Rittal – The System.

Faster – better – worldwide.

Make IT easy: The new TS IT rack

FRIEDHELM *LOH* GROUP

RITTAL

Rittal – The System.

Faster – better – worldwide.

The new TS IT rack.

A new global standard for network and server equipment.

At CeBIT 2012, Rittal unveiled a newly developed rack system which is set to redefine the global standard for network and server equipment. The name "TS IT" stands for an intelligent modular system comprising both racks and a comprehensive range of accessories. Reduced complexity and the convenient snap-in assembly technology not only boost the efficiency of order processing and assembly – they also ensure lower costs. With the new TS IT, Rittal has created a single, series-manufactured rack system to satisfy practically all expectations when it comes to modular, flexible network and server racks.

ENCLOSURES   **POWER DISTRIBUTION**   **CLIMATE CONTROL**

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Make IT fast.

With tool-free component installation and fast assembly.

Every feature of the TS IT rack from Rittal has been designed to enable fast and tool-free assembly by a single person. The side panels are divided – once the upper section is located, the lower section simply slots into place. There is no need for screws. Accessories such as slide rails, component shelves and telescopic slides are simply clipped into the rear mounting angles, and then secured – similarly without tools – at the front. If the 19˝ levels need to be adjusted, it suffices to loosen the quick-release fastening, and then to slide and lock the mounting angles at the required depth.

Offset positioning permits asymmetrical interior installations and the simple realisation of alternative mounting widths (21˝, 23˝, 24˝ possible). The quick-action fastenings of the side panels possess integrated locks and additional internal latching mechanisms for maximum security.

- Reduced complexity brings time savings already at the planning stage
- Fast, tool-free assembly of both rack and accessory components with snap-in technology
- Side panels with quick fastenings, integrated locks and additional internal latching
- Fast deliveries from stock

Make IT simple.

With a high load capacity and perfect cable management.

The TS IT rack from Rittal also promises top quality in terms of safety and reliability. With a total load capacity of 1,500 kg on the 19″ level, the new IT rack meets even high stability demands. The same perfection characterises the intelligent cable management system. Patch cables can be shunted with ease – with solutions ranging from a simple shunting ring to cable ducts for targeted cable routing to a specific height unit.

The rail systems for interior installation enable rear cable clamping and strain relief for the building cabling in conjunction with nylon loops, clips or cable ties.
With the TS IT rack from Rittal, every cable is assigned reliably to the correct place.

■ High load capacity up to 1,500 kg
■ Perfect cable management
■ Extensive range of accessories
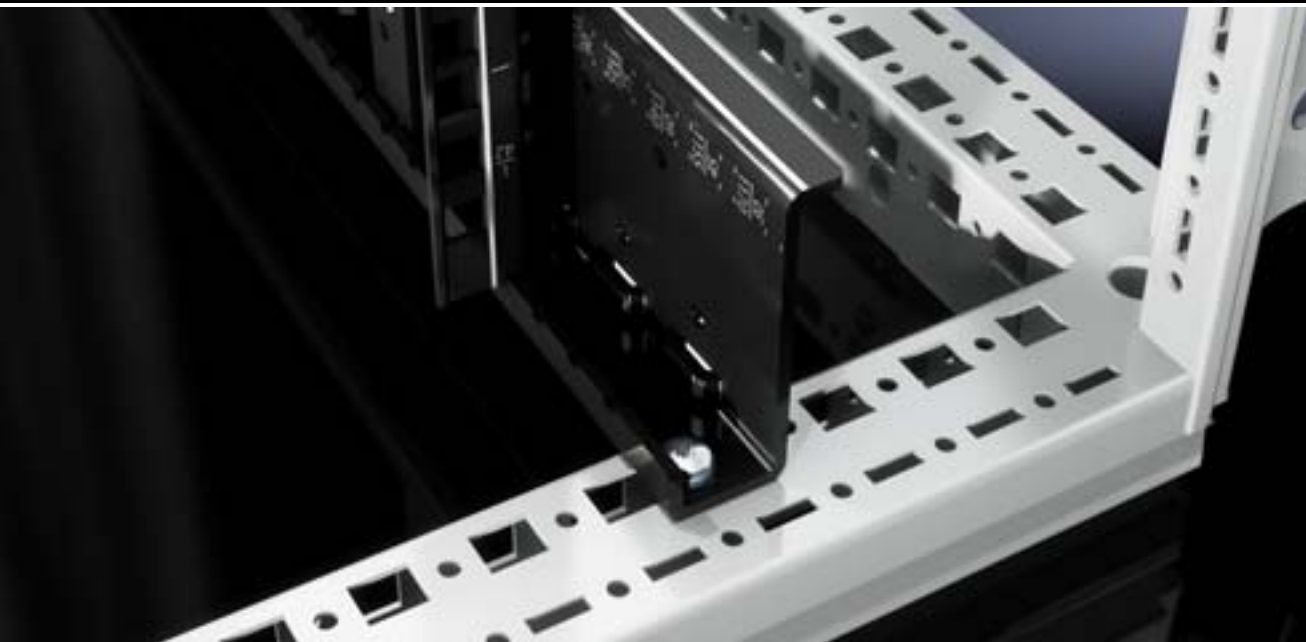
Make IT flexible.

**With a convincing door concept
and multifunctional roof.**

The TS IT rack from Rittal stands out with convincing solutions for roof and doors. All doors are prepared for individual locking variants with 180° hinges and comfort handles at both front and rear. Glazed doors are the choice for rack climate control, while vented doors cater for room climate control with open ventilation accounting for 85% of the perforated area – for a previously unattainable air throughput. Divided rear doors from a height of 1,800 mm ensure optimum space utilisation and are ideal to safeguard escape routes. The TS IT rack is also fitted with a sufficiently tight gasket for the use of gas-based extinguisher systems. The multifunctional roof incorporates brush strips over the whole enclosure depth to enable cable entry down the sides, in combination with cable clamping facilities directly behind the brush strips. There is even a cut-out integrated for the mounting of a fan module for active and passive climate control.

- Glazed or vented doors included in the scope of supply
- Divided rear doors from height 1,800 mm for optimised space utilisation
- Multifunctional roof

42/1

41/2

Make IT perfect.

**With built-in added value
and high energy efficiency.**
The TS IT rack from Rittal already meets practically all demands placed on network and server enclosures with its comprehensive standard features. Many innovative details represent integrated added value. For example, the rack is already prepared for Dynamic Rack Control or simple cable management. The integrated pitch patterns permit direct determination of the level spacing for simple component positioning. At the same time, the rack possesses front and back height unit labelling which is readable from the front. The extra convenience is yet another means to save time. Particularly valuable: The TS IT rack offers high energy efficiency, thanks to the flexible compartmentalisation for rack, suite and room climate control, and the variable termination with an all-round brush strip. The compartmentalisation provides additional mounting space of up to 6 U, depending on the version.

- Comprehensive standard features
- Numerous extras with added value
- High energy efficiency

The benefits at a glance.

1 **Individual configuration**
A basis for practically all network and server enclosure requirements

2 **High load capacity and variable interior installation**
Load capacity up to 1,500 kg and tool-free adjustment of the 482.6 mm (19″) mounting levels. Offset positioning facilitates alternative mounting widths (21″, 23″, 24″ possible)

3 **Tool-free installation**
System accessories with new, time-saving snap-in technology (for component shelves, cable ducts and more besides)

4 **Intelligent cable management**
Multifunctional roof with cable entry down the sides for maximum convenience and unhindered air circulation for active components

5 **Fast side panel assembly**
Divided side panels with quick fastenings, integrated locks and additional internal latching

6 **Convincing door concept**
Glazed doors for high-performance server applications with liquid cooling or vented doors for room climate control

7 **Divided rear doors**
Divided rear doors from a height of 1,800 mm for optimised space utilisation

8 **Intelligent accessories**
New TS IT concept ensures fast and simple selection of the system accessories

9 **Built-in added value for the 482.6 mm (19″) system**
Direct, space-saving clip mounting of the new Rittal PDU busbar in the rear zero U space. Tool-free front-side integration of cable management and Dynamic Rack Control

10 **Simple positioning**
Labelling of the height units and pitch pattern in the depth for simple determination of the 482.6 mm (19″) level spacing

Network/server enclosures TS IT

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	■	■	■	■	■	
Potential equalisation with central earthing point	1 set	■	■	■	■	■	
Multi-tooth screws M5, cage nuts M5, conductive	50	■	■	■	■	■	
Accessories							
Side panels, lockable — 2-part	1	–	–	2 x 5501.000	2 x 5501.010	2 x 5501.020	28
Side panels, lockable — 1-part	2	7824.128	7824.120	–	–	–	567[2]
Base mount	2	5501.310	5501.320	5501.310	5501.300	5501.310	23
Gland plates, modular		See from page 24					
Base/plinth		See from page 20					
Fan mounting plate for TS IT including thermostat	1	5502.020	5502.020	5502.020	5502.010	5502.020	30
Air baffle plate	1 set	–	–	–	5501.815	5501.815	30
Cable route	1	–	–	–	5502.120	5502.120	38
Cable duct	1	–	–	–	5502.105	5502.105	35
Component shelves		See from page 32					
Slide rails		See from page 33					
Punched sections with mounting flanges, C rails, cable clamp rails		See page 39					
Cable shunting ring		See page 34					
Cable management panel		See page 36					
Power distribution unit PDU		See from page 46					

■ 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	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	**5508.120**	**5509.120**	**5510.120**	**5511.120**	**5512.120**	
Included with the supply, not pre-installed							
Spacers for passive cooling	4	■	■	■	■	■	
Potential equalisation 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	23
Gland plates, modular		See from page 25					
Base/plinth		See from page 20					
Fan mounting plate for TS IT including thermostat	1	5502.010	5502.020	5502.010	5502.020	5502.020	30
Air baffle plate	1 set	5501.805	5501.815	5501.805	5501.815	5501.835	30
Cable route	1	5502.120	5502.120	5502.120	5502.120	5502.120	38
Cable duct	1	–	5502.105	–	5502.105	5502.145	35
Component shelves		See from page 32					
Slide rails		See from page 33					
Punched sections with mounting flanges, C rails, cable clamp rails		See page 39					
Cable shunting ring		See page 34					
Cable management panel		See page 36					
Power distribution unit PDU		See from page 46					

■ Included with the supply.

Network/server enclosures TS IT

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 rack 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], rear (180°), with comfort handle for semi-cylinder and security lock 3524 E	1	■	–	–	–	–	
Sheet steel door, vented[1], 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	■	■	■	■	■	
Potential equalisation with central earthing point	1 set	■	■	■	■	■	
Multi-tooth screws M5, cage nuts M5, conductive	50	■	■	■	■	■	
Accessories							
Side panels, lockable	2-part	1	–	2 x 5501.030	2 x 5501.030	2 x 5501.040	2 x 5501.040	28
Side panels, lockable	1-part	2	7824.120	–	–	–	–	567[2]
Base mount	2	5501.320	5501.320	5501.320	5501.350	5501.350	23
Gland plates, modular		See from page 26					
Base/plinth		See from page 20					
Fan mounting plate for TS IT including thermostat	1	5502.020	5502.010	5502.020	5502.010	5502.020	30
Air baffle plate	1 set	–	5501.805	5501.815	5501.805	5501.815	30
Cable route	1	–	5502.120	5502.120	5502.120	5502.120	38
Cable duct	1	–	–	5502.105	–	5502.105	35
Component shelves		See from page 32					
Slide rails		See from page 33					
Punched sections with mounting flanges, C rails, cable clamp rails		See page 39					
Cable shunting ring		See page 34					
Cable management panel		See page 37					
Power distribution unit PDU		See from page 46					

■ 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], 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	■	■	■	■	
Potential equalisation 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	23
Gland plates, modular		See page 26				
Base/plinth		See from page 20				
Fan mounting plate for TS IT including thermostat	1	5502.010	5502.020	5502.010	5502.020	30
Air baffle plate	1 set	5501.825	5501.835	5501.825	5501.835	30
Cable route	1	5502.120	5502.120	5502.120	5502.120	38
Cable duct	1	–	5502.145	–	5502.145	35
Component shelves		See from page 32				
Slide rails		See from page 33				
Punched sections with mounting flanges, C rails, cable clamp rails		See page 39				
Cable shunting ring		See page 34				
Cable management panel		See page 37				
Power distribution unit PDU		See from page 46				

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

Flex-Block base/plinth system

Flex-Block

for TS, SE, CM, TP, PC
- Plastic base/plinth with metal trim panels for fast, tool-free assembly
- Individual cable management
- Extensive range of accessories
- Symmetrical base/plinth

Material:
– Corner pieces: Fibreglass-reinforced plastic
– Cover caps: ABS
– Trim panels: Sheet steel

Colour:
RAL 9005

Sealed base/plinth supply includes:
1 set =
– 4 corner pieces
– 4 trim panels
– 4 cover caps
– Assembly parts for mounting on the enclosure

Vented base/plinth supply includes:
1 set =
– 4 corner pieces
– 2 trim panels, vented (width)
– 2 trim panels, sealed (depth)
– 4 cover caps
– Assembly parts for mounting on the enclosure

Base/plinth, sealed, height 100 mm

For enclosure size optionally width or depth mm		Packs of	Model No. TS
600	800	1	**8001.680**
800	800	1	**8001.880**
800	1000	1	**8001.800**
1000	600	1	**8001.060**
1200	600	1	**8001.260**
1200	800	1	**8001.280**

Base/plinth, vented, height 100 mm

For enclosure size		Packs of	Model No. TS
Width mm	Depth mm		
600	600	1	**8001.662**
600	800	1	**8001.682**
600	1000	1	**8001.602**
600	1200	1	**8001.622**
800	600	1	**8001.862**
800	800	1	**8001.882**
800	1000	1	**8001.802**
800	1200	1	**8001.822**

⊞ Accessories:

– Punched rail 23 x 23 mm (TS 4169.500, TS 4170.500, TS 4171.500, TS 4172.500), see page 19.
– Baying clip (TS 8000.100), see page 19.
– Adaptor sleeve (TS 8000.500), see page 19.
– Base mounting plate (SO 2817.000), see page 21.
– Filter mats for vented base/plinth (TS 7583.500, TS 7581.550), see page 19.

Punched rail 23 x 23 mm

for Flex-Block
Tool-free installation in two levels via plug-in
system in the Flex-Block depth is supported.
For the installation of cable clamp rails.

Installation options:
In the width and depth

Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
– 12 punched rails
– Assembly parts for mounting

Length mm	For width/depth mm	Packs of	Model No. TS
445	600	12	**4171.500**
645	800	12	**4172.500**

⊞ **Accessories:**

Cable clamp rail (PS 4193.000 etc.),
see Catalogue 33, page 717.

Filter mat

for Flex-Block, vented version
To cover the trim panel in the Flex-Block. The filter
mat is simply inserted into the trim panel from the
rear. May be shortened to the required length.
Filter class G3 to DIN EN 779.

For enclosure width mm	Packs of	Model No. TS
600/800	4	**7583.500**

Baying clip

for baying the Flex-Block corner pieces
Tool-free baying of Flex-Block base/plinths via
a simple clip system.

Material:
Fibreglass-reinforced plastic

Colour:
RAL 9005

Packs of	Model No. TS
12	**8000.100**

Adaptor sleeve

for Flex-Block
To accommodate levelling feet and twin castors
on the Flex-Block and for assembling a 200 mm/
300 mm high base/plinth by stacking the base/
plinth corner pieces.

Material:
Steel

Surface finish:
Zinc-plated

Supply includes:
– 12 adaptor sleeves
– 8 screws M12
– 8 washers

Packs of	Model No. TS
12	**8000.500**

⊞ **Accessories:**

– Levelling feet (PS 4612.000),
  see Catalogue 33, page 555.
– Twin castors (DK 7495.000, CP 6184.000),
  see Catalogue 33, page 556.

System accessories

Base/plinth TS

Modular base/plinth diversity

Regardless of the enclosure depth:
The base/plinth components at the front and rear, pre-configured with corner pieces, are always the same for the chosen width.
Only the side trim panels are selected according to the enclosure depth and the required base/plinth configuration. The modular concept produces exceptional advantages in terms of cost and function.

Mounting on the enclosure is conveniently carried out from the outside. The base/plinth interior offers diverse opportunities for mounting levels for cable management.

One Model No. for the **base/plinth components,** front and rear.

One Model No. for the **base/plinth trim,** side.

A complete **base/plinth TS.**
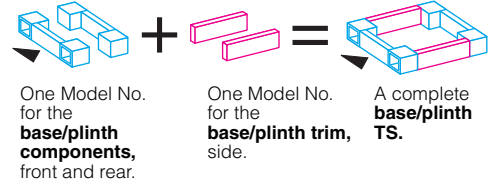
Base/plinth height	Basic form	Cable entry options		
				Stabilisation of bayed base/plinth
100 mm				
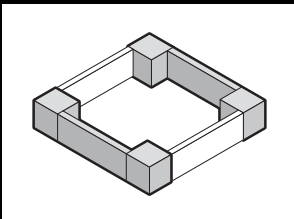
Base/plinth components front and rear

Sheet steel
for TS, CM, TP, PC, IW, TE
Base/plinth component consisting of one trim panel and two pre-configured corner pieces.
Height: 100 mm

Material:
– Base/plinth components: Sheet steel
– Cover caps: Plastic

Surface finish:
Spray-finished

Colour:
Cover caps: RAL 9005/7035

Supply includes:
1 set =
2 base/plinth components, 4 cover caps,
4 screws and captive nuts M12
for mounting on the enclosure

⊞ **Accessories:**

– Base mounting plate SO 2817.000,
  see page 21.
– Filter mat for vented versions,
  see page 19.

Detailed drawings:
Available on the Internet.

For enclosure width mm	Design	Model No. TS	
		RAL 7035	RAL 9005
600	Solid	**8601.605**	**8601.602**
	Vented	**7825.601**	–
800	Solid	**8601.805**	**8601.802**
	Vented	**7825.801**	–

Base/plinth trim panels, side

Sheet steel
for TS, CM, TP, PC, IW, TE
For mounting between the base/plinth compo-
nents. At 200 mm height, two 100 mm base/plinth
trim panels may be used. Base/plinth trim panels
(100 mm high) may be installed rotated through
90° to stabilise bayed base/plinth components.
Height: 100 mm

Material:
Sheet steel

Surface finish:
Spray-finished

Supply includes:
1 set =
2 base/plinth trim panels, including parts for
attaching to the base/plinth components.

! **Also required:**

Base/plinth baying brackets TS 8601.100,
see Catalogue 33, page 544,
when mounting base/plinth trim panels rotated
through 90°.

+ **Accessories:**

Assembly bolts for base/plinth,
see page 546.

Detailed drawings:
Available on the Internet.
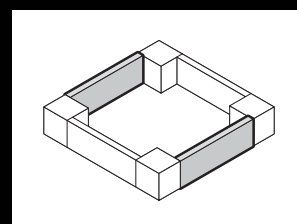
For enclosure depth mm	Model No. TS	
	RAL 7035	RAL 9005
600	**8601.065**	–
800	**8601.085**	**8601.086**
1000	**8601.015**	**8601.010**
1200	**8601.025**	**8601.026**

Base mounting plate

for
■ **Base/plinth TS**
■ **Base/plinth, complete**
For fastening the base/plinth to the floor without
moving the enclosure or bayed enclosure suite.
For assembly screws up to 12 mm Ø.

Material:
Sheet steel

Surface finish:
Zinc-plated

Packs of	Model No. SO
10	**2817.000**

System accessories

Base

Base mounting bracket

for TS, SE, TP universal console
For anchoring the enclosure at any position of
the base frame, particularly in cases where the
existing holes in the frame or base tray cannot be
used due to the installed equipment or because
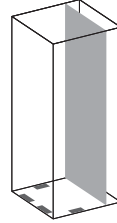the substructure prevents them from being used.

Material:
Sheet steel

Surface finish:
Zinc-plated

Packs of	Model No. TS
4	**8800.210**

Note:
Additional holes in the base are required for
mounting.

Twin castors

Mounting thread M12 x 20.

Maximum permissible static load (per castor)	120 kg
Ground clearance	125 mm
Lock	2 with, 2 without
Packs of	1 set
Colour	Black
Model No. DK	**7495.000**

! Also required:

For mounting on the TS base/plinth:
Base/plinth adaptor for twin castors TS 8800.290,
see page 22.

Base/plinth adaptor

for twin castors
Connection component for mounting twin castors
to the TS base/plinth.

Material:
Sheet steel

Surface finish:
Zinc-plated

Packs of	Model No. TS
4	**8800.290**

! Also required:

Base/plinth trim panels, side,
see page 21,
wherever a twin castor is fitted.

Transport kit

for TS
Ground clearance: approx. 40 mm.

Permissible static load:
750 kg per enclosure

Supply includes:
1 set =
4 castors (2 steerable) including assembly parts.

Packs of	Model No. DK
1 set	**7825.900**

Note:
Only for enclosures without gland plates or base
mounts.
For 800 mm wide enclosures with 482.6 mm (19˝)
mounting frame, special installation dimensions
must be observed (see drawing).
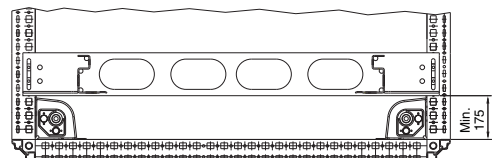
Levelling feet

**18 – 63 mm high, with hex socket
for baying system TS 8**
To compensate for floor irregularities.
Particularly in confined spaces, adjustments can
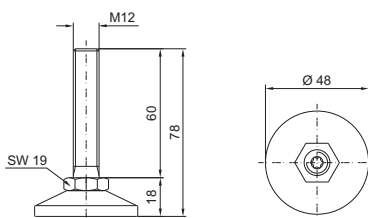be made quickly and easily from the enclosure
interior.

Mounting thread: M12
Hex socket: 6 mm
Thread length: 60 mm

Max. admissible static load:
300 kg per levelling foot.

Packs of	Model No. DK
4	**7493.100**

⚠ Also required:

For mounting on the TS base/plinth:
Base/plinth adaptor TS 8800.220,
see page 23.

Base/plinth adaptor

for levelling feet
Connection component for fastening M12
levelling feet PS 4612.000 or DK 7493.100
to the TS base/plinth.

Material:
Sheet steel

Surface finish:
Zinc-plated

Packs of	Model No. TS
4	**8800.220**

➕ Accessories:

– Levelling feet, PS 4612.000,
  see Catalogue 33, page 555.
– Levelling feet, DK 7493.100,
  see page 23.

Base mount

for TS
To accommodate gland plate modules.

- Tool-free mounting or screw-fastening
- Easily retroffitted 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**

System accessories

Base

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 modules 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.
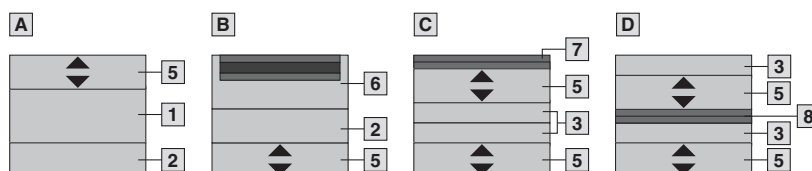
For enclosure depth 600 mm

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

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

B 1 module plate as selected			Model No. DK	
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 — Vented with airflow regulator	1	1	7825.366	7825.386
Module plate, depth 237.5 mm — Cable entry with brush strip			7825.361	7825.381
Module plate, depth 237.5 mm — Vented			7825.360	7825.380
Module plate, depth 237.5 mm — Cable entry with brush strip, super-airtight			7825.367	7825.387
Module plate, depth 237.5 mm — Cable entry, side			–	7825.388

C Cable entry, rear or front			Model No. DK	
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. DK	
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

A   B   C   D

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 23.

Note:
Total installation depth 512 mm

For enclosure depth 800 mm

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

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

B 1 module plate as selected			**Model No. DK**	
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 — Vented with airflow regulator	1	1	7825.366	7825.386
Module plate, depth 237.5 mm — Cable entry with brush strip			7825.361	7825.381
Module plate, depth 237.5 mm — Vented			7825.360	7825.380
Module plate, depth 237.5 mm — Cable entry with brush strip, super-airtight			7825.367	7825.387
Module plate, depth 237.5 mm — Cable entry, side			–	7825.388

C 2 module plates as selected			**Model No. DK**	
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 — Vented with airflow regulator	1	2	7825.366	7825.386
Module plate, depth 237.5 mm — Cable entry with brush strip			7825.361	7825.381
Module plate, depth 237.5 mm — Vented			7825.360	7825.380
Module plate, depth 237.5 mm — Cable entry with brush strip, super-airtight			7825.367	7825.387
Module plate, depth 237.5 mm — Cable entry, side			–	7825.388

D Cable entry, rear or front			**Model No. DK**	
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. DK**	
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 23.

Note:
Total installation depth 712 mm

System accessories

Base

For enclosure depth 1000 mm

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

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

B 1 module plate as selected			**Model No. DK**	
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	Vented with airflow regulator		**7825.366**	**7825.386**
	Cable entry with brush strip		**7825.361**	**7825.381**
	Vented	1 / 1	**7825.360**	**7825.380**
	Cable entry with brush strip, super-airtight		**7825.367**	**7825.387**
	Cable entry, side		**–**	**7825.388**

C 2 module plates as selected			**Model No. DK**	
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	Vented with airflow regulator		**7825.366**	**7825.386**
	Cable entry with brush strip		**7825.361**	**7825.381**
	Vented	1 / 2	**7825.360**	**7825.380**
	Cable entry with brush strip, super-airtight		**7825.367**	**7825.387**
	Cable entry, side		**–**	**7825.388**

D Cable entry, rear or front			**Model No. DK**	
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. DK**	
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 23.

Note:
Total installation depth 912 mm

For enclosure depth 1200 mm

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

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

B 1 module plate as selected			**Model No. DK**	
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 — Vented with airflow regulator	1	1	**7825.366**	**7825.386**
Module plate, depth 237.5 mm — Cable entry with brush strip			**7825.361**	**7825.381**
Module plate, depth 237.5 mm — Vented			**7825.360**	**7825.380**
Module plate, depth 237.5 mm — Cable entry with brush strip, super-airtight			**7825.367**	**7825.387**
Module plate, depth 237.5 mm — Cable entry, side			**–**	**7825.388**

C 2 module plates as selected			**Model No. DK**	
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 — Vented with airflow regulator	1	2	**7825.366**	**7825.386**
Module plate, depth 237.5 mm — Cable entry with brush strip			**7825.361**	**7825.381**
Module plate, depth 237.5 mm — Vented			**7825.360**	**7825.380**
Module plate, depth 237.5 mm — Cable entry with brush strip, super-airtight			**7825.367**	**7825.387**
Module plate, depth 237.5 mm — Cable entry, side			**–**	**7825.388**

D Cable entry, rear or front			**Model No. DK**	
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. DK**	
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**
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 23.

Note:
Total installation depth 1112 mm

System accessories

Side panels/baying

Side panel, lockable

for TS
- Simply locate from above
- Lock via security lock no. 3524 E
- Earthing bolt with contact lug.

Material:
Sheet steel, powder coated

Colour:
RAL 7035

Protection category:
NEMA 1/IP 20 to EN 60 529

Supply includes:
2 side panels each with 4 security locks
no. 3524 E.

⊞ **Accessories:**

For enclosures		Packs of	Model No. DK
Height mm	Depth mm		
1200	800	2	**7824.128**
1200	1000	2	**7824.120**

⊞ **Accessories:**

Internal latch DK 7824.510,
see Catalogue 33, page 570.

Side panel, divided

- Easy handling and tool-free assembly
- Quick-release fastener including security lock 3524 E
- Internal latch included (cannot be opened with a key)
- 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 console
– 1 pedestal
– 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 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.

Partition
for TS
For rack mounting, suspended between two TS 8 enclosures.
With three Ø 40 mm holes in all 4 corner areas for the insertion of cables, conduits etc.
Drilled holes may be sealed with the enclosed stepped collars. For cable entry, simply cut off at a suitable level to match the required cross-section.

Material:
– Partition: Sheet steel
– Stepped collar: Plastic to UL 94-HB

Surface finish:
Partition: Zinc-plated

Supply includes:
12 stepped collars Ø 40 mm.

For enclosures		Model No. DK
Height mm	Depth mm	
2000	1000	**7831.723**
2000	1200	**7831.724**
2200	1200	**7831.726**

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.

⊞ Accessories:

Baying clamp TS 8800.490,
see page 29.

Quick-fit baying clamp, three-piece
for TS/TS
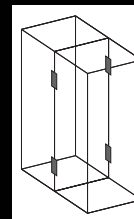Simply locate, connect with the lock plate, and secure.

Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
Assembly parts.

Packs of	Model No. TS
6	**8800.590**

Baying connectors, external
for TS/TS
For mounting on the vertical enclosure sections.

Simply position on the outside and screw-fasten either from the inside or outside.
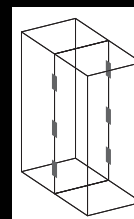
Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
Assembly parts.

Packs of	Model No. TS
6	**8800.490**

System accessories

Fan mounting plate

for TS IT
For active ventilation. 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, D 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**

Air baffle plate

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

Material:
Sheet steel, plastic UL 94 V0

Surface finish:
Spray-finished

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**

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**

Blanking panel, 482.6 mm (19˝)

As an extension cover or for population as required.

Material:
Sheet steel

Colour:
RAL 9005

U	Installation height mm	Packs of	Model No. DK
1	44	2	**7151.005**
2	88	2	**7152.005**
3	132.5	2	**7153.005[1)**
6	266	2	**7156.005[1)**

[1) Extended delivery times.

Blanking panel, 1 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 configured racks.

Material:
Plastic, ABS

Colour:
RAL 9005

Fire protection:
Self-extinguishing to UL 94-V0, non-halogen-free

Supply includes:
10 blanking panels with integral quick-fastening.

Packs of	Model No. DK
10	**7151.105**

Dynamic Rack Control

With the inventorisation solution based on RFID technology, the current configuration of the 482.6 mm (19˝) levels of a TS IT rack can now be graphically depicted at any time via the CMC-TC, and the component data processed for subsequent automated inventorisation/capacity management.

The system comprises the RFID aerial system DK 7890.242 or DK 7890.247, self-adhesive RFID tags DK 7890.020, an RFID controller DK 7890.500 for connecting to the CMC-TC DK 7320.100, DK 7030.060, DK 7030.071, DK 7030.090.
Up to 4 RFID controller/aerial systems may be connected to one CMC-TC.

Benefits:
- RFID aerial system for TS IT Rack
- Precise logging of components to $1/3$ U supported
- Simple installation in the new TS IT rack, also suitable for retro-fitting

For TS IT	U	Model No. DK
Aerial system	42	**7890.242**
Aerial system	47	**7890.247**

System accessories

Component shelves/slide rails

Component shelf, 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 shelf, static installation

482.6 mm (19˝) depth-variable for TS IT, DK-TS (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**

Component shelf, pull-out

482.6 mm (19˝) for TS IT, DK-TS (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**

Slide rails, static installation
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.

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

Slide rails, static installation
for TS IT
For mounting between a front and a 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.

U	482.6 mm (19˝) distance between levels mm	Packs of	Model No. DK
1	345	2	**5501.410**
1	445	2	**5501.420**
1	545	2	**5501.430**
1	645	2	**5501.440**
1	745	2	**5501.450**

Depth-variable slide rails
482.6 mm (19˝)
for TS IT, DK-TS
(L-shaped mounting angles,
482.6 mm (19˝) mounting frame)
For mounting between a front and a 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.

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

System accessories

Cable routing/cable clamping

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.
- Suitable for use on corners and edges to allow protected cable routing around them.
- Mounting clips for use above the arc hold the routed cables back within the elements. The elements are also bayable in an axial direction to allow U-based cable routing to the mounting level, or channelling of the cable sections.

Material:
Plastic, UL 94-V0

Colour:
RAL 9005

Supply includes:
Mounting clips and assembly parts.

Packs of	Model No. DK
20	**5502.405**
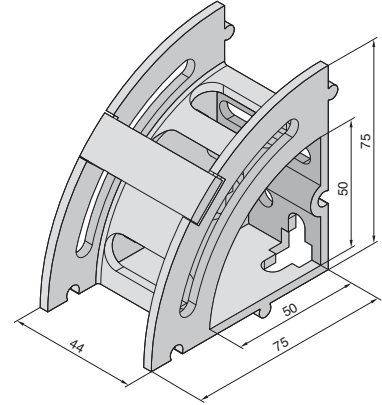
Cable shunting ring

For flexible, system-compatible cable routing at the side of the 482.6 mm (19´) mounting frame or on 482.6 mm (19´) mounting angles.

Material:
Sheet steel, zinc-plated

Supply includes:
Mounting accessories.

Dimensions mm	Packs of	Model No. DK
125 x 65	10	**7111.000**
125 x 85	10	**7111.900**
85 x 43	10	**7112.000**

Shunting ring

To accommodate large quantities of cables. Shunting ring for side attachment to 482.6 mm (19´) sections and mounting frames in 800 mm wide network enclosures.
The ring is asymmetrically attached to create approx. 110 mm free space in front of the 482.6 mm (19´) level. This allows effective management of even large quantities of cables.

Material:
Round steel, zinc-plated

Supply includes:
Assembly parts.

Dimensions mm	Packs of	Model No. DK
330 x 90/70	4	**7220.600**

Cable routing bars

For structured routing of entire cable bundles, the cable routing bars may be secured to a variety of different positions inside the enclosure.

Material:
– Support: Sheet steel
– Cable routing bars, connection combs: Plastic

Colour:
RAL 9005

Supply includes:
– Cable routing bars
– Connection combs

482.6 mm (19´) attachment
For horizontal cable routing within the distributor level.
Thanks to their open mounting holes, they can also be retrospectively slotted onto the 482.6 mm (19´) system punchings of the mounting level at any time and secured with the existing mounting screws of the installed components.

U	No. of connection combs	Packs of	Model No. DK
4	2	4	**7111.224**
1	5	10	**7111.214**

All-round attachment for universal use
For vertical and horizontal cable routing inside the enclosure or within the distributor level.

U	No. of connection combs	Packs of	Model No. DK
4	2	4	**7111.222**
1	5	10	**7111.212**

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
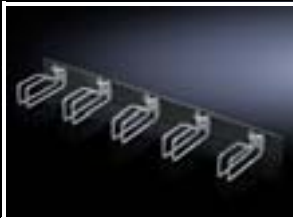
Colour:
RAL 9005

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**

System accessories

Cable routing/cable clamping

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 management panel
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:
Panel: 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 routing chamber has cut-outs from above, into which the patch cables can be inserted. The cable management panel is equipped with a flap and quick-release fasteners at the front, for optimum access to the cables. From the rear, the cables can be inserted via a cut-out with brush strips. 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.

System accessories

Cable routing/cable clamping

System supports
for cable routes

for TS

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 pipelines.

Material:
Sheet steel

Surface finish:
Powder-coated

Colour:
RAL 7035

Packs of	Model No. DK
2	7831.472

⊞ Accessories:

– Metal multi-tooth screws 5.5 x 13 mm,
  SZ 2486.500, see page 43.
– Cage nuts M6, TS 8800.340,
  see Catalogue 33, page 665.

Cable route

for TS

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

Material:
Sheet steel

Colour:
RAL 9005

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

⊞ Accessories:

– Cable ties, nylon loops,
  see page 40/41.
– Shunting rings,
  see page 34.
– Cable routing bars,
  see page 35.

TS punched section with mounting flange, 17 x 73 mm

Variable, with 5 rows of holes for universal skeleton structures or partial assembly.
Simply locate into the TS punchings and secure.

Installation options:
On the vertical TS enclosure section
– On the outer mounting level, all-round, at the same height
– On the inner mounting level, all-round, height-offset

Material:
Sheet steel

Surface finish:
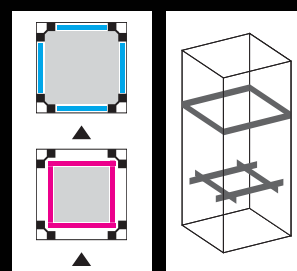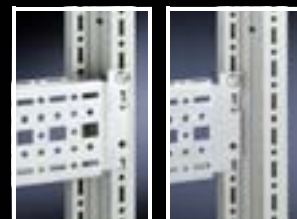Zinc-plated

Supply includes:
Assembly screws.

For the outer mounting level

For enclosure width/depth mm	Packs of	Model No. TS
600	4	**8612.160**
800	4	**8612.180**
1000	4	**8612.100**
1200	4	**8612.120**

⊞ **Accessories:**

– Screws, see page 42.
– Cable tie for fast assembly SZ 2597.000, see page 40.

C rails

for TS, CS Toptec
For direct mounting on the vertical enclosure section. Thanks to the universally designed attachment piece, the C rails may optionally be attached to the inner or outer level of the TS 8 frame.

Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
Assembly parts.

For enclosure width/depth mm	Length mm	Packs of	Model No. DK
600	498	4	**7828.060**
800	698	4	**7828.080**
1000	898	4	**7828.100**
1200	1098	4	**7828.120**

⊞ **Accessories:**

Cable clamps, see Catalogue 33, page 719.

Cable clamp rails

for TS and 482.6 mm (19˝) mounting frames
The cables may be attached to the cable clamp rails with cable ties or nylon tapes. The cable clamp rails are simply located onto the frame section and may additionally be secured with a screw.

Material:
Sheet steel

Supply includes:
Assembly parts.

For the outer mounting level

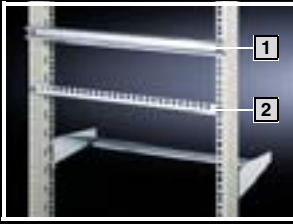| For enclosures		Packs of	Model No. DK
Width mm	Depth mm		
600	600	4	**7828.062**
800	800	4	**7828.082**
1000	1000	4	**7828.102**
1200	1200	4	**7828.122**

⊞ **Accessories:**

– Cable ties, see page 40.
– Nylon tape, see page 40.

System accessories

Cable routing/cable clamping

Cable routing across the 482.6 mm (19´) mounting level

There are various different cable clamping systems available for system-compatible cable routing in 482.6 mm (19´) systems with one or two pairs of mounting angles:

Material:
Sheet steel

Surface finish:
Zinc-plated

1 **C rail**
for mounting between all pairs of 482.6 mm (19´) mouting angles.

C rail	Depth in mm	Packs of	Model No. DK
482.6 mm (19´) level	–	6	**7016.100**

2 **Cable clamp rails**
for mounting between all pairs of 482.6 mm (19´) mounting angles, for cable ties.

Cable clamp rail	Depth in mm	Packs of	Model No. DK
482.6 mm (19´) level	–	6	**7016.110**

Cable ties

The super-fast solution for fastening cables to the enclosure profile or mounting system parts. Simply clip into the round system punchings.

Length mm	Packs of	Model No. SZ
150	100	**2597.000**

Cable clamps
for C rails
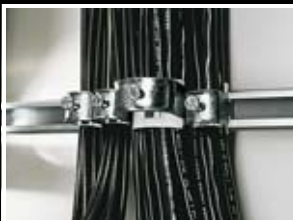For attaching the cables to the C rails.

Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
Plastic insert.

Note:
C rails,
see from page 40.

For cable diameter mm	Packs of	Model No. DK
6 – 14	25	**7077.000**
12 – 18	25	**7078.000**
18 – 22	25	**7097.000**
22 – 26	25	**7097.220**
26 – 30	25	**7097.260**
30 – 34	25	**7097.300**
34 – 38	25	**7097.340**
38 – 42	25	**7098.000**
42 – 56	25	**7098.100**
56 – 64	25	**7099.000**

Nylon loop

With the nylon loop, secured cables are easily released, allowing individual cables to be added or removed. Ideal for sensitive data cables (fibre-optic/Cu), as it avoids indentations on the cable sheathing. In addition, the nylon loop may be screw-fastened to the round system punchings or attached using a quick-release fastener.

Colour:
Black

Supply includes:
Quick-release fasteners.

Width mm	Length mm	Max. cable diameter mm	Packs of	Model No. DK
20	130	30	10	**7072.220**
20	200	50	10	**7072.230**
20	300	90	10	**7072.240**

! **Also required:**

Screw SZ 2486.500 for screw-fastening to the round system punchings,
see page 42.

Nylon tape

For tidy cable routing. Supplied on a reel for cutting to the required length.

Unlike cable ties, nylon tape
- protects the cable sheathing
- is easily reopened and
- is reusable

Length mm	Width mm	Packs of	Model No. IN
5000	16	1	2203.400

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.
- Length of nylon tape: 400 mm

Material:
Plastic

Supply includes:
10 supports including nylon tape.

Packs of	Model No. DK
10	5502.155

System accessories

Miscellaneous

Earth rail, vertical

for TS
Easily fitted to the 25 mm DIN pitch pattern of distributors or to the 482.6 mm (19˝) mounting angles. The supplied earth conductors facilitate star earthing of the cable clamp straps in the patch panels.
The earth terminals are fully adjustable.
Current carrying capacity of rail approx. 200 A.

Supply includes:
– Earth rail made from E-Cu 57 to
  DIN 12 163, DIN EN 13 601, 15 x 5 mm
– 16 conductor connection clamps 2.5 – 16 mm^2
– 15 earthing leads 6 mm^2, L = 500 mm
– Assembly parts.

For enclosure height mm	Length mm	Packs of	Model No. DK
1200	1000	1 set	**7543.000**
1800	1600	1 set	**7546.000**
2000	1800	1 set	**7547.000**
2200	2000	1 set	**7548.000**

Drawer, 2 U, 3 U

for mounting between two 482.6 mm (19˝) mounting levels
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.
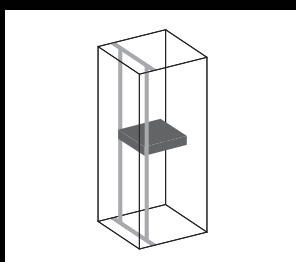
Material:
Sheet steel

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**

Metal multi-tooth screws

For the round holes 4.5 mm diameter in the enclosure section, punched rails and punched sections without mounting flanges.

Multi-tooth drive for optimum transmission of torques, an extended tool life and increased safety and reliability when tightening and loosening screw connections.

Dimensions mm	Packs of	Model No. SZ
5.5 x 13	300	**2486.500**

Multi-tooth screws

M5 x 16 mm/M6 x 16 mm
For optimum transmission of torques, an extended tool life and increased safety and reliability when tightening and loosening screw connections.

Supply includes:
Plastic washers.

	Bit size	Packs of	Model No. DK
M5	Multi-tooth 25	50	**7094.130**
M6	Multi-tooth 30	50	**7094.140**

Captive nuts M5/M6

For securing rack-mounted electronic equipment, 482.6 mm (19´) installed equipment and blanking plates to mounting angles, 482.6 mm (19´).

Captive nut M5

Design	For metal thicknesses mm	Packs of	Model No. EL
With contact	0.8 – 2.0	50	**2094.500**
Without contact	0.8 – 2.0	50	**2092.500**

Captive nut M6

Design	For metal thicknesses mm	Packs of	Model No. EL
With contact	0.8 – 2.0	50	**2094.200**
Without contact	0.8 – 2.0	50	**2092.200**

Front-mounting cage nut, 19´´

The cage nut consists of an expanding nut which is simply inserted into the square attachment hole at the front and then secured with the assembly screw.
When tightening the screw, the cage expands and thus secures the required components. Clamping range from 1.2 – 4.5 mm. Multi-tooth screw head, bit size T 30.

Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
– 50 expanding nuts
– Assembly screws
– Plastic washers.

Dimensions mm	Size of mounting hole mm	Packs of	Model No. DK
M6 x 16	9.5 x 9.5	50	**2094.400**

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 installation, administration and manpower costs

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 from page 49

5 Power distribution, see Catalogue 33, page 265

IT INFRASTRUCTURE   SOFTWARE & SERVICES

RITTAL

PDU – Power Distribution Unit

Benefits:
- With 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 range of management and monitoring functions
- High-MTBF and measurement accuracy of 1%
- CAN bus for connecting slave PDUs (not PDU basic)
- Ambient monitoring with up to 4 CMC III sensors (temperature, humidity, access, vandalism)

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

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

PDU switched
Measurement function per phase and individually switchable output slots

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

Material:
Extruded aluminium section, anodised

Protection category:
IP 20 to EN 60 529

Supply includes:
Assembly parts for tool-free mounting or screw-fastening.

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

Low Voltage Directive:
2006/95/EC

EMC Directive:
2004/108/EC

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	970	1200	**7955.110**
1	32 A	CEE	24	4	1110	1400	**7955.111**
3	16 A	CEE	18	3	845	1000	**7955.131**
3	16 A	CEE	24	6	1140	1400	**7955.132**
3	32 A	CEE	24	6	1360	1600	**7955.133**
3	32 A	CEE	36	6	1700	2000	**7955.134**
3	16 A	CEE	42	None	1400	1600	**7955.135**

PDU – Power Distribution Unit

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	580	800	**7955.201**
1	16 A	CEE	24	4	1220	1400	**7955.210**
1	32 A	CEE	24	4	1360	1600	**7955.211**
3	16 A	CEE	18	3	1095	1200	**7955.231**
3	16 A	CEE	24	6	1390	1600	**7955.232**
3	32 A	CEE	24	6	1610	1800	**7955.233**
3	32 A	CEE	36	6	1950	2200	**7955.234**
3	16 A	CEE	42	None	1650	2000	**7955.235**
3	32 A	CEE	48	None	1830	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	580	800	**7955.301**
1	16 A	CEE	24	4	1220	1400	**7955.310**
1	32 A	CEE	24	4	1360	1600	**7955.311**
3	16 A	CEE	18	3	1095	1200	**7955.331**
3	16 A	CEE	24	6	1390	1600	**7955.332**
3	32 A	CEE	24	6	1610	1800	**7955.333**
3	32 A	CEE	36	6	1950	2200	**7955.334**
3	16 A	CEE	42	None	1750	2000	**7955.335**
3	32 A	CEE	48	None	1830	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	580	800	**7955.401**
1	16 A	CEE	24	4	1220	1400	**7955.410**
1	32 A	CEE	24	4	1360	1600	**7955.411**
3	16 A	CEE	18	3	1095	1200	**7955.431**
3	16 A	CEE	24	6	1390	1600	**7955.432**
3	32 A	CEE	24	6	1610	1800	**7955.433**
3	32 A	CEE	36	6	1950	2200	**7955.434**
3	16 A	CEE	42	None	1650	2000	**7955.435**
3	32 A	CEE	48	None	1830	2200	**7955.436**

Note:
For other versions, see Innovations 2012, page 92.

PDU – Power Distribution Unit

Configuration examples

PDU version[1]	managed/ managed slave[2]	switched	metered	basic
Mechanical				
May be fitted in the Zero-U space in the 600 mm wide Rittal IT rack, tool-free	■	■	■	■
Colour coding of phases and fuse circuits (depending on PDU version)	■	■	■	■
Connection cable, static, 3 m, with CEE connector (IEC 60 309) or C20	■	■	■	■
Connector lock for C13 and C19 pin patterns (optional)	■	■	■	■
Lockable cover for unneeded slots (for C13/C19)	■	■	–	–
PDU slave version without display and Ethernet connection for use with PDU master and CMC III	■	–	–	–
Electrical				
Power supply 110 V – 230 V/400 V, inherent 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)	–	–	■	–
Electromagnetic safety switch, 16 A, type C (only with 32 A/63 A PDU versions)	■	■	■	■
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)	■	■	■	–
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 (RJ45)	■	■	■	–
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.
[2] Managed slave without display/network

PSM busbars + PSM socket modules

PSM busbars
The modular system facilitates basic configuration of the racks, thanks to a vertical support rail with single-/3-phase infeed. The various socket modules to supply the active components may be snap-fitted into the support rail. This can even be done whilst the system is operational, because the support section is shock-hazard protected.

PSM socket modules
The various modules, earthing pins, IEC320 etc. may be inserted into the support rail in any combination. This is easily achieved, even by non-electricians, thanks to the shock hazard protected plug & play system.

Approvals:
Available on the Internet.

Technical specifications/benefits:
- Each plug-in module picks off a phase on the support rail, either from infeed **A** or from the redundant infeed **B,** depending on the direction of connection.
- Single-/3-phase construction with a maximum current of 2 x (3 x 16 A).
- 3-phase redundant infeed supported.
- The redundant circuit is completely separate from the 3 phases of the support rail.
- Modules may be retrofitted whilst operational.
- Modules may be equipped with integral over-current protection, so that only the affected module is deactivated in the event of an excessively high current. The other modules remain operational.
- Overvoltage protection may be integrated into the supply line.
- Various modules also available with current measurement and switchable outputs.
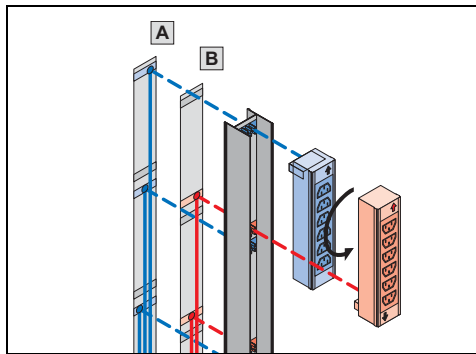
PSM busbars

For enclosure height mm	Phases per infeed	No. of infeeds	Input current (A)	Maximum no. of module slots	Connection, connector type	Circuit-breaker 16 A	Earth-leakage circuit-breaker	Packs of	Model No. DK
1 With measurement of voltage, current and power (consumption), via CMC-TC, remote-controllable									
2000	3	2	16	6	Jack	–	–	1	**7859.050**
2000	1	1	32	6	CEE	2	–	1	**7859.053**
2 With 2 infeeds (jack), 3-phase redundancy									
1200	3	2	16	4	Jack	–	–	1	**7856.010**
2000	3	2	16	7	Jack	–	–	1	**7856.020**
2200	3	2	16	8	Jack	–	–	1	**7856.008**
3 With 3 m connection cable (wire end ferrules)									
2000	3	1	16	7	Wire end ferrules	–	–	1	**7856.005**
2000	3	2	16	7	Wire end ferrules	–	–	1	**7856.006**
4 With 3 m connection cable (connector type CEE/EN 60 309)									
2000	1	1	32	6	CEE	2	–	1	**7856.321**
2000	3	1	32	6	CEE	6	–	1	**7856.323**
2000	1	1	32	6	CEE	2	■	1	**7856.043**

! Also required:

PSM socket modules, see page 50.

+ Accessories:

PSM – Power System Module

Socket modules

PSM socket modules

Module slots required in PSM busbar	Connector pattern	Slots	Thermal overcurrent protection	Packs of	Model No.
1 **Standard socket modules/non-switchable**					
1	C13	6	–	1	**7856.080**
1	C13	6	■	1	**7856.070**
1	C13	4	■/per output	1	**7856.220**
1	Earthing-pin	4	–	1	**7856.100**
1	Earthing-pin	4	■	1	**7856.090**
1	C19	4	–	1	**7856.230**
1	C13 red	6	–	1	**7856.082**
1	Earthing-pin, red	4	–	1	**7856.240**
2	C13	8	RCD	1	**7856.095**
2 **International socket modules**					
1	France/Belgium	4	–	1	**7856.120**
1	France/Belgium	4	■	1	**7856.110**
1	Switzerland	5	–	1	**7856.190**
1	Switzerland	4	■	1	**7856.180**
1	UK	3	–	1	**7856.160**
1	UK	3	■	1	**7856.150**
1	USA (120 V/208 V)	5	–	1	**7856.140**
1	USA (120 V/208 V)	5	■	1	**7856.130**
3 **Socket modules with LED display/current measurement per module**					
1	C13	6	–	1	**7859.120**
1	C19	4	–	1	**7859.130**
4 **Socket modules with switchable slot/aggregate current measurement per module**					
2	C13	8	■	1	**7856.201**
2	Earthing-pin/C13	4/2	■	1	**7856.203**
2	C19/C13	4/2	■	1	**7856.204**
5 **Socket modules with switchable slot/individual current measurement per slot**					
2	Earthing-pin/C13	4/2	■	1	**7859.212**
2	C13	8	■	1	**7859.222**
2	C19/C13	4/2	■	1	**7859.232**

Approvals:
Available on the Internet.

PSM mounting kit

for TS IT
- For tool-free mounting of the PSM busbar on the horizontal TS 8 frame
- Fast assembly
- Orientation of the PSM busbar either to the enclosure centre or to the rear
- Without cable routing

Material:
Sheet steel, zinc-plated

Supply includes:
Assembly parts.

Packs of	Model No. DK
1 set	7856.029

Connection cable
for PSM-busbar

	Length	Packs of	Model No. DK
Connection cable, 3-phase			
CEE-conforming 5-pole/16 A	3 m	1	7856.025
Connection cable, single-phase			
CEE-conforming 3-pole/16 A	3 m	1	7856.026
Connection cable, UPS, single-phase			
C14/X-Com 10 A	3 m	1	7856.027
C20/X-Com 16 A	3 m	1	7856.030
Connection cable C19/C20			
16 A	2 m	1	7200.217
Connection cable C13/C14			
16 A	0.5 m	2	7856.014

Cable lock PSM

for all modules with EN 60 320 C13 connector configurations
All terminal connection cables are therefore protected against unintentional disconnection of the power supply. Two bars are needed for two cables.

Design	Packs of	Model No. DK
Bar	20	7856.013

⊞ Accessories:

Optimum locking function is only achieved with connection cable DK 7856.014, see page 51.

Overvoltage protection PSM

Is connected upstream of the busbar.

- Fine fuse
- Connection:
  – Socket Wago X-Com
  – Connector Wago X-Com

Overvoltage protection	Packs of	Model No. DK
With adaptor connector	1	7856.170

Note:
One adaptor is required for each infeed.

Socket strips

Socket strips

The socket strips in the aluminium channel are available in various lengths with different functional elements. Special attention has been devoted to practical, universal fastening: Variable attachment facilities have been created with an angle bracket which may be inserted in four positions. Hence, for example, the 482 mm long socket strip may optionally be mounted on 482.6 mm (19˝) mounting angles, the 482.6 mm (19˝) mounting frame, on the enclosure frame, or in the rear section of the wall-mounted distributor. Without additional mounting accessories, the socket strip may be inserted into all sections with a 25 mm pitch pattern. This makes selection much easier, as well as providing additional flexibility and saving on warehousing. Provision has also been made for cable routing of the infeed, and when mounting in the 482.6 mm (19˝) section there is adequate space to route the infeed between the socket strip and the mounting angle without kinks.
The arrangement of the sockets at a 45° angle allows unrestricted use of angular connectors.

Technical specifications:
– Rated voltage: 250 V
– Rated current: 10/16 A
– Connection cable: 2 m long H05VV-F3G1.5

Material:
– Aluminium section: Natural anodised
– Socket inserts: Polycarbonate

Supply includes:
– Socket strip
– Two mounting brackets
– Assembly parts.

Standards:
– Sockets:
  DIN VDE 0620-1
– Sockets B/F:
  UTE NFC 61-303, CEE 7/NV
– Overvoltage protection for low voltage:
  DIN EN 61 643-11 (VDE 0675 part 6-11)
– EMC interference suppression filter:
  DIN EN 60 939-2 (VDE 0565 part 3),
  DIN VDE 0620-1 (VDE 06204-1)

Detailed drawings and further information:
Available on the Internet.
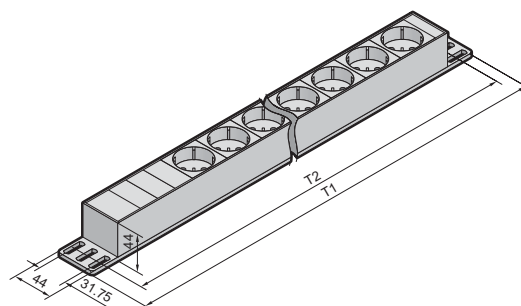
Design	Number of sockets	Connector type	Attachment			Length (T1) mm	Mounting dimension (T2) mm[1]	Model No. DK
			Frame	Wall-mounted distributor, horizontal	482.6 mm (19˝) level			
Without rocker switch	3	Earthing-pin	■	–	–	262.6	232.5	**7240.110**
	7	Earthing-pin	■	■	■	482.6	452.5	**7240.210**
	12	Earthing-pin	■	–	–	658.6	628.5	**7240.310**
With rocker switch	3	Earthing-pin	■	■	–	306.6	276.5	**7240.120**
	7	Earthing-pin	■	■	■	482.6	452.5	**7240.220**
Overvoltage protection and interference suppression filter	5	Earthing-pin	■	■	■	482.6	452.5	**7240.230**
	9	Earthing-pin	■	–	–	658.6	628.5	**7240.330**
Circuit-breakers	5	Earthing-pin	■	■	■	482.6	452.5	**7240.240**
Master-slave	1 + 3	Earthing-pin	■	■	■	482.6	452.5	**7240.250**
UPS strip	7	Earthing-pin	■	■	■	482.6	452.5	**7240.260**
RCCB	5	Earthing-pin	■	■	■	482.6	452.5	**7240.280**
RCCB and line protection	5	Earthing-pin	■	■	■	482.6	452.5	**7240.290**
For IEC 320 connectors, 10 A	12	C13	■	■	■	482.6	452.5	**7240.200**
For IEC 320 connectors with IEC 320 input, 10 A	9	C13	■	■	■	482.6	452.5	**7240.201**
For IEC 320 connectors with overvoltage protection and interference suppressor filter, 10 A	6	C13	■	■	■	482.6	452.5	**7240.205**
With 2 circuits	6 + 6	Earthing-pin	■	–	–	720.6	690.5	**7240.370**
B/F sockets (Belgium, France)	7	Earthing-pin	■	■	■	482.6	452.5	**7240.510**
B/F sockets (Belgium, France)	12	Earthing-pin	■	–	–	658.6	628.5	**7240.512**

[1] Variable attachment distance within a range of 25 mm, the distance given is hole centre – hole centre of mounting bracket.

Compact light

Slimmer – Faster – Brighter

- Slimmer: Around 50% less height and depth and also around 75% less volume than conventional lights.
- Faster: Universal fast attachment via clips, screws, or powerful magnets (optional). Simply slide in at the side or rear, fit the light, and it's done!
- Brighter: Up to 75% greater luminous efficiency from the lamp with the same power helps to cut electricity costs.
- Door-operated switch can also be connected via a 2-pole connection.

Colour:
Similar to RAL 7035

Protection category:
IP 20 to EN 60 529

Supply includes:
Compact light with clip and screw mounting kits, including assembly parts.

⊞ Accessories:

– Mounting kit, magnet, see page 53.
– Door-operated switch with connection cable, SZ 4315.720.

Note:
Other lights, see Catalogue 33, from page 679.

Model No. SZ	ENEC 24	4140.010	–	4140.020	–	4140.110	4140.120
	cURus	–	4140.210[1]	–	4140.220[1]	–	–
Rated voltage		100 – 240 V AC ±10% at 50 – 60 Hz				24 V DC ±10%	
Wattage		8		14		8	14
Protection category		II (all-insulated)					
Width (B1) mm		455		705		455	705
Mounting distance (B2) mm clip/magnet		400		650		400	650
Mounting distance (B3) mm		475		725		475	725
Connection cable		3 m (open end)					
Cover colour		Yellow	Grey	Yellow	Grey	Yellow	Yellow
Rated current (A) – at 230 V AC – at 110 V AC – at 24 V DC		0.045 – 0.088 0.083 – 0.149 –		0.073 – 0.127 0.149 – 0.216 –		– – 0.35	– – 0.57
Light		Fluorescent lamp T5					
Operating unit		Wide-range electronic ballast				Electronic ballast	
Circuit-breakers		Integral, on/off/door-operated switch mode					
Light cover		Transparent, grooved on the inside					
Cable deflector across rear		■	–	■	–	■	■

[1] Only for the North American market

B1

24

59

Clip/magnet attachment

Screw attachment

B2

B3

Ø 6.5

A Rear attachment

B Side attachment
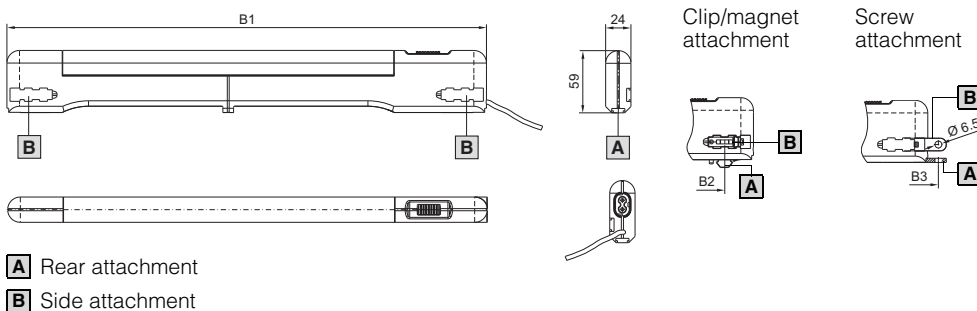
Mounting kit, magnet

For reliable adhesion on all sheet steel surfaces.

Packs of	Model No. SZ
2	4140.000

UPS – Power Modular Concept

Double conversion technology to the highest classification VFI-SS-111.

Supply includes:
– Single-phase UPS system
– Operating manual
– Software on CD-ROM
– RS232 cable
– For 1 – 3 kVA: UPS, earthing-pin connection cable, USB cable

! **Also required:**
Country-specific connection cables and slide rails are required to operate the UPS systems, see Catalogue 33, page 749/775.

Technical information:
Available on the Internet.

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

PMC 12, single-phase, output range 1 – 12 kVA n+1

UPS for 482.6 mm (19˝) racks or as floor-standing enclosures	UPS with integral battery					Page
Internal hot swap-compatible batteries	■	■	■	■	■	
Model No. DK PMC 12	**7857.482**	**7857.483**	**7857.430**	**7857.431**	**7857.432**	
Width x height mm	440 (19˝) x 176 (4 U)			440 (19˝) x 88 (2 U)		
Depth mm	420	420	405	650	650	
Weight kg	26	27	15.7	26	29	
Power — VA	2000	3000	1000	2000	3000	
Power — Watts	1600	2400	800	1600	2400	
Power — Max. heat loss (W)	105	262	105	210	252	
Input — Rated voltage	230 V (160 – 288 V)					
Input — Frequency	50/60 Hz ±5%					
Input — Power factor	> 0.99 with linear load					
Output — Voltage	230 V ≤ ±1 % (200/208/220/230/240 V adjustable)					
Output — Frequency, synchronised	±1 Hz					
Output — Efficiency, AC mode	88 %	90 %	88 %	88 %	90 %	
Output — Power factor	0.8					
Battery 5 years EUROBAT — Autonomy at 100% load	≥ 7 min.	≥ 5 min.	≥ 7 min.	≥ 7 min.	≥ 5 min.	
Communication — Interface	1 x USB, 1 x RS232					
Communication — SNMP	Optional network monitoring card DK 7857.420/relay card 7857.410					
Communication — Operating systems supported	Windows, Unix, Linux, Novell, Apple; RCCMD shutdown licence DK 7857.421					
Communication — Emergency Power Off (EPO)	■					
Connection — Input connection 230 V	10 A C14	16 A C20	10 A C14		16 A C20	
Connection — Output connection 230 V	6 x 10 A, C13, 2 units switched	4 x 10 A, C13, 2 units switched, 1 x 16 A, C19	6 x 10 A, C13, 2 units switched		4 x 10 A, C13, 2 units switched, 1 x 16 A, C19	
Standards and certifications — Power	IEC/EN 62 040-3					
Standards and certifications — EMC	EN 50 091-2/EN 62 040-2 class A, EN 61 000-4-2/-3/-4/-6-8/-11, EN 61 000-3-2/-3					
Standards and certifications — Labelling	CE, FCC					
Accessories						
Battery pack PMC 12	See page 55					
Connection cable at output end, UPS, single-phase, for PSM busbar	7856.027	7856.030	7856.027	7856.027	7856.030	Cat. 33, p. 386

■ Included with the supply.

Battery packs

for PMC 12

To operate or increase the power of PMC 12 UPS systems. With overload protection. Vertical siting is also possible. Battery packs are "hot plug"-compatible (replacement of batteries while operational). Batteries can be exchanged from the front, without removing the battery pack from the 482.6 mm (19˝) level. Depending on the UPS version, 2 – 3 battery packs may be connected together to increase the autonomy. Cooling of the UPS and the battery packs is absolutely essential.

Material:
Maintenance-free lead gel accumulators, service life 5 years (to EUROBAT)

Supply includes:
– Fully preassembled and populated with accumulators (12 V/7 Ah)
– 0.5 m connection cable with connector
– Feet.

Note:
For mounting in the 482.6 mm (19˝) rack, a slide rail DK 5501.480 is required.

	XL version		Standard version		
UPS PMC 12 system	7857.482	7857.483	7857.430	7857.431	7857.432
Battery packs **Model No. DK**	**7857.488**	**7857.488**	**7857.435**	**7857.437**	**7857.437**
Width mm	465	465	465	465	465
Height mm	178 (4 U)	178 (4 U)	89 (2 U)	89 (2 U)	89 (2 U)
Depth mm	420	420	650	650	650
Weight kg	35	35	20	20	20
No. of batteries per battery pack	12	12	6	6	6

Autonomy (min.) at 100% load:

UPS PMC 12	In supplied state	Battery packs				
		1	1 (XL version)	2	2 (XL version)	3
7857.430, 1 kVA	7 min.	28 min.	–	55 min.	–	–
7857.482/7857.431, 2 kVA	7 min.	17 min.	26 min.	29 min.	54 min.	–
7857.483/7857.432, 3 kVA	5 min.	12 min.	24 min.	20 min.	46 min.	–

UPS monitoring card (SNMP card)

This optional card facilitates monitoring of the UPS via Web browsers, allowing remote monitoring of various monitoring states of the UPS (e.g. input voltage, output currents/power per phase, battery charging status, autonomies etc.).
However, its main application is a controlled server shutdown via the network interface. To this end, a UPS shutdown client (RCCMD software) must be installed and configured on every server.

Design	Packs of	Model No. DK
SNMP card, budget version	1	**7857.420**
SNMP card CS121 with switching contacts	1	**7857.366**

Note:
Only one extension card may be installed per UPS system.
Redundant monitoring solutions for UPS systems available on request.

RCCMD software, see Catalogue 33, page 529.

Rittal IT climate control –
# As individual as your requirements
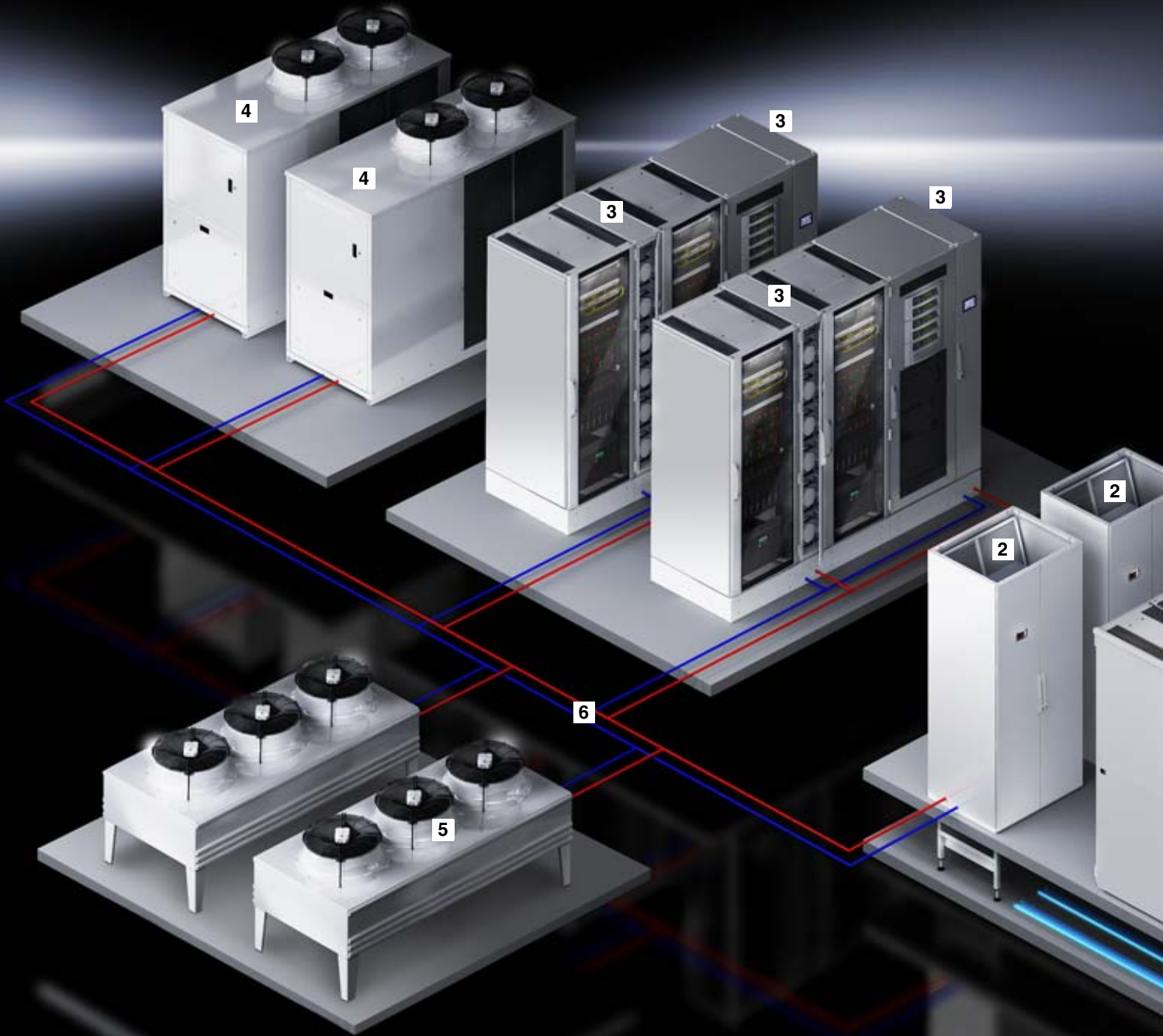
Rittal – The System.

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!
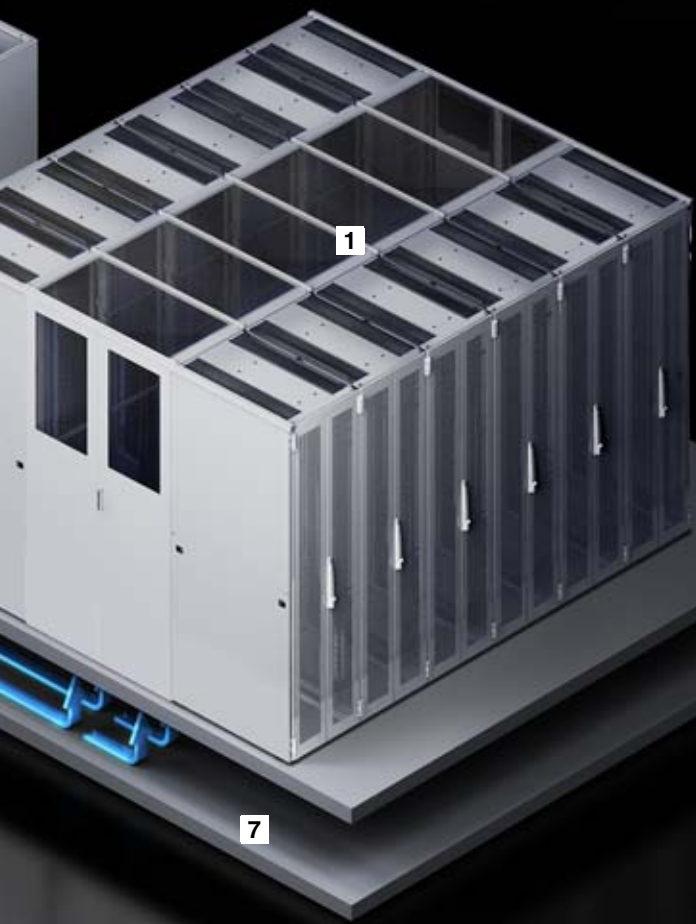
Sample applications

1 Aisle containment,
see page 58

2 CRAC systems,
see Catalogue 33, page 456

3 Liquid Cooling Package LCP, see page 58 – 60

4 IT chillers, see Catalogue 33, page 454

5 Free cooling

6 Pipework

7 Raised floor
for cold air supply

IT INFRASTRUCTURE   SOFTWARE & SERVICES

RITTAL

Aisle containment

Application and mode of operation:
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. Depending on the application, aisle containment may be used with CRAC systems or TopTherm LCP Inline CW and DX as hot or cold aisle containment.

Benefits:
- Increased energy efficiency and performance capability of climate control
- Superior output density is facilitated, thanks to guaranteed cold air supply
- Easily installed and retrofitted, as it is fully compatible with the TS 8 enclosure system
- An inexpensive way to boost the performance of your existing plant, lengthening the investment cycle until a replacement needs to be purchased

Equipment:
- Slimline door element with viewing window, sliding door
- Stable roof elements in a composite metal with a high level of light permeability
- Where required, safety glass may also be used

⊞ Accessories:
TopTherm LCP Passive CW, see page 58.

Note:
Other size variants and individually modified systems available on request.
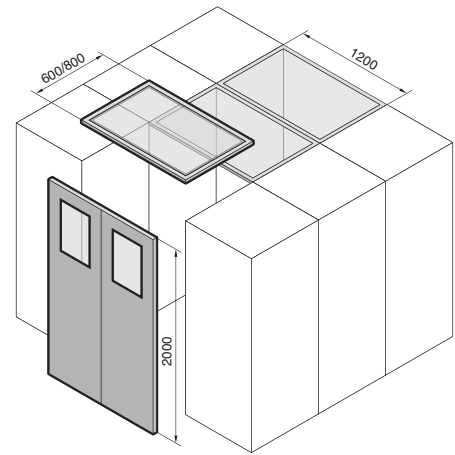
Element	Roof element				Door element
Item	Start/end		Centre		–
Model No. SK	**3300.270**	**3300.280**	**3300.170**	**3300.180**	**3300.160**

Width of element (identical to enclosure width), mm	600	800	600	800	–
Width of cold aisle mm	1200	1200	1200	1200	1200
Height of cold aisle mm	–	–	–	–	2000

TopTherm LCP Passive CW

Application and mode of operation:
Air/water heat exchanger mechanically integrated into a rear door for server enclosures.
The 482.6 mm (19″) equipment built into the server enclosure must have suitable airflow capabilities in order to route the heated waste air through the heat exchanger 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.

Benefits:
- High cooling output of 20 kW in a minimal space
- Easily exchanged for the standard rear door of the server enclosure
- Retrofitting is not a problem
- A door opening angle of 120° allows rear access to the server enclosure and makes assembly and configuration inside the enclosure easier
- The LCP does not require its own fan, and therefore does not need an integrated control
- Maximum energy efficiency, as there is no electrical power consumption whatsoever

Model No. SK	3311.600
Dimensions mm W x H x D	600 x 2000 x 170
Usable U	42
Useful cooling output	**to 20 kW**

Colour:
RAL 7035

Approvals:
Available on the Internet.

⊞ Accessories:
- Chillers for IT cooling, see Catalogue 33, page 454.
- Server enclosures, see page 16.

LCP – Liquid Cooling Package

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 (see Internet for specifications)								
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		
Dimensions mm — 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 with 3 fans			4800 m³/h with 3 fans			8000 m³/h with 6 fans		
Water inlet temperature	15 °C								
Permissible operating pressure	6 bar								
Duty cycle	100 %								
Type of electrical connection	Connection plug								
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	109[2]
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.   [2] See Innovations 2012.

LCP – Liquid Cooling Package

Accessories see Innovations 2012, page 109

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 (see Internet for specifications)								
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 with 3 fans			4800 m^3/h with 3 fans			8000 m^3/h with 6 fans		
Water inlet temperature	15 °C								
Permissible operating pressure	6 bar								
Duty cycle	100 %								
Type of 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									**Page**
Fan module	1	3311.010		On request			3311.010		109[2]
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		109[2]

■ Included with the supply.   [1] See Catalogue 33.   [2] See Innovations 2012.

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 IEC 60 529
– Internal circuit IP 54 to IEC 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		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.

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

1 **CMC III Processing Unit**

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

ENCLOSURES   POWER DISTRIBUTION   CLIMATE CONTROL
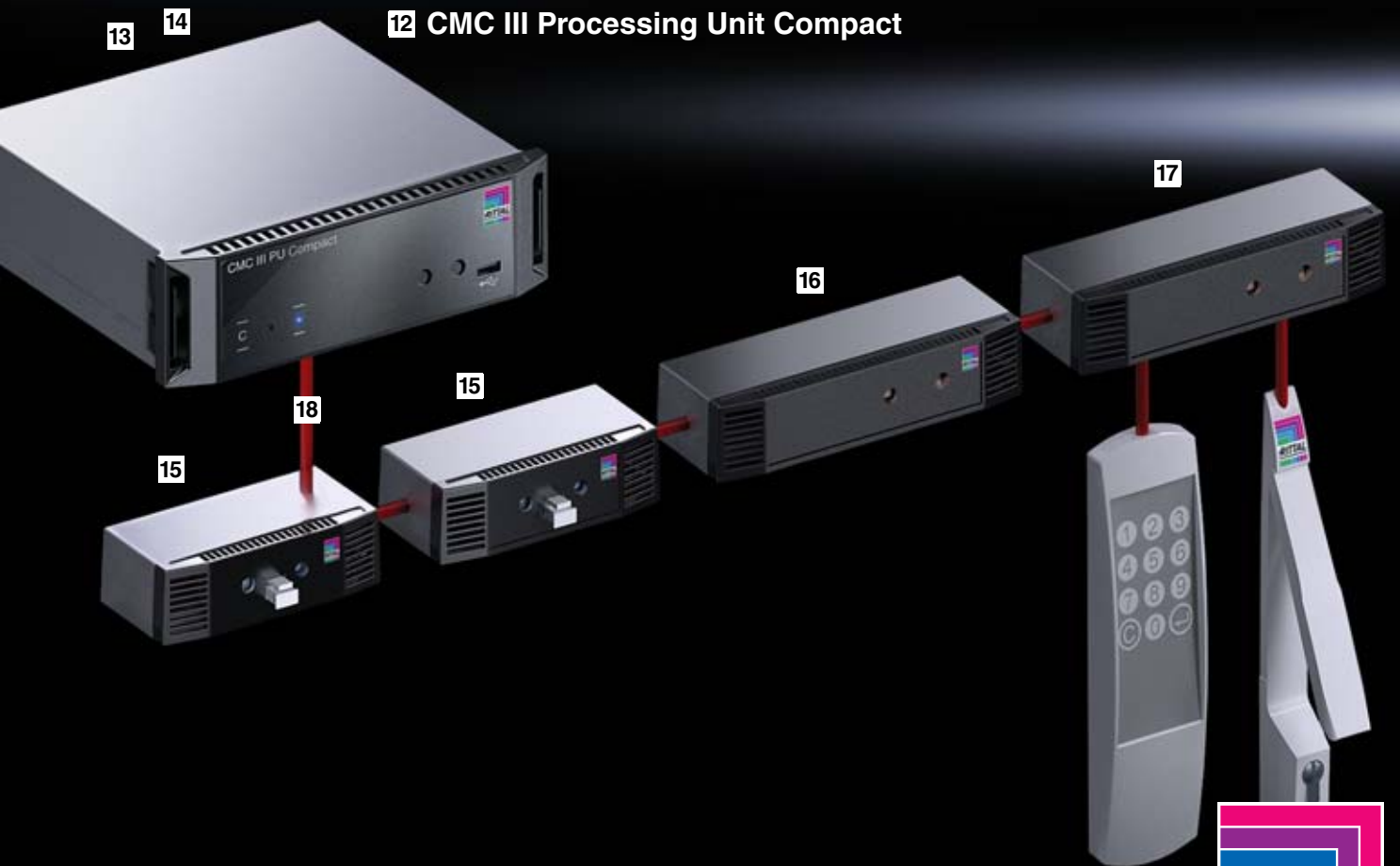
5

6

13 **14** **12** CMC III Processing Unit Compact

17

16

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CMC III Processing Unit/-Compact

Application areas:

CMC III Processing Unit Compact:
- Industrial and enclosure monitoring
- Building monitoring
- Small monitoring applications in IT

CMC III Processing Unit
- Larger monitoring applications in IT and industry

Material:
Plastic

Surface finish:
– Front: Smooth
– Enclosure: Textured

Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Protection category:
IP 30 to EN 60 529

Supply includes:
– Basic system
– Quick-start instructions
– 4 mounting feet

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

		CMC III Processing Unit Compact	CMC III Processing Unit
W x H x D mm		138 x 40 (1 U) x 120 + 12 (front assembly)	138 x 40 (1 U) x 120 + 12 (front assembly)
Temperature range		0 °C to +55 °C	0 °C to +55 °C
Operating humidity range		5 % to 95 % relative humidity, non-condensing	5 % to 95 % relative humidity, non-condensing
Sensors/CAN-Bus connection units		max. 4	max. 32
Max. overall cable length for CAN-Bus		1 x 50 m	2 x 50 m
Model No. DK		**7030.010**	**7030.000**
Interfaces	Network interface (RJ 45)	Ethernet to IEEE 802.3 via 10/100BaseT with PoE	Ethernet to IEEE 802.3 via 10/100BaseT with PoE
	Front USB interface	Mini USB for system setting	Mini USB for system setting
	Rear USB interface	–	for USB stick for data recording and SW updates up to 32 GB
	Front SD-HC slot	–	1 x up to 32 GB for data recording
	Rear serial RS232 (RJ 12)	1 x for connecting Display Unit DK 7320.491 or GSM Unit DK 7320.820 or ISDN Unit DK 7320.830	1 x for connecting Display Unit DK 7320.491 or GSM Unit DK 7320.820 or ISDN Unit DK 7320.830
Inputs and outputs	Digital inputs (terminal)	2	2
	Relay output (terminal)	Changeover contact max. 24 V DC, 1 A	Changeover contact max. 24 V DC, 1 A
	CAN-Bus (RJ 45)	1 x for max. 4 sensors (quantity restriction, see Catalogue 33, page 773)	2 x for max. 16 sensors each = 32 sensors in total (quantity restriction, see Catalogue 33, page 773)
Operation/ signals	Push-button	1 x acknowledgement button	1 x acknowledgement button
	Concealed reset button	1 x service button	1 x service button
	Piezo signal generator	1	1
	LED display	1 x multi-colour OK/warning/alarm	1 x multi-colour OK/warning/alarm
	Rear LED	1 x for the network status	1 x for the network status
Protocols	Ethernet	TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS-Server, SMTP, XML, Syslog, LDAP	TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS-Server, SMTP, XML, Syslog, LDAP
Redundant power supply	Input 24 V DC (jack)	1 x for connecting CMC III power pack	1 x for connecting CMC III power pack
	Input 24 V DC (terminals)	1 x for direct connection or for connecting CMC III power pack	1 x for direct connection or for connecting CMC III power pack
	Power over Ethernet	1 x	1 x
Functions	Time function	Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP	Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP
	User administration	LDAP	LDAP
	User interface	Integral WEB server	Integral WEB server
	Control room connection	Integral OPC server	Integral OPC server
Integral sensors	Temperature sensor	NTC sensor	NTC sensor
	Access sensor	Infrared technology in the enclosure front	Infrared technology in the enclosure front

Sample application, CMC III

	Model No. DK	
1	**7030.010**	CMC Processing Unit III Compact (with front infrared access sensor, temperature sensor, 2/1 inputs/outputs)
2	**7030.060**	Power pack 100 – 240V AC to 24V DC
3	**7200.215**	Connection cable C13/C14
4	**7030.070**	Mounting unit, 1 U
5	**7610.000**	Cable clamp strap
6	**7030.080**	Programming cable USB
7	**7030.090**	CAN-Bus connection cable 0.5 m
8	**7030.091**	CAN-Bus connection cable 1 m
9	**7030.093**	CAN-Bus connection cable 2 m
10	**7030.111**	Temperature/humidity sensor
11	**7030.120**	Access sensor for rear door
12	**7030.100**	CAN-Bus sensor (CAN adaptor for the smoke alarm)
13	**7320.560**	Smoke alarm
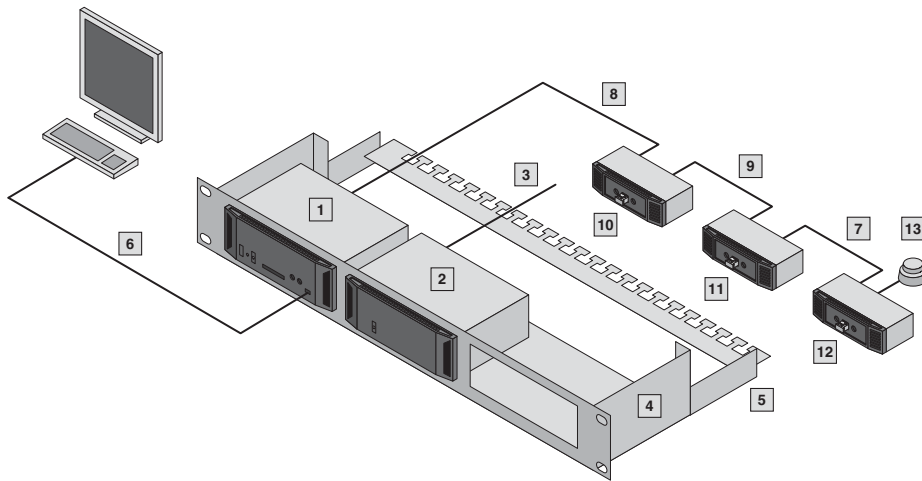
Monitor/keyboard unit, 1 U
with 17˝ TFT display and VGA/DVI connection

Benefits:
- High-quality manufacturing
- Analog and digital video input
- Separate numerical keypad
- Optionally with integrated KVM switch for up to 32 server connections in just 1 U
- Low energy consumption
- Simple, one-man installation

Technical design
– 17˝ (432 mm) TFT display
– Native resolution 1280 x 1024
– Format 4 : 3
– 16.7 million colours
– Brightness approx. 350 cd/m^2 (typ.)
– Contrast ratio approx. 1000: 1
– Mains voltage 100 – 240 V AC, 50 – 60 Hz
– Ambient temperature +5 °C to +45 °C (in operation)
– Max. power consumption in operation, without optional KVM switch: 32 W
– Max. power consumption when closed, without optional KVM switch: < 1 W
– Rear connections: Mains power, VGA, DVI-D, PS/2, USB, power supply for KVM
– Lockable at the front
– Cables are safely routed in the energy chain

Accessories:

For monitoring several servers:
KVM switches, see Catalogue 33, page 781.

Width mm	Height U	Depth mm	Installation depth mm	Packs of	Colour	Keyboard	Model No. DK
482.6 (19˝)	1	680	680 – 850	1	RAL 7035	German	**9055.310**
						English	**9055.312**
					RAL 9005	German	**9055.410**[1]
						English	**9055.412**[1]

Other country-specific versions available on request.
[1] Extended delivery times.

List of model numbers

Model No.	Page	Model No.	Page	Model No.	Page	Model No.	Page	Model No.	Page
2092.200	43	5501.675	32	7098.000	40	7831.726	29	7955.235	47
2092.500	43	5501.685	32	7098.100	40	7856.005	49	7955.236	47
2094.200	43	5501.695	32	7099.000	40	7856.006	49	7955.238	47
2094.400	43	5501.705	32	7111.000	34	7856.008	49	7955.301	47
2094.500	43	5501.715	32	7111.212	35	7856.010	49	7955.310	47
2203.400	41	5501.725	32	7111.214	35	7856.013	51	7955.311	47
2486.500	42	5501.805	30	7111.222	35	7856.014	51	7955.331	47
2573.000	24, 25	5501.815	30	7111.224	35	7856.020	49	7955.332	47
2597.000	40	5501.825	30	7111.900	34	7856.025	51	7955.333	47
2817.000	21	5501.835	30	7112.000	34	7856.026	51	7955.334	47
3300.160	58	5501.895	30	7151.005	31	7856.027	51	7955.335	47
3300.170	58	5502.010	30	7151.105	31	7856.029	51	7955.336	47
3300.180	58	5502.020	30	7152.005	31	7856.030	51	7955.401	47
3300.270	58	5502.105	35	7153.005	31	7856.043	49	7955.410	47
3300.280	58	5502.115	36	7156.005	31	7856.070	50	7955.411	47
3301.800	61	5502.120	38	7220.600	34	7856.080	50	7955.431	47
3311.130	59	5502.145	35	7240.110	52	7856.082	50	7955.432	47
3311.230	59	5502.155	41	7240.120	52	7856.090	50	7955.433	47
3311.260	59	5502.205	36	7240.200	52	7856.095	50	7955.434	47
3311.530	60	5502.225	36	7240.201	52	7856.100	50	7955.435	47
3311.540	60	5502.235	37	7240.205	52	7856.110	50	7955.436	47
3311.560	60	5502.245	37	7240.210	52	7856.120	50	8000.100	19
3311.600	58	5502.255	37	7240.220	52	7856.130	50	8000.500	19
4140.000	53	5502.265	37	7240.230	52	7856.140	50	8001.060	18
4140.010	53	5502.305	42	7240.240	52	7856.150	50	8001.260	18
4140.020	53	5502.325	42	7240.250	52	7856.160	50	8001.280	18
4140.110	53	5502.405	34	7240.260	52	7856.170	51	8001.602	18
4140.120	53	5502.510	24	7240.280	52	7856.180	50	8001.622	18
4140.210	53	5502.530	25	7240.290	52	7856.190	50	8001.662	18
4140.220	53	5502.540	26	7240.310	52	7856.201	50	8001.680	18
4171.500	19	5502.550	26	7240.330	52	7856.220	50	8001.682	18
4172.500	19	5502.560	27	7240.370	52	7856.230	50	8001.800	18
5001.210	26	5502.570	27	7240.510	52	7856.240	50	8001.802	18
5001.211	26	5503.120	14	7240.512	52	7856.321	49	8001.822	18
5001.214	24, 25	5504.110	16	7257.005	36	7856.323	49	8001.862	18
5001.215	24, 25	5504.120	14	7257.105	36	7857.366	55	8001.880	18
5001.218	24, 25	5505.120	14	7493.100	23	7857.420	55	8001.882	18
5001.219	24, 25	5506.120	14	7495.000	22	7857.430	54	8601.010	21
5001.222	25, 26	5507.120	14	7543.000	42	7857.431	54	8601.015	21
5001.223	25, 26	5508.110	16	7546.000	42	7857.432	54	8601.025	21
5001.239	24, 25, 26	5508.120	15	7547.000	42	7857.435	55	8601.026	21
5001.240	24, 25, 26	5509.110	16	7548.000	42	7857.437	55	8601.065	21
5501.000	28	5509.120	15	7583.500	19	7857.482	54	8601.085	21
5501.010	28	5510.110	16	7824.120	28	7857.483	54	8601.086	21
5501.020	28	5510.120	15	7824.128	28	7857.488	55	8601.602	20
5501.030	28	5511.110	16	7825.360	24, 25	7859.050	49	8601.605	20
5501.040	28	5511.120	15	7825.361	24, 25, 26	7859.053	49	8601.802	20
5501.050	28	5512.120	15	7825.366	24, 25, 26	7859.120	50	8601.805	20
5501.060	28	5513.110	17	7825.367	24, 25	7859.130	50	8612.100	39
5501.070	28	5514.110	17	7825.380	24, 25	7859.212	50	8612.120	39
5501.200	28	5515.110	17	7825.381	24, 25, 26	7859.222	50	8612.160	39
5501.210	28	5516.110	17	7825.386	24, 25, 26	7859.232	50	8612.180	39
5501.300	23	7016.100	40	7825.387	24, 25	7890.242	31	8800.210	22
5501.310	23	7016.110	40	7825.388	24, 25	7890.247	31	8800.220	23
5501.320	23	7030.000	64	7825.601	20	7955.110	46	8800.290	22
5501.350	23	7030.010	64	7825.801	20	7955.111	46	8800.490	29
5501.400	33	7072.220	40	7825.900	22	7955.131	46	8800.590	29
5501.410	33	7072.230	40	7828.060	39	7955.132	46	8802.060	24, 25
5501.420	33	7072.240	40	7828.062	39	7955.133	46	8802.080	24, 25
5501.430	33	7077.000	40	7828.080	39	7955.134	46	9055.310	65
5501.440	33	7078.000	40	7828.082	39	7955.135	46	9055.312	65
5501.450	33	7094.130	43	7828.100	39	7955.201	47	9055.410	65
5501.460	33	7094.140	43	7828.102	39	7955.210	47	9055.412	65
5501.480	33	7097.000	40	7828.120	39	7955.211	47		
5501.615	32	7097.220	40	7828.122	39	7955.231	47		
5501.625	32	7097.260	40	7831.472	38	7955.232	47		
5501.655	32	7097.300	40	7831.723	29	7955.233	47		
5501.665	32	7097.340	40	7831.724	29	7955.234	47		

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