Rittal – The System.

Issue 6

Faster – better – everywhere.

Data Centre Solutions

RACKS | POWER | COOLING | MONITORING | SECURITY | SERVICE & SUPPORT

RITTAL

The simple route to the perfect data centre

Data centres are complex systems. Software, hardware and IT infrastructure must work together seemlessly to supply the user with energy and cost efficient, reliable IT services. The IT infrastructure alone demands a wide variety of specialists from each field including: climate control, power ditribution and security.

“Rittal - The System”, minimises complexity and reduces interfaces through a complete, integrated solution. Superior IT performance is achieved through perfect coordination of the Rittal IT System modules: Racks, Power, Cooling, Security, Monitoring, Remote Management and containerised, turnkey solutions, all complimented by a comprehensive range of software and services.

Data Centre Solutions presents you with a complete overview of the Rittal IT System.

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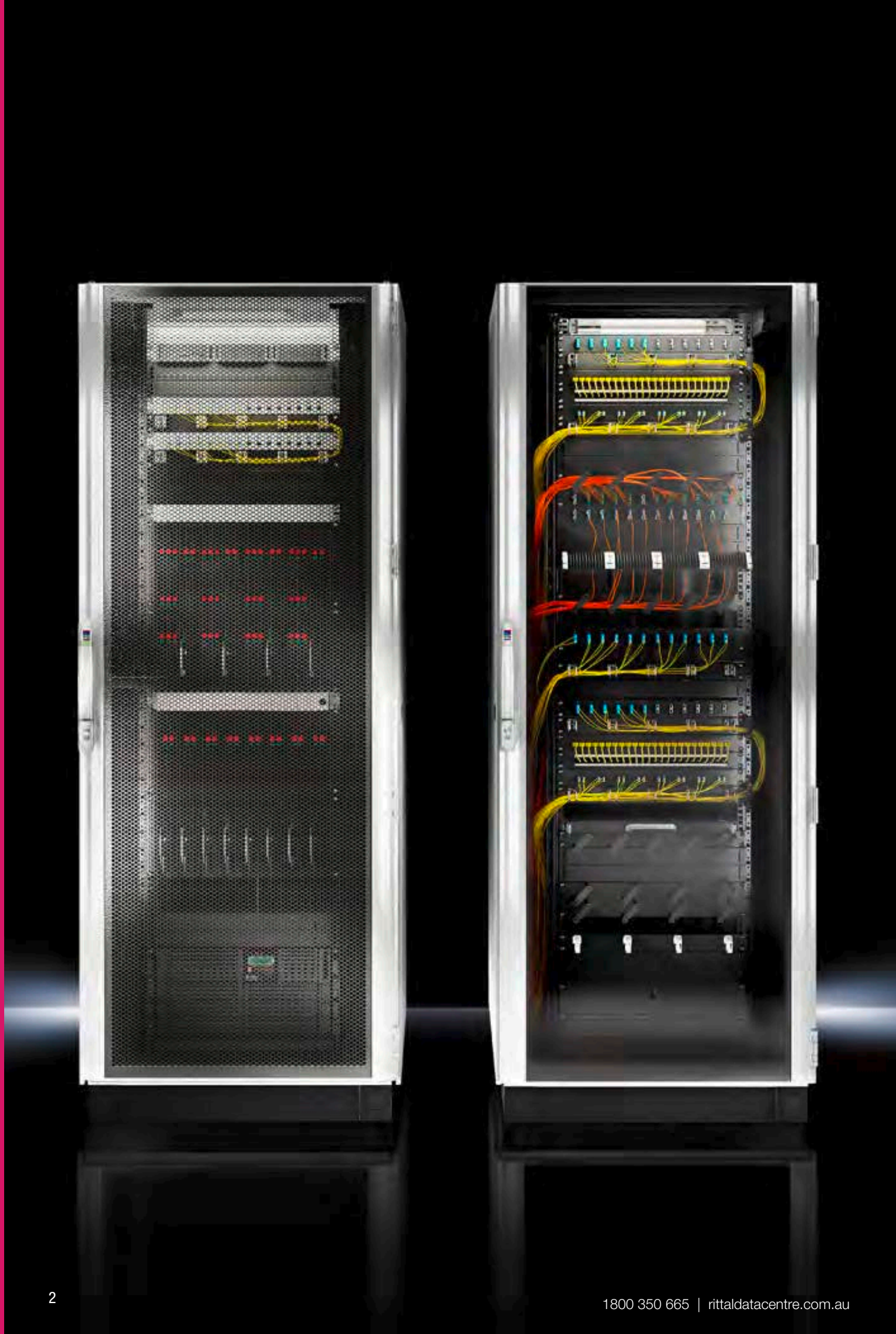
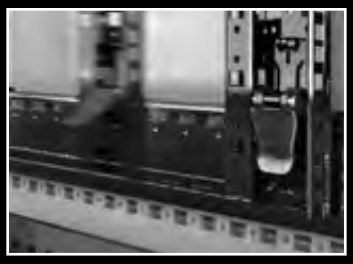


Network/Server Enclosure TS IT

Fast and secure

- Adjustment of the 482.6mm (19") angles is made easier with the use of quick-release fasteners
- Secure: Maximum load capacity up to 15,000N (1500kg)



Convenience in perfection

- Interior installation - Side offset and alternative mounting dimensions are easily achieved
- Distance between levels - directly identified, thanks to integral pitch pattern
- U labelling - front and rear, legible on both sides from the front

Tool-free installation

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

Quick-assembly side panel

- Divided side panel for simple one-man assembly
- Locate side panel at the top, slot in at the bottom, snap shut - and it's done, no screw-fastening required
- Quick-release fasteners with integral lock, plus internal latch for enhanced security

Network/Server enclosures TS IT

482.6mm (19") installation		With 482.6 mm (19") mounting angles		With 482.6 mm (19") mounting frame	
Front door		Glazed door	Vented door	Glazed door	Vented door
Variants		55XX.120	55XX.110	55XX.141	55XX.181
Product-specific scope of supply					
Base	Open	■	■	■	■
	Solid	-	-	-	-
Base	One-piece, solid	■	-	■	-
	Two-piece, solid	■	-	■	-
	One-piece, vented	-	■	-	■
	Two-piece, from H 1800 mm, vented	-	■	-	■
	Rear panel, screw-fastened	-	-	-	-
Roof	With cable entry	■	■	■	■
	Solid	-	-	-	-
Pre-configured					
Base/plinth	Flex-Block, vented	-	-	-	-
Base	Solid front, one base module	-	-	-	-
	One-piece, vented	-	-	-	-
Walls	One-piece, lockable	-	-	-	-
Page		9	6	15	12

Network/Server enclosures TS IT

With 482.6 mm (19") mounting frame, pre-configured		With 482.6 mm (19") swing frame, pre-configured	With 482.6 mm (19") mounting frame, protection category IP 55	Without interior installation, protection cetegory IP 55
Glazed door	Vented door	Glazed door	Glazed door	Glazed door
55XX.151	55XX.161	55XX.170	55XX.131	55XX.790
-	-	-	-	-
-	-	-	■	■
■	-	-	■	■
■	-	-	-	-
-	■	-	-	-
-	■	-	-	-
-	-	■	-	-
■	■	■	-	-
-	-	-	■	■
■	-	■	-	-
■	-	-	-	-
-	■	■	-	-
■	■	■	-	-
Visit rittal.com.au for more information		21	17	19

Network/Server Enclosures TS IT

Material:
– Sheet steel
– Aluminium

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

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

Load capacity of the 482.6 mm (19˝) mounting angles:
– 15,000 N (1500 kg)

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

Please observe the product-specific scope of supply.

Approvals:
– UL
– cUL

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

Units U	Packs of	24	24	24	38	38	Page
Width mm		600	800	800	600	600	
Height mm		1200	1200	1200	1800	1800	
Depth mm		600	800	1000	600	800	
Distance between prefitted 482.6 mm (19") levels mm		345	545	745	345	545	
Model No.	1 pc(s)	**5526.110**	**5503.110**	**5504.110**	**5527.110**	**5528.110**	
Product-specific scope of supply							
Roof plate multi piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s)	■	–	–	■	–	
Sheet steel door at the rear, vented (vented surface area approx. 85% perforated). 180° hinges	1 pc(s)	■	■	■	–	–	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	–	■	■	–	■	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated). 180° hinges	1 pc(s)	–	–	–	■	■	
Accessories							
Side panels, lockable	2 pc(s)	7824.126	7824.128	7824.120	7824.186	7824.188	24
Side panels, divided	1 pc(s)	–	–	–	–		24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.010	5502.020	5502.020	5502.010	5502.010	25
Base/plinth		from page	from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.300	5501.310	5501.320	5501.300	5501.310	37
Gland plates	1 set(s)	–	5502.530	5502.550	–	–	39

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

Units U	Packs of	38	42	42	42	42	Page
Width mm		800	600	600	600	600	
Height mm		1800	2000	2000	2000	2000	
Depth mm		800	600	700	1000	1200	
Distance between prefitted 482.6 mm (19") levels mm		545	345	545	745	745	
Model No.	1 pc(s)	**5505.110**	**5529.110**	**5530.110**	**5508.110**	**5510.110**	
Product-specific scope of supply							
Roof plate multi piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	■	–	■	■	■	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated). 180° hinges	1 pc(s)	■	■	■	■	■	
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s)	–	■	–	–	–	
Accessories							
Side panels, lockable	2 pc(s)	7824.188	7824.206	7824.208	7824.200	–	24
Side panels, divided	1 pc(s)	5501.000	5501.010	5501.020	5501.030	5502.040	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.020	5502.010	5502.010	5502.010	5502.010	25
Base/plinth		from page	from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.310	5501.300	5501.310	5501.320	5501.350	37
Gland plates	1 set(s)	5502.530	–	–	5502.540	5502.560	39
Air baffle plates	1 set(s)	–	5501.805	5501.805	5501.805	5501.805	25
Cable tray	1 pc(s)	–	5502.120	5502.120	5502.120	5502.120	33

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

Units U	Packs of	42	42	42	42	47	Page
Width mm		800	800	800	800	600	
Height mm		2000	2000	2000	2000	2200	
Depth mm		600	800	1000	1200	800	
Distance between prefitted 482.6 mm (19") levels mm		445	545	745	745	545	
Model No.	1 pc(s)	**5506.110**	**5507.110**	**5509.110**	**5511.110**	**5531.110**	
Product-specific scope of supply							
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s)	■	–	–	–	–	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated). 180° hinges	1 pc(s)	■	■	■	■	■	
Roof plate multi piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	–	■	■	■	■	
Accessories							
Side panels, lockable	2 pc(s)	7824.206	7824.208	7824.200	–	7824.228	24
Side panels, divided	1 pc(s)	5501.010	5501.020	5501.030	5501.040	5501.050	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.010	5502.020	5502.020	5502.020	5502.010	25
Base/plinth		from page	from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.300	5501.310	5501.320	5501.350	5501.310	37
Gland plates	1 set(s)	5502.510	5502.530	5502.550	5502.570	–	39
Air baffle plates	1 set(s)	5501.815	5501.815	5501.815	5501.815	5501.825	25
Cable tray	1 pc(s)	5502.120	5502.120	5502.120	5502.120	5502.120	33

Network/Server Enclosures TS IT

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

Units U	Packs of	47	47	47	47	47	Page
Width mm		600	600	800	800	800	
Height mm		2200	2200	2200	2200	2200	
Depth mm		1000	1200	800	1000	1200	
Distance between prefitted 482.6 mm (19") levels mm		745	745	545	745	745	
Model No.	1 pc(s)	**5513.110**	**5515.110**	**5512.110**	**5514.110**	**5516.110**	
Product-specific scope of supply							
Roof plate multi piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	■	■	■	■	■	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated). 180° hinges	1 pc(s)	■	■	■	■	■	
Accessories							
Side panels, lockable	2 pc(s)	7824.220	–	7824.228	7824.220	–	24
Side panels, divided	1 pc(s)	5501.060	5501.070	5501.050	5501.060	5501.070	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.010	5502.010	5502.020	5502.020	5502.020	25
Base/plinth		from page	from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.320	5501.350	5501.310	5501.320	5501.350	37
Gland plates	1 set(s)	5502.540	5502.560	5502.530	5502.550	5502.570	39
Air baffle plates	1 set(s)	5501.825	5501.825	5501.835	5501.835	5501.835	25
Cable tray	1 pc(s)	5502.120	5502.120	5502.120	5502.120	5502.120	33

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

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

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

Load capacity of the 482.6mm (19") mounting angles:
– 15000N (1500 kg)

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

Please observe the product-specific scope of supply.

Approvals:
– UL
– cUL

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

Units U	Packs of	15	24	24	24	38	Page
Width mm		600	600	800	800	600	
Height mm		800	1200	1200	1200	1800	
Depth mm		600	600	800	1000	600	
Distance between pre-fitted 482.6 mm (19") levels mm		345	345	545	745	345	
Model No.	1 pc(s)	**5525.120**	**5526.120**	**5503.120**	**5504.120**	**5527.120**	
Product-specific scope of supply							
Roof plate multi piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s)	■	■	–	–	■	
Sheet steel door at the rear, 180° hinges	1 pc(s)	■	■	■	■	–	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	–	–	■	■	–	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s)	–	–	–	–	■	
Accessories							
Side panels, lockable	2 pc(s)	7824.086	7824.126	7824.128	7824.120	7824.186	24
Side panels, divided		–	–	–	–	–	
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.010	5502.010	5502.020	5502.020	5502.010	25
Base/plinth		from page	from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.300	5501.300	5501.310	5501.320	5501.300	37
Gland plates	1 set(s)	–	–	5502.530	5502.550	–	39
Slide rails		from page	from page	from page	from page	from page	28
Component shelves		from page	from page	from page	from page	from page	27

Network/Server Enclosures TS IT

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

Units U	Packs of	38	38	42	42	Page
Width mm		600	600	600	600	
Height mm		1800	1800	2000	2000	
Depth mm		800	800	600	800	
Distance between pre-fitted 482.6 mm (19") levels mm		545	545	345	545	
Model No.	1 pc(s)	**5528.120**	**5505.120**	**5529.120**	**5530.120**	
Product-specific scope of supply						
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	■	■	–	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s)	■	■	■	■	
Roof plate multi piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s)	–	–	■	–	
Accessories						
Side panels, lockable	2 pc(s)	7824.188	7824.188	7824.206	7824.208	24
Side panels, divided	1 pc(s)	5501.000	5501.000	5501.010	5501.020	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.010	5502.020	5502.010	5502.010	25
Base/plinth		from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.310	5501.310	5501.300	5501.310	37
Gland plates	1 set(s)	–	5502.530	–	–	39
Air baffle plates	1 set(s)	–	–	5501.805	5501.805	25
Cable tray	1 pc(s)	–	–	5501.805	5501.805	33
Slide rails		from page	from page	from page	from page	28
Component shelves		from page	from page	from page	from page	27

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

Units U	Packs of	42	42	42	42	Page
Width mm		600	600	600	600	
Height mm		2000	2000	2000	2000	
Depth mm		1000	1200	600	800	
Distance between pre-fitted 482.6 mm (19") levels mm		745	745	445	545	
Model No.	1 pc(s)	**5508.120**	**5510.120**	**5506.120**	**5507.120**	
Product-specific scope of supply						
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	■	■	–	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s)	■	■	■	■	
Roof plate multi piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s)	–	–	■	–	
Accessories						
Side panels, lockable	2 pc(s)	7824.200	–	7824.206	7824.208	24
Side panels, divided	1 pc(s)	5501.030	5501.040	5501.010	5501.020	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.010	5502.010	5502.010	5502.020	25
Base/plinth		from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.320	5501.350	5501.300	5501.310	37
Gland plates	1 set(s)	5502.540	5502.560	5502.510	5502.530	39
Air baffle plates	1 set(s)	5501.805	5501.805	5501.815	5501.815	25
Cable tray	1 pc(s)	5502.120	5502.120	5502.120	5502.120	33
Slide rails		from page	from page	from page	from page	28
Component shelves		from page	from page	from page	from page	27

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

Units U	Packs of	42	42	47	47	Page
Width mm		800	800	600	600	
Height mm		2000	2000	2200	2200	
Depth mm		1000	1200	800	1000	
Distance between pre-fitted 482.6 mm (19") levels mm		745	745	545	745	
Model No.	1 pc(s)	**5509.120**	**5511.120**	**5531.120**	**5513.120**	
Product-specific scope of supply						
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	■	■	■	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s)	■	■	■	■	
Accessories						
Side panels, lockable	2 pc(s)	7824.200	–	7824.228	7824.220	24
Side panels, divided	1 pc(s)	5501.030	5501.040	5501.050	5501.060	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.020	5502.020	5502.010	5502.010	25
Base/plinth		from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.320	5501.350	5501.310	5501.320	37
Gland plates	1 set(s)	5502.550	5502.570	–	5502.540	39
Air baffle plates	1 set(s)	5501.815	5501.815	5501.825	5501.825	25
Cable tray	1 pc(s)	5502.120	5502.120	5502.120	5502.120	33
Slide rails		from page	from page	from page	from page	28
Component shelves		from page	from page	from page	from page	27

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

Units U	Packs of	47	47	47	47	Page
Width mm		600	800	800	800	
Height mm		2200	2200	2200	2200	
Depth mm		1200	800	1000	1200	
Distance between pre-fitted 482.6 mm (19") levels mm		745	545	745	745	
Model No.	1 pc(s)	**5515.120**	**5512.120**	**5514.120**	**5516.120**	
Product-specific scope of supply						
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	■	■	■	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s)	■	■	■	■	
Accessories						
Side panels, lockable	2 pc(s)	–	7824.228	7824.220	–	24
Side panels, divided	1 pc(s)	5501.070	5501.050	5501.060	5501.070	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.010	5502.020	5502.020	5502.020	25
Base/plinth		from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.350	5501.310	5501.320	5501.350	37
Gland plates	1 set(s)	5502.560	5502.530	5502.550	5502.570	39
Air baffle plates	1 set(s)	5501.825	5501.835	5501.835	5501.835	25
Cable tray	1 pc(s)	5502.120	5502.120	5502.120	5502.120	33
Slide rails		from page	from page	from page	from page	28
Component shelves		from page	from page	from page	from page	27

Network/Server enclosures TS IT

Material:
– Sheet steel
– Aluminium

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

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

Load capacity of the 482.6mm (19") mounting angles:
– 10000N (1000 kg)

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

Please observe the product-specific scope of supply.

Approvals:
– UL
– cUL

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

Units U	Packs of	24	24	24	38	38	Page
Width mm		600	800	800	600	600	
Height mm		1200	1200	1200	1800	1800	
Depth mm		600	800	1000	600	800	
Distance between pre-fitted 482.6 mm (19") levels mm		345	545	745	345	545	
Model No.	1 pc(s)	**5526.181**	**5503.181**	**5504.181**	**5527.181**	**5528.181**	
Product-specific scope of supply							
Roof plate multi piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s)	■	–	–	■	–	
Sheet steel door at the rear, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s)	■	■	■	–	–	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	–	■	■	–	■	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated) 180° hinges	1 pc(s)	–	–	–	■	■	
Accessories							
Side panels, lockable	2 pc(s)	7824.126	7824.128	7824.120	7824.186	7824.188	24
Side panels, divided	1 pc(s)	–	–	–	–	5501.000	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.010	5502.010	5502.020	5502.020	5502.010	25
Base/plinth		from page	from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.300	5501.310	5501.320	5501.300	5501.310	37
Gland plates	1 set(s)	–	5502.530	5502.550	–	–	39
Air baffle plates	1 set(s)	5501.855	5501.865	5501.865	5501.875	5501.875	25

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

Units U	Packs of	38	42	42	42	42	Page
Width mm		800	600	600	600	600	
Height mm		1800	2000	2000	2000	2000	
Depth mm		800	600	800	1000	1200	
Distance between pre-fitted 482.6 mm (19") levels mm		545	345	545	745	745	
Model No.	1 pc(s)	**5505.181**	**5529.181**	**5530.181**	**5508.181**	**5510.181**	
Product-specific scope of supply							
Roof plate multi piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	■	–	■	■	■	
Sheet steel door at the rear, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s)	■	■	■	■	■	
Roof plate multi piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s)	–	■	–	–	–	
Accessories							
Side panels, lockable	2 pc(s)	7824.126	7824.128	7824.120	7824.186	–	24
Side panels, divided	1 pc(s)	5501.000	5501.010	5501.020	5501.030	5501.040	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.020	5502.010	5502.010	5502.010	5502.010	25
Base/plinth		from page	from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.310	5501.300	5501.310	5501.320	5501.350	37
Gland plates	1 set(s)	5502.530	–	–	5502.540	5502.560	39
Air baffle plates	1 set(s)	5501.885	5501.905	5501.905	5501.905	5501.905	25
Cable tray	1 pc(s)	–	5502.120	5502.120	5502.120	5502.120	33

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

Units U	Packs of	42	42	42	42	47	Page
Width mm		800	800	800	800	600	
Height mm		2000	2000	2000	2000	2200	
Depth mm		600	800	1000	1200	800	
Distance between pre-fitted 482.6 mm (19") levels mm		445	545	745	745	545	
Model No.	1 pc(s)	**5506.181**	**5507.181**	**5509.181**	**5511.181**	**5531.181**	
Product-specific scope of supply							
Roof plate multi piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s)	■	–	–	–	–	
Sheet steel door at the rear, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s)	■	■	■	■	■	
Roof plate multi piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	–	■	■	■	■	
Accessories							
Side panels, lockable	2 pc(s)	7824.206	7824.208	7824.200	–	7824.228	24
Side panels, divided	1 pc(s)	5501.000	5501.020	5501.030	5501.040	5501.050	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.010	5502.020	5502.020	5502.020	5502.010	25
Base/plinth		from page	from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.300	5501.310	5501.320	5501.350	5501.310	37
Gland plates	1 set(s)	5502.510	5501.530	5501.550	5501.570	–	39
Air baffle plates	1 set(s)	5501.915	5501.915	5501.915	5501.915	5501.925	25
Cable tray	1 pc(s)	5502.120	5502.120	5502.120	5502.120	5502.120	33

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

Units U	Packs of	47	47	47	47	47	Page
Width mm		600	600	800	800	800	
Height mm		2200	2200	2200	2200	2200	
Depth mm		1000	1200	800	1000	1200	
Distance between pre-fitted 482.6 mm (19") levels mm		745	745	545	745	745	
Model No.	1 pc(s)	**5513.181**	**5515.181**	**5512.181**	**5514.181**	**5516.181**	
Product-specific scope of supply							
Roof plate multi piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	■	■	■	■	■	
Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated), 180° hinges	1 pc(s)	■	■	■	■	■	
Accessories							
Side panels, lockable	2 pc(s)	7824.220	–	7824.228	7824.220	–	24
Side panels, divided	1 pc(s)	5501.060	5501.070	5501.050	5501.060	5501.070	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.010	5502.010	5502.020	5502.020	5502.020	25
Base/plinth		from page	from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.320	5501.350	5501.310	5501.320	5501.350	37
Gland plates	1 set(s)	5502.540	5501.560	5501.530	5501.550	5502.570	39
Air baffle plates	1 set(s)	5501.925	5501.925	5501.935	5501.935	5501.925	25
Cable tray	1 pc(s)	5502.120	5502.120	5502.120	5502.120	5502.120	33

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

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

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

Load capacity of the 482.6mm (19") mounting angles:
– 10000N (1000 kg)

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

Please observe the product-specific scope of supply.

Approvals:
– UL
– cUL

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

Units U	Packs of	24	24	24	38	38	Page
Width mm		600	800	800	600	600	
Height mm		1200	1200	1200	1800	1800	
Depth mm		600	800	1000	600	800	
Distance between pre-fitted 482.6 mm (19") levels mm		345	545	745	345	545	
Model No.	1 pc(s)	**5526.141**	**5503.141**	**5504.141**	**5527.141**	**5528.141**	
Product-specific scope of supply							
Roof plate multi piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s)	■	–	–	■	–	
Sheet steel door at the rear, 180° hinges	1 pc(s)	■	■	■	–	–	
Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	–	■	■	–	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s)	–	–	–	■	■	
Accessories							
Side panels, lockable	2 pc(s)	7824.126	7824.128	7824.120	7824.186	7824.188	24
Side panels, divided	1 pc(s)	–	–	–	–	5501.000	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.010	5502.020	5502.020	5502.010	5502.010	25
Base/plinth		from page	from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.300	5501.310	5501.320	5501.300	5501.310	37
Gland plates	1 set(s)	–	5502.530	5502.550	–	–	39
Air baffle plates	1 set(s)	5501.855	5501.865	5501.865	5501.875	5501.875	25

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

Units U	Packs of	38	42	42	42	42	Page
Width mm		800	600	600	600	600	
Height mm		1800	2000	2000	2000	2000	
Depth mm		800	600	800	1000	1200	
Distance between pre-fitted 482.6 mm (19") levels mm		545	345	545	745	745	
Model No.	1 pc(s)	**5505.141**	**5529.141**	**5530.141**	**5508.141**	**5510.141**	
Product-specific scope of supply							
Roof plate multi piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	■	–	■	■	■	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s)	■	■	■	■	■	
Roof plate multi piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s)	–	■	–	–	–	
Accessories							
Side panels, lockable	2 pc(s)	7824.188	7824.206	7824.208	7824.200	–	24
Side panels, divided	1 pc(s)	5501.000	5501.010	5501.020	5501.030	5501.040	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.020	5502.010	5502.010	5502.010	5502.010	25
Base/plinth		from page	from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.310	5501.300	5501.310	5501.320	5501.350	37
Gland plates	1 set(s)	5502.530	–	–	5502.540	5502.560	39
Air baffle plates	1 set(s)	5501.885	5501.905	5501.905	5501.905	5501.905	25
Cable tray	1 pc(s)	–	5502.120	5502.120	5502.120	5502.120	33

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

Units U	Packs of	42	42	42	42	47	Page
Width mm		800	800	800	800	600	
Height mm		2000	2000	2000	2000	2200	
Depth mm		600	800	1000	1200	800	
Distance between pre-fitted 482.6 mm (19") levels mm		445	545	745	745	545	
Model No.	1 pc(s)	**5506.141**	**5507.141**	**5509.141**	**5511.141**	**5531.141**	
Product-specific scope of supply							
Roof plate multi piece, removable, for horizontal cable entry at the rear and covered cut-out for fan mounting plate	1 pc(s)	■	–	–	–	–	
Sheet steel door at the rear, vertically divided, 180° hinges	1 pc(s)	■	■	■	■	■	
Roof plate multi piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1 pc(s)	–	■	■	■	■	
Accessories							
Side panels, lockable	2 pc(s)	7824.206	7824.208	7824.200	–	7824.228	24
Side panels, divided	1 pc(s)	5501.000	5501.020	5501.030	5501.040	5501.050	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Fan mounting plates	1 pc(s)	5502.010	5502.020	5502.020	5502.020	5502.010	25
Base/plinth		from page	from page	from page	from page	from page	36
Base mount	2 pc(s)	5501.300	5501.310	5501.320	5501.350	5501.310	37
Gland plates	1 set(s)	5502.510	5501.530	see page	5501.570	–	39
Air baffle plates	1 set(s)	5501.915	5501.915	5501.915	5501.915	5501.925	25
Cable tray	1 pc(s)	5502.120	5502.120	5502.120	5502.120	5502.120	33

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

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

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

Protection category IP to IEC 60 529:
– IP 55

Load capacity of the 482.6mm (19") mounting angles:
– 10000N (1000 kg)

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

Approvals:
– UL
– cUL

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

Units U	Packs of	24	24	24	38	38	Page
Width mm		600	800	800	600	600	
Height mm		1200	1200	1200	1800	1800	
Depth mm		600	800	1000	600	800	
Distance between pre-fitted 482.6 mm (19") levels mm		345	545	745	345	545	
Model No.	1 pc(s)	**5526.131**	**5503.131**	**5504.131**	**5527.131**	**5528.131**	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s)	8170.235	8175.235	8176.235	8186.235	8188.235	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Base/plinth		from page	from page	from page	from page	from page	36
Air baffle plates	1 set(s)	5501.855	5501.865	5501.865	5501.875	5501.875	25
Slide rails		from page	from page	from page	from page	from page	28
Component shelves		from page	from page	from page	from page	from page	27

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

Units U	Packs of	38	42	42	42	42	Page
Width mm		800	600	600	600	600	
Height mm		1800	2000	2000	2000	2000	
Depth mm		800	600	800	1000	1200	
Distance between pre-fitted 482.6 mm (19") levels mm		545	345	545	745	745	
Model No.	1 pc(s)	**5505.131**	**5529.131**	**5530.131**	**5508.131**	**5510.131**	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s)	8188.235	8106.235	8108.235	8100.235	XAU8102235	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Base/plinth		from page	from page	from page	from page	from page	36
Air baffle plates	1 set(s)	5501.885	5501.905	5501.905	5501.905	5501.905	25
Cable tray	1 pc(s)	–	5502.120	5502.120	5502.120	5502.120	33
Slide rails		from page	from page	from page	from page	from page	28
Component shelves		from page	from page	from page	from page	from page	27

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

Units U	Packs of	42	42	42	42	47	Page
Width mm		800	800	800	800	600	
Height mm		2000	2000	2000	2000	2200	
Depth mm		600	800	1000	1200	800	
Distance between pre-fitted 482.6 mm (19") levels mm		445	545	745	745	545	
Model No.	1 pc(s)	**5506.131**	**5507.131**	**5509.131**	**5511.131**	**5531.1431**	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s)	8106.235	8108.235	8100.235	XAU8102235	8128.235	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Base/plinth		from page	from page	from page	from page	from page	36
Air baffle plates	1 set(s)	5501.915	5501.915	5501.915	5501.915	5501.925	25
Cable Tray	1 pc(s)	5502.120	5502.120	5502.120	5502.120	5502.120	33
Slide rails		from page	from page	from page	from page	from page	28
Component shelves		from page	from page	from page	from page	from page	27

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

Units U	Packs of	47	47	47	47	47	Page
Width mm		600	600	800	800	800	
Height mm		2200	2200	2200	2200	2200	
Depth mm		1000	1200	800	1000	1200	
Distance between pre-fitted 482.6 mm (19") levels mm		745	745	545	745	745	
Model No.	1 pc(s)	**5513.131**	**5515.131**	**5512.131**	**5514.131**	**5516.131**	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s)	XAU8120235	XAU8122235	8128.235	XAU8120235	XAU8122235	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Base/plinth		from page	from page	from page	from page	from page	36
Air baffle plates	1 set(s)	5501.925	5501.925	5501.935	5501.935	5501.935	25
Cable tray	1 pc(s)	5502.120	5502.120	5502.120	5502.120	5502.120	33
Slide rails		from page	from page	from page	from page	from page	28
Component shelves		from page	from page	from page	from page	from page	27

Material:
– Sheet steel
– Aluminium

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

Colour:
– Enclosure frame and panels: RAL 7035

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

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

Approvals:
– UL
– cUL

with glazed door, IP 55, empty enclosure

Width mm	Packs of	600	600	600	600	600	Page
Height mm		800	1200	1800	2000	1800	
Depth mm		600	600	600	600	800	
Model No.	1 pc(s)	**5525.790**	**5526.790**	**5527.790**	**5529.790**	**5528.790**	
Accessories							
Side panels, screw-fastened, sheet steel	2 pc(s)	8173.235	8170.235	8186.235	8106.235	8188.235	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	8800.490	26
Base/plinth		from page	from page	from page	from page	from page	36
Cable tray	1 pc(s)	–	–	–	5502.120	–	33
Component shelf for frame attachment	1 pc(s)	7165.035	7165.035	7165.035	7165.035	7166.735	CAT34
19" installation		from page	from page	from page	from page	from page	CAT34
Swing frame		from page	from page	from page	from page	from page	CAT34
Patrial mounting plates		from page	from page	from page	from page	from page	CAT34

Network/Server enclosures TS IT

with glazed door, IP 55, empty enclosure

Width mm	Packs of	600	600	600	600	Page
Height mm		2000	2200	2000	2200	
Depth mm		800	800	1000	1000	
Model No.	1 pc(s)	**5530.790**	**5531.790**	**5508.790**	**5513.790**	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s)	8108.235	8128.235	8100.235	XAU8120235	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	26
Base/plinth		from page	from page	from page	from page	36
Cable tray	1 pc(s)	5502.120	5502.120	5502.120	5502.120	33
Component shelf for frame attachment	1 pc(s)	7166.735	7166.735	7166.735	7166.735	CAT34
19" installation		from page	from page	from page	from page	CAT34
Swing frame		from page	from page	from page	from page	CAT34
Patrial mounting plates		from page	from page	from page	from page	CAT34

with glazed door, IP 55, empty enclosure

Width mm	Packs of	600	600	800	800	Page
Height mm		2000	2200	2000	1200	
Depth mm		1200	1200	600	800	
Model No.	1 pc(s)	**5510.790**	**5515.790**	**5506.790**	**5503.790**	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s)	XAU8102235	XAU8122235	8106.235	8175.235	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	26
Base/plinth		from page	from page	from page	from page	36
Cable tray	1 pc(s)	5502.120	5502.120	5502.120	–	33
Component shelf for frame attachment	1 pc(s)	7166.735	7166.735	7185.035	7186.735	CAT34
19" installation		from page	from page	from page	from page	CAT34
Swing frame		from page	from page	from page	from page	CAT34
Patrial mounting plates		from page	from page	from page	from page	CAT34

with glazed door, IP 55, empty enclosure

Width mm	Packs of	800	800	800	800	Page
Height mm		1800	2000	2200	1200	
Depth mm		800	800	800	1000	
Model No.	1 pc(s)	**5505.790**	**5507.790**	**5512.790**	**5504.790**	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s)	8188.235	8108.235	8128.235	8176.235	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	26
Base/plinth		from page	from page	from page	from page	36
Cable tray	1 pc(s)	–	5502.120	5502.120	–	33
Component shelf for frame attachment	1 pc(s)	7186.735	7186.735	7186.735	7186.735	CAT34
19" installation		from page	from page	from page	from page	CAT34
Swing frame		from page	from page	from page	from page	CAT34
Patrial mounting plates		from page	from page	from page	from page	CAT34

with glazed door, IP 55, empty enclosure

Width mm	Packs of	800	800	800	800	Page
Height mm		2000	2200	2000	2200	
Depth mm		1000	1000	1200	1200	
Model No.	1 pc(s)	**5509.790**	**5514.790**	**5511.790**	**5516.790**	
Accessories						
Side panels, screw-fastened, sheet steel	2 pc(s)	8100.235	XAU8120235	XAU8102235	XAU8122235	24
Baying connector, external	6 pc(s)	8800.490	8800.490	8800.490	8800.490	26
Base/plinth		from page	from page	from page	from page	36
Cable Tray	1 pc(s)	5502.120	5502.120	5502.120	5502.120	33
Component shelf for frame attachment	1 pc(s)	7186.735	7186.735	7186.735	7186.735	CAT34
19" installation		from page	from page	from page	from page	CAT34
Swing frame		from page	from page	from page	from page	CAT34
Patrial mounting plates		from page	from page	from page	from page	CAT34

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

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

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

Load capacity of the 482.6 mm (19") mounting angles:
- 1500 N (150 kg)

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

Approvals:
- UL
- cUL

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

Units U	Packs of	40	Page
Width mm		800	
Height mm		2000	
Height including base/plinth mm		2100	
Depth mm		800	
Model No.	1 pc(s)	**5507.170**	
Accessories			
Fan mounting plates	1 pc(s)	5502.020	25
Cable tray	1 pc(s)	5502.120	33
Slide rails	2 pc(s)	7063.000	28
Component shelves		from page	27
Swing frame stay	5 pc(s)	1979.200	CAT34
Ergoform-S lock system	1 pc(s)	2435.000	CAT34

Wall-mounted Enclosures EL, 3-part

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

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

Surface finish:
– Powder-coated

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

Supply Includes:
– Wall section
– Hinged part with 25mm pitch pattern of holes in the front and rear frame
– Designer glazed door

Please observe the product-specific scope of supply.

Note:
– Protection category IP 54 in conjunction with solid gland plate, top and bottom
– Enclosure 673 mm deep with reinforces wall mounting bracket

pre-configured with mounting angles, depth-variable

Units U	Packs of	9	9	15	15	21	21	Page
Width mm		600	600	600	600	600	600	
Height mm		478	478	746	746	1012	1012	
Depth mm		573	673	573	673	573	673	
Clearance width (B2)mm		502	502	502	502	502	502	
Clearance height (H2)mm		415	415	683	683	949	949	
Depth of wall section (T2)mm		135	135	135	135	135	135	
Depth of hinged part (T3)mm		416	516	416	516	416	516	
Max. installation depth (T4)mm		520	620	520	620	520	620	
Load capacity of hinged part (static) kg		45	45	75	75	75	75	
Model No.	1pc(s)	**7709.735**	**7709.535**	**7715.735**	**7715.535**	**7721.735**	**7721.535**	
Product-specific scope of supply								
Wall section: Gland plate, solid, top		■	■	■	■	■	■	
Wall section: Gland plate with brush stip, bottom		■	■	■	■	■	■	
Wall section: 2 vertical punched rails		■	■	■	■	■	■	
Wall section: C rail mounted horizontally for cable clamping		■	■	■	■	■	■	
Hinged part with two 482.6mm (19") mounting angles, fully depth adjustable		■	■	■	■	■	■	
Hinged part: side outlet filters left and right		■	■	■	■	■	■	
Earth rail with star earthing		■	■	■	■	■	■	
4 wall mounting brackets 10mm		■	■	■	■	■	■	
Mini-comfort handle		■	■	■	■	-	-	
Security lock 3524 E								
Comfort handle and 2-point locking		-	-	-	-	■	■	
Accessories								
Gland plate for metric cable glands	1pc(s)	7705.235	7705.235	7705.235	7705.235	7705.235	7705.235	CAT34
Fan expansion kit	1set(s)	7980.100	7980.100	7980.100	7980.100	7980.100	7980.100	CAT34
Spare filter mats	5pc(s)	3322.700	3322.700	3322.700	3322.700	3322.700	3322.700	CAT34
Component shelf 2 U, static installation	1pc(s)	7119.250	see page	7119.250	see page	7119.250	see page	27
Cable management panel	1pc(s)	7257.200	7257.200	7257.200	7257.200	7257.200	7257.200	31

Wall-mounted Enclosures EL, 3-part

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

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

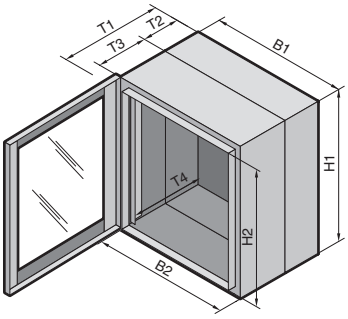
Surface finish:
– Powder-coated

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

Protection category IP to IEC 60 529:
– IP 55

Supply Includes:
– Wall section
– Hinged part with 25mm pitch pattern of holes in the front and rear frame
– Designer glazed door

Please observe the product-specific scope of supply.



with punched rails and mounting angles, depth-variable

Units U	Packs of	6	9	12	15	21	Page
Width mm		600	600	600	600	600	
Height mm		345	478	612	746	1012	
Depth mm		473	473	473	473	473	
Clearance width (B2)mm		502	502	502	502	502	
Clearance height (H2)mm		282	415	549	683	949	
Depth of wall section (T2)mm		135	135	135	135	135	
Depth of hinged part (T3)mm		316	316	316	316	316	
Max. installation depth (T4)mm		420	420	420	420	420	
Load capacity of hinged part (static) kg		30	45	60	75	75	
Model No.	1pc(s)	**7706.135**	**7709.135**	**7712.135**	**7715.135**	**7721.135**	
Product-specific scope of supply							
Wall section: Gland plate, solid top and bottom		■	■	■	■	■	
Wall section: 2 vertical punched rails		■	■	■	■	■	
Wall section: C rail mounted horizontally for cable clamping		■	■	■	■	■	
Hinged part with two 482.6mm (19") mounting angles, fully depth adjustable		■	■	■	■	■	
4 wall mounting brackets 10mm		■	■	■	■	■	
Mini-comfort handle		■	■	■	■	-	
Security lock 3524 E		■	■	■	■	■	
Comfort handle and 2-point locking		-	-	-	-	■	
Accessories							
Gland plate with brish insert	1pc(s)	7705.035	7705.035	7705.035	7705.035	7705.035	CAT34
Gland Plate for metric cable glands	1pc(s)	7705.235	7705.235	7705.235	7705.235	7705.235	CAT34
Earth rail, horizontal	1pc(s)	7113.000	7113.000	7113.000	7113.000	7113.000	35
Component shelf 2 U, static installation	1pc(s)	7119.250	7119.250	7119.250	7119.250	7119.250	27
Cable management panel	1pc(s)	7257.200	7257.200	7257.200	7257.200	7257.200	31

System Accessories

Side panels

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)

Material:
Sheet steel

Surface finish:
Spray-finished

Colour:
RAL 7035

Supply includes:
- Earth leads
- 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**

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 34 page 512.

Other side panel sizes available.

Tubular door frame

for rear door, vertically divided, solid

Material:
Sheet steel, powder coated

Surface finish:
Zinc-plated

Supply includes:
Assembly parts

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

Note:
Required for use of the automatic door opener.

Fan mounting plate

for 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 34, page 417.

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 end connection cable
– Assembly parts.

Note:
Fan unit is supplied with open end cable.

Accessories:

Fan expansion kit 7980.000, see Catalogue 34, page 417.

Rack Width mm	Number of pre-wired fans	Possible number of fans	**Model No. DK**
600mm	2	3	**5502.010**
800mm	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 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.

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

System Accessories

Ventilation/air partitioning

Metal 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**

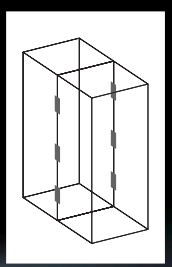
Modular Tool-Free blanking panel

- 6RU sheet
- Snap off feature allows between 1 to 6 RU's
- Tool-Free mounting

Material:
Plastic

Colour:
RAL 9005

Height mm	Model No. DK
6RU	**XAU7151.105**



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**

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

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 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	½	1 set	**5501.655**
600 - 900	50	½	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

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 ½	500	1 set	**5501.715**
600 - 900	100	1 ½	700	1 set	**5501.725**

Accessories:

Handle for commponent shelf 5501.730 see page 608 of CAT34

System Accessories

Component shelves/slide rails

Slide rails, static installation

for TS IT

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

Technical specifications:
Load capacity: 30kg, static

Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
Assembly parts.

U	Length mm	Packs of	Model No. DK
2	450	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
- Simply locate into the system punchings of the TS IT

Technical specifications:
Load capacity: 80kg, 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 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**

Cable manager

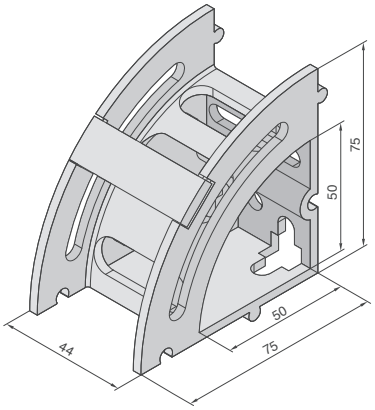
– For system-compatible cable deflection while complying with minimal bending radii and to accommodate surplus cables and excess length. The elements may be used individually or in combination for cable routing.
They may be combined into semi-circular or circular elements.
– Suitable for use on corners and edges to allow protected cable routing.

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

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**

System Accessories

Cable management/cable clamping

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**

Vertical cable duct

for TS IT, DK-TS, TE
- High packing density due to U-based cable routing
- Removable duct cover hinged on both sides
- 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	Packs of	Model No. DK
2000 / 42RU	1	**5502.105**
2200 / 47RU	1	**5502.145**

Cable finger 6 U

for TS IT

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

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.

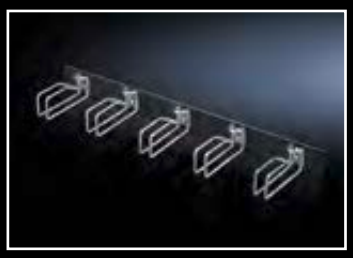
Material:

- 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

with plastic rings
For horizontal management of the patch cables, with 5 cable shunting rings.
Cable shunting rings supplied loose.

Material:

- Panel: Sheet steel
- Rings: Polyamide

Colour:

- RAL 7035

U	Ring Size mm	Packs of	**Model No. DK**
1	70 x 44	1	**7159.035**

System Accessories

Cable management/cable clamping

Cable management panel, 2 U

482.6 mm (19″)
The cable routing chamber has cut-outs from above, into which the patch cables can be inserted. The cable management panel is equipped with a flap and quick-release fasteners at the front, for optimum access to the cables. From the rear, the cables can be inserted via a cut-out with brush strips.

Material:
Sheet steel

Colour:
RAL 9005

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

Cable routing channel

482.6 mm (19″)
To hold 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.

Material:
Sheet steel

Colour:
RAL 9005

U	Packs of	Model No. DK
1	1	**5502.225**
2	1	**5502.265**

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.

Packs of	Model No. DK
2	**7831.472**

Accessories:

- Metal multi-tooth screws 5.5 x 13 mm, SZ 2486.500.
- Cage nuts M6, TS 8800.340, see Catalogue 34, page 599.

Material:
Sheet steel

Surface finish:
Powder-coated

Colour:
RAL 7035

Cable tray

- 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 34.
- Shunting rings, see page 29.

Cable tray

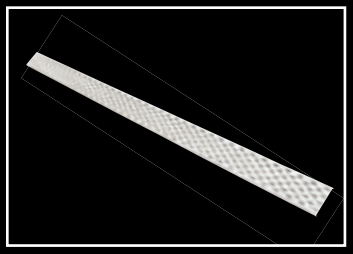
Material:
Sheet steel

Surface finish:
Powder-coated

Colour:
RAL 7035 (Grey)

Grey

Height mm	Width mm	Model No. DK
24	100	**XAUCT24100**
42	100	**XAUCT42100**
42	300	**XAUCT43000**
47	100	**XAUCT47100**
47	300	**XAUCT47300**

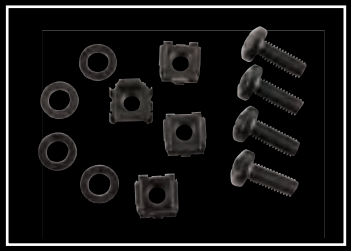


Cage nuts

- Each fastener kit consists of a M6 cage nut, screw and nylon washer

Colour:
Black

Packs of	Model No. DK
50	**XAUCNKIT50**



System Accessories

Cable management/cable clamping

Velcro loop

With the Velcro loop, secured cables are easily released, allowing individual cables to be added or removed. Ideal for sensitive data cables (fibreoptic/Cu), as it avoids indentations on the cable sheathing. In addition, the Velcro 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**

Quarter turn velcro tie

- 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 Velcro tape: 400 mm

Material:
Plastic

Supply includes:
10 supports including Velcro tape.

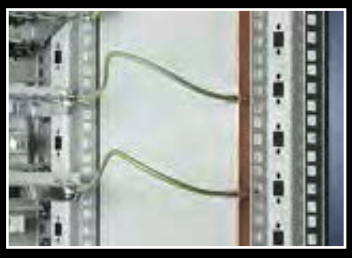
Packs of	**Model No. DK**
10	**5502.155**

Earth rail, vertical

Easily fitted to the 25 mm DIN pitch pattern of distributors or to the 482.6 mm (19″) mounting angles.
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 mm2
- 15 earthing leads 6 mm2, 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

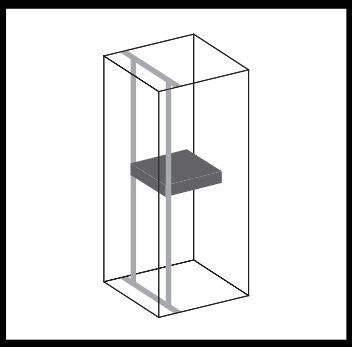
For front attachment to mounting angles, 482.6 mm (19″).

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	Height mm			
2 U	411	419	427	1	**5502.305**
3 U	411	419	427	1	**5502.325**



Earth rail, horizontal

for TS

Supply includes:
- Earth rail made from E-Cu 57 to DIN EN 12 163, DIN EN 13 601, 15 x 5 mm
- 20 connection points with M5 screws
- 2 earth connections 25 mm2
- 2 isolators
- Assembly parts

Length mm	Packs of	**Model No. DK**
450	1	**7113.000**

Base/plinth

Flex-Block base/plinth system

Flex-Block corner pieces

for TS, TS IT, SE, PC
High-strength plastic corner pieces for individual tool-free assembly with Flex-Block trim panels and accessories.

Material:
– Corner pieces: Fibreglass-reinforced plastic
– Cover caps: ABS

Colour:
– RAL 9005

Supply includes:
– 1 set =
4 corner pieces
4 cover caps
Assembly parts for mounting on the enclosure

Corner pieces height mm	Model No.
100	**8100.000**
200	**8200.000**

Accessories:

– Flex-Block trim panels, see page 36
– Baying clip 8000.100, see page 36

Flex-Block trim panels

for Flex-Block corner pieces
For tool-free assembly. With symmetrical enclosure dimensions, trim panels are identical in the width and depth.

Material:
– Sheet steel

Colour:
– RAL 9005

Supply includes:
– 1 set = 2 trim panels

100 mm high, solid

For enclosure width and depth in mm	Model No.
300	**8100.300**
600	**8100.600**
800	**8100.800**
1000	**8100.010**
1200	**8100.120**

100 mm high, vented

For enclosure width and depth in mm	Model No.
600	**8100.602**
800	**8100.802**

Accessories:

– Filter mats for vented Flex-Block trim panels 7583.500, see page 493 CAT34

Baying clip

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

Material:
– Fibreglass-reinforced plastic

Colour:
– RAL 9005

Packs of	Model No.
12 pc(s).	**8000.100**

Base mounting bracket

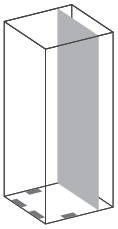
For anchoring the enclosure at any position of the base frame, particularly in cases where the existing holes in the frame or base tray cannot be used due to the installed equipment or because the substructure prevents them from being used.

Material:
Sheet steel

Surface finish:
Zinc-plated

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

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



Castor kit

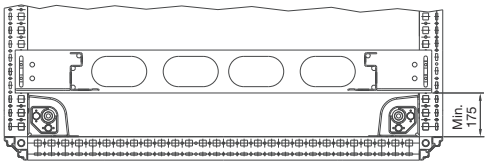
Ground clearance: approx. 40 mm.

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:
Cannot be used in conjunction with 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

for TS, TS IT, SE, PC
To compensate for height differences with floor irregularities. Assembly thread M12.
Optionally with hex socket for adjustment from the inside of the enclosure.

Load capacity:
– Max. admissible static load: approx. 300 kg per levelling foot

Hex socket	Adjustment height	Packs of	Model No.
Without	18 – 43 mm	4	**4612.000**
With	18 – 63 mm	4	**7493.100**

Also required:

– For mounting on the Flex-Block base/plinth system: Adaptor sleeve 8000.500, see page 498 CAT34

Base mount

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.

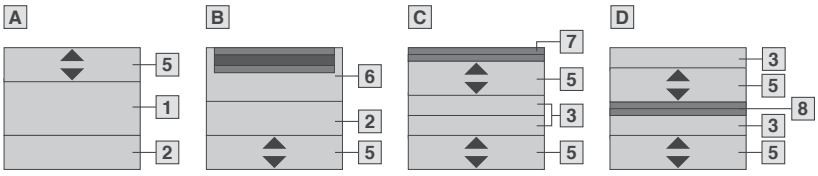
For enclosure depth 600 mm

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
	Cable entry with brush strip			7825.361	7825.381
	Vented			7825.360	7825.380
	Cable entry with brush strip, super-airtight			7825.367	7825.387
	Cable entry, side			-	7825.388

C Cable entry, rear or front	Packs of	Required packs of	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	Packs of	Required packs of	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



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 37.

Note:
Total installation depth 512 mm

Base

For enclosure depth 800 mm

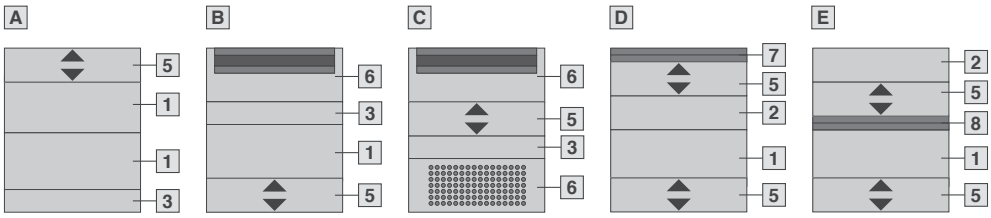
A Gland plate set	Packs of	Required packs of	For enclosure width mm	
			600	800
			Model No. DK	
Gland plate, solid, with sliding panel, multi-piece	1 set	1	-	**5502.530**

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**
	Cable entry with brush strip			**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry with brush strip, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			-	**7825.388**

C 2 module plates as selected		Packs of	Required packs of	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**
	Cable entry with brush strip			**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry with brush strip, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			-	**7825.388**

D Cable entry, rear or front	Packs of	Required packs of	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	Packs of	Required packs of	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	**2573.000**	**2573.000**



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 37.

Note:
Total installation depth 712 mm

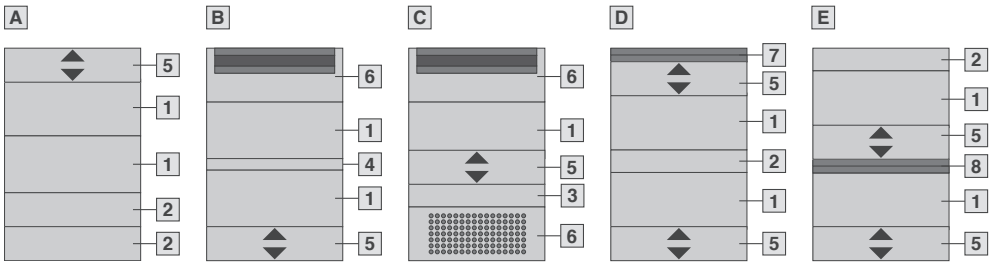
System Accessories

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	1	1	7825.366	7825.386
	Cable entry with brush strip			7825.361	7825.381
	Vented			7825.360	7825.380
	Cable entry with brush strip, super-airtight			7825.367	7825.387
	Cable entry, side			-	7825.388
C 2 module plates as selected				Model No. 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	2	7825.366	7825.386
	Cable entry with brush strip			7825.361	7825.381
	Vented			7825.360	7825.380
	Cable entry with brush strip, super-airtight			7825.367	7825.387
	Cable entry, side			-	7825.388
D Cable entry, rear or front				Model No. 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	2573.000	2573.000



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:

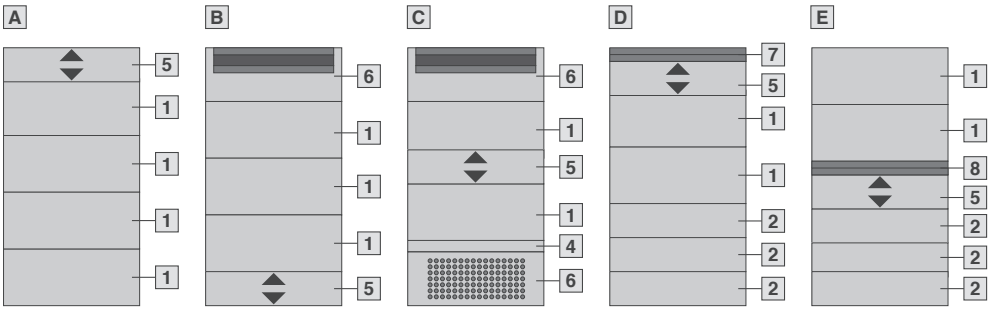
Base mount, see page 37.

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**
	Cable entry with brush strip			**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry with brush strip, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			-	**7825.388**
C 2 module plates as selected				Model No. DK	
Gland plate, depth 250 mm		1	2	**5001.222**	**5001.223**
Gland plate, depth 50 mm		1	1	**5001.218**	**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**
	Cable entry with brush strip			**7825.361**	**7825.381**
	Vented			**7825.360**	**7825.380**
	Cable entry with brush strip, super-airtight			**7825.367**	**7825.387**
	Cable entry, side			-	**7825.388**
D Cable entry, rear or front				Model No. 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	**2573.000**	**2573.000**



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 37.

Note:
Total installation depth 1112 mm

Base

Base

Gland plate module, vented

for TS, TS IT, SE

Large perforated section for passive enclosure ventilation.

Gland plate depth:
– 237.5 mm

Supply includes:
– Filter mat and nylon tape

For enclosure width mm	Model No.
600	**7825.360**
800	**7825.380**

Also required:

– Base mount for installation in TS IT, see page 37
– Gland plates for installation in TS IT, see pages 38-41

Gland plate module, one-piece, with brush strip

for TS, TS IT, SE

For simple, sealed cable entry.

Gland plate depth:
– 237.5 mm

For enclosure width mm	Model No.
600	**7825.361**
800	**7825.381**

Also required:

– Base mount for installation in TS IT, see page 37
– Gland plates for installation in TS IT, see pages 38-41

Gland plate module, two-piece, with brush strip

for TS, TS IT, SE

Special brush strips with brush strips offset on alternate sides offer maximum possible protection with professional cable entry. The two-piece design even allows retrospective fitting of the base module with the cables already installed.

Gland plate depth:
– 237.5 mm

Material:
– Module plate: Sheet steel
– Brush strip: Plastic, UL 94-V0

Surface finish:
– Module plate: Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	1	**7825.367**
800	1	**7825.387**

Also required:

– Base mount for installation in TS IT, see page 37
– Gland plates for installation in TS IT, see pages 38-41

Compact light

- 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.

Material:
Sheet steel

Surface finish:
Zinc-plated

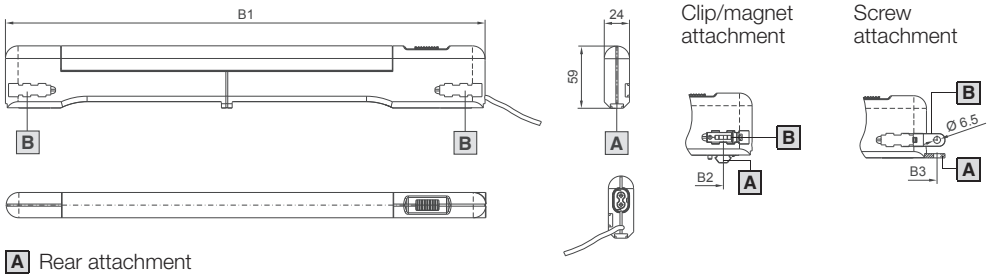
Supply includes:
Assembly parts.

Accessories:

- Mounting kit, magnet, see page 43.
- Door-operated switch with connection cable, SZ 4315.720, see page 614 CAT 34

Note:
Other lights, see Catalogue 34, from page 609.

Model No. SZ	ENEC 24	4140.010	4140.02	4140.110	4140.120
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)			
Cable colour		Yellow	Yellow	Yellow	Yellow
Rated current (A) - at 230 V AC - at 24 V DC		 0.045 - 0.088 -	 0.073 - 0.127 -	 - 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			



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

Power Distribution Unit

Simple assembly

- Compact design
- Tool - free clip attachment in the TS IT
- Flexible mounting at the required height in the zero-U space
- Also suitable for individual installation on the enclosure frame
- Reliable protection against unauthorised access by covering any outputs that are not required
- Securely fitted connectors, thanks to connector lock

Versatile function

- Measurement of power, current, active power, apparent power and power factor
- Measurement of energy consumption and zero conductor current (with 3-phase PDUs)
- Measurement for any output is supported, depending on the PDU version
- Bistable relays ensure minimum inherent power consumption by the PDU
- Connection options for CMC III sensors (temperature, humidity, access)

Professional monitoring

- Powerful CPU and Linux Web server
- TCP/IP v4 and v6 plus SNMP
- Configuration of limits
- User administration, e-mail sent in case of alarm
- Easily connected to DCIM software (e.g. RiZone)

Power Distribution Unit

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
- 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

PDU international, basic version

Power		Pin patterns			Dimensions		Model No. DK
No. of phases	Phase current	Input	Outputs C 13	Outputs C 19	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 international, metered version

Power		Pin patterns			Dimensions		Model No. DK
No. of phases	Phase current	Input	Outputs C 13	Outputs C 19	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 C 13	Outputs C 19	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 C 13	Outputs C 19	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	1750	2000	**7955.435**
3	32 A	CEE	48	None	1830	2200	**7955.436**

Slave PDU international, managed version

Power		Pin patterns			Dimensions		Model No.
No. of phases	Phase current A	Input	Outputs C 13	Outputs C 19	PDU length mm	Minimum enclosure height mm	
1	16	C20	12	-	710	800	**7955.901**
1	16	CEE	24	4	1225	1400	**7955.910**
1	32	CEE	24	4	1370	1800	**7955.911**
3	16	CEE	18	3	1100	1400	**7955.931**
3	16	CEE	24	6	1395	1800	**7955.932**
3	32	CEE	24	6	1620	2000	**7955.933**

PDU accessories

CMC III/PDU sensor type	Packs of	**Model No.**	Page
Covers for C13 slot, lockable	10pc(s)	**7955.010**	
Covers for C19 slot, lockable	10pc(s)	**7955.015**	
Connector, universal lock for C14/C20 connector	20pc(s)	**7955.020**	
Connection cable D/C19, 1.8m	1pc(s)	**7200.216**	69
Connection cable C19/C20, 1.8m	1pc(s)	**7200.217**	69

CMC III sensors (max. 4 sensors per PDU

CMC III/PDU sensor type	Packs of	**Model No.**	Page
Temperature sensor	1pc(s)	**7955.010**	64
Temperature/humidity sensor (combi-sensor)	1pc(s)	**7955.015**	64
Infrared access sensor	1pc(s)	**7955.020**	64
Vandalism sensor	1pc(s)	**7200.216**	64
CMC III CAN bus connection cable RJ 45, length 0.5 - 10m	1pc(s)	see page 69	

Configuration

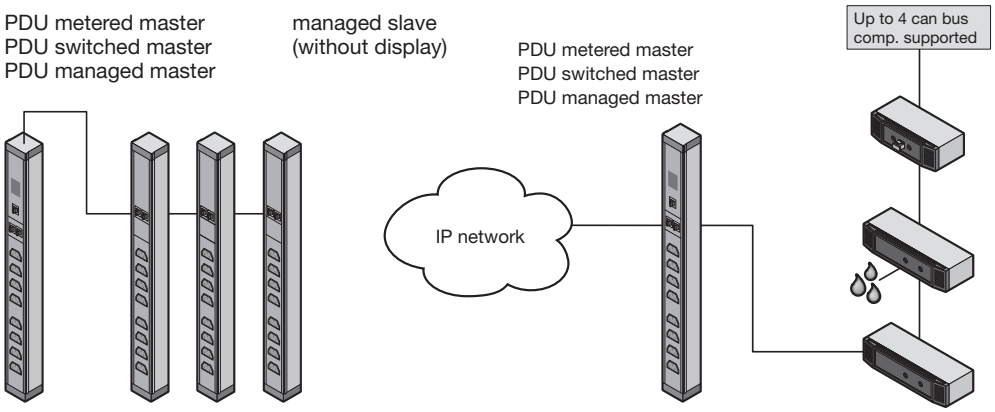
PDU Version	managed/ managed slave[2)]	switched	metered	basic
Mechanical				
May be fitted in the Zero-U space in the 600 mm wide Rittal IT rack, tool-free	■	■	■	■
Colour coding of phases and fuse circuits (depending on PDU version)	■	■	■	■
Connection cable, static, 3 m, with CEE connector (IEC 60 309) 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 supple 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				
Powerfull 500 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 (RJ45)	■	■	■	-
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 - 95%	10 - 95%	10 - 95%	10 - 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.

Power Distribution Unit, sample applications

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

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



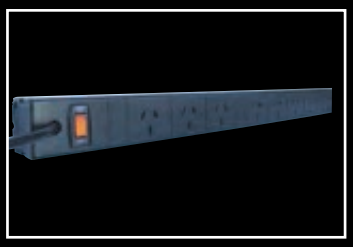
allocation of fuses, phases, slots

Model No.DK	Infeed PDU	Fuse (type C16 A)	Phase 1		Phase 2		Phase 3	
			String 1 (F1)	String 1 (F2)	String 2 (F1)	String 2 (F2)	String 3 (F1)	String 3 (F2)
7955.X01	230V/1~/16A	-	12 x C13	-	-	-	-	-
7955.X10	230V/1~/16A	-	24 x C13 + 4 x C19	-	-	-	-	-
7955.X11	230V/1~/32A	2 x	12 x C13 + 2 x C19	12 x C13 + 2 x C19	-	-	-	-
7955.X31	400V/3~/16A	-	6 + C13 + 1 x C19	-	6 + C13 + 1 x C19	-	6 + C13 + 1 x C19	-
7955X32	400V/3~/16A	-	8 + C13 + 2 x C19	-	8 + C13 + 2 x C19	-	8 + C13 + 2 x C19	-
7955.X33	400V/3~/32A	6 x	8 x C13	2 x C19	8 x C13	2 x C19	8 x C13	2 x C19
7955.X34	400V/3~/32A	6 x	6 + C13 + 1 x C19	6 + C13 + 1 x C19	6 + C13 + 1 x C19	6 + C13 + 1 x C19	6 + C13 + 1 x C19	6 + C13 + 1 x C19
7955.X35	400V/3~/16A	-	14 x C13	-	14 x C13	-	14 x C13	-
7955.X36	400V/3~/32A	6 x	8 x C13	8 x C13	8 x C13	8 x C13	8 x C13	8 x C13

Power Distibution Unit international

Technical specifications		
Standards	Security	EN 60 950-1
	EMC	EN 55 022/B, EN 61 000-4-2, EN 61 000-4-3, EN 61 000-6-2, EN 61 000-6-2
Safety directive		2006/95/EC
EMC directive		2004/108/EC
MTBF (at 40°C)		200,000 hours
Protection category		IP 20 (IEC 60 529)
Protection class		3
Contamination level		2
Overvoltage category		II
Environmental properties		RoHS
Storage temperature		-25°C to + 70°C
Ambient temperature		0°C to +45°C
Ambient humidity		10 - 95% rel. humidity (non-condensing)
Connector latch C13 and C19		1 x (further optional DK 7955.020)
C13 covers included with supply		8 x (further optional DK 7955.010)
C19 covers included with supply		2 x (further optional DK 7955.015)
Warranty		24 months (from the date of manufacture)

GPO Power Rail



Horizontal & vertical power rails

– 10 Amp / 15 Amp / 20 Amp
– All fixing hardware included
– Includes 3m lead with captive plug

Colour:
RAL 9005 Black

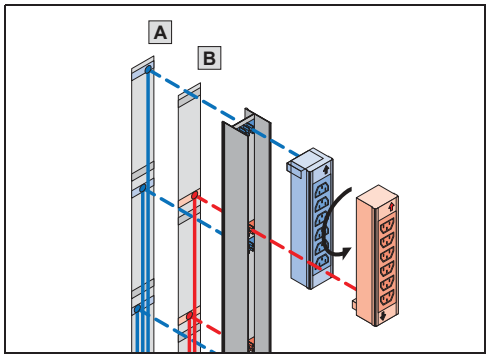
Horizontal Features:
Mounts to 19” mounting Rails

Vertical Features:
Mounts to all frame elements

Part No.	Outlets Type 1	Orientation	Dimensions L x RU x D	Plug Type	Special Notes	Mounting
10 AMP						
XAUPQ06AEEBK	6 x 10 Amp GPO	Horizontal	420 x 44.45 x 44.5	10 Amp GPO captive	10 Amp thermal overload	19" only
XAUPQ12AEEBK	12 x 10 Amp GPO	Horizontal	420 x 88.9 x 44.5	10 Amp GPO captive	10 Amp thermal overload	19" only
XAUPQ12AEEBKV	12 x 10 Amp GPO	Vertical	756 x 44.45 x 44.5	10 Amp GPO captive	10 Amp thermal overload	Sliding bracket system
XAUPQ21AEEBK	21 x 10 Amp GPO	Vertical	1260 x 44.45 x 44.5	10 Amp GPO captive	10 Amp thermal overload	Sliding bracket system
15 AMP						
XAUPQ06EFEBK	6 x 15 Amp GPO	Horizontal	420 x 44.45 x 44.5	15 Amp GPO captive	15 Amp thermal overload	19" only
XAUPQ12EFEBK	12 x 15 Amp GPO	Horizontal	420 x 44.45 x 44.5	15 Amp GPO captive	15 Amp thermal overload	19" only
XAUPQ12EFEBKV	12 x 15 Amp GPO	Vertical	756 x 44.45 x 44.5	15 Amp GPO captive	15 Amp thermal overload	Sliding bracket system
XAUPQ21EFEBK	12 x 15 Amp GPO	Vertical	1260 x 44.45 x 44.5	15 Amp GPO captive	15 Amp thermal overload	Sliding bracket system
20 AMP						
XAUPQ06EGEBK	6 x 15 Amp GPO	Horizontal	420 x 44.45 x 44.5	20 Amp GPO captive	20 Amp thermal overload	19" only
XAUPQ12EGEBK	12 x 15 Amp GPO	Horizontal	420 x 88.9 x 44.5	20 Amp GPO captive	20 Amp thermal overload	19" only
XAUPQ12EGEBKV	12 x 15 Amp GPO	Vertical	756 x 44.45 x 44.5	20 Amp GPO captive	20 Amp thermal overload	Sliding bracket system
XAUPQ21EGEBK	12 x 15 Amp GPO	Vertical	1260 x 44.45 x 44.5	20 Amp GPO captive	20 Amp thermal overload	Sliding bracket system

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.

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 overcurrent protection, so that only the affected module is deactivated in the event of an excessively high current. The other modules remain operational.
- Overvoltage protection may be integrated into the supply line.
- Various modules also available with current measurement and switchable outputs.

PSM busbars

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	**Model No. DK**
1 With measurement of voltage, current and power (consumption), via CMC-TC, remote controllable							
2000	3	2	16	6	Jack	-	**7859.050**
2000	1	1	32	6	CEE	2	**7859.053**
2 With 2 infeeds (jack), 3-phase redundancy							
1200	3	2	16	4	Jack	-	**7856.010**
2000	3	2	16	7	Jack	-	**7856.020**
2200	3	2	16	8	Jack	-	**7856.008**
3 With 3 m connection cable (wire and ferrules)							
2000	3	1	16	7	Wire and ferrules	-	**7856.005**
2000	3	2	16	7	Wire and ferrules	-	**7856.006**
4 With 3 m connection cable (connector type CEE/EN 60 309)							
2000	1	1	32	6	CEE	2	**7856.321**
2000	3	1	32	6	CEE	6	**7856.323**
2000	1	1	32	6	CEE	2	**7856.043**

Also required:

PSM socket modules,
see page 53.

Accessories:

- Mounting kit for PSM busbars, see page 54.
- Connection cables, see page 54.
- Cable lock, see page 54.
- Overvoltage protection, see page 54.

PSM measurement bar for CMC III

Measurement bars for direct connection to the CMC III system. With a PSM mounting kit, the measurement bar may be vertically mounted in a 2000mm high TS 8 or in the TS IT rack.

Display and monitoring of all major output parameters is supported, separated by phase and infeed. An integral display provides a local on-site display in teh rack.

Remote administration and network connectivity are created via the CMC III system.

Benefits:
- Modular extendible system
- For 16 A and 32 A phase current
- Various PSM connection modules (pin patterns)
- PSM modules may be connected with the system operational
- VDE-tested, shock hazard-protected system
- Easy to assemble
- CAN bus for connection to CMC III system
- Extensive managment and monitoring functions (via CMC III)

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

Material:
- Extruded aluminium section, anodised

Protection category IP to IEC 60 529:
- IP20

Material:
Extruded aluminium section, anodised

Standards:
- EN 60 950
- EN 61 000-6-1
- EN 61 000-6-2
- EN 55 022

Safety directive:
- 2006/95/EC

EMC directive:
- 2004/108/EC

Model No.	**7859.050**	**7859.053**	Page
Version/rated current A (per phase)	16	32	
No. of infeeds (3-phase, 16 A/single-phase, 32 A)	2	1	
Connection cable, plug-in, various configurations	■	-	
Connection cable, static, 3m, with CEE connector, 32 A, single-phase (IEC 60 309)	-	■	
Electromagnetic curcuit-breaker (2 x 16 A, type C)	-	■	
Input voltage 230 V/400 V (50/60 Hz)	■	■	
Power supply via CMC III system (24 V DC)	■	■	
CAN bus for direct connection to CMC III system (RJ 45, 2 x socket)	■	■	
Maximum no. of systems that may be connected to one CMC-PU III	8	8	
Ambient Conditions			
Operating temperature	0°C...+45°C		
Storage temperature	-25°C...+70°C		
Ambient humidity % (non-condensing)	10 - 95		
Accessories			
Psm connection cable, 3-phase, with CEE connectors (IEC 60 309), length 3m (2 x required when using both infeeds)	7856.025	Fixed installation	54
PSM mounting kits for mounting on the TS IT enclosure frame, height 2000 mm	7856.029	7856.029	54
PSM module 6 x C13	7856.080	7856.080	53
PSM module 4 x C19	7856.230	7856.230	53
Other PSM socket modules	see page 53		

PSM socket modules

Required module slots in PSM busbar	Connector pattern	Slots	Thermal overcurrent protection	Packs of	**Model No.**
1 Standard socket modules/non-switches					
1	C13	6	-	1pc(s)	**7856.080**
1	C13	6	■	1pc(s)	**7856.070**
1	C13	4	■/per output	1pc(s)	**7856.220**
1	C19	4	-	1pc(s)	**7856.230**
1	C13 red	6	-	1pc(s)	**7856.082**
2 Socket modules with LED display/current measurement per module					
1	C13	6	-	1pc(s)	**7859.120**
1	C19	4	-	1pc(s)	**7859.130**
3 Socket modules with switchable slot/aggregate current measurement per module					
2	C13	8	■	1pc(s)	**7856.201**
2	C19/C13	4/2	■	1pc(s)	**7856.204**
4 Socket modules with switchable slot/individual current measurement per slot					
2	C13	8	■	1pc(s)	**7859.222**
2	C19/C13	4/2	■	1pc(s)	**7859.232**

Power System Module

Accessories

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

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, single-phase			
C14/X-Com 10 A	3 m	1	**7856.027**
C20/X-Com 16 A	3 m	1	**7856.030**
Connection cable, single-phase			
16 A	2 m	1	**7200.217**
Connection cable, single-phase			
16 A	0.5 m	2	**7856.014**

Cable lock PSM

for all modules with EN 60 320 C13 connector configurations

Protected against unintentional disconnection of the power supply. Two bars are needed for two cables.

Design	Packs of	Model No. DK
Bar	20	**7856.029**

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 adapter connector	1	**7856.170**

Note:
One adaptor is required for each feed.

MID measurement module - Inline meter

The PSM 1 U MID measurement modules may be used for upgrading existing installations or for measuring individual 16 A/32 A equipment. These are readily integrated into the 482.6mm (19") level or into the zero-U space of the rack, and connected using suitable connection cables. These measurement modules have a MID-compliant active energy meter and are therefore suitable for energy billing purposes. MID stands for "Measurement Instrument Directive" and regulates 10 types of measurement equipment based on EU Directive 2004/22/EC.

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

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

Material:
- Enclosure: Sheet steel

Colour:
- RAL 9005

Protection category IP to IEC 60 529:
- IP 51

Standards:
- EN 60 950
- EN 61 000-6-1
- EN 61 000-6-2
- EN 55 022

Safety directive:
- 2006/95/EC

EMC directive:
- 20046/108/EC

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

for CMC III

Model No.	**7859.312**	**7859.332**
Rated current A (per phase)	16	32
Sheet steel enclosure 1 U for 482.6mm (19") mounting, approx 200mm deep	■	■
Assembly parts	■	■
Input voltage 230 V/400 V (50/60 Hz)	■	■
No. of infeeds (each 3-phase)	2	2
Power supply across all 3 phases (internal power pack)	■	■
Maximum no. of systems that may be connected to one CMC-PU III	8	8
Ambient conditions		
Operating temperature	-25°C...+55°C	-25°C...+55°C
Storage temperature	-25°C...+70°C	-25°C...+70°C
Ambient humidity % (non-condensing)	20 - 90	20 - 90
Also required		
Conection cable, set: 1 x input 2 m/1 x output 2 m CEE (IEC 60 309 jack) (2 x required when using both infeeds)	**7859.315**	**7859.335**
Connection cables for PSM busbars: input cable 3 m/output cable 1.2 m (with Wago X-COM connector) (2 x required when using both infeeds)	**7859.316**	**-**

UPS - Power Module Concept

Uninterruptible power supply

1000 / 2000 / 3000 / 6000 / 10000 VA

True Online Double Conversion
- True 240V Sine Wave Output
- Wide input voltage window
- Lighting & surge protection

Tower or Rack Mountable (same unit)
- Easy to install

1kVA up to 30kVA
- Scalable from a small 1kVA UPS to 30 kVA UPS just by adding modules

Units can be Parralelled
- For redundancy 1N (N+1 Configuration)

Model No. DK	XAU7857.430A	XAU7857.431A	XAU7857.432A	XAU7857.433A	XAU7857.434A
Performance					
kVA	1kVA	2kVA	3kVA	6kVA	10kVA
Power Rating (W)	800	1600	2400	5400	9000
Internal Batteries	Yes	Yes	Yes	No	No
Max External Battery Pack	2	2	2	3	3
Technology	On-line double conversion with static bypass				
Input Voltage (AC)	120~290			176~280	
Input Frequency	50Hz ± 5%				
Input Power Factor	0.99				
Output voltage	240 Vac ± 3%				
Output power factor (Pf)	0.8			0.9	
Output frequency	50Hz ± 0.5Hz				
Efficiency	> 88%			> 90%	

Battery					
Model No. DK	**XAU7857.435A**	**XAU7857.436A**	**XAU7857.437A**	**XAU7857.442A**	**XAU7857.443A**
Backup time at full load	5 min (Internal)		4 min (Internal)	5 min (battery pack)	2 min (Battery Pack)
Backup time at ½ load	14 min (internal)		12 min (internal)	12 min (battery pack)	10 min (battery pack)
Battery test	Programmable automatic test (via free software supplied)				
Battery notes	1, 2 & 3kVA supplier standard with internal batteries. 6 & 10kVA supplied with no internal batteries. Backup times shown above for 6 & 10kVA = 1 x UPS module + 1 external battery pack.				

Input / Output connection			
Input	IEC 320 C14 (10 A)	IEC 320 C20 (15 A)	Terminal strip
Output (tower)	IEC 320 C13 (10 A)		Terminal strip

Power management	
Standard port	Standard RS232 & USB interfaces
Intellislot	1 slot for optional SNMP / web card (7857420A) or relay card (7857410A)
Remote power off	Yes with OS shutdown software (standard)

Dimensions				
W x H x D mm	440 x 88 (2U) x 405	440 x 88 (2U) x 650	440 x 88 (2U) x 680	440 x 132 (3U) x 680

Environmental	
Operating temperature	0°C ~+ 40°C, recommended +20°C ~+ 25°C
Humidity	0% - 90%
Storage temperature	0°C - 40°C
Altitude	0---2000m (nominal), 2000---3000m (de-rating)
Acoustic noise (1 m from front panel)	≤45dB / ≤50dB

Conformance	
Approval	CE, UL, C-Tick
Safety	EN62040-1, IEC62040-1 , UL1778
EMC	EN50091-2 Class B, IEC/EN62040-2 Class A, FCC Class A

*Specifications subject to change without prior notice.

UPS - Power Module Concept

Battery packs

- Includes overload protection
- Battery packs are "hot plug" compatible (replacement of batteries while operational)
- Rack mount or tower mount (vertical)
- Batteries can be exchanged from the front without removing the battery pack from the 482.6mm (19") level

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

Supply includes:

- Fully preassembled and populated with batteries
- 0.5 m connection cable with connector
- Rack mount ears or feet

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

	Standard version				
UPS PMC 12 model	XAU7857.430A	XAU7857.431A	XAU7857.432A	XAU7857.433A	XAU7857.434A
Battery pack model number to suit	**XAU7857.435A**	**XAU7857.436A**	**XAU7857.437A**	**XAU7857.442A**	**XAU7857.443A**
Width (mm)	465	465	465	465	465
Height (mm) (RU)	89 (2U)	89 (2U)	89 (2 U)	133.5 (3U)	133.5 (3U)
Depth (mm)	650	650	650	680	680
Weight (kg)	35	35	35	55	70
Number of batteries per battery pack	12 (7Ah)	12 (7Ah)	12 (9Ah)	20 (7Ah)	20 (9Ah)

UPS - Additional Accessories

UPS monitoring card (SNMP card)

Design	Model No.
SNMP Card	XAU7857.420A

Relay Card

Design	Model No.
Relay Card	XAU7857.410A

Note: Cannot be used together with the SNMP Card

Mechanical Maintanence Bypass Switch

Design	Model No.
1 - 3 kVA (include UPS fuse 16A)	XAU7857.440A
6 kVA (include UPS fuse 32A)	XAU7857.441A

Slide rails, depth-variable, 1 RU

482.6 mm (19") distance between levels (mm)	Load Capacity (kg)	Packs of	Model No.
400 - 600	80	2	5501.460
600 - 900	150	2	5501.480

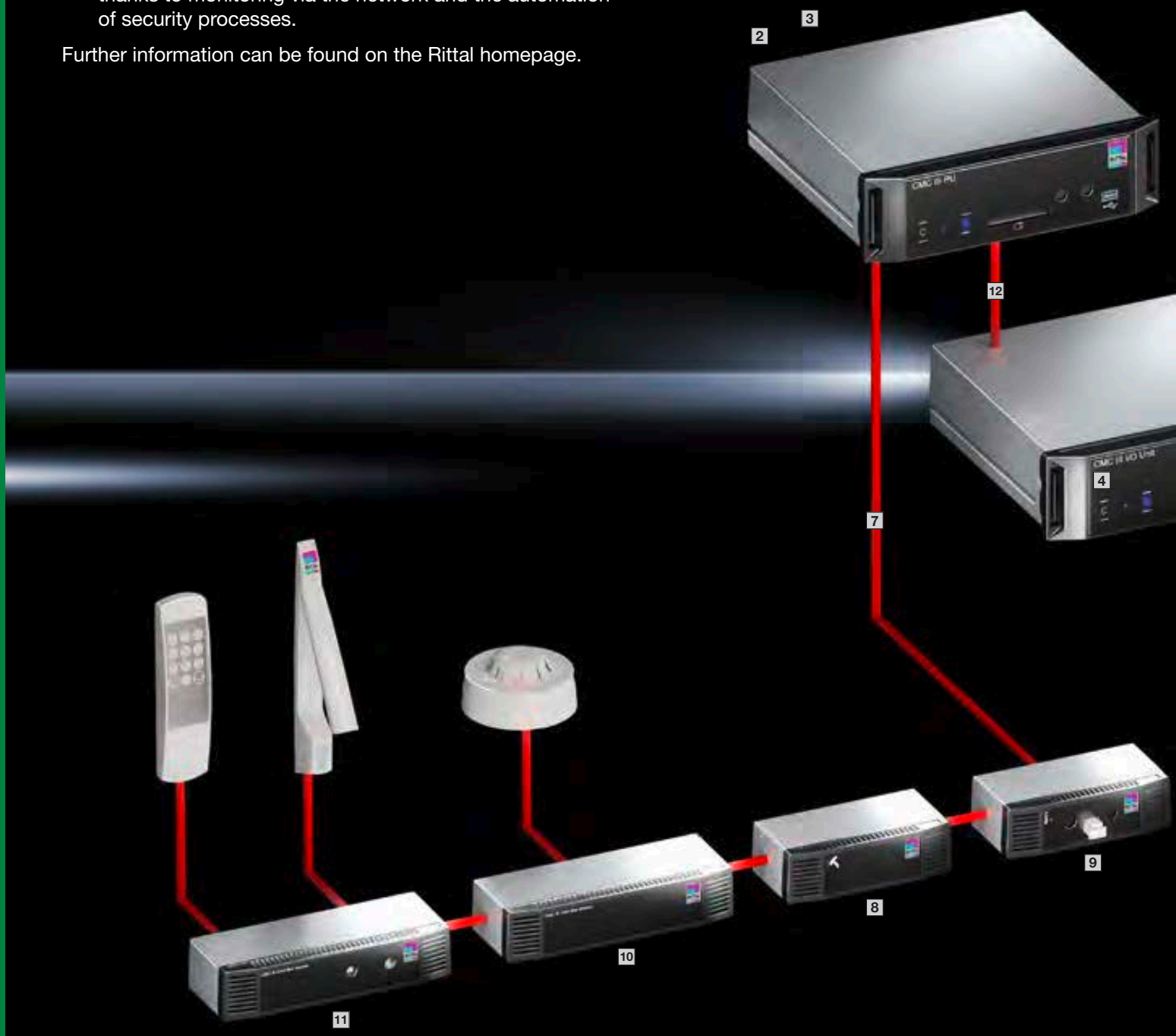
CMC III - Monitoring System

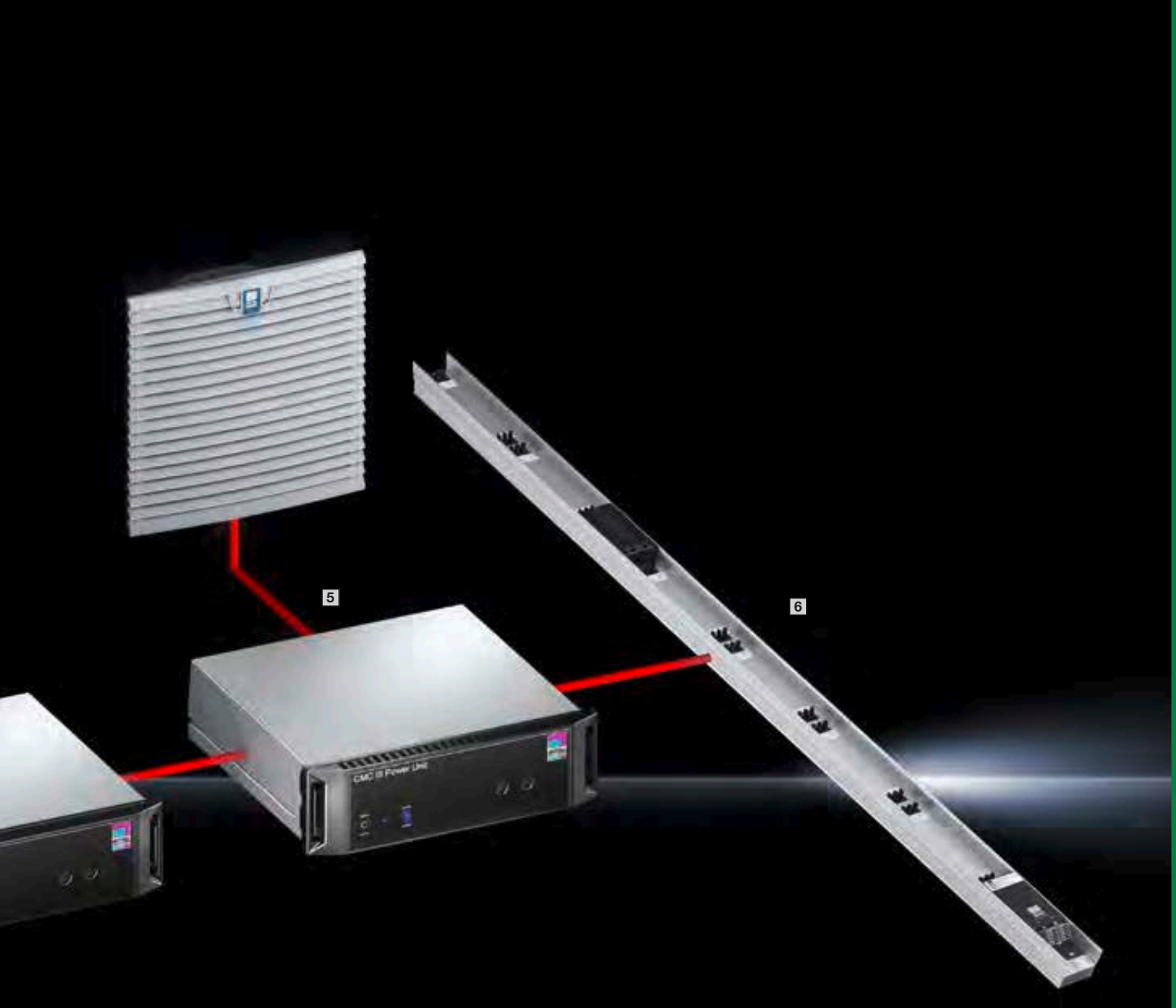
Computer Multi Control (CMC) is an alarm system for network and server enclosures, cases, containers and rooms.

- It monitors temperatures, humidity, access, smoke, energy and many other physical ambient parameters.
- It is a modular system that can be flexibly adapted to meet the customer's specific monitoring requirements.
- User benefits plus exceptional savings are achieved, thanks to monitoring via the network and the automation of security processes.

Further information can be found on the Rittal homepage.

1 CMC III Processing Unit

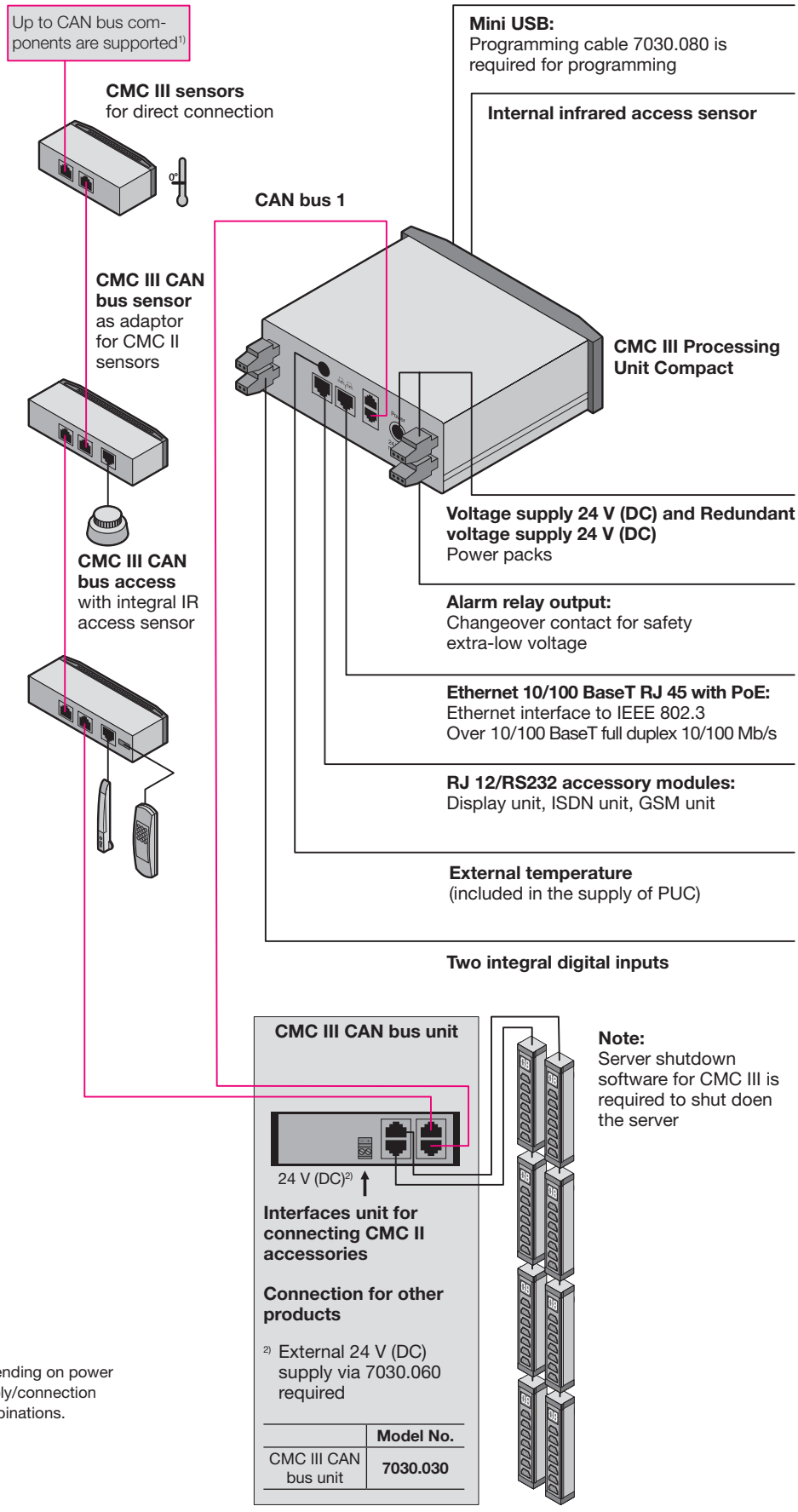




1 **CMC III Processing Unit**
2 Power supply
3 Redundant power supply
4 CMC III I/O unit
5 CMC III power unit
6 CMC III PSM measuring bar for direct connection
7 Up to 16 CAN bus systems may be connected
8 CMC III vandalism sensor
9 CMC III temperature sensor
10 CAN bus sensor for connection of CMC II sensors
11 CMC III CAN bus access
12 Up to 16 CAN bus systems may be connected

CMC III Processing Unit/Compact

System overview

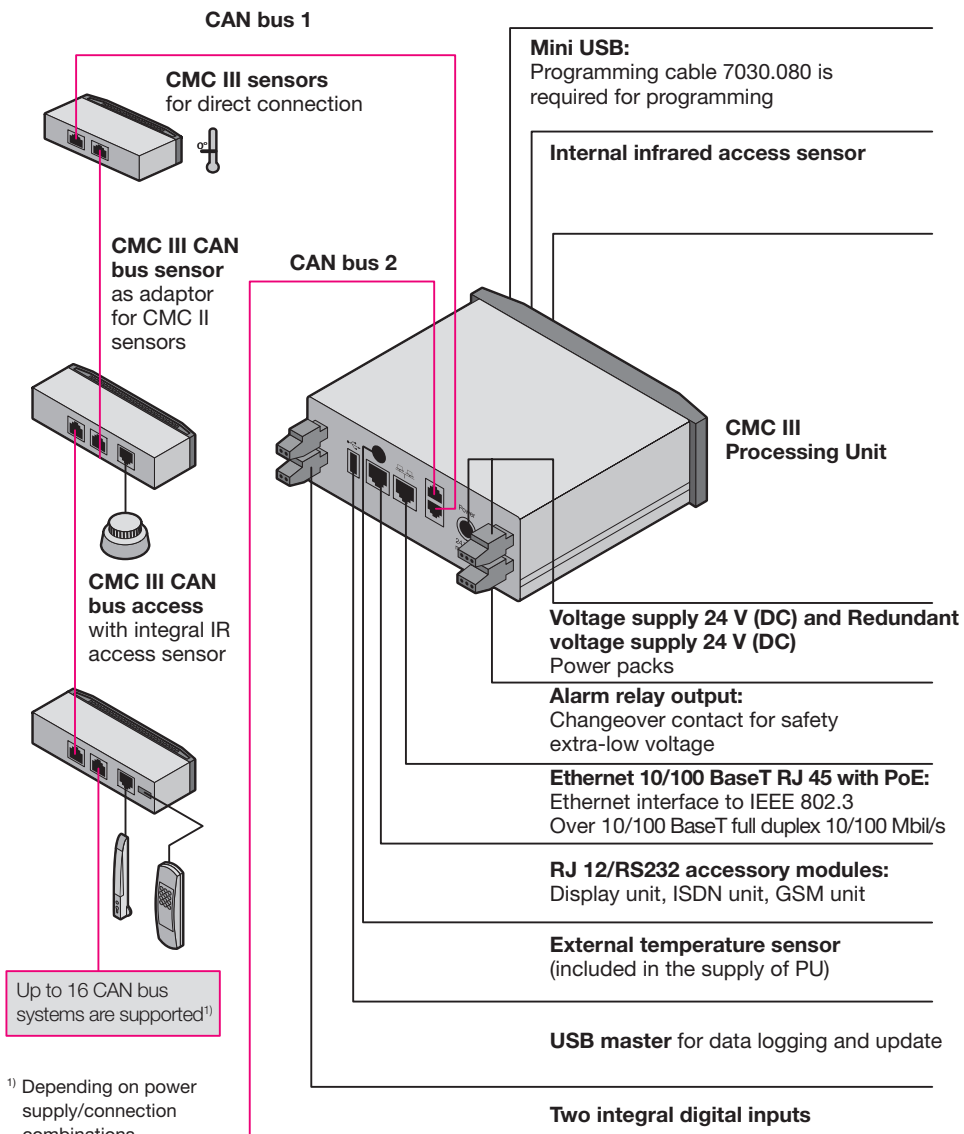


[1)] Depending on power supply/connection combinations.

[2)] External 24 V (DC) supply via 7030.060 required

	Model No.
CMC III CAN bus unit	7030.030

CMC III Processing Unit/Compact

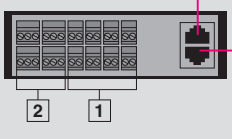


[1] Depending on power supply/connection combinations.

Up to 16 CAN bus systems are supported[1]

Control units

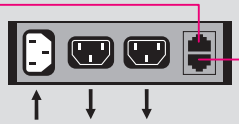
CMC III I/O unit



Contains
1 8 digital inputs
2 and 4 relay outputs

	Model No.
CMC III I/O unit	7030.040

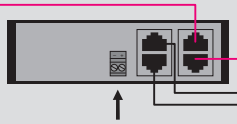
CMC III power unit



Functions:
- Switching and measuring voltage, current, power and work
- With two outputs
- Also for the activation of fans

	Model No.
CMC III CAN bus unit	7030.050

CMC III CAN bus unit

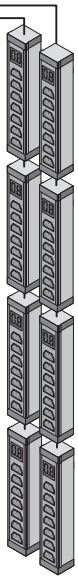


Interfaces unit for connecting CMC II accessories

Connection for other products

[2] External 24 V (DC) supply via 7030.060 required

	Model No.
CMC III CAN bus unit	7030.030



CMC III Processing Unit/Compact

- Redundant voltage supply, plus Power over Ethernet (PoE)
- Simple wiring with CAN bus connection system (RJ 45)
- Connection to control room systems via OPC UA

Material:
- Plastic

Surface finish:
- Front: Smooth
- Enclosure: Textured

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

Protection category IP to IEC 60 529:
- IP 30

		CMC III Processing Unit	CMC III Processing Unit Compact
W x H x D mm		138 x 40 (1 U) x 120 + 12 (front assembly)	138 x 40 (1 U) x 120 + 12 (front assembly)
Temperature range		0 °C to +45 °C	0 °C to +45 °C
Operating humidity range		5 % to 95 % relative humidity, non-condensing	5 % to 95 % relative humidity, non-condensing
Sensors/CAN-Bus connection units		max. 32	max. 4
Max. overall cable length for CAN-Bus		2 x 50 m	1 x 50 m
Model No. DK		**7030.000**	**7030.010**
Interfaces	Network interface (RJ 45)	Ethernet to IEEE 802.3 via 10/100BaseT with PoE	Ethernet to IEEE 802.3 via 10/100BaseT with PoE
	Front USB interface	Mini USB for system setting	Mini USB for system setting
	Rear USB interface	for USB stick for data recording and SW updates up to 32 GB	-
	Front SD-HC slot	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
	CAN bus (RJ 45)	2 x for max. 16 sensors each = 32 sensors in total (quantity restriction see page 78)	1 x for max. 4 sensors (quantity restriction see page 78)
Inputs and outputs	Digital inputs (terminal)	2	2
	Relay output (terminal)	Changeover contact max. 24 V DC, 1 A	Changeover contact max. 24 V DC, 1 A
Operation/ signals	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 x	1 x
	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 PoE	1 x 15.4 W	1 x 15.4 W
Functions	Time function	Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP	Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP
	User administration	LDAP	LDAP
	User interface	Integral WEB server	Integral WEB server
	Control room connection	Integral OPC UA server	Integral OPC UA server
Integral Sensors	Temperature sensor	NTC sensor with cable, supplied loose	NTC sensor with cable, supplied loose
	Access sensor	Infrared technology in the enclosure front	Infrared technology in the enclosure front

Control units for CMC III Processing Unit

Dimensions:
– W x H x D:
138 x 14 x 120 + 12 mm front frame

Material:
– Plastic

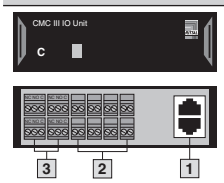
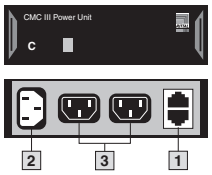
Surface finish:
– Front: Smooth
– Enclosure: Textured

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

Protection category IP to IEC 60 529:
– IP 30

! Also required:

– CAN bus connection cable 7030.090/.095, see page 69
– Mounting unit, 1 U, 7030.070, see page 69

		1 Connection RJ 45 2 x CAN bus	2 Inputs	3 Outputs	Model No.	PU Compact	PU
						Maximum quantity	
	**Control unit, I/O unit** In the software, the relays can be linked to measurement values so that they are acuated under certain circumstances. This aloows devices to be controlled mand the messages to be forwarded. Cannot be operated with the Processing Unit Compact. – Inputs for potential-free signals – Relay output (chaneover contact) can handle loads of up to max. 24 V (DC)/1 A	■	8 x digital	4 x relays	**7030.040**	-	16
	**Control unit, power unit** The input is switched to the outputs via two relays. In this way, the outputs may be linked to measurement values and therefore switched automatically. Examples of potential applications include fan regulation. Manual switching via the CMC III operating interface is likewise supported. Each output is monitored individually, and various values are measured. Cannot be operated with the Processing Unit Compact. – Switched 2 outputs – Measures voltage, current, power, work – Application: For controlling and switching fans, heaters, equipment	■	1 x voltage C14 110-230 V 50/60 Hz	2 x current C13 total current max. 10 A	**7030.050**	-	16

CMC III Accessories

CMC III sensors for direct connection

CMC III sensors are used for monitoring the physical environment and can be connected ditrectly to the PU via a CAN bus connection cable RJ 45. The sensors may also be linked together to form a bus.

Dimensions:
– 7030.110, .111, .120, .120
W x H x D: 80 x 28 x 40 mm
– 7030.140, .150, .190, .430, .440
W x H x D: 110 x 30 x 40 mm
– 7030.400
Ø x H: 100 x 60 mm

Material:
– Plastic

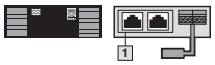
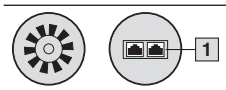
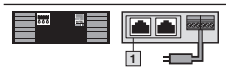
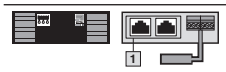
Surface finish:
– Front: Smooth
– Enclosure: Textured

Colour:
– Front: RAL 9005
– Enclosure: RAL 7035
– Smoke detector: White

Protection category IP to IEC 60 529:
– IP 30

Supply includes:
– Sensor
– Mounting bracket
– Assembly parts
– Instructions

Also required:
– CAN bus connection cable 7030.090/.095, see page 69

		1 Connection RJ 45 2 x CAN bus	2 Inputs	Model No.	PU Compact	PU
					Maximum quantity	
	Temperature sensor – External NTC sensor, 2 m cable – Measurement range for external sensors: -14°C - +80°C	■	-	**7030.110**	4	32
	Temperature/humidity sensor Measurement range: 0°C - +55°C/5% rel. humidity - 95% rel. humidity	■	-	**7030.111**	4	32
	Infrared access sensor Monitoring with reflector on the door, spacing adjustable	■	-	**7030.120**	4	32
	Vandalism sensor – Axis: x, y, z – Acceleration limits: -7...7g, adjustable	■	-	**7030.130**	4	32
	**Analog airflow sensor** – External airflow sensor: 4 - 20 mA – Measurement range: 0.5 - 15 m/s – Fan, filter, climate control devices	■	-	**7030.140**	4	32
	Analog differential pressure sensor – Two pressure measuring points (infeed vis hose) – Measurement range: -500 m Ta - +500 m Pa – Application: Cold aisle containment, raised floor	■	-	**7030.150**	4	32
	Universal sensor Choice of digital inputs depending on the application – Potential-free signals – S_0 input for energy measurement systems – 1 Wiegand interface (external access systems)	■	2 x digital may be switched over to pulse input S_0 or a Wiegand interface 1 x analog 4 - 20 mA	**7030.190**	4	32
	**Smoke detector** Monitors the room air for smoke particles using an optical component	■	-	**7030.400**	4	32
	**Leak sensor** Monitora a given point on the floor of the data centre or enclosure for liquids. The external sensor probe allows free selection of the point to be monitored.	■	-	**7030.430**	4	32
	**Leak sensor, 15 m** Monitors are larger floor area for liquids using the 15 metre long detection cable. The sensor additionally indicates the section of cable where a leak has been detected.	■	-	**7030.440**	4	32

Interface for CMC-TC sensors

The CMC III CAN bus sensor supports the connection of selected sensors from the CMC-TC system to the new CMC III, allowing old applications to be upgraded with the CMC III Processing Unit/Compact. As well as the two CAN bus connections, the unit also has another connection for one of the CMC-TC sensors. In this way, the unit functions as an interface between the CMC-TC sensor and the new processing unit, and adapts the sensor data to the CAN bus protocol.

Dimensions:
– W x H x D: 110 x 30 x 40 mm

Material:
– Plastic

Surface finish:
– Front: Smooth
– Enclosure: Textured

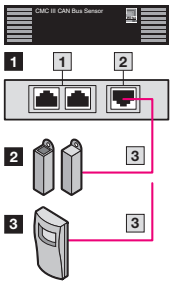
Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Protection category IP to IEC 60 529:
– IP 30

Supply includes:
– Sensor
– Mounting bracket
– Assembly parts
– Instructions

The following CMC-TC access sensors may be connected to the CMC III CAN bus sensor:
– 1 x temperature sensor
– 1 x analog input 4 - 20 mA
– 5 x access sensors in series
– 1 x airflow sensor
– 1 x smoke detector
– 1 x motion detector
– 1 x digital input
– 1 x digital relay output
– 1 x voltage monitor
– 1 x 48 V voltage sensor
– 1 x leak sensor
– 1 x leak senor, 15 m sensor
– 1 x door control unit (two connections)
– 1 x DET-AC extinguisher system (three connections)
– 1 x DET-AC early fire detection system (three connections)

! Also required:
– CAN bus connection cable 7030.090/.095, see page 69



	1 Connection RJ 45 2 x CAN bus	2 Input RJ 12	3 Output RJ 12	Model No.	PU Compact	PU
					Maximum quantity	
CAN bus sensor For connecting one CMC-TC sensor	■	1 x	-	**7030.100**	4	32
Connectable sensors (max. 1 sensor per CAN bus sensor)						
CMC-TC access sensor – Sensor: Reed contact/magnet – Max. 5 reed contacts in series – 2 m cable included with the supply	-	-	1 x	**7320.530**	-	-
CMC-TC motion detector – Sensor: Infrared – 2 m cable included with the supply	-	-	1 x	**7320.570**	-	-

CMC III Accessories

Access System

CMC unit for controlling and monitoring access to enclosures. One handle and one reader unit may be connected to one CMC III CAN bus access. Via the CMC III Processing Unit/Compact, the handles may be linked to various numerical codes or RFID card numbers, allowing all handles connected to a CMC III Processing Unit/Compact to be controlled with just one reader system. Thanks to the integral infrared sensor, the controlled door is additionally monitored for status (open/closed).

Dimensions:
– W x H x D: 110 x 30 x 40 mm

Material:
– Plastic

Surface finish:
– Front: Smooth
– Enclosure: Textured

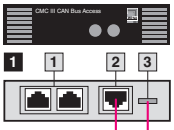
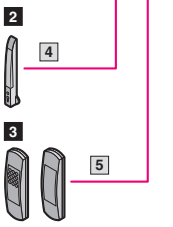
Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Protection category IP to IEC 60 529:
– IP 30

Supply includes:
– Sensor
– Mounting bracket
– Assembly parts
– Instructions

Also required:

– CAN bus connection cable 7030.090/.095, see page 69

		Connection	Inputs		Outputs		Model No.	PU Compact	PU
		1	2	3	4	5			
		RJ 45 2 x CAN bus	RJ 12	Flat-pin con-nector	RJ 12	Flat-pin con-nector		Maximum quantity	
	**CAN bus access** – For connecting one handle and one reader unit to monitor a door – Integral IR access sensor	■	1 x	1 x	-	-	**7030.200**	2	16[1]
	Connectable handles and reader units (max. 1 handle and max. 1 reader unit per CAN bus access)								
	**Handles** **– TS 8 handle with master key function** – Handle monitoring – Rated voltage: 24 V (DC) – 3 m cable, 2 m extension cable included with the supply	-	-	-	1 x	-	**7320.721**	-	-
	CMC III reader units **– Coded lock** – Coded lock with up to 8 digits, freely selectable – 3 m cable included with the supply	-	-	-	-	1 x	**7030.220**	-	-
	– Transponder reader – By contactlessly holding a transponder card in front of it, authorisation (UID of the card) is checked in the CMC III Processing Unit/Compact, and the corresponding door(s) is/ are released – Technology: Transponder 13.56 MHz – Tags: ISO 14443A, ISO 14443B, ISO 15693, ISO 18000-3 – 3 m cable included with the supply	-	-	-	-	1 x	**7030.230**	-	-

[1] Max. 5 pieces for power supply with PoE

Interface for PSM, PCU

The CMC III CAN bus unit acts as an interface between the CMC III Processing Unit and the PSM measurement bars and modules.

The unit has four connections. Two connections represent the interface to the CAN bus and to the other CMC III sensors, while up to four PSM modules (i.e. a total of up to 8 PSM modules per CMC III CAN bus unit) or one measurement bar may be connected to each of the other two connections. When connecting PSM modules, the CMC III CAN bus unit must be externally supplied with 24 V via terminals.

Dimensions:
– W x H x D: 138 x 40 x 120 + 12 mm front frame

Material:
– Plastic

Surface finish:
– Front: Smooth
– Enclosure: Textured

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

Protection category IP to IEC 60 529:
– IP 30

Supply includes:
– Sensor
– Mounting bracket
– Assembly parts
– Instructions

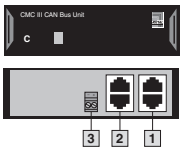
Supply includes:

2 x 4 x power Control Unit (PCU) 8-way	7200.001
2 x 4 x power Control Unit (PCU) C13 LED, 8-way	7859.225
2 x 4 x power Control Unit (PCU) C13/19 LED, 6-way	7859.235
2 x 4 x PSM socket module C13, 8-way	7856.201
2 x 4 x PSM socket module C13/earthing-pin, 6-way	7856.203
2 x 4 x PSM socket module C13/19, 6-way	7856.204
2 x 4 x PSM socket module C13/earthing-pin LED, 6-way	7859.212
2 x 4 x PSM socket module C13 LED, 8-way	7859.222
2 x 4 x PSM socket module C13/19 LED, 6-way	7859.232

Note:
Allow one power pack 7030.060 for every CMC III CAN bus unit

Also required:

– CAN bus connection cable 7030.090/.095, see page 69

		Connection RJ 45					
		1 2 x CAN bus	2	3 Inputs	**Model No.**	PU Compact	PU
	**CAN bus unit** For connecting: – PSM socket strips – PCU 482.6 mm (19) socket strips	■	2 x for PSM, PCU, see page 78	Connection clamp required for operating the 24 V power pack 7030.060	**7030.030**	1	4

CMC III Accessories

PSM and slave PDU for direct connection

	Model No.	PU Compact	PU	Page
		Maximum quantity		
PSM measurement bars 16 A, with 2 infeeds	7859.050	4	8	410[1)]
PSM measurement bars 32 A, with 1 infeed	7859.053	4	8	410[1)]
PSM MID measuring module 16 A, with 2 infeeds	7859.312	4	8	46
PSM MID measuring module 32 A, with 2 infeeds	7859.332	4	8	46
Slave PDU international, managed, 16 A 12 x C13	7955.901	3	6	41
Slave PDU international, managed, 16 A 24 x C13, 4 x C19	7955.910	3	6	41
Slave PDU international, managed, 32 A 24 x C13, 4 x C19	7955.911	3	6	41
Slave PDU international, managed, 16 A 18 x C13, 3 x C19	7955.931	3	6	41
Slave PDU international, managed, 16 A 24 x C13, 6 x C19	7955.932	3	6	41
Slave PDU international, managed, 32 A 24 x C13, 6 x C19	7955.933	3	6	41

[1)] Max. 5 pieces for power supply with PoE

Accessories:

– CAN bus connection cable 7030.090/.095, see page 69

Power supply unit

For PU, PU Compact, CAN bus unit, CAN bus DRC, Door Control System.

The power pack is specifically tailored to the CMC III design and may be positioned in a CMC III mounting unit. As well as a special connector for the CMC III Processing Unit/Compact, there are also two further terminals available as 24 V outputs.

Technical specifications:
– Input voltage: 100 - 240 V / 50/60 Hz
– Output voltage: 24 V (DC)/2.5 A
– Length of 24 V DC connection cable: 0.6 m

Dimensions:
– W x H x D: 138 x 40 x 120 + 12 mm front frame

Material:
– Plastic

Surface finish:
– Front: Smooth
– Enclosure: Textured

Packs of	Model No.
1 pc(s).	**7030.060**

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

Supply includes:
– Mounting parts
– Instructions

Also required:

– Connection cable, see page 69

Accessories:

– Mounting unit, see page 70

Interference suppressor for fans
for CMC III

For connecting fans via the CMC III Power Unit 7030.050. Prevents excessive start-up currents. One interference suppressor is required for each fan.

Material:
– Plastic

Colour:
– Front: RAL 9005

Supply includes:
– Mounting parts

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

Programming cable

For first-time commissioning of the Processing Unit (PU) or PU Compact. To this end, the CMC III Processing Unit/Compact is connected to the USB interface of a PC with the programming cable. A driver for Windows systems is also included with the supply and must be installed on the PC.

Supply includes:
– CD with driver and system description

Packs of	**Model No.**
1pc(s)	**7030.080**

CAN-Bus connection cable

This can be used to connect the PU to the CAN Bus sensors III, units III and control units III as a bus. Also for cabling together. Thanks to the different lengths, the CMC III system may be adapted to various applications and individually assembled.

CMC III CAN-Bus connection cable	Length	Packs of	**Model No. DK**
RJ 45	0.5	1pc(s)	**7030.090**
RJ 45	1	1pc(s)	**7030.091**
RJ 45	1.5	1pc(s)	**7030.092**
RJ 45	2	1pc(s)	**7030.093**
RJ 45	3	1pc(s)	**7030.480**
RJ 45	4	1pc(s)	**7030.490**
RJ 45	5	1pc(s)	**7030.094**
RJ 45	10	1pc(s)	**7030.095**

Connection cable/extension

The cable is used to connect to:
– CMC III power pack C 13
– CMC III power unit C 13
– PCU C19
– PDU C19

Tecnical specifications:
– PVC cable, 3-pole, with IEC cable coupling (non-heating appliances) with contact protection CEE22.
– Length: at least 1.8 m

Country version	Voltage Volt	**Model No. DK**
D/F/B/C 13	230	**7200.210**
IEC 320 device extension C13/C14	230	**7200.215**
Connection cable D/C19	230	**7200.216**
Connection cable C19/C20	230	**7200.217**

Extension cable

with RJ 12 connector/jack
To extend the cable connection to CMC-TC sensors

Length m	Packs of	**Model No. DK**
1	2pc(s)	**7320.814**

Mounting unit, 1 U

Makes it easier to install CMC III units in network and server enclosures.
Mounting in the 482.6mm (19") section (for three CMC III units).

To accommodate:
– PU
– PU Compact
– Control units
– CMC III Can bus unit
– CMC III Can bus DRC
– CMC III power pack
– CMC III GSM/ISDN unit
– CMC III door control module

Can accommodate up to 3 CMC III enclosures and is secured in the 482.6mm (19") frame

Packs of	**Model No. DK**
1pc(s)	**7030.070**

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– 2 blacking covers

CMC III Accessories

Mounting unit

For mounting on the enclosure section (for one CMC III unit)

To accommodate
– PU
– PU Compact
– Control units
– CMC III CAN bus unit
– CMC III CAN bus DRC
– CMC III power pack
– CMC III GSM/ISDN unit
– CMC III door control module

Packs of	Model No.
1 pc(s).	7030.071

Material:
– Sheet Steel

Surface finish:
– Zinc-plated

CMC III GSM unit

For configuring a redundant transmission channel or, if there is no network infrastructure available, for alarm forwarding. The alarm signal is sent in text message format. Covers 4 GSM frequencies (quad-band): 850 MHz, 900 MHz, 1800 MHz and 1900 MHz.

(Sim Card not included)

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

Material:
– Plastic

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

Supply includes:
– RJ 12 cable
– GSM aerial
– Mounting parts
– Instructions

CMC III ISDN unit

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

Requirement for the ISDN connections:
– DSS1 (Euro-ISDN) must also be available when connecting to the ISDN system
– Point-to-multi-point system

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

Material:
– Plastic

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

Supply includes:
– RJ 12 cable
– Mounting parts
– Instructions

Door control system

– Automation adjustable via CMC
– Manual and automatic door opening
– Automatic opening of rack doors in case of power failure

Note:
To be connected at rear:
– **Door Kit**
2 door kits and 2 door kit extensions for LCP may be connected to one door control module
– **Door comfort handle** or **door switch**
Up to 2 door comfort handles/door switches may be connected for manual opening
– Automatic door opening is achieved by connecting to to the PU/PU Compact. Independently of this, the doors may be opened via the door comfort handle/door switch
– In the event of a power failure, the doors will also open
– Door kit extension for LCP must be backed up with a UPS
– The front and rear door must always be opened

Also required:

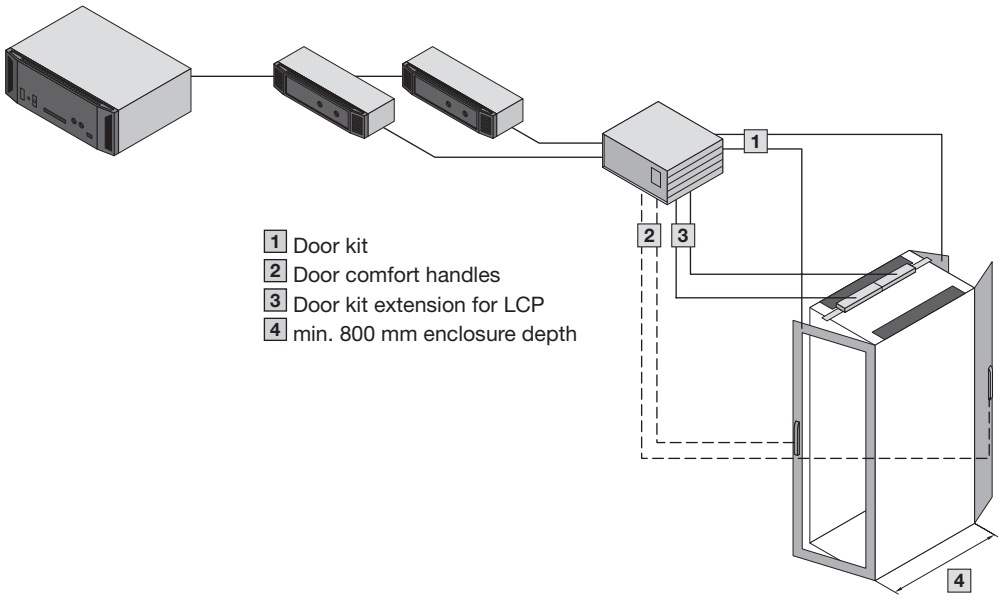
– CMC III processing unit/compact, see page 62

System diagram
Door control system:
– A maximum of 16 door control systems per processing unit
– A maximum of 2 door control systems may be connected per processing unit

CMC III
– Processing Unit
– Processing Unit Compact

CAN bus sensor

Door control module



1 Door kit
2 Door comfort handles
3 Door kit extension for LCP
4 min. 800 mm enclosure depth

Door Control System

Accessories

Door control module

Control unit for automatic opening of TS IT rack doors. Designed for a rack with front and rear door. To fit CMC III system with CAN bus.

Material:
– Plastic

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

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

Also required:
– Door kits, see page 72
– Power supply units, page 68
– Connection cables, page 69
– Mounting unit 1 U, page 69

Accessories:
– CAN bus cable, page 69
– Door switch/comfort handle, page 72
– Coded lock/transponder reader, page 66

Model No.	7030.500
Packs of	1 pc(s).
1st rated voltage	24 V (DC) door control module via CMC III CAN bus, redundant to 2nd rated voltage
2nd rated voltage	24 V (DC) 7030.060 for door control module and magnet systems
3rd rated voltage	24 V (DC) 7030.060 for spindle motors only (protected by a UPS)
1 x temperature sensor input	NTC sensor (included with the supply)
3 x digital inputs	Alarm/front door/rear door
1 x input for reader units	Coded lock/transponder reader
2 x outputs for door kits	Magnetic system with damper
2 x outputs for door kits extension	Spindle motors
2 x CAN bus CMC III	RJ 45 for CAN bus cable

Door kit

for TS IT

To open the door in an emergency situation. Connection and activation via door control module.
– For standard door TS IT.
  With gas pressure damper system. The doors are held closed by a magnet system.
– For climate control applications with Liquid Cooling Package (LCP).
  With spindle motor. Due to high negative pressures, a spindle motor for every door is attached to the TS IT roof plate.

Also required:
– For 7030.250: Tubular door frame, see page 24

Version for	Packs of	Model No.
2-piece door	1 pc(s)	**7030.240**
1-piece glazed door	1 pc(s)	**7030.250**
1-piece sheet steel door	1 pc(s)	**7030.260**

Supply includes:

Door kit TS IT:
– Gas pressure damper
– Cable harness
– Magnetic lock
– Assembly parts

Door kit extension for LCP
– Spindle motor
– Assembly parts

Door comfort handle

with door opener function

By actuating the lock mechanism, the door is released via the automatic door opening system. Prepared for the installation of standard commercially available semi-cylinders, 40 mm, and SZ lock and push-button inserts. Length: 302 mm.

Technical specifications:
– Rated voltage: 24 V DC
– Rated current: max. 3 A
– Connection cable: Length 3 m
– Temperature application range: +5°C to +40°C

Colour:
– RAL 7035

Packs of	Model No.
1 pc(s)	**7320.794**

Also required:
– Handle adaptor for mounting on glazed door 8611.080, see page 525 CAT34

Accessories:
– Lock and push-button inserts, see page 541 CAT34

Door switch

Switch with normally-closed contact for door control module 7320.790, for manual door opening. It is mounted on the 25 mm pitch pattern of the TS 8 frame section.

Technical specifications:
– Installation Ø 16.2 mm
– 250 V/2 A

Packs of	Model No.
1 pc(s)	**7320.793**

Supply includes:
– 3 m connection cable
– Mounting bracket
– Assembly parts

Monitor/keyboard unit, 1 U

with 17˝ TFT display and VGA/DVI connection

Benefits:
– TFT monitor 17"
– Keyboard
– Touchpad

The unit is housed in a pull-out drawer. The monitor can be flipped up and the drawer latches into the end position. This means that the unit only requires 1 U in the 482.6mm (19") rack.

Benefits:
– With digital and analog interfaces, VGA, DVI-D, PS/2, USB
– Simple, one-person installation
– Optionally with integrated KVM switch for up to 8 servers

Technical design:
– 432 mm/17" TFT display
– Physical resolution: 1280 x 1024
– Format: 4 : 3
– Colours: 16.7 million
– Brightness approx. 350 cd/m² (typ.)
– Contrast ratio: approx. 1000 : 1
– Mains voltage: 100 - 240 V/50 - 60 Hz
– Ambient temperatire: +5°C...+45°C (operation)
– Max, power consumption with closed monitor unit, without optional KVM system: < 1 W
– Rear connections: Mains voltage, VGA, DVI, PS/2, USB, power supply for KVM
– Lockable at the front
– Cables are safely routed in the energy chain

Accessories:

– For connecting multiple servers: KVM switch, see page 73

Width	Height U	Depth mm	Installation depth mm	Packs of	Colour	Keyboard	Model No.
482.6 mm/ 19"	1	680	680 - 850	1 pc(s)	RAL 7035	English	**9055.312**
					RAL 9005	English	**9055.412**

KVM switch

SSC view 8 USB
For rear attachment on the monitor/keyboard unit. The SSC view 8 USB may be operated with up to 8 servers. It is operated via the monitor/keyboard unit with an OSD menu or hotkeys.

Technical specifications:
– Server/console connections
Video: VGA/HD15
Keyboard/mouse: PS/2 or USB
– Max. video resolution: 1280 x 1024 at 85 Hz
– Bandwidth: 200 MHz
– Power consumption: 10 W
– W x H x D: 482.6 x 44 x 140 mm
– Voltage supply: 12 V (DC) via monitor/keyboard unit

Protection category IP to IEC 60 529:
– IP 20

Colour:
– RAL 9006

	Packs of	Model No.
SSC view 8 USB	1 pc(s)	**7552.002**

Connection cable for server/VGA	Length mm	Packs of	Model No.
PS/2	2	1 pc(s)	**7552.120**
PS/2	4	1 pc(s)	**7552.140**
USB	2	1 pc(s)	**7552.122**
USB	5	1 pc(s)	**7552.142**

Also required:

– Monitor/keyboard unit, see page 73

Data Centre In A Box

A Data Centre facility is used to house computer systems and associated components, such as telecommunications and storage systems. It generally includes redundant or backup power supplies, redundant data communications connections, environmental controls (e.g. air conditioning, fire suppression) and security devices.

Rittals' DC In A Box replicates all of the key data centre capabilities identified above but on a smaller scale.

The Data Centre In A Box mitigates risk and provides compelling CAPEX and OPEX benefits:

- Standardised infrastructure supports simple operation and support for IT staff
- TS-IT rack platform ensures speed of deployment for active and passive equipment
- Demand-oriented climate control ensures efficiency and low PUE
- Compact nature facilitates easy deployment and redeployment
- Fire detection and suppression system can protect the critical infrastructure
- System monitoring enables instant messages to be sent to forewarn of upcoming issues
- Intelligent power rails enable remote power cycling in the event of hardware issues
- Back up power supply provides resilience in the event of poorly conditioned power/ total failure
- The DC In A Box enables equipment to be deployed in non-DC environments
- A complete solution ensures peace of mind from point of purchase, through installation and on-going maintenance

Areas Of Application:

- On-premise cloud infrastructure
- Remote / Branch Office Environments
- Retail
- Finance
- Warehouse / Logistics Hubs
- Oil / Gas / Mining
- State and Federal Government
- IAAS (Infrastructure as a service) component
- Small and medium enterprises
- Network closets
- Enterprise
- Office communication rooms
- Manufacturing
- Process automation in harsh environments

Technology Features:

Rack
– IP 55 rack with glazed front door and steel rear door
– Load capacity up to 1500 kgs supports the heaviest hardware
– Guaranteed compatibility with any EIA-310-D compliant IT equipment
– Simple assembly with tool-free technology

Power
Double online conversion UPS
- Modular and scalable functionality normally associated with 3-phase solutions
- Effective response to any power event or change in the power infrastructure

Bypass Switch
- Allows maintenance on the UPS without disruption to your IT equipment

Power Distribution Rails
- 2 x PDU's supplied for redundancy (A and B feed)
- Basic: Single Phase, 24 x C13 & 4 x C19, 16 or 32 Amp (model dependant)
- Monitored and Switched: Single Phase, 24 x C13 & 8 x C19, 16 or 32 Amp (model dependant)

Cooling
Top Therm - Roof mounted cooling unit
- Cooling output up to 3KW
- Refrigerant R134a
- Integral electric condensate evaporation

LCP DX - Side mounted cooling unit
- InRack solution with cooling output up to 10KW
- Refrigerant R410a
- Includes outside condenser
- Maximised energy efficiency thanks to EC fan technology

Monitoring & Access Control
CMC III system
- Monitor internal and external threats

Temperature and humidy sensors

Vandalism
- Manage access to the rack

Electronic locking with keypad and network access
- Simple integration with Rittal DCIM platform RiZone or third party managment software via SNMP and OPC-UA protocols

Fire Detection & Suppression
- Early fire detection
- Automatic extinguishing with the innovative extinguisher gas NOVEC 1230
- Fire detection at a very early stage (pyrolysis phase)
- Compact system with only 1 RU rack footprint
- Automatic door opening kit for front and rear doors

Supply includes

	Mini XAU5599100	Midi XAU5599200	Maxi XAU5599300	Maxi+ XAU5599400
RACK	IP55 TS-IT 24U 800x1000 Side panels, Air baffle, slide rails and blanking panels	IP55 TS-IT 42U 800x1000 Side panels, Air baffle, cable tray, slide rails and blanking panels	IP55 TS-IT 42U 800x1000 Side panels, Air baffle, cable tray, slide rails and blanking panels	IP55 TS-IT 2 off 42U 800x1000 Side panels, Air baffle, cable tray, slide rails and blanking panels
POWER	3kVA (2.4kW) UPS with 16 minutes autonomy at 80% load, SNMP card, bypass switch and dual 16A power rails	3kVA (2.4kW) UPS with 16 minutes autonomy at 80% load, SNMP card, bypass switch and dual 16A power rails	10kVA (9kW) UPS with 14 minutes autonomy at 80% load, SNMP card, bypass switch and dual 32A power rails	10kVA (9kW) UPS with 14 minutes autonomy at 80% load, SNMP card, bypass switch and dual 32A power rails
COOLING	3kW Toptherm, condensate management, door operated switches	3kW Toptherm, condensate management, door operated switches	10kW LCP DX InRack, condenser unit, SNMP card, condensate management	10kW LCP DX InRack, condenser unit, SNMP card, condensate management
SERVICE	Full rack configuration, power and cooling commissioning and 2 PM visits in metro state capitals	Full rack configuration, power and cooling commissioning and 2 PM visits in metro state capitals	Full rack configuration, power and cooling commissioning and 2 PM visits in metro state capitals	Full rack configuration, power and cooling commissioning and 2 PM visits in metro state capitals

Upgrade includes

	Mini	Midi	Maxi	Maxi+
POWER RAILS	Upgrade to monitored & switched 16A rails **XAU7856900**	Upgrade to monitored & switched 16A rails **XAU7856900**	Upgrade monitored & switched 32A rails **XAU7856920**	Upgrade monitored & switched 32A rails **XAU7856930**
UPS	Increased automony to 31 minutes at 80% load **XAU7857900**	Increased automony to 31 minutes at 80% load **XAU7857900**	Increased automony to 27 minutes at 80% load **XAU7857920**	Increased automony to 27 minutes at 80% load **XAU7857920**
FIRE DETECTION & SUPPRESSION	VESDA detection system wth Novec1230 gas suppressant **XAU7338900**	VESDA detection system wth Novec1230 gas suppressant **XAU7338900**	VESDA detection system wth Novec1230 gas suppressant **XAU7338900**	VESDA detection system wth Novec1230 gas suppressant **XAU7338900**
MONITORING	Additional temperature, humidity and vandalism sensors **XAU7030900**	Additional temperature, humidity and vandalism sensors **XAU7030910**	Additional temperature, humidity and vandalism sensors **XAU7030920**	Additional temperature, humidity and vandalism sensors **XAU7030930**
RACK ACCESS	Electronic locking with keypad and network access **XAU7030940**	Electronic locking with keypad and network access **XAU7030940**	10kW LCP DX InRack, condenser unit, SNMP card, condensate management **XAU7030940**	10kW LCP DX InRack, condenser unit, SNMP card, condensate management **XAU7030950**
RESILIENCE	-	Automatic door opening kit for 1 rack **XAU7030960**	Automatic door opening kit for 1 rack **XAU7030970**	Automatic door opening kit for 2 racks **XAU7030980**

Roof-mounted Cooling Units

Temperature control:
– Control of the server air infeed temperature

Material:
– Sheet steel

Colour:
– RAL 7035

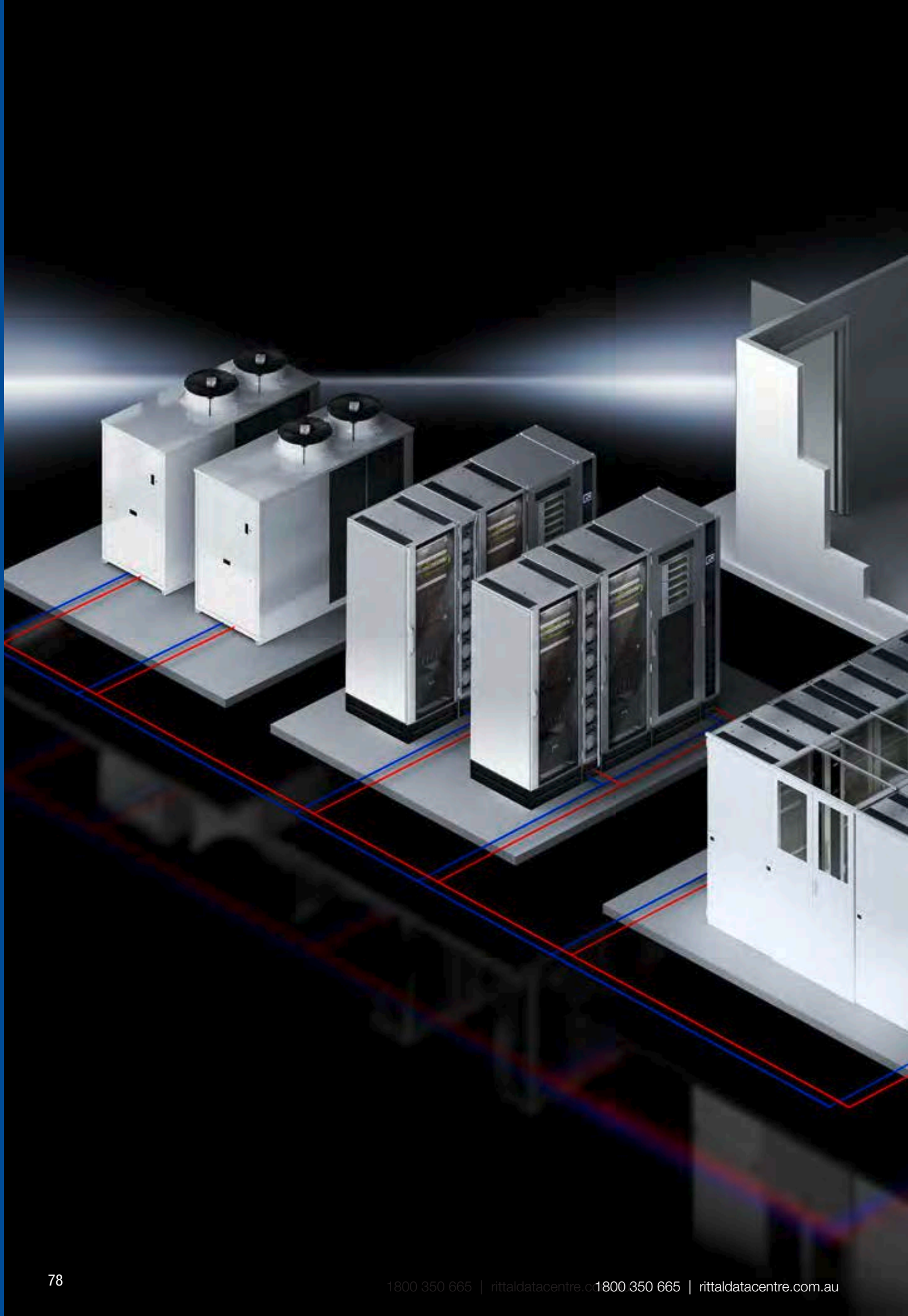
Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

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

Note:
– A roof plate with cut-out to match the enclosure dimensions is required

for the cooling of IT equipment

Model No.	Packs of	**3301.800**	Cat. 34,Page
Total cooling output L25 L35 W		**3000**	
Total cooling output L35 L45 W		**3200**	
Width mm		597	
Height mm		417	
Depth mm		895	
Rated operating voltage V, ~, Hz		230, 1~, 50	
Type of electrical connection		Plug-in terminal strip	
Pre-fuse (T) A		16	
Start-up current max. A		36	
Rated current max. A		9.2	
Refrigerant		134a	
Permissible operating pressure (p. max.) bar		25	
Duty Cycle%		100	
Operating temperature range		+10°C...+45°C	
Setting range		+20°C...+25°C	
Weight as delivered kg		97.0	
Accessories			
Condensate hose	1pc(s)	3301.612	CAT34
Door-operated switch	1pc(s)	4127.010	CAT34
Air baffle plates		see page	25
Filter mats	3pc(s)	3286.500	CAT34



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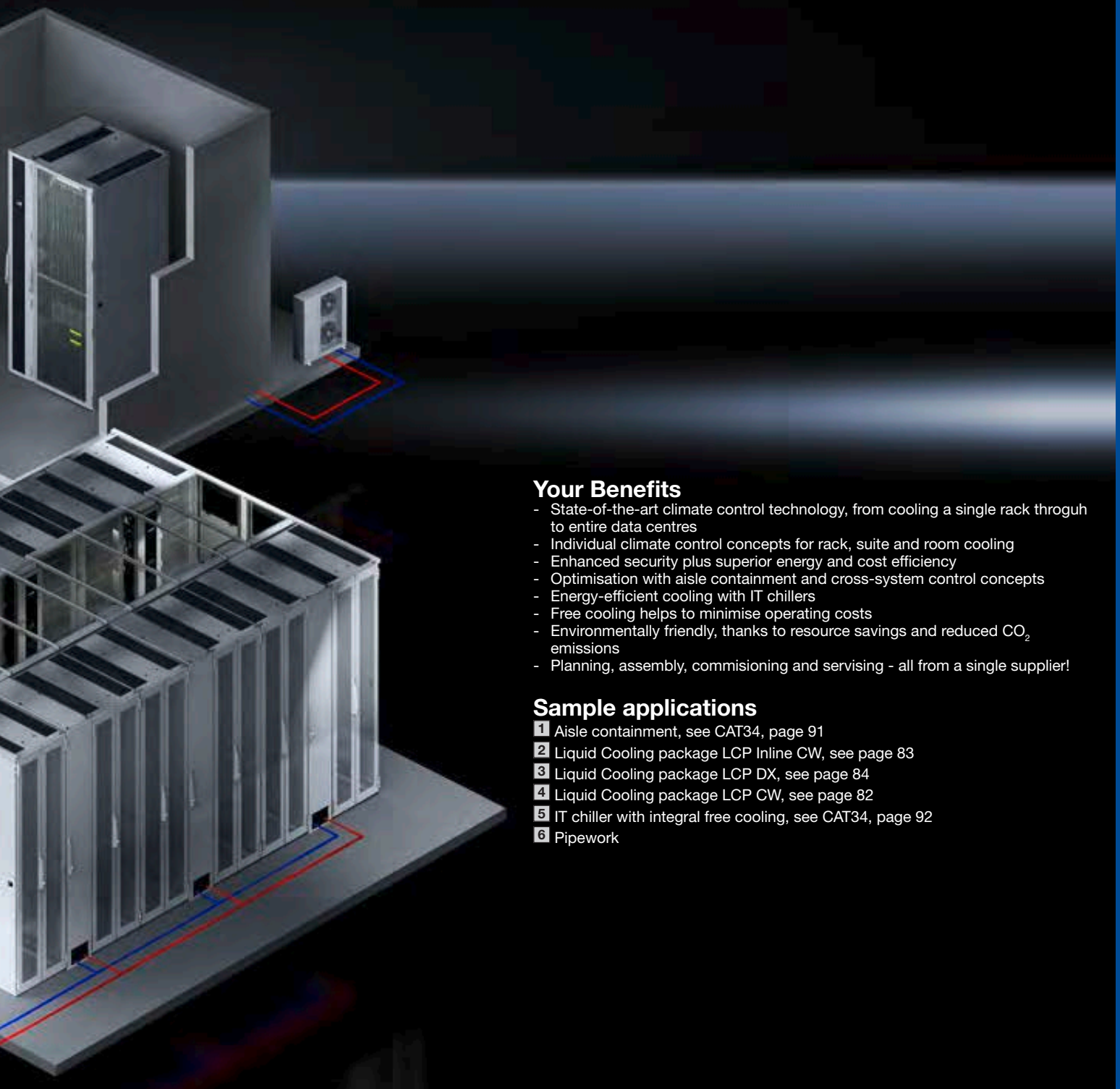
IT Cooling

Climate control concepts from Rittal cover the full spectrum of applications, from cooling a single rack through to entire data centres. Security plus optimum energy and cost efficiency are paramount. An extensive range of technical solutions supports individual climate control concepts for racks, suites and rooms.



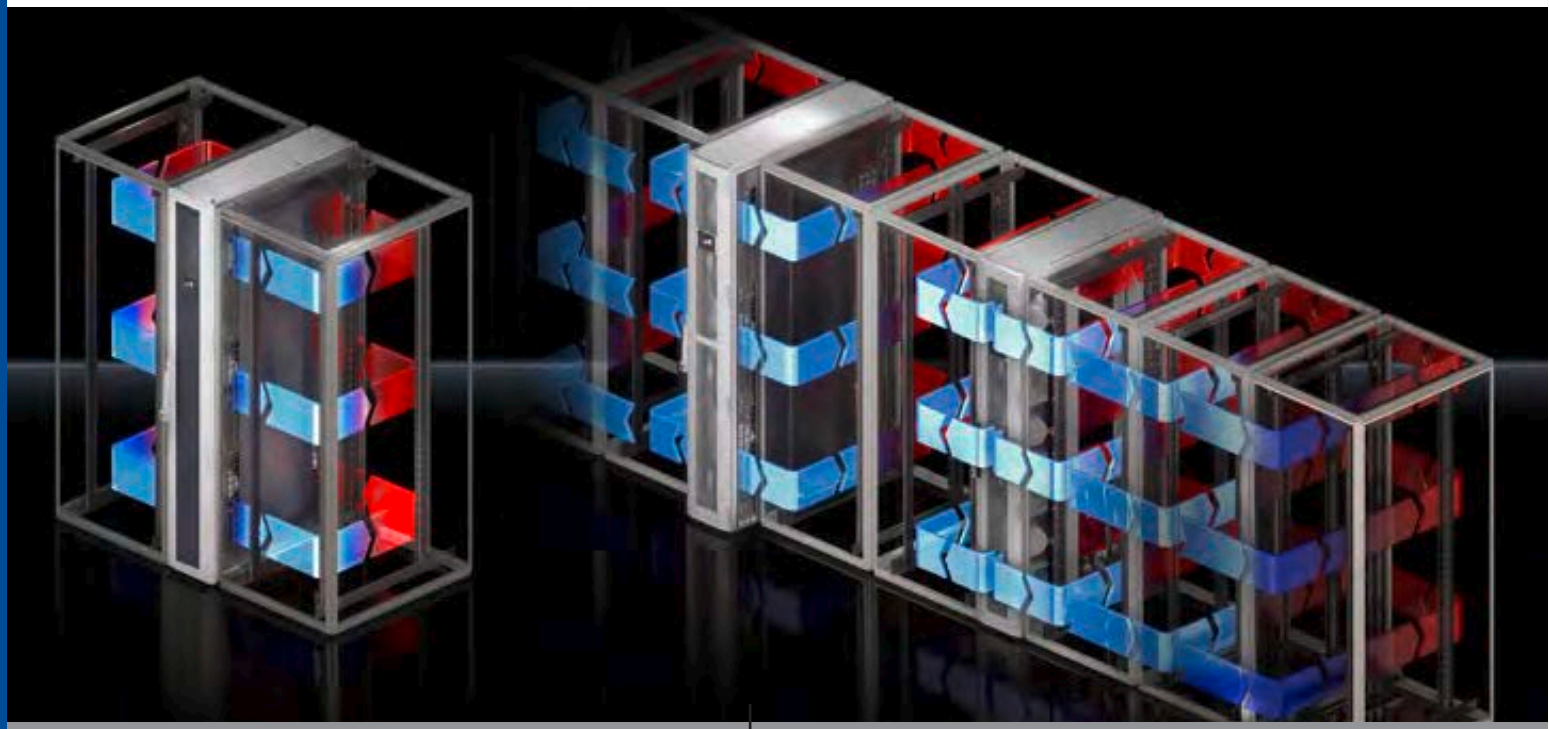
Your Benefits

- State-of-the-art climate control technology, from cooling a single rack throguh to entire data centres
- Individual climate control concepts for rack, suite and room cooling
- Enhanced security plus superior energy and cost efficiency
- Optimisation with aisle containment and cross-system control concepts
- Energy-efficient cooling with IT chillers
- Free cooling helps to minimise operating costs
- Environmentally friendly, thanks to resource savings and reduced CO_2 emissions
- Planning, assembly, commisioning and servising - all from a single supplier!

Sample applications

1 Aisle containment, see CAT34, page 91
2 Liquid Cooling package LCP Inline CW, see page 83
3 Liquid Cooling package LCP DX, see page 84
4 Liquid Cooling package LCP CW, see page 82
5 IT chiller with integral free cooling, see CAT34, page 92
6 Pipework

Liquid Cooling Package



Rack cooling

Water-based

Data centres support corporate processes at ever-higher outputs. The packing density in computer systems is increasing, and processor capacity is growing. This leads to a continuous rise in heat development.

Keep temperatures at a constant level with the highly efficient Rittal Liquid Cooling Packages (LCP). With optimised operating costs, our LCPs precisely and effortlessly dissipate heat losses of up to 55 kW per enclosure.

LCP Rack CW
- Cooling output from 10 kW to 55 kW
- Energy saving with high water inlet temperatures (more free cooling)
- Minimised operating costs with efficient EC fan technology
- Spatial separation of cooling and server rack
- Integral condensate and leak management
- Sophisticated control concept including online connection
- Optional cooling of one or two server racks
- Simple representation of redundancies
- Assembly- and service-friendly
- Integration into RiZone (data centre management software)

Suite cooling

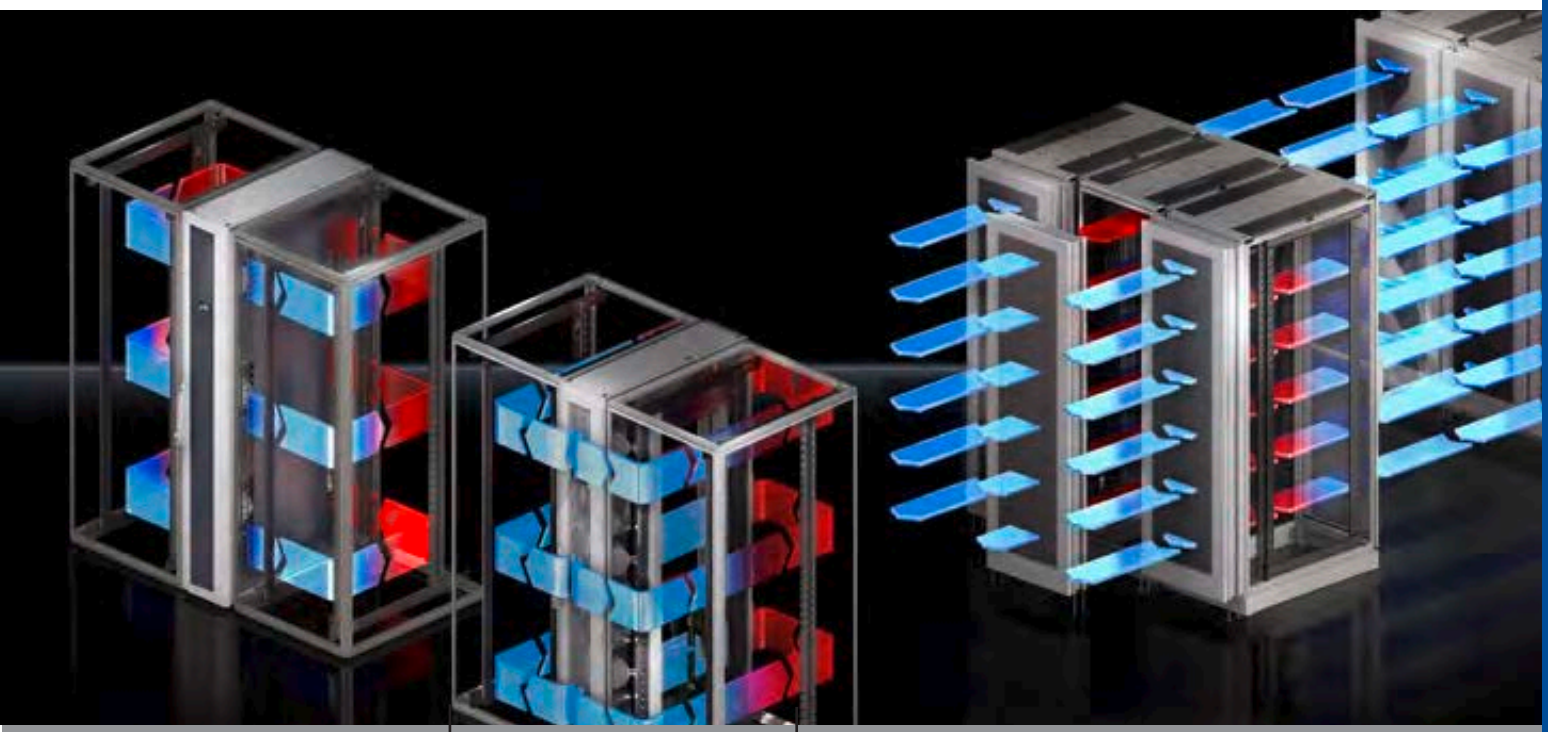
Water-based

Bayed suite cooling with the Rittal LCP Inline is extremely powerful, and the ideal climate control solution for exceptionally high cooling demands, particularly when server racks cannot be cooled via the room climate control.

Alternatively, bayed suite cooling can be used to support the existing climate control system in the room or for transforming existing structures into server rooms. A raised floor is not necessary for the operation of suite cooling.

LCP Inline CW
- Cooling output from 10 kW to 55 kW
- Cooling of several server racks
- Energy saving with high water inlet temperatures (more free cooling)
- Minimised operating costs with efficient EC fan technology
- Spatial separation of cooling and server rack
- Integral condensate and leak management
- Sophisticated control concept including online connection
- Assembly- and service-friendly
- Increased performance and efficiency in conjunction with Rittal aisle containment
- Integration into RiZone (data centre management software)
- Set-forward variant for ideal air distribution (cold air curtain)
- Flush variant for confined spaces (narrow cold aisle)

Liquid Cooling Package



Rack cooling
Refrigerant-based

Suite cooling
Refrigerant-based

Room cooling
Water-based

Whether rack-based cooling of one or two server racks, or suite cooling with aisle containment, LCP Rack DX and LCP Inline DX are the ideal cooling solution for small to medium-sized IT installations.

Whereas in the past, cooling of stand-alone IT applications led to difficulties with conventional ceilings or air-conditioning units, the LCP DX devices allow IT-compatible cooling. For retrofitting or exchanges, the existing coolant pipework can often be reused.

The fans in the IT equipment independently guide the warm air over the high-capacity heat exchanger rear door. The heatpipe integrated into the heat exchanger surface ensures even heat distribution over the entire surface of the heat exchanger. The entire data centre functions as a cold aisle, and there is homogeneous temperature distribution. The LCP Passive creates a very large, effective heat exchanger surface area in the data centre which supports high water inlet temperatures and a high proportion of free cooling.

LCP Rack DX
- Cooling output 12 kW
- Refrigerant R410a
- Minimised operating costs with efficient EC fan technology
- Spatial separation of cooling and server rack
- Integral condensate and leak management
- Sophisticated control concept including online connection
- Optional cooling of one or two server racks
- Simple representation of redundancies
- Assembly- and service-friendly
- Integration into RiZone (data centre management software)
- Cost-effective installation by laying small-diameter coolant lines

LCP Inline DX
- Cooling output 12 kW
- Cooling of several server racks
- Refrigerant R410a
- Minimised operating costs with efficient EC fan technology
- Spatial separation of cooling and server rack
- Integral condensate and leak management
- Sophisticated control concept including online connection
- Assembly- and service-friendly
- Increased performance and efficiency in conjunction with Rittal aisle containment
- Integration into RiZone (data centre management software)

LCP Hybrid CW
- 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 135° allows rear access to the server enclosure and makes assembly and configuration inside the enclosure easier
- Maximum energy efficiency, as there is no electrical power consumption whatsoever

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
- Control of the server inlet temperature
- With redundant temperature sensor integrated at the air end as standard
- Optimum adaptability due to dynamic, continuous control of the cold water volume flow
- By using high water inlet temperatures, the proportion of indirect free cooling is increased, which in turn reduces operating costs
- Targeted cooling output due to modular fan units
- Fan modules configurable as n+1 redundancy
- Standard 3-phase connection for electrical redundancy
- The separation of cooling and rack prevents water from penetrating the server enclosure
- Up to 55 kW cooling output on a footprint of just 0.36 m²
- Minimal area load due to low weight

Functions:
- The LCP draws in the air at the sides at the rear of the server enclosures, cools it using highperformance compact impellers, and blows the cooled air back into the front part of the server enclosure at the sides

Monitoring:
- Monitoring of all system-relevant parameters such as server air intake temperature, server waste air temperature, water inlet/return temperature, water flow, cooling output, fan speed, leakage
- Direct connection of the unit via SNMP over Ethernet

Temperature control:
- Linear fan control
- Two-way control valve

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Cooling medium:
- Water

Optional:
- Fully integrated fire detection and extinguisher system
- Automatic server enclosure door opening
- Various sensors
- Racks 2200 mm high

Technical information:
Available on the Internet.
Photo shows a configuration example with equipment not included in the scope of supply

LCP Rack CW

Model No.	Packs of	3311.130	3311.230	3311.260	Page
Total cooling output/Number of fan modules required kW		**10 / 1 20 / 2 30 / 3**	**10 / 1 20 / 2 30 / 3**	**40 / 4 45 / 5 55 / 6**	
Number of fan modules in supplied state		1	1	4	
Width mm		300	300	300	
Height mm		2000	2000	2000	
Depth mm		1000	1200	1200	
Installation in bayed enclosure suite		Flush	Flush	Flush	
Rated operating voltage V, ~, Hz		230, 1~, 50/60 400, 3~, 50/60	230, 1~, 50/60 400, 3~, 50/60	230, 1~, 50/60 400, 3~, 50/60	
Type of electrical connection		Connector	Connector	Connector	
Air throughout at max. cooling output m³/h		4800	4800	8000	
Fans may be exchanged with the system operational		■	■	■	
EC fan		■	■	■	
Water inlet temperature °C		+ 15	+ 15	+ 15	
Permissible operating pressure (p. max.) bar		6	6	6	
Duty Cycle%		100	100	100	
Water connection		DN 40 (G 1 ½")	DN 40 (G 1 ½")	DN 40 (G 1 ½")	
Weight as delivered kg		194.0	210.0	235.0	
Accessories					
Fan module	1pc(s)	3311.011	3311.011	3311.011	87
Touchscreen display, colour	1pc(s)	3311.030	3311.030	3311.030	86
Connection hose, bottom and top	2pc(s)	3311.040	3311.040	3311.040	86

Liquid Cooling Package

Benefits:
- Maximum energy efficiency due to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Optimum adaptability due to dynamic, continuous control of the cold water volume flow
- By using high water inlet temperatures, the proportion of indirect free cooling is increased, which in turn reduces operating costs
- Targeted cooling output due to modular fan units
- Fan modules configurable as n+1 redundancy
- Standard 3-phase connection for electrical redundancy
- With redundant temperature sensor integrated at the air end as standard
- The separation of cooling and 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 due to low weight

Functions:
- The hot air is drawn in from the room or hot aisle at the rear of the device and expelled at the front into the cold aisle after cooling. The LCP achieves maximum performance and efficiency in conjunction with Rittal cold aisle containment. With this product, a raised floor is not necessary

Monitoring:
- Monitoring of all system-relevant parameters such as server air intake temperature, server waste air temperature, water inlet/return temperature, water flow, cooling output, fan speed, leakage
- Direct connection of the unit via SNMP over Ethernet
- Integration into RiZone

Temperature control:
- Linear fan control
- Two-way control valve

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Cooling medium:
- Water

Optional:
- Various sensors
- Racks 2200 mm high

Technical information:
Available on the Internet.
Photo shows a configuration example with equipment not included in the scope of supply

LCP Inline CW

Model No.	Packs of	3311.530	3311.540	3311.560	Page
Total cooling output/Number of fan modules required kW		**10 / 1 20 / 2 30 / 3**	**18 / 2 27 / 3 30 / 4**	**40 / 4 45 / 5 55 / 6**	
Number of fan modules in supplied state		1	2	4	
Width mm		300	300	300	
Height mm		2000	2000	2000	
Depth mm		1200	1200	1200	
Installation in bayed enclosure suite		Set forward	Flush	Set forward	
Rated operating voltage V, ~, Hz		230, 1~, 50/60 400, 3~, 50/60	230, 1~, 50/60 400, 3~, 50/60	230, 1~, 50/60 400, 3~, 50/60	
Type of electrical connection		Connector	Connector	Connector	
Air throughout at max. cooling output m³/h		4800	4800	8000	
Fans may be exchanged with the system operational		■	■	■	
EC fan		■	■	■	
Permissible operating pressure (p. max.) bar		6	6	6	
Duty Cycle%		100	100	100	
Water connection		DN 40 (G 1 ½")	DN 40 (G 1 ½")	DN 40 (G 1 ½")	
Water inlet temperature °C		+ 15	+ 15	+ 15	
Weight as delivered kg		216.0	235.0	236.0	
Accessories					
Fan module	1pc(s)	3311.011	3311.011	3311.011	87
Touchscreen display, colour	1pc(s)	3311.030	3311.030	3311.030	86
Connection hose, bottom and top	2pc(s)	3311.040	3311.040	3311.040	86
Rear adaptor	1pc(s)	3311.080	-	3311.080	86

Liquid Cooling Package

Benefits:
- Maximum energy efficiency due to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Control of the server inlet temperature
- Due to the speed-regulated compressor, the cooling output is ideally adapted to actual requirements
- With redundant temperature sensor integrated at the air end as standard
- Specific maintenance of the LCP DX due to separation of cooling and server rack
- Absorbed thermal energy is emitted to the ambient air at the external condenser location, without heating up the installation room
- Ideal for IT cooling of small and medium-sized locations
- One or two racks can be cooled separately

Functions:
- The LCP draws in the air at the sides at the rear of the server enclosures, cools it using highperformance compact impellers, and blows the cooled air back into the front part of the server enclosure at the sides

Temperature control:
- Linear fan control
- Inverter-regulated compressor

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Cooling medium:
- R410a

Optional:
- Humidifier, reheater or condensate pump
- Higher cooling output

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

LCP Rack DX

Model No.	Packs of	**3311.410**	**3311.420**	Page
Total cooling output/Number of fan modules required kW		**12 / 4**	**12 / 4**	
Width mm		300	300	
Height mm		2000	2000	
Depth mm		1000	1200	
Installation in bayed enclosure suite		Flush	Flush	
Rated operating voltage V, ~, Hz		400, 3~, 50 380 - 480, 3~, 60	400, 3~, 50 380 - 480, 3~, 60	
Type of electrical connection		Connection clamp	Connection clamp	
Air throughout at max. cooling output m^3/h		4800	4800	
Fans may be exchanged with the system operational		■	■	
EC fan		■	■	
Duty Cycle%		100	100	
Weight as delivered kg		207.0	227.0	
Accessories				
SNMP card	1pc(s)	3311.320	3311.320	87
Condenser unit	1pc(s)	3311.360	3311.360	86

Liquid Cooling Package

Benefits:
- Maximum energy efficiency due to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Temperature monitoring and control
- With redundant temperature sensor integrated at the air end as standard
- Minimal area load due to low weight
- Absorbed thermal energy is emitted to the ambient air at the external condenser location, without heating up the installation room
- Ideal for IT cooling of small and medium-sized locations
- One or two racks can be cooled separately
- Due to the speed-regulated compressor, the cooling output is ideally adapted to actual requirements
- Specific maintenance of the LCP DX thanks to separation of cooling and server rack

Temperature control:
- The LCP is designed for siting within a bayed enclosure suite. Hot air is drawn in from the aisle at the rear of the device, cooled by the high-capacity compact impellers, and blown back into the room or cold aisle after cooling

Temperature control:
- Linear fan control
- Inverter-regulated compressor

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Cooling medium:
- R410a

Optional:
- Humidifier, reheater or condensate pump
- Higher cooling output

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

LCP Inline DX

Model No.	Packs of	**3311.430**	**3311.440**	Page
Total cooling output/Number of fan modules required kW		**12 / 4**	**12 / 4**	
Width mm		300	300	
Height mm		2000	2000	
Depth mm		1000	1200	
Installation in bayed enclosure suite		Flush	Flush	
Rated operating voltage V, ~, Hz		400, 3~, 50 380 - 480, 3~, 60	400, 3~, 50 380 - 480, 3~, 60	
Type of electrical connection		Connection clamp	Connection clamp	
Air throughout at max. cooling output m^3/h		4800	4800	
Fans may be exchanged with the system operational		■	■	
EC fan		■	■	
Duty Cycle%		100	100	
Weight as delivered kg		208.0	233.5	
Accessories				
SNMP card	1pc(s)	3311.320	3311.320	87
Condenser unit	1pc(s)	3311.360	3311.360	86

Liquid Cooling Package

Accessories

Touchscreen display

for LCP Rack, Inline, CW
The colour display offers the opportunity of directly monitoring key LCP functions and implementing settings.

For LCP CW	Packs of	Model No.
3311.130 3311.230 3311.260 3311.530 3311.540 3311.560	1pc(s)	**3311.030**

Condenser unit

The condenser unit is needed to operate the refrigerant-based LCPs, and comprises the external condenser and fan.
The unit is suitable for roof and wall mounting.

Refrigerant:
– R410a

For LCP DX	Packs of	Model No.
3311.410 3311.420 3311.430 3311.440	1pc(s)	**3311.360**

Note:
– The pipework between the LCP DX and the condenser is not included with the supply.

Vertical shielding

for enclosure height 2000m
To block the airflow on the left and right of the 482.6 mm (19″) level.

Length: 1900m

Material:
– Cellular PU foam
– Flame-inhibiting to UL 94 (HF1)
– Self-adhesive on one side

For sealing between	For enclosure width mm	Packs of	Model No.
Side panel and 482.6 mm (19″) level	600	1pc(s)	**3301.380**
	800	1pc(s)	**3301.390**
LCP and 482.6 mm (19″) level	600	1pc(s)	**3301.370**
	600	1pc(s)	**3301.320**

Connection hose, bottom and top

Flexible connection hose, may be cut to required length, including union nuts on both sides for connecting the LCP to existing pipework.

For LCP CW	Thread	Water connection from	Packs of	Model No.
3311.130 3311.230 3311.260 3311.530 3311.560	11/2″	bottom/ top	2	**3311.040**

Rear adaptor

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

For LCP	Packs of	Model No.
3311.530 3311.560	1pc(s)	**3311.080**

SNMP card

For connecting LCP Rack/Inline DX units to the network.

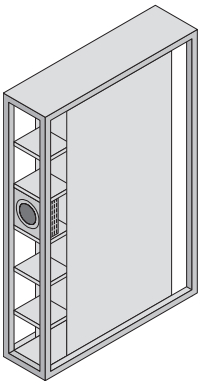
For LCP DX	Packs of	Model No.
3311.410 3311.420 3311.430 3311.440	1pc(s)	**3311.320**

Fan module

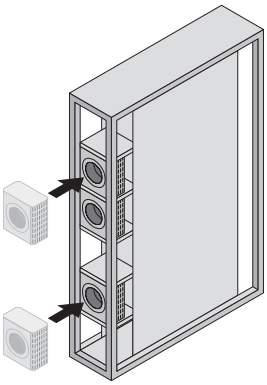
for LCP

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

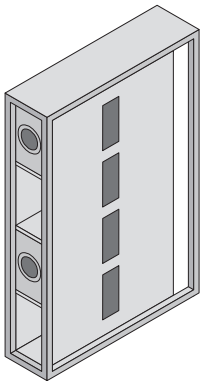
For LCP	Packs of	Model No.
3311.130, 3311.230, 3311.260, 3311.530, 3311.540, 3311.560	1pc(s)	**3311.011**



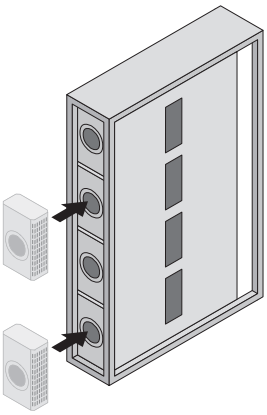
The LCP 3311.130/.230/.530 (max. 30 kW) is supplied with one fan module as standard.



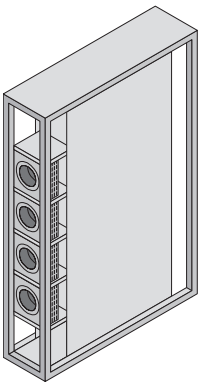
To achieve the max. cooling output of 30 kW, the customer/ service needs to install two additional fan modules.



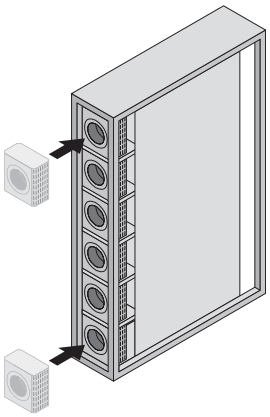
The LCP 3311.260/.540 (max. 30 kW) is supplied with two fan modules as standard.



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



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

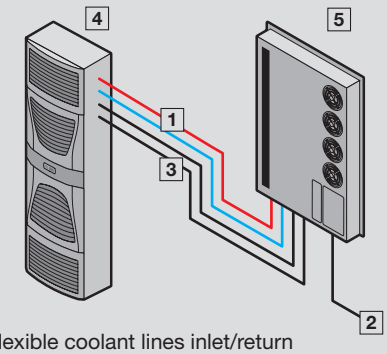


To achieve the max. cooling output of 55kW, the customer/ service should install two additional fan modules.

Compact Split Cooling Solution for Modular Safes

– The individual systems all have separate, hermetically sealed internal and external circuits. This means that dust and flue gases are unable to ingress the modular safe via the cooling system. The internal and external unit are connected to one another via coolant lines and control cables and shielded for fire protection.

– Air routing inside the safe is horizontal. Modified air baffle plates ensure targeted air routing. By separating the "cold side" from the "hot side", air short-circuits are avoided, and the efficiency of cooling is enhanced. The compact split cooling solutions are suitable for use in rooms with climate control in the building or adequate ventilation, and low or no noise level requirements. The evaporator coil is fastened to the side panel on the inside of the modular safe, and the external device on the service door.



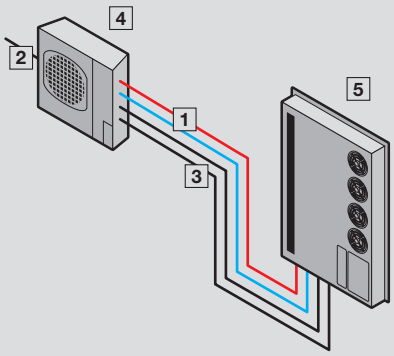
1 Flexible coolant lines inlet/return
2 Power supply
3 Data cable
4 External unit
5 Internal unit

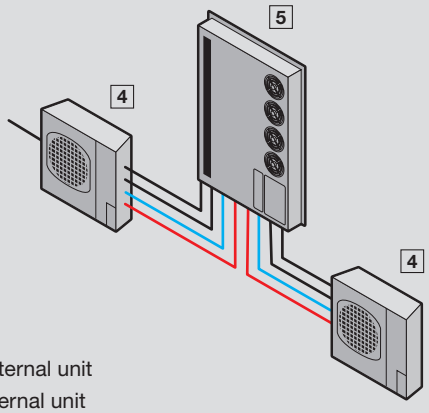
Model No.		**3126.230**	**3126.240**
Rated operating voltage V, Hz		400/460, 3~, 50/60	
Dimensions mm	W x H x D external unit	500 x 1580 x 231	
	W x H x D internal unit	804 x 1544 x 100	
Useful cooling output $\dot{Q}_K$ to DIN 3168	**L 35 L 35** **L 35 L 50**	**2500 W/3090 W** **2070 W/2300 W**	**4000 W/4010 W** **3020 W/3250 W**

Rated current max.		3.3 A/3.5 A	4.1 A/4.8 A
Start-up current		14.2 A/14.7 A	15.2 A/15.8 A
Pre-fuse T		6.3 – 10.0 A	6.3 – 10.0 A
Motor circuit-breaker		■	■
Power consumption P_{el} to DIN 3168	L 35 L 35 L 35 L 50	1275 W/1615 W 1525 W/1920 W	1620 W/2125 W 1825 W/2835 W
Refrigeration factor e = $\dot{Q}_K/P_{el}$	L 35 L 35	2.0	2.5
Refrigerant		R134a, 1500 g	R134a, 2900 g
Permissible operating pressure p. max.		28 bar	25 bar
Temperature and setting range		+20 °C to +55 °C	+20 °C to +55 °C
Noise level dB (A)		< 70	< 72
Protection category to IEC 60 529	Internal circuit	IP 54	IP 54
	External circuit	IP 24	IP 24
Weight	External unit	65 kg	65 kg
	Internal unit	70 kg	70 kg
Colour		RAL 7035	RAL 7035
Temperature control		Comfort controller (factory setting +25 °C)	

Split Outdoor Cooling Solution for Modular Safes

– When using the outdoor variant, the internal circuit of the cooling unit is secured to the side panel on the inside of the safe. The external unit is positioned outside of the building. The internal and external units are connected to one another via coolant lines and control cables. The hot air from the servers is drawn in at the rear of the safe, and the cooled air is expelled in front of the 482.6 mm (19″) level. Benefits of the outdoor model: The waste heat is routed directly to the outside. As a result, room ventilation or air-conditioning is not necessary.





1 Copper pipe inlet/return
2 Power supply
3 Data cable

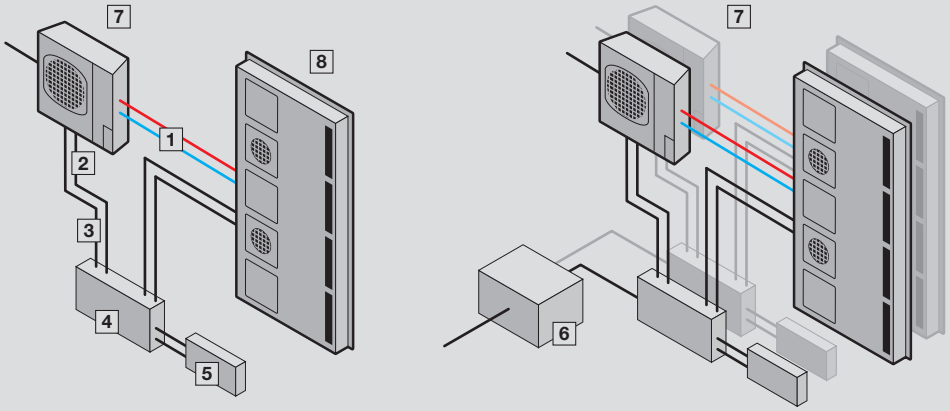
4 External unit
5 Internal unit

Model No.		**7999.963**	**7999.965**	**7999.964**	**7999.966**
Redundancy		–	–	■	■
Rated operating voltage V, Hz		230 V, 50 Hz, 1~	400 V, 50 Hz, 3~	230 V, 50 Hz, 1~ (2 x)	400 V, 50 Hz, 3~ (2 x)
Dimensions of external unit, mm	W x H x D	795 x 610 x 290	900 x 680 x 340 (2 x)	795 x 610 x 290	900 x 680 x 340 (2 x)
Useful cooling output $\dot{Q}_K$ to DIN 3168	**L 35 L 35**	**2400 W**	**5000 W**	**2400 W**	**5000 W**

Rated current max.		3.8 A	4.1 A	3.8 A	4.1 A
Start-up current per unit		19.5 A	35 A	19.5 A	35 A
Pre-fuse T		16 A	3 x 16 A	16 A (2 x)	3 x 16 A (2 x)
Refrigerant		R410 a			
Temperature and setting range		–15 °C to +35 °C			
Weight	External unit	38 kg	74 kg	2 x 38 kg	2 x 74 kg
	Internal unit	59 kg	59 kg	63 kg	66 kg
Colour		RAL 7035			
Accessories					
Coolant line incl. electric control cable for 2400 W, length 20 m		**7999.961**	**–**	**7999.961**	**–**
Coolant line incl. electric control cable for 5000 W, length 20 m		**–**	**7999.962**	**–**	**7999.962**

Split Outdoor Cooling Solution with Inverter Technology

– The cooling unit with inverter technology allows targeted speed control of the compressor. The coolant volume is regulated via the electronic expansion valve. Adaptation to cooling requirements facilitates energy savings of up to 40%. The cold air is expelled in front of the 482.6 mm (19″) level by the internal unit (evaporator coil), while the hot air is drawn in at the rear.



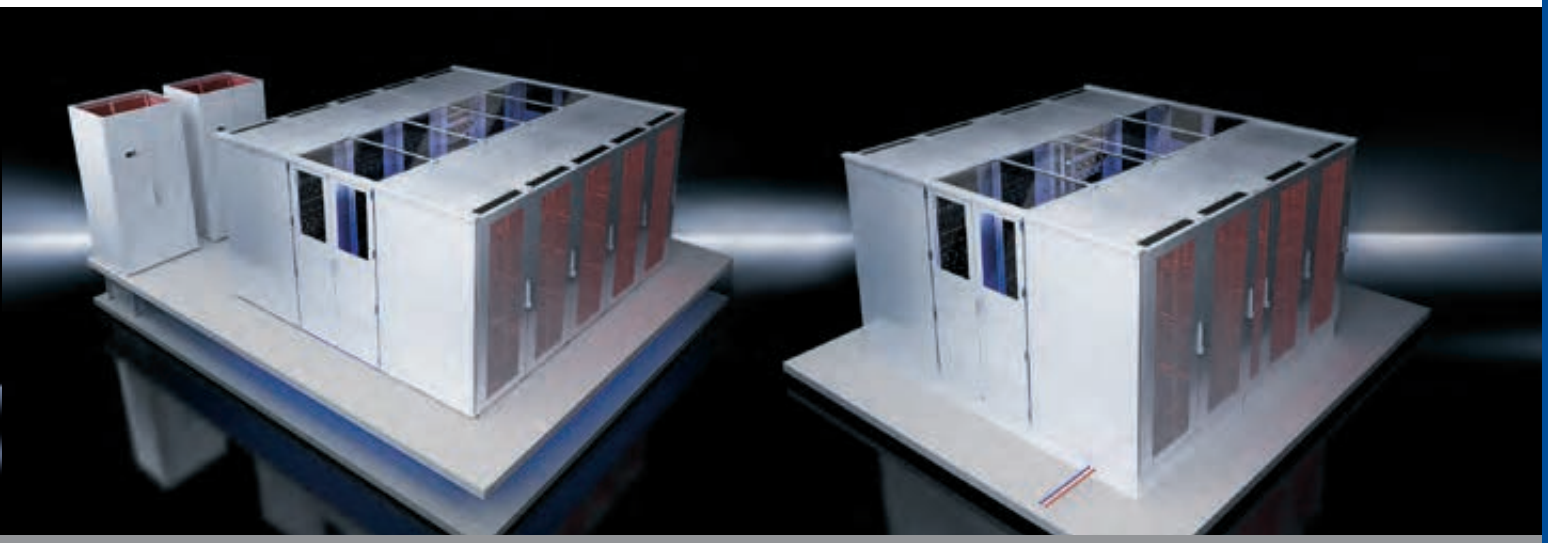
1 Copper pipe inlet/return
2 Power supply
3 Data cable
4 Control box
5 Operating unit
6 Switch box
7 External unit
8 Internal unit

Model No.		**7999.991**	**7999.992**
Redundancy		–	■
Rated operating voltage V, Hz		230 V, 50 Hz, 1~	230 V, 50 Hz, 1~ (2 x)
Dimensions of external unit, mm	W x H x D	900 x 795 x 320	900 x 795 x 320 (2 x)
Useful cooling output $\dot{Q}_K$ to DIN 3168	**L 18[1]/L 35 L 18/L 43**	**7850 W 7030 W**	**7850 W 7030 W**

Rated current max.		13.9 A	13.9 A
Start-up current		36 A	36 A
Pre-fuse T		25 A	25 A (2 x)
Refrigerant		R 410a	R 410a
Temperature and setting range		–15 °C to +43 °C	–15 °C to +43 °C
Noise level		48 – 49 dB (A)	48 – 49 dB (A)
Weight	External unit	63 kg	63 (2 x) kg
	Internal unit	70 kg	70 (2 x) kg
Colour		RAL 7035	
Also required			
Heat exchanger (evaporator coil)		**3126.270**	**3126.270[2]**

[1] Server inlet temperature
[2] 2 heat exchangers are required.

Aisle Containment



In server rooms that have not been designed as data centres, the permanent mixing of cooled and heated air often leads to cooling deficits. Hot spots make the IT equipment's work more difficult.

In order to efficiently ensure the necessary cooling here, Rittal has developed three cooling variants for aisle containment. Two solutions use containment of the cold aisle. The LCP Inline guides the cooled air directly to the cold aisleat the front, and the CRAC system to the raised floor, so that the cooled air is fed to the cold aisle via perforated raised floor plates. The third solution operates according to the principle of enclosing the hot aisle. The LCP Inline extracts the hot air directly at the point where it is created. The cooling performance of the cooling units is utilised to optimum effect, and the overall efficiency of the system increases significantly.

Rittal Aisle Containment

- Intake air (cold) and waste air (hot) are unable to mix.
- It is possible to operate at a higher temperature level throughout the entire system.
- The CRAC units operate at maximum efficiency, thanks to the greater temperature difference between the cold and hot air.
- Modular, scalable and upgradable.
- Simple arrangement.
- An inexpensive solution for the optimum cooling of existing data centres.

Rittal Aisle Containment (Cold Aisle)

With raised floor

- Use of inexpensive standard CRAC cooling units sited outside of the server area
- Even with low room heights, the raised floor height is maximised for cooling air supply without flow losses
- Undisturbed and uniform air flow distribution of cooling air in the cold aisle guarantees high efficiency
- Favourable working conditions in the cold aisle due to low temperature, flow and noise load conditions
- Hardware racks not connected to the enclosure do not impair the cooling efficiency of the cold aisle

Rittal Aisle Containment (Cold Aisle)

Without raised floor

- Direct connection of the liquid cooling packages to an external cold water supply
- Simple laying of pipework in the rack base/plinth
- Homogeneous distribution of cooling air in the cold aisle guarantees a high level of efficiency
- Favourable working conditions in the cold aisle due to low temperature, flow and noise load conditions
- Hardware racks not connected to the containment system do not impair cooling efficiency via the cold aisle
- Room heights play only a minimal role

Rittal Aisle Containment (Hot Aisle)

Without raised floor

- Simple assembly using the existing components of Rittal aisle containment
- Direct connection of the Liquid Cooling Packages (LCP Inline) to an external cold water supply
- Simple laying of pipework in the rack base/plinth
- Suitable for use with high heat losses
- Room-neutral dissipation of the heat loss

IT Chillers

The Rittal IT chiller in conjuction with indirect free cooling supplies media for exceptionally energy and cost-efficient IT cooling. The system is specially designed for supplying critical IT applications cooled via LCP, air/water heat exchangers or CRAC systems.

In this atmospherically sealed system, security options such as redundant, speed-regulated pumps, compressors, emergency cooling or buffer stores ensure optimum operational reliability and fail-safeness.

Alongside optional heat recovery from the system, the connection to the Rittal free cooling systems ensures exceptionally energy-efficient operation. Free cooling uses cold ambient air for cooling, reduces operating costs by up to 80%, extends the service life of components, and increases operational reliability. If the free cooling performance is insufficient, the IT chiller will cut in.

IT Chiller

- Redundant pumps, speed-regulated
- Redundant scroll compactor
- Intelligent control concept
- Interfaces: SNMP, BACnet
- Integral or separate free coolers (optional)
- Integral automatic bypass valve
- Flow monitor
- Minimisation of operating costs thanks to high water inlet temperatures for LCP and CRAC operation
- High COP (coefficient of performance)
- Integration into RiZone
- 15-480kW units

Fire Alarm and Extinguisher System DET-AC/EFD Plus

Advantages:
- Early fire detection
- Automatic extinguishing (DET-AC)
  - Innovative extinguisher gas NOVEC™ 1230
  - Eco-friendly
  - Uncritical for IT components, non-conductive
- 482.6 mm (19″) rack mount with just 1 U
- Testing by VdS (VdS Schadenverhütung GmbH tests and certifies individual components and entire systems for damage prevention at its own laboratories)
- CAN bus interface for direct connection to the CMC III monitoring system

Note:
- All three systems are designed solely for use in closed, nonaccessible enclosure systems

DET-AC III Master
The active extinguisher system for use in closed 482.6 mm (19″) server enclosures includes the smoke extraction system and the extinguisher unit in a 482.6 mm (19″) subrack with just 1 U. The smoke extraction system is identical to that used in the EFD III smoke extraction system. When a main alarm is activated, the extinguishing process will begin automatically. The NOVEC™ 1230 extinguisher medium is stored in the extinguisher tank in liquid form. For the extinguishing process, the tank is pressurised, causing the extinguisher medium to evaporate at the extinguisher nozzle and is distributed in the server enclosure. Alarms and malfunctions may be forwarded directly to the CMC III monitoring system via the CAN bus interface. Floating contacts allow alarms (pre-alarm and main alarm) and collective fault signals to be forwarded from the device to a superordinate point (monitoring or control system).

EFD III
The EFD III early fire detection system includes the smoke extraction system in a 482.6 mm (19″) subrack with just 1 U. An integral fan continuously extracts air from the area being protected via a system of pipes. The air drawn in passes two fire detectors. If smoke is detected, the highly sensitive detector will emit a pre-alarm, while the second detector will activate the main alarm. The fire detectors are permanently monitored for correct functioning by the evaluation and control electronics on the control card. Alarms and malfunctions may be forward to a superordinate point (monitoring or control system) via floating contacts. The integral CAN bus interface facilitates direct connection to the CMC III.

DET-AC III Slave
This add-on unit to the DET AC III Master includes an additional extinguisher unit. Combined use allows the extinguishing of up to five bayed enclosures. In addition to the DET-AC III unit, a DET-AC III slave unit is used for each additional bayed enclosure and supplies the extinguishing agent for that enclosure. Detection occurs via the DET-AC III master system, even when multiple enclosures are bayed together. If a main alarm is reported, the DET-AC III master will activate extinguishing in all systems simultaneously. The DET-AC III slave system can also be used in combination with the EFD III system.

	Fire alarm and extinguisher system DET-AC III Master	Early fire detection system EFD III	Additional unit DET-AC III Slave
Model No.	**7338.121**	**7338.221**	**7338.321**
Width mm	482.6 (19") rack mount	482.6 (19") rack mount	482.6 (19") rack mount
Height mm	44 (1 U)	44 (1 U)	44 (1 U)
Depth mm	660	490	660
Weight, approx kg	15.5	9.6	12.5

Fire alarm and extinguisher system DET-AC III/EFD III

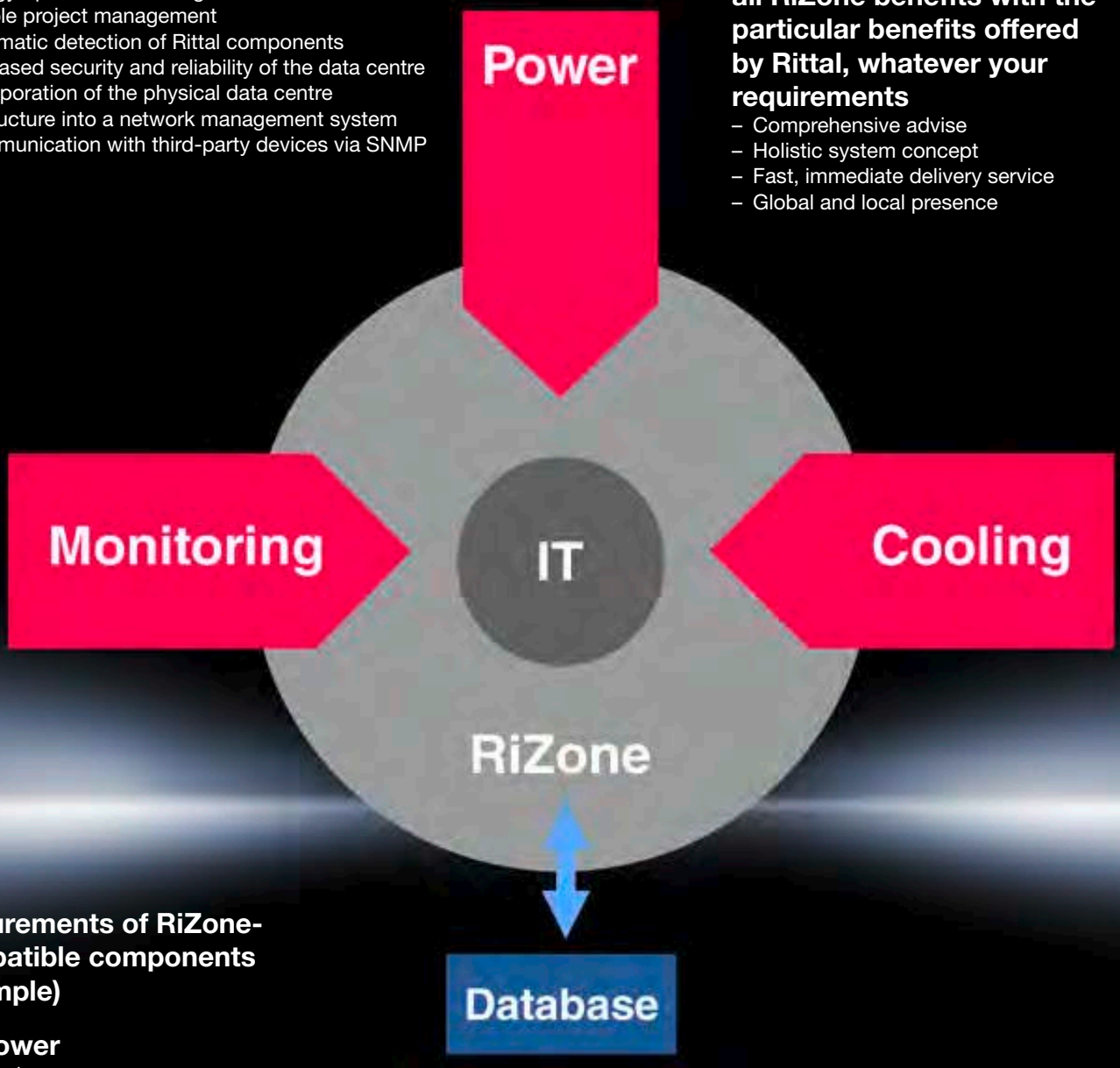
Model No.		7338.121	7338.221	7338.321	Cat. 34 page
Basic data					
Material enclosure		Sheet steel	Sheet steel	Sheet steel	
Colour of enclosure		Ral 7035	Ral 7035	Ral 7035	
Colour of front panel		RAL 9005	RAL 9005	RAL 9005	
Protection category		IP 30	IP 30	IP 30	
Rated operating voltage					
Rated voltage V, ~, Hz		100 - 240 (AC), 1~, 50/60	100 - 240 (AC), 1~, 50/60	24 (DC)	
Emergency power supply h		approx. 4	approx. 4	approx. 4	
Max. permissible useful current		1.0 A at 24 Volt [1]	1.0 A at 24 Volt [1]	-	
Max. permissible charging current		350 mA at 24 Volt	350 mA at 24 Volt	-	
Airflow monitoring		approx. ±10% of total airflow	approx. ±10% of total airflow	-	
Temperature					
Ambient temperature		+10°C...+40°C (operation)	+10°C...+40°C (operation)	+10°C...+40°C (operation)	
		-20°C...+65°C (storage without batteries)	-20°C...+65°C (storage without batteries)	-20°C...+65°C (storage without batteries)	
		-15°C...+40°C (storage of batteries)	-15°C...+40°C (storage of batteries)	-15°C...+40°C (storage of batteries)	
Humidity		up to 96% humidity, non-condensing	up to 96% humidity, non-condensing	up to 96% humidity, non-condensing	
Connections					
Connection terminal for relay output (pre-alarm, fire alarm, extinguishing)		■	■	■	
Connection terminal for relay output (cellective fault)		■	■	■	
Jack (RJ 12) for connection of door contact switch		■	■	■	
Connection terminal for door contact switch		■	■	■	
3 x jacks (RJ 12) for forwarding (collective fault, pre-alarm, main alarm)		■	■	■	
2 x CAN connections for master-slave linking		■	■	■	
Connection of external alarm device		■	■	■	
Connection of external fill level monitoring and activation of external tank, max. 500 mA		-	■	-	
E-mail forwarding in case of alarm (SMTP)		■	■	■	
Connector for manual call point		■	■	■	
Power supply (UB), max. 500 mA		■	■	■	
USB interface		■	■	■	
CAN bus interface to CMC III		■	■	■	
Front panel					
Display with status messages displayed in plain text		■	■	-	
1 green LED (operational)		■	■	-	
1 yellow LED (deactivation)		■	■	-	
1 red LED (extinguisher system triggered)		■	■	-	
1 red LED (extinguisher system activated)		■	■	-	
1 yellow LED (blockage)		■	■	-	
1 yellow LED (malfunction)		■	■	-	
Extraction pipe (must be ordered separately)					
Extraction holes		Min. 4 extraction holes, Ø 3mm	Min. 4 extraction holes, Ø 3mm	-	
Extraction pipe (external diameter: 22mm, internal diameter: 18mm)		Adhesive-free connection system, black	Adhesive-free connection system, black	-	
Sensors					
Optical smoke detector (sensitivity: approx. 3.5% light obscuration)		■	■	-	
Optical smoke detector HS (sensitivity: approx. 0.25% light obscuration)		■	■	-	
Tank					
Material		Aluminium	-	Aluminium	
Empty volume		approx. 2.0 litres	-	approx. 2.0 litres	
Contents		approx. 1.8 litres NOVEC™ 1230	-	approx. 1.8 litres NOVEC™ 1230	
Extinguisher is emitted under pressurisation via propellant cartridge integral electrical activation unit		■	-	■	
Intergral extinguisher loss/fill level monitoring (indication of > 15% loss)		■	-	■	
Also required	Packs of				
Pipe kit	1pc(s)	**7338.130**	**7338.130**	**7338.130**	
Access sensors[2]	2pc(s)	7320.530	-	7320.530	64
CAN bus connection cable RJ 45, 1 m[3]	1pc(s)	7030.091	7030.091	-	69
Depth-variable slide rails	2pc(s)	5501.480	5501.480	5501.480	28

1) The sum total of all connected units must not exceed the admissible useful current of 1.0A 2) One access sensor is required for each door
3) Depending on the distance between the CMC III and DET AC III/EFD II, a different length should be selected for the CAN bus connection cable

RiZone - Customer-focused, cost-efficient

Six good reasons to choose RiZone
– Energy optimisation through the entire data centre
– Simple project management
– Automatic detection of Rittal components
– Increased security and reliability of the data centre
– Incorporation of the physical data centre infrastructure into a network management system
– Communication with third-party devices via SNMP

Combine the sum total of all RiZone benefits with the particular benefits offered by Rittal, whatever your requirements
– Comprehensive advise
– Holistic system concept
– Fast, immediate delivery service
– Global and local presence



Mesurements of RiZone-compatible components (example)

Ri4Power
– Current
– Voltage
– Energy
– Power

UPS
– Inverter status
– Status of primary network
– Battery status

PSM/PDU
– Current measurement of PSM bars
– Measurement of power consumption per socket with active PSM
– Switching of individual sockets

Cooling/LCP
– Inlet temperature
– Setpoint (target value)
– Average air injection temperature

Chiller
– Inlet and return temperature
– Pump speed
– Operating mode
– Power consumption

CMC
– Temperature
– Moisture
– Access

DRC (Dynamic Rack Control)
– Position of all 482.6mm (19") installed equipment
– Free height units
– Connected height units
– Online Asset Monitoring

IT management software

DCIM - Data Centre Infrastructure Management

RiZone - Perfect support of IT infrastructure components

Rittal components - from server enclosures to power supply and climate control, through to security and monitoring technology - are optionally supported during integration and in the operational phase, thanks to coordinated sensors and control.

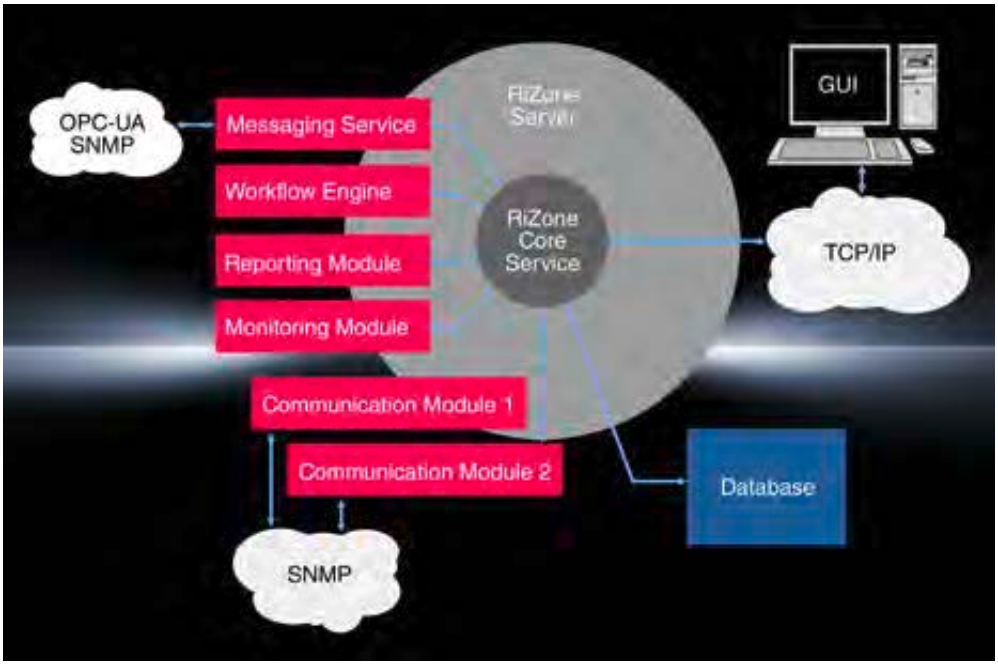
- The physical data centre infrastructure is incorporated into a data centre infrastructure management system
- Simple configuration
- Automatic detection of Rittal components
- Workflow editor for user-defined scenarios (what happens if...)
- Enhanced security and reliability
- Energy optimisation in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

RiZone plus Rittal components creates a system solution with maximum energy efficiency.

Note:

- RiZone Appliance Standard
- RiZone Appliance IP node licence,
- Server shutdown software

- **Messaging Service**
  The protocols SNMP and OPC-UA form the interface to superordinate management systems
- **Workflow engine**
  Control loops for optimisation of the data centre and individual escalation management
- **Reporting module**
  Reports based on any given data compilation and time interval
- **Monitoring module**
  Internal watchdog module ensures reliability
- **Communication module**
  Communication with SNMP-compatible IT infrastructure components
- **Autodiscovery**
  Detectionn of all SNMP-compatible IT infrastructure components
- **Database**
  Own SQL database or link to external MS-SQL and Oracle databases
- **Administration**
  Configuration of RiZone (user and rights management, network integration)
- **Capacity management**
  - Monitoring of capacitiesin the data centre
  - Graphical representation of teh servers in teh server enclosure
  - Redundancy monitoring of the climate control and power supply
  - Determination of optimum server installation positions
  - In conjuction with DRC, online reconciliation with the server enclosure and built-in components
- **Off-line project planning**
  - Pre-configuration of RiZone projects
  - Supports Rittal CMC III components as well as RiMatrix S
  - Components are easily replaced using drag and drop



RiZone Appliance Standard

RiZone is supplied as a hardware or software appliance.

As a hardware appliance, RiZone is supplied with global support, installed on a powerful 1 U server. The software appliance is available as a virtual server which can easily be used on existing hardware in the data centre.

Note:

– Both appliances support communication with Rittal devices and devices from third-party manufacterers via an integral MIB browser

Also required:

– RiZone Appliance IP node licence according to the number of IP nodes available

Standard version	Model No.		
Hardware appliance[1)]	Server with Windows	RiZone software	RiZone graphics tool
	7990.101	**7990.201**	**7990.301**
Software appliance[1)]	Hard drive + Windows	RiZone software	RiZone graphics tool
	7990.103	**7990.203**	**7990.303**

[1)] All Model Nos. on the same line belong together, and must always be ordered together.

RiZone Appliance IP node licence

The flexible RiZone licence model allows optimum adaptation to any project size, while at the same time allowing the opportunity to grow with the data centre.

The volume licences for the IP nodes are graduated from 25 to 100 nodes and may be adapted precisely to the size of the data centre. For each active component or otehr SNMP-compatible component to be covered, one node licence is required.

For number of IP nodes[1)]	Console licences included	Model No.	
		RiZone software	RiZone graphics tool
25	4	**7990.206**	**7990.306**
100	8	**7990.208**	**7990.308**

[1)] All Model Nos. on the same line belong together, and must always be ordered together.

Server shutdown software

for CMC III

Client software to control the server shutdown via CMC III. The software supports all common operating systems and versions (e.g. Windows 7, VISTA, XP, Server 2003/2008, UNIX/LINUX and VMWARE Sphere/ESX Server, CITRIX XEN etc). One licence is required for each server to be shut down on an event-controlled basis.

Licences	Model No.
Single licence	**7857.421**

Note:

– Software updates and a complete list of currently supported operating systems may be found on the Internet

Date Centre Container

Fire Protection:
– Fire protection, internal panels: F30, optionally F90 based on DIN 4120/EN1363, component-tested

Duct system:
– Type: Hard duct DN200
– Dimentions of packing space: 120x120mm
– Protected cable/tube entries

Raised floor:
– Optimised load distribution
– Equipped with cable/tube routing
– Variable ventilation panels with DFC

Climate control:
– Customised climate control variants
– Targeted cooling via aisle containment
– Energy-efficient DFC cooling (direct free cooling), with no additional external units
– Powerful LCP cooling (liquid cooling package), with minimal space requirements

Power distribution:
– Infeed: CEE connector 125A, 3-phase/N/PE, 400 V/50 Hz
– Busbar system for rack-based power distribution

Customised solutions:
– Interlinked containers, other climate control variants

Optional:
– Up to seven TS IT racks with power supply
– Fire alarm/extinguisher system (Novec 1230)
– Access systems, access foor (keyboard, code card)
– Monitoring and management (CMC, RiZone) for monitoring alarm, maintenace messages and customer-specific parameters

Note:
– Standard range of models with pre-configured data centre types
– The Data Centre Container is configured on a project-specific basis

Technical details:
Available on the Internet.
Photo shows a configuration example with equipment not included in the scope of supply.

Rittal drafts, plans and implements high-MTBF data centres and IT environments that are super-efficient in every respect.

Based on your requirements, our engineers and expert planners will devise optimised, perfectly functioning IT centres for every size of company. This means that you only have one project partner: Rittal.

As general contractors, site managers and your point of contact, we will coordinate the complex work operations on your behalf. With our supremely well-organised process and project management system, we will reduce interfaces, coordinate the various works, clarify your detailed questions on site, and strictly adhere to the agreed timetables. The finished outcome will be a perfect, turnkey data centre complete with all components: Server racks, network enclosures, power distribution, climate control, efficiency management and the necessary monitoring and security components. Upon request we will also take care of your security and energy efficiency certifications (e.g. TÜV-ITIER) and appropriate emergency planning concepts.

Only infrastructures with coordinated components will achieve full performance in the long term. Rittal incorporates this into the planning stage, and you will reap the benefits with regard to implementation and service. You will receive modular, scalable solutions from a single source – cooling, power, security room, monitoring, management and service. “Rittal – The System. Faster – better – worldwide.”

The components we have selected for you are tried and tested, thereby reducing any required adjustments between equipment and solutions from possible external suppliers to a bare minimum. As a complete supplier, we will also optimise the interactions between hardware and individual data centre software on your behalf in the following areas: Settings, monitoring, process optimisation, efficiency control, emergency messages, maintenance etc. With our global, solid experience and broad product portfolio, we will create a secure, highly efficient basis for your entire IT infrastructure. You will benefit immediately from maximum performance capability, combined with permanent reliability, stability and availability.

RiMatrix S

The first standardised data centre

Standardised, off-the-street modules

Fully pre-configured modules in teh RiMatrix S series offer a pioneering alternative to building your own data centre. They already include all the necessary components such as:

- IT enclosure systems
- Power backup and distribution
- Climate control
- Monitoring and security solutions

A single Model number is all you need to order a complete RiMatrix S module.

Complete RiMatrix S data centres can be assembled in next to no time, because all modules are avaiable off the shelf.

Your benefits

The performance and securty of any IT infrastructure is determined to a significant degree by the interaction between individual components. All system components in the Rittal system platform are perfectly coordinated with one another.

- Modular system solutions for small to large networks
- Comprehensive, complete solutions for power distribution and backup, consistently modular, and flexibly entendible at any time
- Optimum energy and cost efficiency with maximum availability of the entire system
- Energy-efficient climate control concepts for rack, suite and room cooling
- A better overview of your IT infrastructure
- System-tested protection from potential physical threats

IT infrastructure - Fully operational

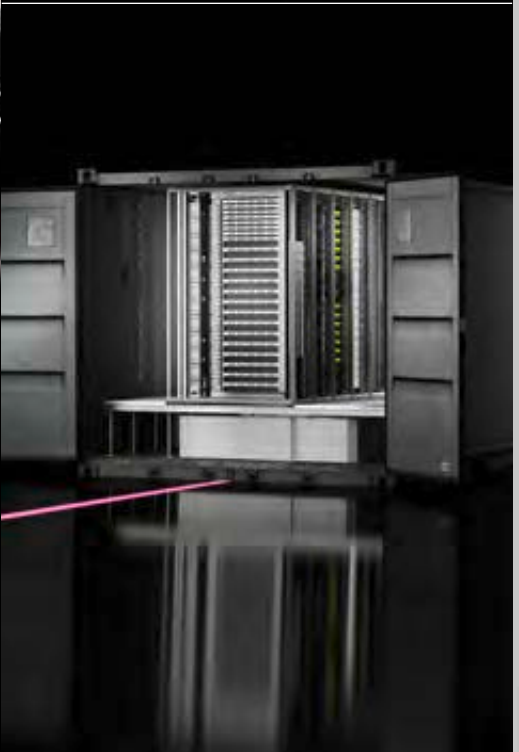
- Pre-configured modules - ready for immediate installation of the IT equipment
- Fully functional complete system including server and network enclosures, climate control, power distribution and backup, monitoring and optionally with RiZone, the DCIM (Data Center Infrastructure Management) system
- Peace of mind - due to documented system test of the entire module

Available within 6 weeks - Complete and off the shelf

- Order RiMatrix S with just one model number for the entire data centre
- Supplied off the shelf
- Lead time from ordering to commissioning: just 6 weeks

The right physical structure for every requirement

- The modules are supplied with the right physical structure to suit the application:
  - In a standard room
  - In a standard security room for installation in existing properties
  - In a standard container for outdoor siting



RiMatrix S

The standardised data centre at your premises is equipped with an additional security room (roomwithin-a-room) to provide additional protection from fire, water and smoke.

Protection standards::
- Fire resistance EI 90 to EN 1363/F 90 to DIN 4102
- Dust- and watertight to IP 56 to IEC 60 529
- Protection from unauthorised access – Resistance class II
- EMC basic protection
- Acrid gas-tightness, based on EN 1634-3 (DIN 18095)
- Shock test with 3,000 Nm energy after 30 minutes flame impingement over standard temperature curve

Material:
- Element core made of thermally effective insulation substance
- Robust, encapsulated sheet steel cassette panels
- Innovative connection technology using patented profile technology
- Use of temperature- and humidity-resistant seals
- Use of fire protection valves
- Dismantling and reassembly is possible at any time

Supply includes:
- Advice and ROI calculation
- Delivery and integration into the customer infrastructure
- Commissioning and handover
- Documentation, training and instruction
- Hotline and service/service agreements
- Precise-fit aisle containment

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

Standard room

	Packs of	Single 6	Double 6	Single 9	Double 9	Page
External dimensions, width mm		2807	4839	2807	4839	
External dimensions, height mm		2750	2750	2750	2750	
External dimensions, depth mm		7067	7070	7067	7070	
Interior dimensions, width mm		2750	4774	2750	4774	
Interior dimensions, height mm		2722	2722	2722	2722	
Interior dimensions, depth mm		7000	7000	7000	7000	
Model No.	1pc(s)	**7998.106**	**7998.107**	**7998.406**	**7998.407**	
Early fire detection		■	■	■	■	
Room extinguisher system		optional	optional	optional	optional	
Humidification and dehumidification system		7998.705	7998.705	7998.705	7998.705	
Server rack (600x2000x1200mm)		6	12	8	16	
Combined network/server rack (800x2000x1200mm)		1	2	1	2	
Uninterruptible power supply		n+1 redundant 60kW + 20kW	n+1 redundant 2x (60kW + 20kW)	-	-	
Low-voltage main distributor		1	2	1	2	
PDU Basic		14	28	18	36	
Climate control (ZUCS)		60kW + 10kW n+1 redundant	120kW + 20kW n+2 redundant	90kW + 10kW n+1 redundant	180kW + 20kW n+2 redundant	

The standardised data centre at your premises is equipped with an additional security room (roomwithin- a-room) to provide additional protection from fire, water and smoke.

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- Use of temperature-and humidity-resistant seals
- Use of fire protection valves
- Dismantling and reassembly is possible at any time

Supply includes:
- Advice and ROI calculation
- Delivery and integration into the customer infrastructure
- Commissioning and handover
- Documentation, training and instruction
- Hotline and service/service agreements

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

High Availability Security Room

	Packs of	**Single 6**	**Double 6**	**Single 9**	**Double 9**	Page
External dimensions, width mm		2950	4976	2950	4976	
External dimensions, height mm		2800	2800	2800	2800	
External dimensions, depth mm		7500	7500	7500	7500	
Interior dimensions, width mm		2750	4776	2750	4776	
Interior dimensions, height mm		2700	2700	2700	2700	
Interior dimensions, depth mm		7300	7300	7300	7300	
Model No.	1pc(s)	**7998.306**	**7998.307**	**7998.606**	**7998.607**	
Fire protection		EI 90 to EN 1363/ F90 to DIN 4102	EI 90 to EN 1363/ F90 to DIN 4102	EI 90 to EN 1363/ F90 to DIN 4102	EI 90 to EN 1363/ F90 to DIN 4102	
Burglar resistance		WK II	WK II	WK II	WK II	
Early fire detection		■	■	■	■	
Room extinguisher system		optional	optional	optional	optional	
Humidification and dehumidification system		7998.705	7998.705	7998.705	7998.705	
Server rack (600x2000x1200mm)		6	12	8	16	
Combined network/server rack (800x2000x1200mm)		1	2	1	2	
Uninterruptible power supply		n+1 redundant 60kW + 20kW	n+1 redundant 2x (60kW + 20kW)	-	-	
Low-voltage main distributor		1	2	1	2	
PDU Basic		14	28	18	36	
Climate control (ZUCS)		60kW + 10kW n+1 redundant	120kW + 20kW n+2 redundant	90kW + 10kW n+1 redundant	180kW + 20kW n+2 redundant	

RiMatrix S

The standardised data centre is implemented in a container solution and can therefore be sited outdoors if required.

Protection standards:
- Vandal-proof interior in accordance with Resistance Class II to DIN EN 1631
- Fire resistance EI 30 to EN 1363
- EMC basic protection
- Dust- and watertight to IP 55 to IEC 60 529

Supply includes:
- Robust sheet steel container with reinforced frame structure for optimum weight distribution
- Housed interior wall structure with thermal insulating materials
- Advice and ROI calculation
- Delivery and integration into the customer infrastructure
- Documentation, training and instruction
- Hotline and service/service agreements

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

Standard container

	Packs of	**Single 6**	**Single 9**	Page
External dimensions, width mm		3000	3000	
External dimensions, height mm		3000	3000	
External dimensions, depth mm		7250	7250	
Interior dimensions, width mm		2750	2750	
Interior dimensions, height mm		2700	2700	
Interior dimensions, depth mm		7000	7000	
Model No.	1pc(s)	**7998.206**	**7998.506**	
Early fire detection		■	■	
Room extinguisher system		optional	optional	
Humidification and dehumidification system		7998.705	7998.705	
Server rack (600x2000x1200mm)		6	8	
Combined network/server rack (800x2000x1200mm)		1	1	
Uninterruptible power supply		n+1 redundant 60kW + 20kW	-	
Low-voltage main distributor		1	1	
PDU Basic		14	18	
Climate control (ZUCS)		60kW + 10kW n+1 redundant	90kW + 10kW n+1 redundant	

IT Security rooms

The Rittal security rooms LER Basic, LER Extend and LSR 18.6 E allow you to choose between basic protection, extended protection or high-MBTF protection for your data centre. Thanks to the modular layout of the rooms and the wide range of options available, we will provide you with precisely the protection services your IT needs. The table below provides an insight into the Rittal security room concept.

Criterion	Standards	Conventional design[2]	LSR 18.6 E	LER Extend	LER Basic
System testing	Testing of the following standards as complete system or structure[1]	X	✔	✔	✔
Fire protection Testing at temperatures of up to more than 1,000 °C	ECB·S certifications to EN 1047-2, 50 K temperature increase and 85% rel. humidity up to 24 hours (reheating period), 60 minutes flame impingement time	X	✔	X	X
	50 K temperature rise and 85% rel. humidity over 30 minutes, without reheat period	X	✔	✔	X
	F120 as system test to EN 1363 (DIN 4102), for the cellular structure and its built-in modules	X	✔	X	X
	F90 as system test to EN 1363 (DIN 4102), for the cellular structure and its built-in modules	X	✔	✔	✔
	F180 only as component testing to EN 1363 (DIN 4102), wall system only	X	✔	X	X
	F120 only as component testing to EN 1363 (DIN 4102), wall system only	✔	✔	✔	✔
	F90 only as component testing to EN 1363 (DIN 4102), wall system only	✔	✔	✔	✔
Explosion	Detonation test as system testing of 200 kg TNT from 40 m	X	✔	X	X
Water	Standing water, 72 hours, 40 cm, maximum 20 drops	X	✔	X	X
	Extinguisher water, IP x6 as system testing to EN 60529, for the cellular structure and its built-in modules	X	✔	✔	✔
	Relative humidity, 85%, over 24 hours (reheat period), 60 minutes flame impingement time, to EN 1047-2	X	✔	X	X
	Relative humidity, 85%, over 30 minutes	X	✔	✔	X
Dust-tightness	IP 5x as system test to EN 60529, for the celular structure and its built-in modules	X	✔[3]	✔	✔
Corrosive fire gases	Acrid gas-tightness, based on EN 1634-3 (DIN 18095)	X	✔	✔	✔
Unauthorised access	WK 3 as system test to EN 1627/1630, for the cellular structure and its built-in modules, such as doors	X	✔	✔	✔
	WK 2 as system test to EN 1627/1630, for the cellular structure and its built-in modules, such as doors	X	✔	✔	✔
	WK 4 only as component testing to EN 1627/ DIN 1630, door system only	X	✔	X	X
Falling debris	Shock test as system test, 3 shocks of 200 kg from 1.5 m after 45 minutes flame impingement time	X	✔	X	X
	Shock test as system test, 1 shock of 200 kg from 1.5 m after 30 minutes flame impingement time	X	✔	✔	✔
EMC protection	Protection against high-frequency irradiation and radiation, verified by tests on comparable components by TU Aachen	X	✔	✔	✔
EMC optional package	Extended high-frequency shielding in accordance with BSI TL-03304	X	✔	X	X

[1] System-tested products are tested as a complete construction. This comprises the cellular structure and installation modules such as doors, cable shields or ventilation units. By contrast, component testing only refers to individual parts.
[2] The conventional design refers to room structures of plasterboard, concrete and other standard construction materials which do not offer sufficient protection for data centre applications. Conventional designs are generally tested for use as fire walls.
[3] Tested to EN 60529, category 1 (underpressure).

Security rooms

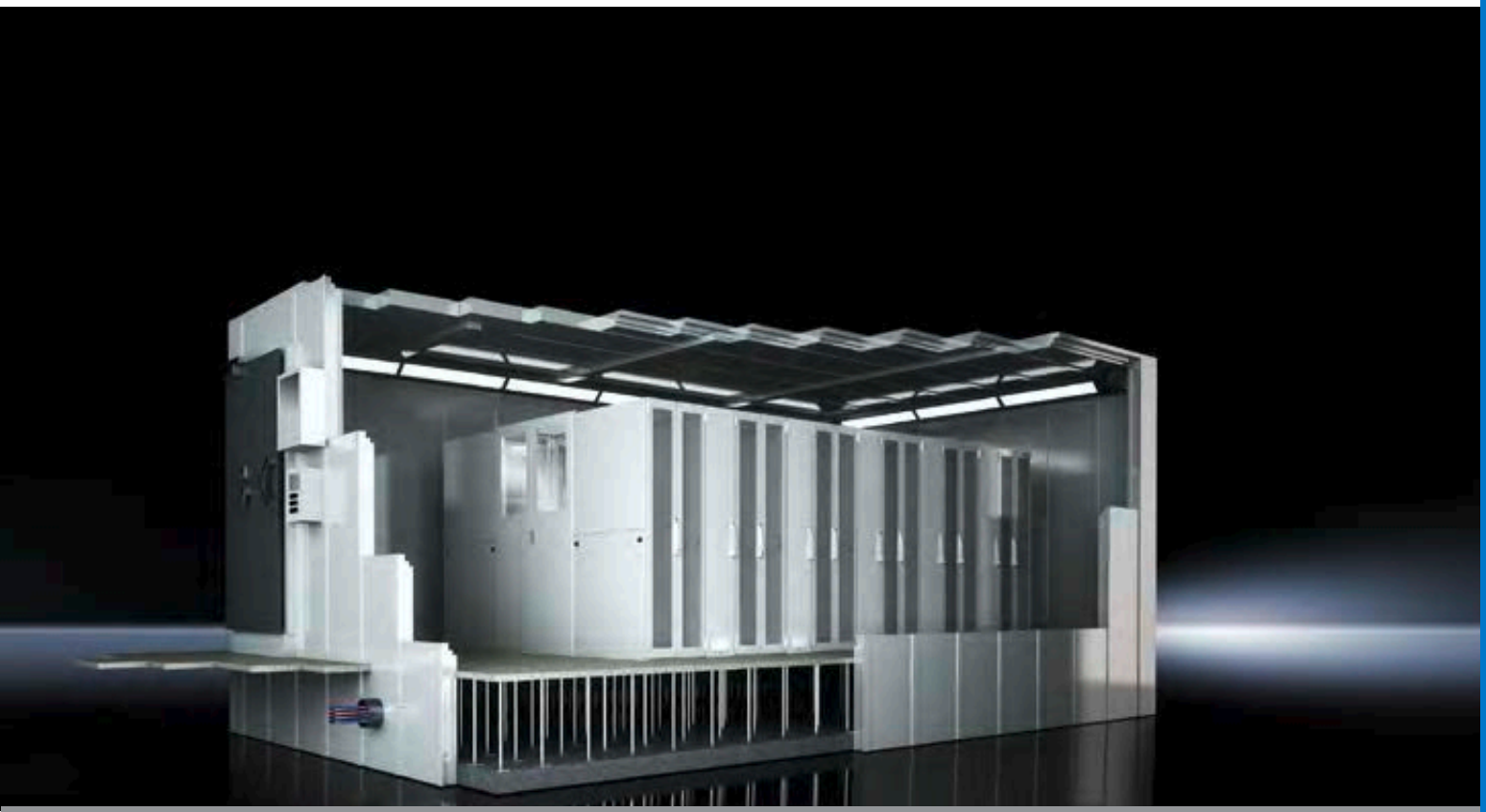
Basic protection room:
The basic protection room provides a high-quality, system-tested solution. It is an optimum, modular room-within-a-room solution for protecting IT/infrastructure components such as extinguisher systems, uninterruptible power supplies and climate control. The flexible modular system means that it can be extended whilst the IT systems are operational.

Benefits:
- System-tested protection levels
- Multi-functional risk coverage
- Dust- and noise-reduced installation
- Dismantling and reassembly plus extendibility = investment security
- May be adapted for use in other room systems, such as the High Availability room

Criterion	Standards
System testing	Testing the following standards as a complete system or construction
Fire protection	ECB·S certification to EN 1047-2, 50 K temperature increase and 85% rel. humidity for up to 24 hours (reheating period), flame impingement time 60 minutes
	50 K temperature increase and 85% rel. humidity without reheating period, flame impingement time 30 minutes
	F 120 to DIN 4102
	F 90 to DIN 4120
Corrosive fire gases	Acrid gas-tightness based on DIN 18 095
Falling debris	Impact test at 200kg
Water	IP X6 to IEC 60 529
	Protection from standing water
Dust	IP 5X to IEC 60 529
Unauthorised access	WK IV to DIN V ENV 1630, door system only
	WK III to DIN V ENV 1630, or DIN V 18 103 (ET2)
	WK II to DIN V ENV 1630
Explosion	Detonation test
EMC	Protection from high-frequency irradiation and radiation

System-tested structures are tested as a complete construction, comprising the cell structure and built-in modules such as doors, cable shields or ventilation units.

By contrast, generic component testing only refers to individual parts. Conventional construction methods refer to room structures made of plasterboard, concrete and other standard construction materials which do not offer sufficient protection for data centre applications. Conventional construction methods are generally unsuitable for use as a fire wall and are therefore only subjected to component testing.



High Availablility Room:
The High Availability room offers maximum physical protection for data centres and IT system locations. The system was certified by ECB (European Certification Body GmbH) to ECB·S regulations This certification confirms that the High Availability room meets the requirements of EN 1047-2 without restriction. Moreover, the construction of the security room is subject to continuous quality monitoring by an independent agent.

Benefits:
- System-tested High Availability protection
- Multi-fuctional risk coverage
- Dust-and noise-reduced installation
- Dimantling and reassembly plus extendibility = investment security
- ECB·S certification
- Independent quality monitoring
- May be adapted for use in other room systems, such as the basic protection room

Basic protection room	High Availability room
■	■
-	■
□	■
-	
■	■
■	-
■	■
■	■
-	■
■	■
-	■
□	■
■	-
-	■
■	■

Micro Data Centre

- Complete solution in the smallest possible space and in next to no time
- No need for expensive upgrades to existing premises
- Efficient cooling and extinguishing solution

Level E modular safe High level of protection for your IT

- Maximum security in the Rittal range of safes
- Optimum protection concept for one or more server rack solutions for small and medium-sized enterprises
- Modular layout for installation in hard-to-access locations and for retrospective enclosure of existing IT structures

- Future-proof investment thanks to the options of extendibility, dismantling and re-assembly
- System-tested security and a high level of protection; testing has been carried out by accredited institutes and confirmed with test reports
- Modified air baffle plates for optimum air routing, for efficient cooling of the safes

Usable U	42/47
Usable interior depth mm	1000/1200
Colour of enclosure/service door	RAL 7035
Colour of operator door	RAL 9005
Fire protection	Fire resistance class F 90 to DIN 4102 Part 2, compliance with limits $\Delta T < 50$ K, rel. humidity < 85% over 30 minutes[1)]
Burglar resistance	WK II took attack analogous to DIN V ENV 1630/1999-04WK II[4)] WK III took attack analogous to DIN V ENV 1630/1999-04WK II[3)] WK IV took attack analogous to DIN V ENV 1630/1999-04WK II[3)]
Protection category IP to IEC 60 529	IP 56[4)]
Smoke protection	Based on DIN 18 095-2: 1991-03[4)]
Modularity	■
May be enclosed with the system operational	■
Extendibility	■

[1)] The Micro Data Centre was tested as a system
[2)] All critical connection points were tested as a system

Level B modular safe Solid protection for your IT
- Optimum protection concept for a server rack
- Modular layout for installation in hard-to-access locations
- Form-fit connection with the stable TS 8 framework structure
- Front and rear 482.6 mm (19″) level of the TS IT rack already included with the supply
- Lower weight than the Level E modular safe
- Tested security – testing has been carried out by accredited institutes and confirmed with test reports.

Level A compact safe Solid protection for small IT applications
- Ready-installed safe as a complete system
- Integral cooling
- Integral TS 8 frame structure with front and rear pairs of 482.6 mm (19″) mounting angles
- Base/plinth with ground clearance
- Tested safety – The tests were carried out as system tests and confirmed via test reports

42/47	15
1000/1200	1000
RAL 7035	RAL 7035
RAL 9005	RAL 9005
Fire resistance class EI 90/F 90 to DIN En 1363-1: 1999/based on DIN 4102-2: 1997[2)]	Fire resistance class F 90 to DIN 4102 Part 2, compliance with limits ΔT < 50 K, rel. humidity < 85% over 10 minutes[1)]
RC 2 tool attack analogous to DIN EN 1630/2011-09/RC[3)]	WK II took attack analogous to DIN V ENV 1630/1999-04WK II[1)]
IP 56[3)]	IP 56[4)]
Based on DIN EN 1634-3: 2005-01[4)]	-
■	Safe is supplied assembled including cooling unit
-	-
-	-

Rittal International Service

RITTAL DELIVERS SERVICE ACROSS AUSTRALIA AND NEW ZEALAND

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NEW ZEALAND: 0800 748 737

service@rittal.com.au

Service Options	Basic	Comfort	Advanced	Full	Customised
Availability	Business Hours	Business Hours	24 hours, 365 days a year	24 hours, 365 days a year	24 hours, 365 days a year
Response Time	Next working day	Next day	8 hours	4 hours	4 hours
Spare Parts Availability Spare parts management guaranteeing maximum availability *Standard **Customer - specific spare parts	Standard	Standard	24 hours	24 hours	Individual concept
Maintenance Preventive maintenance to safeguard the value of your equipment	Product Dependent	Product Dependent	Product Dependent	Product Dependent	Individual (min. 2 x per year)
Extended Warranty One to three-year warranty extension for a total period of up to 5 years	Not Included	Optional	Included	Included	Included
Commissioning	Not Included	Not Include	Included	Included	Included

Notes

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HEAD OFFICE AUSTRALIA

130-140 Parraweena Road,
Miranda NSW 2228 Australia

T 1800 350 665
E info@rittaldatacentre.com.au
W rittaldatacentre.com.au
rittal.com.au

> SYDNEY
> MELBOURNE
> BRISBANE
> ADELAIDE
> PERTH

HEAD OFFICE NEW ZEALAND

21 Bell Road South,
Lower Hutt Wellington NZ

T 04 566 7630
E sales@rittal.co.nz
W rittaldatacentre.co.nz
rittal.co.nz

> AUCKLAND
> WELLINGTON
> CHRISTCHURCH