 A	
Pre-fuse T		Air circuit-breaker 16.0 A	
Power consumption P_{el} to DIN 3168	L 35 L 35 L 35 L 50	1820 W 2325 W	
Refrigeration factor $\varepsilon = \dot{Q}_K/P_{el}$	L 35 L 35	1.6	
Refrigerant		R134a, 700 g	
Operating temperature and setting range		+20 °C to +50 °C	
Weight		72 kg	
Air throughput of fans	External circuit	1850 m³/h	
	Internal circuit	1450 m³/h	
Temperature control		e-Comfort controller (regulation of air intake temperature)	

Accessories		Packs of		
Air baffle plate, roof		1	Available on request	
Air baffle plate for side containment	600 mm wide	1	7151.206	755
	800 mm wide	1	7151.208	755
Quick-change frame		1	3286.900	479
Cage nuts		50	2094.400	758
SK BUS system		1	3124.100	477
Blanking panel		1	7151.110	761
Condensate hose		1	3301.612	485

Special voltages available on request. We reserve the right to make technical modifications.
Unassigned U must be sealed with blanking panels in order to utilise the front-to-back air routing.

Rittal IT security

So secure, you can sit back and relax

Rittal – The System.

Faster – better – worldwide.

- High-level physical security
- Complete systems with integral climate control and extinguisher system
- Exceptionally user- and service-friendly

Sample applications

1 Modular Safe with climate control,
see Catalogue 33, page 505, 507

2 Basic Safe with CMC and extinguisher system,
see Catalogue 33, page 504

3 Modular Safe Extend as compact data centre,
see Catalogue 33, page 506

Modular Safe

Applications:
Solid protection against potential physical threats for IT components. Targeted configuration components transform the safe into a complete, compact data centre.

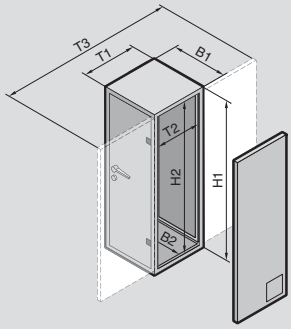
Benefits:
- TS 8 frame with protection standards
- Modular assembly
- Low weight
- Easier cable entry
- Fast assembly

Protection standards:
– Fire protection F 90 to EN 1363 and based on DIN 4102
– Theft protection RC 2 based on EN 1630
– Acrid gas-tightness based on EN 1634
– Protection category IP 56 to IEC 60 529

Material:
Pladur® plate

Colour:
– Enclosure and rear door: RAL 7035
– Operator door: RAL 9005

Supply includes:
– Safe with integral TS 8 frame
– Cable duct in both side elements
– Operator and service door with swing-lever handle and semi-cylinder



Level B

U		42	47	42	47
External dimensions mm	Width (B1)	1115	1115	1115	1115
	Height (H1)	2205	2405	2205	2405
	Depth (T1)	1265	1265	1465	1465
	Depth (T3)	3274	3274	3474	3474
Internal dimensions mm	Width (B2)	900	900	900	900
	Height (H2)	2000	2200	2000	2200
	Depth (T2)	1060	1060	1260	1260
Model No. LS		**7999.710**	**7999.720**	**7999.730**	**7999.740**
Product-specific supply scope					
Cable duct in both side elements, bottom		■	■	■	■
Operator door with swing-lever handle and semi-cylinder		■	■	■	■
Service door with swing-lever handle and semi-cylinder		■	■	■	■
Suitable for baying		yes	yes	yes	yes
Optional accessories					
Electronic lock with key combination		on request			
Electronic lock for external activation		on request			
Easier cable entry system		on request			
Cable entries in the top and base unit		on request			
Cable entry in the side unit, top		on request			

■ Included with the supply.

Data Centre Container DCC

Application:
A coordinated range of configuration components transforms the Data Center Container into a turnkey data centre for mobile or temporary use of IT components.

Benefits:
- All infrastructure components from a single supplier
- Turnkey system
- Coordinated concept
- Minimal transport costs

Technical specifications:

Container:
– Fire protection of the inner panels: F30 based on EN1363, component-tested
– Basic properties: ISO 20 foot high cube container

Duct system:
– Type: Hard duct DN200
– Dimensions of packing space: 120 x 120 mm

Raised floor:
– Substructure type: Control room
– Total raised height: 300 mm

Power distribution:
Infeed:
CEE connector 125 A, 3-phase/N/PE, 400 V/50 Hz

Climate control:
– Type: Rittal Liquid Cooling Package (LCP)
– Wattage: 40 kW (1+1) redundancy

IT racks:
482.6 mm (19˝) rack: TS IT (with vented door for room climate control)

Optional:
– UPS, PMC 40 (type 5)
– Fire alarm and extinguisher system (DET-AC XL)
– Bespoke access systems
– Monitoring and management (CMC, RiZone)
– Cooling output up to 60 kW per LCP

Detailed drawings:
Available on the Internet.

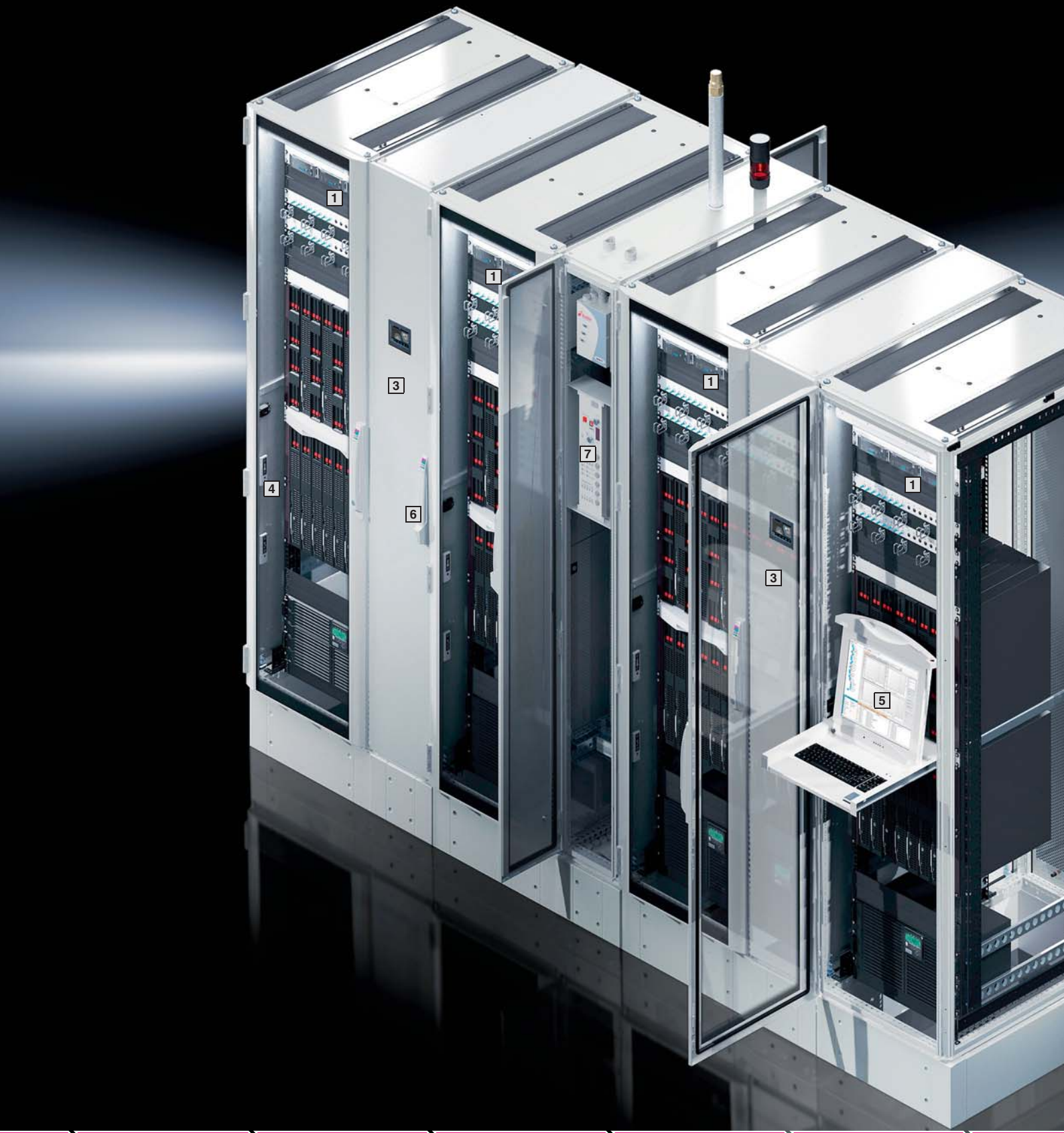
Width (B) mm	2438
Height (H) mm	2900
Length (T) mm	6058
Useful area	11.2 m^2
Model No. DK	Project planning on request

Cooling capacity kW	40
Redundancy cooling	1+1
Heavy-duty raised floor	■
Plug-and-play power distribution	■
Hard ducts DN200	3 x
UPS (uninterruptible power supply)	□
DET-AC XL fire alarm/extinguisher system	□
Max. no. of racks 42 U (600 mm wide)	4
Higher racks (47 U)	□
Rack power supply (PSM, PDM)	□
Monitoring package (CMC)	□
Additional hard ducts	□
Metal sun shade	□

■ Standard □ Option

Rittal IT monitoring

As flexible as your workflow



Rittal – The System.

Faster – better – worldwide.

- DCIM Data Centre Infrastructure Management
- Overview of your IT infrastructure
- Automated processes
- Exceptional cost efficiency
- Enormous energy savings
- Simple project management
- Fast installation
- Flexible, individual solutions with standard products from Rittal

Sample applications

1 CMC III, see Catalogue 33, page 768

2 Power System Module PSM, Power Control Unit PCU, see Catalogue 33, page 383, 700

3 Liquid Cooling Package LCP, see page 48

4 Sensors/actuators, see Catalogue 33, page 773

5 Monitor/keyboard unit, see Catalogue 33, page 780

6 Electric comfort handle TS 8, see Catalogue 33, page 773

7 Fire alarm and extinguisher system, see Catalogue 33, page 511

CMC III monitoring system

1 **CMC III Processing Unit,**
see Catalogue 33, from page 771

2 Power supply

3 Redundant power supply

4 CMC III I/O Unit

5 CMC III Power Unit

6 CMC III CAN Bus Unit

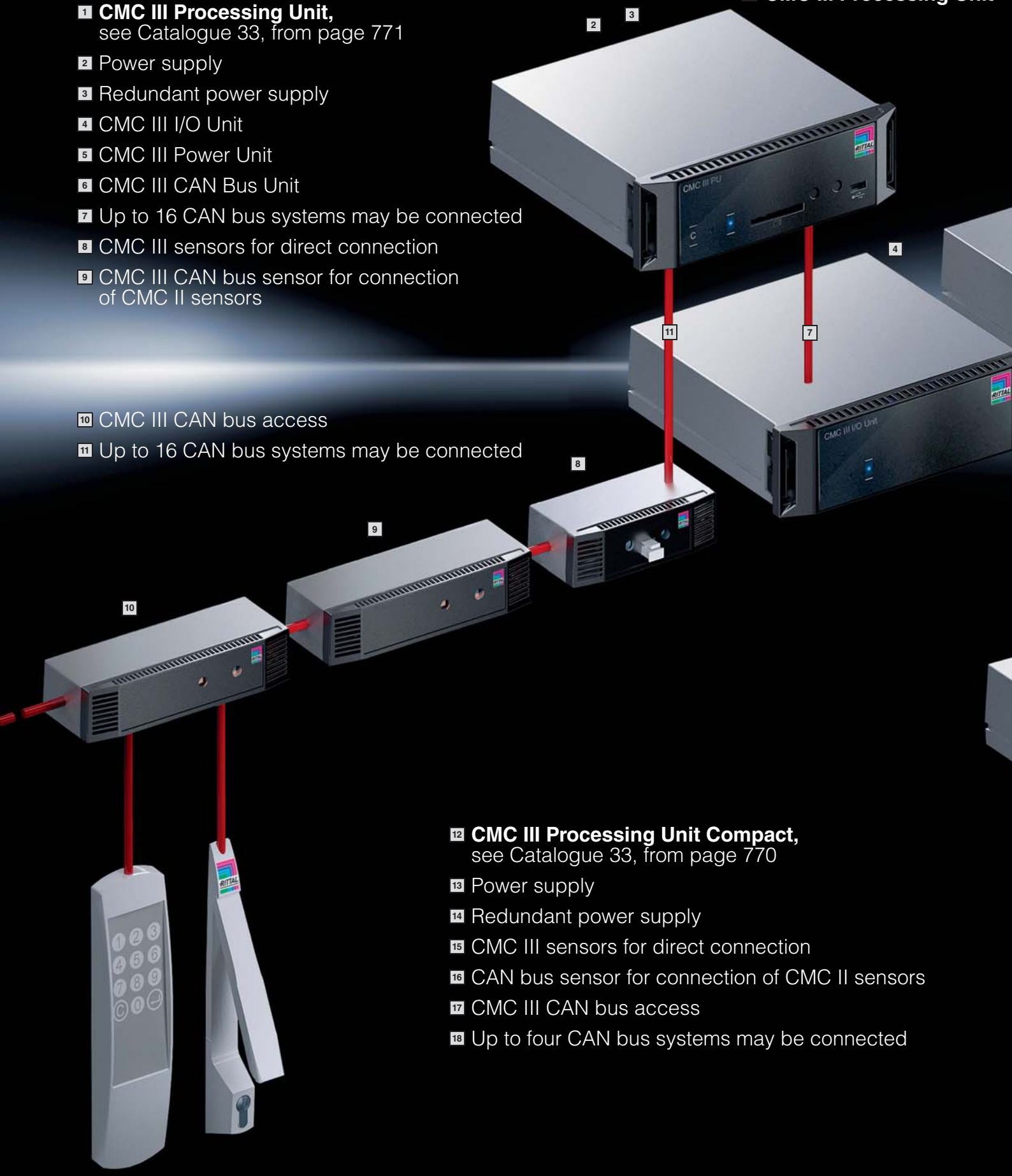
7 Up to 16 CAN bus systems may be connected

8 CMC III sensors for direct connection

9 CMC III CAN bus sensor for connection of CMC II sensors

10 CMC III CAN bus access

11 Up to 16 CAN bus systems may be connected



12 **CMC III Processing Unit Compact,**
see Catalogue 33, from page 770

13 Power supply

14 Redundant power supply

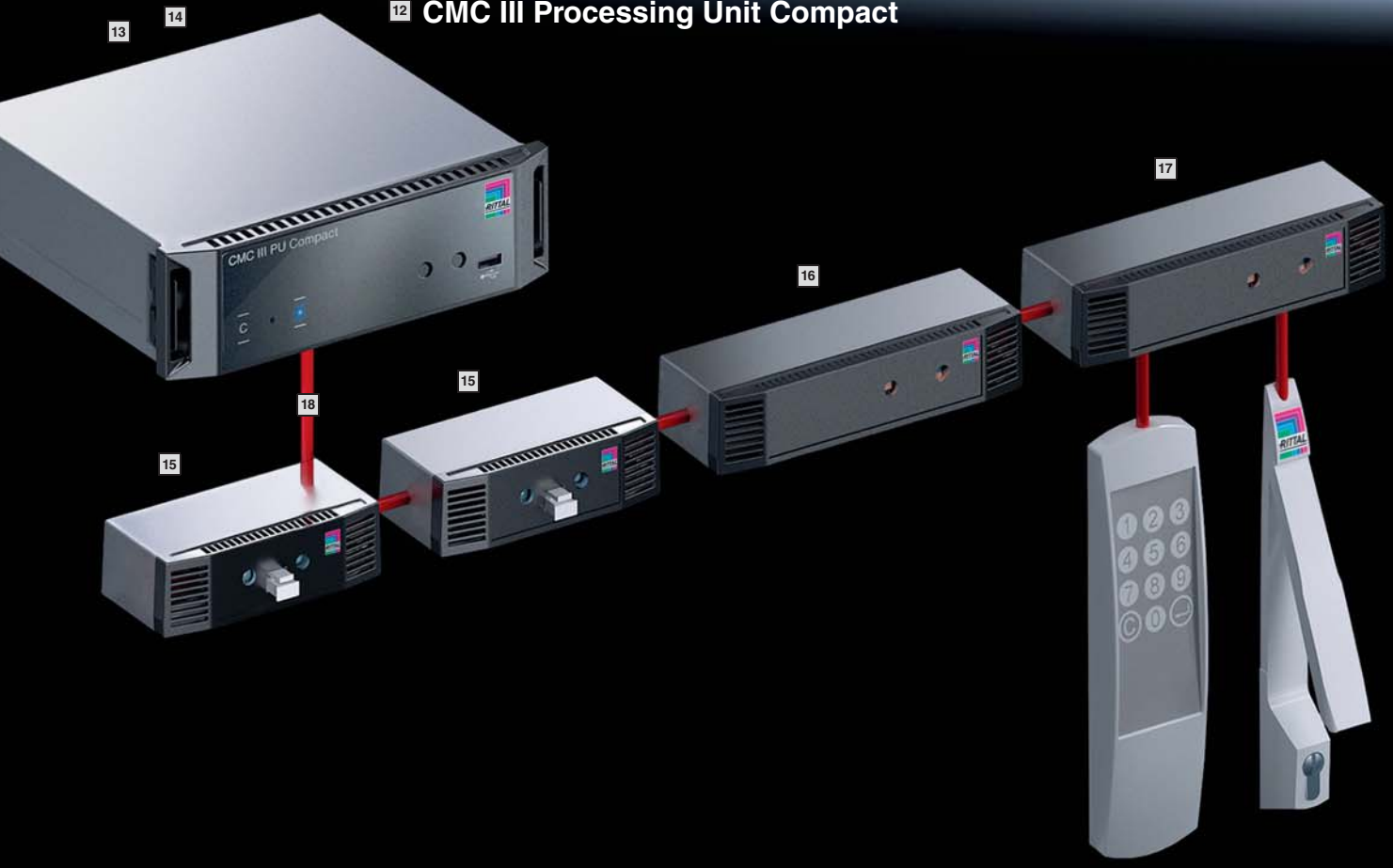
15 CMC III sensors for direct connection

16 CAN bus sensor for connection of CMC II sensors

17 CMC III CAN bus access

18 Up to four CAN bus systems may be connected

12 CMC III Processing Unit Compact



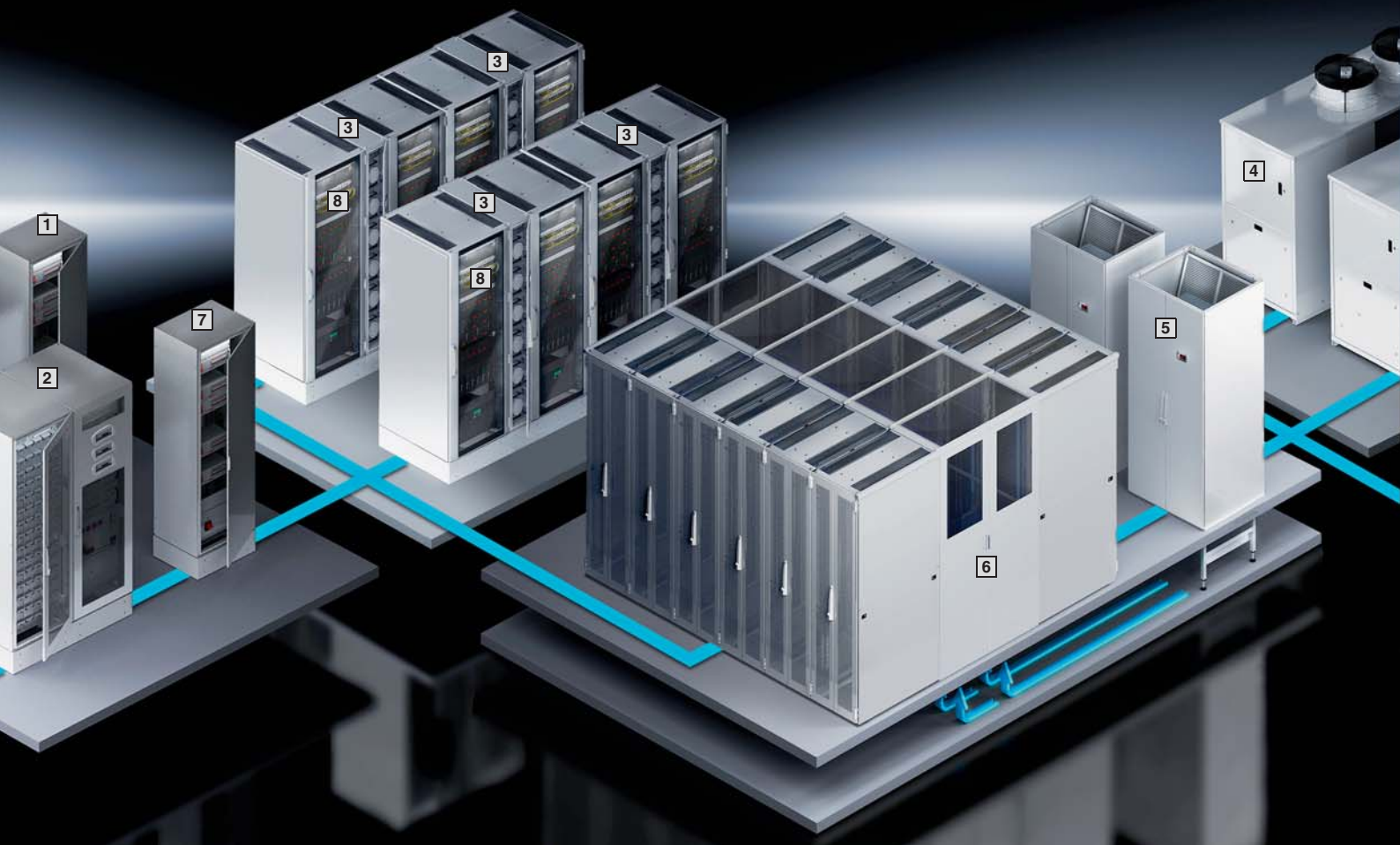
DCIM – Data Centre Infrastructure Management

RiZone – Perfect support of Rittal IT infrastructure components

Rittal components – from server enclosures to climate control, from power supply to security and monitoring technology – receive optimum support during integration and in the operational phase, thanks to coordinated sensors and control.

- The physical data centre infrastructure is incorporated into a data centre infrastructure management system
- Simple configuration
- Automatic detection of Rittal components
- Workflow editor for user-defined scenarios (what happens if ...)
- Increased security and reliability
- Energy optimisation in the data centre
- Integration of SNMP-compatible third-party equipment

RiZone plus Rittal components – the Rittal system solution with maximum energy efficiency

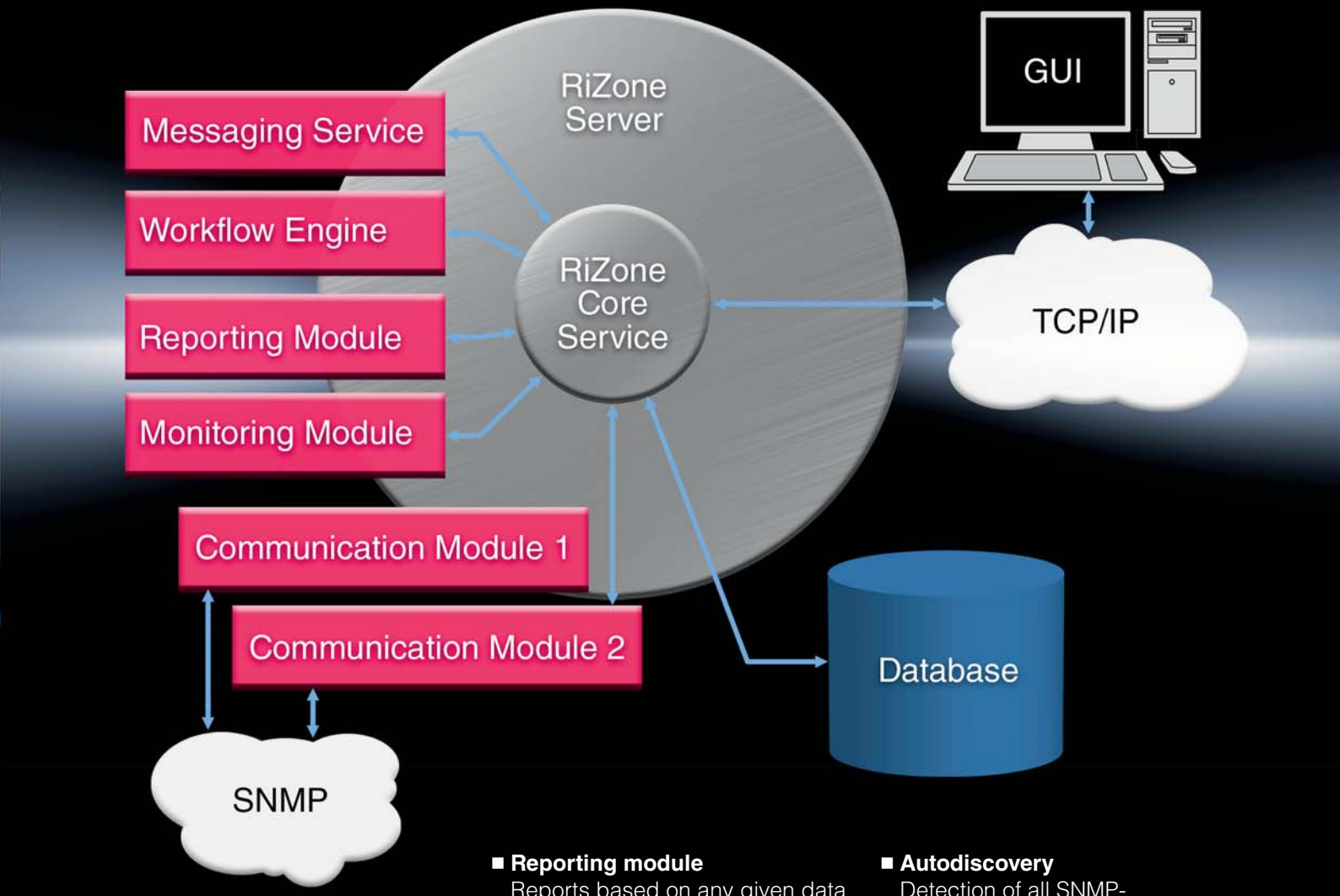


1 The main low-voltage distributor
2 Uninterruptible power supply (UPS)
3 Air/water heat exchanger Liquid Cooling Package LCP
4 Chiller for IT cooling
5 CRAC system
6 Aisle containment
7 PDR rack
8 Rack monitoring system Rittal CMC III

Modular and scalable, Rittal IT infrastructure components for access, climate control, power supply and security are administered, monitored and controlled via RiZone. The building control system may also be integrated (e.g. via a BACnet SNMP gateway).

As well as SNMPv1 and v2, communication via SNMPv3 is now also supported. The encryption and authentication options with SNMPv3 produce major security benefits in the data centre.

With the optional RiZone module “SNMP support for third-party equipment”, any equipment from third-party manufacturers may be incorporated into RiZone, provided they support the SNMP as standard and the corresponding MIB is available. These readings are processed in exactly the same was as the readings from Rittal equipment, either via mathematical links, in workflows, or graphically processed into diagrams.



- **Messaging service**
  Interface to superordinate management systems
- **Workflow engine**
  Control loops for optimisation of the data centre and individual escalation management
- **Reporting module**
  Reports based on any given data compilation and time interval
- **Monitoring module**
  Internal watchdog module ensures reliability
- **Communication module**
  Communication with SNMP-compatible devices in the physical data centre infrastructure
- **Autodiscovery**
  Detection of all SNMP-compatible Rimatrix components
- **Database**
  Own SQL database or link to MS-SQL and Oracle databases
- **Administration**
  Configuration of RiZone (user and rights management, network integration)

Frankfurt airport

Reliability with high MTBF

The requirements:

- Scalable
- Energy-saving
- High MTBF

With more than 50 million passengers, Frankfurt Airport is a global hub for international air traffic. For years, the operator company Fraport has used integrated system solutions from Rittal to maintain proper functioning of various applications such as switchgear and network equipment. A glimpse behind the scenes demonstrates the diverse ways in which “Rittal – The System.” ensures uninterrupted airport operations, both in baggage handling and in the data centre.

Rittal Data Centre Container up and running in New Zealand

Reliability through mobility

The requirements:

- Immediate availability
- Fully configured data centre
- Redundant power supply and emergency power supply
- Energy-efficient

The mobile Rittal Data Centre Container is a mobile data centre that can be shipped anywhere in the world at short notice, as the New Zealand power supply company Orion can testify. When the company's office building was severely damaged by the earthquake in February 2011, the data centre containing all of Orion's bayed enclosure suites for monitoring and control dropped into the ground. A suitable temporary solution needed to be found to maintain the company's business operations and power supply to the city.
This solution was the Rittal Data Centre Container, which was preconfigured ready to use at Rittal's Hof site in Westerwald, Germany, then shipped to its location in Christchurch.

Rittal equips a new data centre for Erco

Reliability through redundancy

The requirements:

- High-level physical security
- Scalable and energy-saving
- Ready to use at short notice

Edwin Saeson, Head of IT at ERCO GmbH, has researched the topic of business continuity management extensively. Like many other companies, this manufacturer specialising in lighting technology software and hardware is totally reliant on functioning IT processes. It soon became clear that, compared with the potential costs and damage associated with a failure in the company's IT systems, investing in a modernised, redundant IT infrastructure is an acceptable and justifiable expense. In order to achieve the required protection factor, Saeson opted for modular safes from Rittal. "The safes offered us many advantages – on the one hand, a very high level of reliability, and on the other, affordability, because no construction work was needed."

Rittal – The System.

Faster – better – worldwide.

- Enclosures
- Power Distribution
- Climate Control
- IT Infrastructure
- Software & Services

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