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► **Make IT easy:**
Enclosure, power and cooling solutions



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The new TS IT rack.

A new global standard for network and server equipment.

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

1 Individual configuration

One cabinet handles practically all network and server enclosure requirements

2 High load capacity

and variable interior installation

Load capacity of more than 3,200 pounds and tool-free adjustment of the 19” (482.6 mm) mounting rails. Offset positioning facilitates alternative mounting widths (21”, 23”, and 24” possible)

3 Tool-free installation

System accessories with new, time-saving snap-in technology (for component shelves, cable ducts and more)

4 Intelligent cable management

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

5 Fast side panel assembly

Divided sidewalls with quick fastenings, integrated locks and additional internal latching

6 Innovative door concept

Viewing doors for high-performance server applications with liquid cooling or perforated doors for room climate control

7 Split rear doors

Split rear doors from a height of 38 U (1800 mm) for optimized space utilization

8 Intelligent accessories

The TS IT concept ensures fast and simple selection of the system accessories

9 Built-in added value for the 19” (482.6 mm) system

Direct, space-saving clip mounting of the new Rittal PDU busbar in the rear zero U space. Tool-free front-side integration of cable management.

10 Simple positioning

Labelling of the height units and pitch pattern for simple determination of the 19” (482.6 mm) rail spacing



Make IT fast.

With tool-free component installation and fast, efficient assembly.

From its original design, every aspect of the TS IT rack has been engineered to leverage all the advantages of tool-free assembly, making it possible for one person to complete the process quickly and efficiently. Side panels are divided and slide into place – there are no screws. Slide rails, component shelves, telescoping slides and a variety of additional accessories simply clip into place on the rear panel and are secured in front – all without tools. Should the 19" mounting rails need adjusting, quick-release fasteners are

loosened and the panels can be moved and locked into a new location. Offset positioning allows for alternative mounting widths – 21", 23" and 24" options are available. Integrated locks and internal latches maximize security as well.

- Reducing the complexity of design saves time right from the planning stages
- Tool-free assembly for racks and accessories makes the most of snap-in technology
- Integrated locks, latches and quick-fasteners help to make completion a one-person task

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Make IT simple.

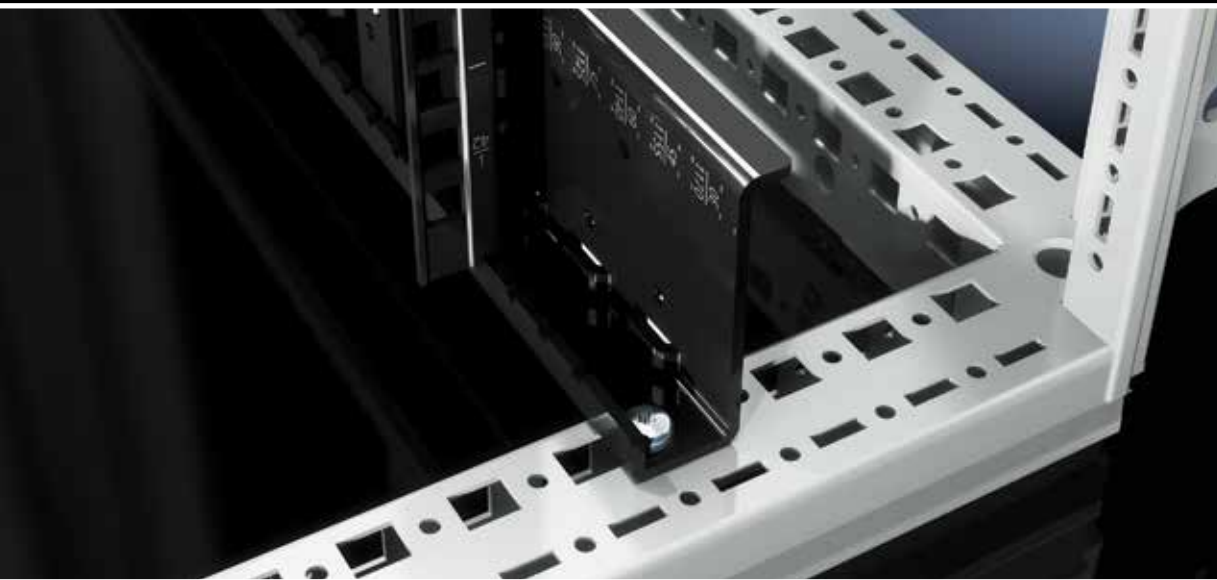
With a high load capacity and integrated cable management.

The TS IT is rugged and reliable. With a load capacity of more than 3,200 pounds on the 19" mounting rails, it is ready to meet the highest stability requirements. And it provides the same commitment to reliability through its intelligent cable management system. Patch cables are easily handled via options ranging from a single cable guide ring to cable ducts for

targeted cable routing for a specific height unit.

The rail systems for interior installation enable rear cable clamping and strain relief using nylon loops, clips and cable ties. The intelligent system assigns every cable to its proper place.

- High load capacity of more than 3,200 pounds
- Intelligent, integrated cable management
- Expansive range of accessories



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Make IT flexible.

With an innovative door concept and multifunctional roof design.

The TS IT rack stands out with its innovative solutions in enclosure roof and door designs. All doors are prepared for an assortment of locking options and come with 180° hinges and comfort handles for both front and rear. Viewing doors are the first choice for rack climate control while perforated doors take advantage of room climate control with 85% of the surface area perforated to maximize air flow.

Split rear doors 38 U and taller ensure optimum space utilization. The multifunctional roof incorporates brush strips running from front to back on both sides and down the sides of the enclosure, as well as cable clamping pieces directly behind the brush strips. A cutout for mounting a fan module is also standard.

- Viewing or perforated door options
- Multifunctional roof design



Make IT perfect.

With built-in added value and high energy efficiency.

With its comprehensive list of standard features, the TS IT comes equipped to meet practically all the demands placed on network and server enclosures. Many of its innovative details represent a new level of integrated added value. Integrated pitch patterns permit direct determination of the rail spacing for simple component positioning. And, the rack has front and back height unit labeling that's readable from the front – an added convenience and time-saver.

The TS IT via its flexible compartmentalization for rack, row and room climate control, along with variable termination options with its all-around brush strips, can prove to be extremely energy-efficient. Compartmentalization can also provide additional mounting space for up to 6 U.

- Comprehensive lineup of standard features
- A lengthy list of value-adding extras
- High energy efficiency

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TS IT network/server enclosure with viewing door



Component Shelves Page 89 Slide Rails Page 91 System Chassis Page 84 Cable Guide Rings Page 99 Cable Management Panel Page 100 PDU Page 33

Material:

- Enclosure: Carbon steel
- Viewing window: Single-pane safety glass, 0.12" (3.0 mm)

Surface finish:

- Enclosure frame, interior installation: Dipcoat-primed

- Doors and roof: Dipcoat-primed, powder-coated

Color:

RAL 9005, RAL 7035

Protection rating:

UL/cUL

Included (not preinstalled):

- Spacers for passive cooling (4)
- Grounding provisions (1 set)
- M5 multi-tooth screws and cage nuts, conductive (50)

Load capacity of rails:

- 3372 lbs (15000 N)

Distance between rails as delivered:

- Depth ≤ 32" (800 mm): 21.5" (545 mm)
- Depth ≥ 39" (1000 mm): 29.3" (745 mm)

Detailed drawings:

Available at www.rittal.us

Height: 48 - 79" (1200 - 2000 mm), Depth: 24 - 40" (600 - 1000 mm)

	Packs of	24 U	24 U	38 U	42 U	42 U	Page
Height inches (mm)		48 (1200)	48 (1200)	71 (1800)	79 (2000)	79 (2000)	
Width inches (mm)		32 (800)	32 (800)	32 (800)	32 (800)	32 (800)	
Depth inches (mm)		32 (800)	40 (1000)	32 (800)	24 (600)	32 (800)	
Aluminum front viewing door, 180° hinges, with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	■	■	■	
Sheet steel rear door, 180° hinges, with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	–	–	–	
Sheet steel rear door, 180° hinges, vertically divided, with comfort handle for semi-cylinder and security lock 3524 E	1	–	–	■	■	■	
Depth-variable 19" (482.6 mm) rails front and rear, on depth stays with quick-release fasteners	2	■	■	■	■	■	
Multi-piece roof plate with side cable entry in the depth and covered cut-out for fan mounting plate	1	■	■	■	■ ¹⁾	■	
Part No.	RAL 7035	1	5503.120	5504.120	5505.120	5506.120	5507.120
	RAL 9005	1	5503.220	5504.220	5505.220	5506.220	5507.220

Accessories

Sidewalls, lockable	Split sidewall (top/bottom), RAL 7035 ²⁾	1	–	–	5501.000	5501.010	5501.020	79
	Split sidewall (top/bottom), RAL 9005 ²⁾	1	–	–	5501.005	5501.015	5501.025	79
Sidewalls, screw attachment	Solid sidewall, RAL 7035 ³⁾	2	8175.235	8176.235	–	–	–	79
	Solid sidewall, RAL 9005 ³⁾	2	9969.949	9969.952	–	–	–	79
Base mount	RAL 7035	2	5501.310	5501.320	5501.310	5501.300	5501.310	78
	RAL 9005	2	5501.315	5501.325	5501.315	5501.305	5501.315	78
Gland plates, modular		See from page 74						
Base/plinth		See from page 70						
Fan mounting plate for TS IT incl. thermostat	RAL 7035	1	5502.020	5502.020	5502.020	5502.010	5502.020	104
	RAL 9005	1	5502.025	5502.025	5502.025	5502.015	5502.025	104
Air baffle plate		1 set	–	–	–	5501.815	5501.815	105
Cable route		1	–	–	–	5502.120	5502.120	102
Cable duct		1	–	–	–	5502.105	5502.105	101

■ Included ¹⁾ Cable entry, rear ²⁾ Packaged as top/bottom set for one side only; order two sets to cover both sides of cabinet ³⁾ Packaged as pair; set will cover both sides of cabinet

TS IT network/server enclosure with viewing door

Height: 79 - 81" (2000 - 2200 mm), Depth: 32 - 48" (800 - 1200 mm)

	Packs of	42 U	42 U	42 U	42 U	47 U	Page
Height inches (mm)		79 (2000)	79 (2000)	79 (2000)	79 (2000)	87 (2200)	
Width inches (mm)		24 (600)	32 (800)	24 (600)	32 (800)	32 (800)	
Depth inches (mm)		40 (1000)	40 (1000)	48 (1200)	48 (1200)	32 (800)	
Aluminum front viewing door, 180° hinges, with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	■	■	■	
Sheet steel rear door, 180° hinges, vertically divided, with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	■	■	■	
Depth-variable 19" (482.6 mm) rails front and rear, on depth stays with quick-release fasteners	2	■	■	■	■	■	
Multi-piece roof plate with side cable entry in the depth and covered cut-out for fan mounting plate	1	■	■	■	■	■	
Part No.	RAL 7035	1	5508.120	5509.120	5510.120	5511.120	5512.120
	RAL 9005	1	5508.220	5509.220	5510.220	5511.220	5512.220

Accessories

Sidewalls, lockable	Split sidewall (top/bottom), RAL 7035 ¹⁾	1	5501.030	5501.030	5501.040	5501.040	5501.050	79
	Split sidewall (top/bottom), RAL 9005 ¹⁾	1	5501.035	5501.035	5501.045	5501.045	5501.055	79
Base mount	RAL 7035	2	5501.320	5501.320	5501.350	5501.350	5501.310	78
	RAL 9005	2	5501.325	5501.325	5501.355	5501.355	5501.315	78
Gland plates, modular			See from page 74					
Base/plinth			See from page 70					
Fan mounting plate for TS IT incl. thermostat	RAL 7035	1	5502.010	5502.020	5502.010	5502.020	5502.020	104
	RAL 9005	1	5502.015	5502.025	5502.015	5502.025	5502.025	104
Air baffle plate		1 set	5501.805	5501.815	5501.805	5501.815	5501.835	105
Cable route		1	5502.120	5502.120	5502.120	5502.120	5502.120	102
Cable duct		1	–	5502.105	–	5502.105	5502.145	101

■ Included ¹⁾ Packaged as top/bottom set for one side only; order two sets to cover both sides of cabinet

TS IT network/server enclosure with perforated door



Component Shelves Page 89 Slide Rails Page 91 System Chassis Page 84 Cable Guide Rings Page 99 Cable Management Panel Page 100 PDU Page 33

Material:

Carbon steel

Surface finish:

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

Color:

- Frame and enclosure panels: RAL 9005, RAL 7035
- Interior installation: RAL 9005

Protection rating:

UL/cUL

Included (not preinstalled):

- Spacers for passive cooling (4)
- Grounding provisions (1 set)
- M5 multi-tooth screws and cage nuts, conductive (50)

Load capacity of rails:

- 3372 lbs (15000 N)

Distance between rails as delivered:

29" (745 mm)

Detailed drawings:

Available at www.rittal.us

Height: 48 - 79" (1200 - 2000 mm), Depth: 40 - 48" (1000 - 1200 mm)

	PU	24 U	42 U	42 U	42 U	42 U	42 U	42 U	Page
Height inches (mm)		48 (1200)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	
Width inches (mm)		32 (800)	24 (600)	32 (800)	24 (600)	32 (800)	24 (600)	32 (800)	
Depth inches (mm)		40 (1000)	40 (1000)	40 (1000)	42 (1050)	42 (1050)	48 (1200)	48 (1200)	
Perforated ¹⁾ sheet steel front door, 180° hinges, with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	■	■	■	■	■	
Perforated ¹⁾ sheet steel rear door, 180° hinges, with comfort handle for semi-cylinder and security lock 3524 E	1	■	–	–	–	–	–	–	
Perforated ¹⁾ sheet steel rear door, 180° hinges, vertically divided, with comfort handle for semi-cylinder and security lock 3524 E	1	–	■	■	■	■	■	■	
Depth-variable 19" (482.6 mm) rails front and rear, on depth stays with quick-release fasteners	2	■	■	■	■	■	■	■	
Multi-piece roof plate with side cable entry in the depth and covered cut-out for fan mounting plate	1	■	■	■	■	■	■	■	
Part No.	RAL 7035	1	5504.110	5508.110	5509.110	–	–	5510.110	5511.110
	RAL 9005	1	5504.210	5508.210	5509.210	5521.210	5522.210	5510.210	5511.210

Accessories

Sidewalls, lockable	Split sidewall (top/bottom), RAL 7035 ²⁾	1	–	5501.030	5501.030	–	–	5501.040	5501.040	79
	Split sidewall (top/bottom), RAL 9005 ²⁾	1	–	5501.035	5501.035	5501.095	5501.095	5501.045	5501.045	79
Sidewalls, screw attachment	Solid sidewall, RAL 7035 ³⁾	2	7824.120	–	–	–	–	–	–	–
	Solid sidewall, RAL 9005 ³⁾	2	9969.952	–	–	–	–	–	–	–
Base mount	RAL 7035	2	5501.320	5501.320	5501.320	–	–	5501.350	5501.350	78
	RAL 9005	2	5501.325	5501.325	5501.325	–	–	5501.355	5501.355	78
Gland plates, modular		See from page 74								
Base/plinth		See from page 70								
Fan mounting plate for TS IT incl. thermostat	RAL 7035	1	5502.020	5502.010	5502.020	–	–	5502.010	5502.020	104
	RAL 9005	1	5502.025	5502.015	5502.025	5502.015	5502.025	5502.015	5502.025	104
Air baffle plate		1 set	–	5501.805	5501.815	5501.805	5501.815	5501.805	5501.815	105
Cable route		1	–	5502.120	5502.120	5502.120	5502.120	5502.120	5502.120	102
Cable duct		1	–	5502.105	–	–	–	5502.105	5502.105	101

■ Included ¹⁾ Vented surface area approx. 85% perforated ²⁾ Packaged as top/bottom set for one side only; order two sets to cover both sides of cabinet

³⁾ Packaged as pair; set will cover both sides of cabinet

Metric measurements for are exact, imperial measurements are rounded

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TS IT network/server enclosure with perforated door

Height: 87" (2200 mm), Depth: 40 - 48" (1000 - 1200 mm)

U	Packs of	47 U	47 U	47 U	47 U	47 U	47 U	Page
Height inches (mm)		87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	
Width inches (mm)		24 (600)	32 (800)	24 (600)	32 (800)	24 (600)	32 (800)	
Depth inches (mm)		40 (1000)	40 (1000)	42 (1050)	42 (1050)	48 (1200)	48 (1200)	
Perforated ¹⁾ sheet steel front door, 180° hinges, with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	■	■	■	■	
Perforated ¹⁾ sheet steel rear door, 180° hinges, with comfort handle for semi-cylinder and security lock 3524 E	1	■	■	■	■	■	■	
Depth-variable 19" (482.6 mm) rails front and rear, on depth stays with quick-release fasteners	2	■	■	■	■	■	■	
Multi-piece roof plate with side cable entry in the depth and covered cut-out for fan mounting plate	1	■	■	■	■	■	■	
Part No.	RAL 7035	1	5513.110	5514.110	–	–	5515.110	5516.110
	RAL 9005	1	5513.210	5514.210	5523.210	5524.210	5515.210	5516.210

Accessories									
Sidewalls, 2-part	Split sidewall (top/bottom), RAL 7035 ²⁾	1	5501.060	5501.060	–	–	5501.070	5501.070	79
	Split sidewall (top/bottom), RAL 9005 ²⁾	1	5501.065	5501.065	5501.105	5501.105	5501.075	5501.075	79
Base mount	RAL 7035	2	5501.320	5501.320	–	–	5501.350	5501.350	78
	RAL 9005	2	5501.325	5501.325	–	–	5501.355	5501.355	78
Gland plates, modular	See from page 74								
Base/plinth	See from page 70								
Fan mounting plate for TS IT incl. thermostat	RAL 7035	1	5502.010	5502.020	–	–	5502.010	5502.020	104
	RAL 9005	1	5502.015	5502.025	5502.015	5502.025	5502.015	5502.025	104
Air baffle plate	1 set	1	5501.825	5501.835	5501.805	5501.815	5501.825	5501.835	105
Cable route	1	1	5502.120	5502.120	5502.120	5502.120	5502.120	5502.120	102
Cable duct	1	1	–	5502.145	–	–	–	5502.145	101

■ Included ¹⁾ Vented surface area approx. 85% perforated ²⁾ Packaged as top/bottom set for one side only; order two sets to cover both sides of cabinet

52 U server enclosure



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External surfaces – doors and walls:

- Secure to external surfaces of frame
- Doors can be easily removed or reversed with tool-less hinge
- Door stiffener to stabilize door and provide additional mounting surfaces
- Maximum perforated area meets or exceeds server manufacturer specifications for airflow
- Ground studs on all surfaces

- External surfaces do not affect load bearing capacity – same ratings with or without panels
- Fully perforated front and split-rear door

Vertical mounting rails:

- Fully depth adjustable and maintain load capacity regardless of where the rails are positioned
- Floating installation system – vertical rails are not secured

- to frame members or lateral support channels; can be adjusted independently
- “Z” shaped, multi-fold profile – high load bearing capacity and multiple mounting surfaces
- U markings on front surfaces of each rail

Includes:

- 19” (482.6 mm) EIA rails, front and rear
- Solid roof with cable entry
- Perforated front door and

- split rear doors
- Comfort handle (8611.200 lock) front and rear
- Leveling feet
- M6 cage nuts with insertion tool (bag of 50)
- M6 mounting screw with plastic washer (bag of 100)
- 19” and 23” mounting capacity (most part numbers, see below)

Note:

- Based on the PS frame system

Height: 96” (2450 mm), Depth: 42” (1050 mm)

	Packs of	52 U	52 U	52 U	52 U	52 U	52 U
Height inches (mm)		96 (2450)	96 (2450)	96 (2450)	96 (2450)	96 (2450)	96 (2450)
Width inches (mm)		24 (600)	24 (600)	28 (700)	28 (700)	32 (800)	32 (800)
Depth inches (mm)		42 (1050)	42 (1050)	42 (1050)	42 (1050)	42 (1050)	42 (1050)
Color	RAL 7035	■	–	■	–	■	–
	RAL 9005	–	■	–	■	–	■
Part No.	1	9963.700¹⁾	9963.701¹⁾	9963.714	9963.715	9963.728	9963.729

Accessories

Sidewalls - split ²⁾	1 set	9967.976	9967.975	9967.976	9967.975	9967.976	9967.975
Caster kit	1 set	9967.483	9967.480	9967.484	9967.481	9967.485	9967.482
PS baying kit (8 brackets)	1 set	9978.414	9978.414	9978.414	9978.414	9978.414	9978.414

¹⁾ 19” capacity only ²⁾ Packaged as top/bottom set for one side only; order two sets to cover both sides of cabinet

Height: 96” (2450 mm), Depth: 48” (1200 mm)

	Packs of	52 U	52 U	52 U	52 U	52 U	52 U
Height inches (mm)		96 (2450)	96 (2450)	96 (2450)	96 (2450)	96 (2450)	96 (2450)
Width inches (mm)		24 (600)	24 (600)	28 (700)	28 (700)	32 (800)	32 (800)
Depth inches (mm)		48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)
Color	RAL 7035	■	–	■	–	■	–
	RAL 9005	–	■	–	■	–	■
Part No.	1	9963.750¹⁾	9963.751¹⁾	9963.752	9963.753	9963.762	9963.763

Accessories

Sidewalls - split ²⁾	1 set	9978.403	9967.977	9978.403	9967.977	9978.403	9967.977
Caster kit	1 set	9967.483	9967.480	9967.484	9967.481	9967.485	9967.482
PS baying kit (8 brackets)	1 set	9978.414	9978.414	9978.414	9978.414	9978.414	9978.414

¹⁾ 19” capacity only ²⁾ Packaged as top/bottom set for one side only; order two sets to cover both sides of cabinet



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Intensive physical security requirements are met with durable construction, doors with 2-point latching, internal hinges, locking handles and secure cable management – all standard features on 2, 3 and 4-door configurations.

Doors:

- Vented surface area approximately 64% perforated
- Two point latch on each

compartment for optimum security

- Can convert a multi-door cabinet into a single door version when requirements change
- TS 8 comfort handle with lock insert
- Optional individually keyed compartments available
- Can be either right hand or left hand hinged
- Internal hinges for optimum security

Color:

RAL 9005

Height: 87" (2200 mm), Depth: 42" (1050 mm)

	Packs of	2 – 22 U each	3 – 14 U each	4 – 10 U each
Height inches (mm)		87 (2200)	87 (2200)	87 (2200)
Width inches (mm)		24 (600)	24 (600)	24 (600)
Depth inches (mm)		42 (1050)	42 (1050)	42 (1050)
Part No.	1	9963.770	9963.771	9963.772

Accessories

Cable security kit	1	9962.840	9962.841	9962.842
Quick-adjust EIA rail kit	1	9962.843	9962.844	9962.845
Combination lock handle ¹⁾	1	9963.601	9963.601	9963.601
Security lock insert ¹⁾	1	2467.000	2467.000	2467.000
Pushbutton lock insert ¹⁾	1	2469.000	2469.000	2469.000

¹⁾ Handles and lock inserts sold separately

TS 8 NEMA 12/UL Type 12 network enclosure



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Our NEMA/UL Type 12 enclosures provide a high degree of protection from dirt, dust, dripping water and external condensation of non-corrosive liquids.

Doors and walls:

- Secure to external surfaces of frame
- Doors can be easily removed or reversed
- Internal door hinge and lock points for maximum security

Vertical mounting rails:

- Fully depth adjustable, maintain load capacity regardless of where the rails are positioned
- Floating installation system, vertical rails are not secured to frame members or lateral support channels; can be adjusted independently
- “Z” shaped, multi-fold profile, high load bearing capacity and multiple mounting surfaces

- U markings on front and rear surfaces of each rail
- Unique rail design allows for up to 32 U in the zero “U” space
- Each cabinet includes M6 Cage Nuts with insertion tool (bag of 50) and M6 Mounting screws with plastic washers (bag of 100)

Note:

23" mounting capacity on 32" (800 mm) wide cabinets

Supply includes:

- One set of 19" (482.6 mm) EIA rails, front & rear
- Leveling feet

Height: 48" (1200 mm), Depth: 24 - 32" (600 - 800 mm)

		Packs of	24 U	24 U	24 U	24 U	24 U	24 U
Height inches (mm)			48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)
Width inches (mm)			24 (600)	24 (600)	24 (600)	24 (600)	32 (800)	32 (800)
Depth inches (mm)			24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	32 (800)
Color	RAL 7035		■	–	■	–	■	–
	RAL 9005		–	■	–	■	–	■
Part No.	NEMA 12 viewing door, solid rear door	1	9969.876	9969.877	9969.884	9969.885	9969.886	9969.887
	UL Type 12 solid front & rear door	1	9963.487	–	9963.488	–	–	–

Accessories							
Sidewalls - full	2	8170.235	9969.948	8175.235	9969.949	8175.235	9969.949
Base/plinths 8" (200 mm) front and rear	2	8602.605	9967.491	8602.605	9967.491	8602.805	9967.492
Base/plinths 8" (200 mm) side trim	2	8602.065	–	8602.085	–	8602.085	–
Caster kit	4	9968.751	9968.751	9968.751	9968.751	9968.751	9968.751

TS 8 NEMA 12/UL Type 12 network enclosure

Height: 79 - 87" (2000 - 2200 mm), Depth: 24 - 32" (600 - 800 mm)

		Packs of	42 U	42 U	47 U	47 U	42 U	42 U	42 U	42 U
Height inches (mm)			79 (2000)	79 (2000)	87 (2200)	87 (2200)	79 (2000)	79 (2000)	79 (2000)	79 (2000)
Width inches (mm)			24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	32 (800)	32 (800)
Depth inches (mm)			24 (600)	24 (600)	24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	32 (800)
Color	RAL 7035		■	–	■	–	■	–	■	–
	RAL 9005		–	■	–	■	–	■	–	■
Part No.	NEMA 12 viewing door, solid rear door	1	9969.880	9969.881	9969.882	9969.883	9969.892	9969.893	9969.894	9969.895
	UL Type 12 solid front & rear door	1	9960.301	–	9963.492	–	9960.302	–	9960.303	–
Accessories										
Sidewalls - full		2	8106.235	9969.920	8126.235	9969.917	8108.235	9969.916	8108.235	9969.916
Base/plinths 8" (200 mm) front and rear		2	8602.605	9967.491	8602.605	9967.491	8602.605	9967.491	8602.805	9967.492
Base/plinths 8" (200 mm) side trim		2	8602.065	–	8602.065	–	8605.085	–	8602.085	–
Cable management panel		1	–	9978.360	–	9978.361	–	9978.360	–	9978.360
Caster kit		4	9968.751	9968.751	9968.751	9968.751	9968.751	9968.751	9968.751	9968.751

Height: 79 - 87" (2000 - 2200 mm), Depth: 32 - 40" (800 - 1000 mm)

		Packs of	47 U	47 U	47 U	47 U	42 U	42 U
Height inches (mm)			87 (2200)	87 (2200)	87 (2200)	87 (2200)	79 (2000)	79 (2000)
Width inches (mm)			24 (600)	24 (600)	32 (800)	32 (800)	24 (600)	32 (800)
Depth inches (mm)			32 (800)	32 (800)	32 (800)	32 (800)	40 (1000)	40 (1000)
Color	RAL 7035		■	–	■	–	■	■
	RAL 9005		–	■	–	■	–	–
Part No.	NEMA 12 viewing door, solid rear door	1	9969.896	9969.897	9969.898	9969.899	–	–
	UL Type 12 solid front & rear door	1	–	–	–	–	9963.490	9963.608
Accessories								
Sidewalls - full		2	8128.235	9969.352	8128.235	9969.352	8100.235	8100.235
Base/plinths 8" (200 mm) front and rear		2	8602.605	9967.491	8602.805	9967.492	8602.605	8602.805
Base/plinths 8" (200 mm) side trim		2	8602.085	–	8602.085	–	8602.015	8602.015
Cable management panel		1	–	9978.361	–	9978.361	–	–
Caster kit		4	9968.751	9968.751	9986.751	9986.751	9968.751	9968.751

Height: 79 - 87" (2000 - 2200 mm), Depth: 48" (1200 mm)

		Packs of	47 U	47 U	47 U	47 U
Height inches (mm)			79 (2000)	79 (2000)	87 (2200)	87 (2200)
Width inches (mm)			24 (600)	32 (800)	24 (600)	32 (800)
Depth inches (mm)			48 (1200)	48 (1200)	48 (1200)	48 (1200)
Color	RAL 7035		■	■	■	■
	RAL 9005		–	–	–	–
Part No.	NEMA 12 viewing door, solid rear door	1	–	–	–	–
	UL Type 12 solid front & rear door	1	9963.491	9963.609	9963.495	9963.498
Accessories						
Sidewalls - full		2	9969.955	9969.955	9969.957	9969.957
Base/plinths 8" (200 mm) front and rear		2	8602.605	8602.805	8602.605	8602.805
Base/plinths 8" (200 mm) side trim		2	8602.025	8602.025	8602.085	8602.025
Cable management panel		1	–	–	–	–
Caster kit		4	9968.751	9968.751	9986.751	9986.751

TS 8 switch enclosure, Cisco Nexus® 7018



Casters Page 72 **Blanking Panels** Page 107 **Shelves** Page 89 **Baying** Page 81 **Bolt Down Kit** Page 71

Based on Rittal's field-proven frame design, this enclosure captures the air, directs it to the switches and steers it to the rear via a unique duct system. These ducts can be adjusted to allow switch installation at any position. Air enters the open-front duct and is channeled through the enclosure, preventing cold air

from bypassing the IT equipment. A matching duct on the left side, open only to the rear, effectively keeps hot air from escaping into the cold aisle, directing it rearward for efficient heat dissipation. The enclosure comes with Rittal's Manage-IT cable manager system as well as a roof design that provides easy access directly

above the rails for the 768 cables available to the Cisco Nexus 7018 Switch. The unique configuration can accommodate a wide range of options and accessories. This Rittal enclosure is recognized by Cisco as meeting all its specifications and requirements for housing the Nexus 7018 Switch.

Color:
RAL 9005

Height: 79" (2000 mm), Depth: 48" (1200 mm)

	Packs of	42 U	47 U	52 U
Height inches (mm)		79 (2000)	87 (2200)	96 (2450)
Width inches (mm)		40 (1000)	40 (1000)	40 (1000)
Depth inches (mm)		48 (1200)	48 (1200)	48 (1200)
Part No.	1	9967.972	9967.973	9967.974

Includes				
19" (482.6 mm) EIA rails, front & rear	1 set	■	■	■
Solid roof with cable entry	1	■	■	■
Perforated split front and rear doors	1 set	■	■	■
Comfort handle (8611.200 lock) front & rear	2	■	■	■
9 U cable manager kit (9969.593)	8	■	■	■
Front to rear side air baffle	2	■	■	■
Leveling feet	4	■	■	■
Casters	1 set	■	■	■
M6 cage nuts with insertion tool (bag of 50)	1	■	■	■
M6 mounting screw with plastic washer (bag of 100)	4	■	■	■

Accessories				
Sidewalls - split ¹⁾	1 set	9967.464	9967.469	9967.977
Sidewalls - full	1	9969.956	9969.958	—

¹⁾ Packaged as top/bottom set for one side only; order two sets to cover both sides of cabinet.



Casters Page 72

Material:

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

Color:

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

Load capacity:

Max. 330 lbs (150 kg), static/level

Supply includes:

- Torsionally stiff profile frame with 19" (482.6 mm) hole pattern
- Stable base/plinth with integral feet, with the option for base anchoring
- Assembly parts

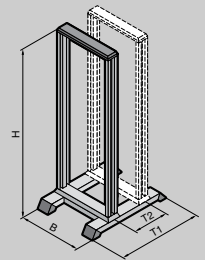
Note:

Order second mounting rails separately

Detailed drawings:

Available at www.rittal.us

Photo shows a configuration with equipment not included in the base part number



Height: 59 - 84" (1500 - 2122 mm), Depth: 30" (750 mm)

	Packs of	31	36	40	45
Height (H) inches (mm)		59 (1500)	68 (1722)	75 (1900)	84 (2122)
Width (B) inches (mm)		22 (550)	22 (550)	22 (550)	22 (550)
Depth (T1) inches (mm)		30 (750)	30 (750)	30 (750)	30 (750)
Distance from the second mounting rail inches (mm) ¹⁾		min. 6 (150) – max. 14 (350)			
Part No.	1	7391.000	7396.000	7400.000	7445.000
Accessories					
Second mounting rail ¹⁾	1	7296.000	7297.000	7298.000	7299.000
Baying clamp	3	7494.000			
Leveling feet	4	7493.000			
Cable duct, 42 U	1	7827.320			
C rails, 19" (482.6 mm)	6	7016.100			
Cable clamp strap D = 10" (250 mm)	6	7016.120			
Twin casters	4	7495.000			
Depth stays	2	7401.000			
Component shelf 2 U for one pair of mounting rails D = 10" (250 mm)	1	7119.250			
Component shelf 2 U for one pair of mounting rails D = 16" (400 mm)	1	7119.400			
Component shelf 2 U for one pair of mounting rails D = 12" (300 mm) ³⁾	1	7148.035			
Drawer 2 U for one pair of mounting rails	1	7281.035			
Component shelf D = 12" (300 mm) ^{2) 3)}	1	7143.035			
Component shelf D = 16" (400 mm) ^{2) 3)}	1	7144.035			
Component shelf D = 20" (500 mm) ^{2) 3)}	1	7145.035			
Slide rails D max. < 7" (190 mm)	10	1962.200			
Slide rails D max. > 7" (190 mm)	10	1963.200			
Slide rails for two pairs of mounting rails ^{1) 2) 4)}	2	7402.000			

¹⁾ Second mounting rail may be positioned on a 2" (50 mm) pitch pattern. ²⁾ A second pair of mounting rails is required for assembly. ³⁾ Stationary installation or full withdrawal, telescopic slides required. ⁴⁾ Distance between rails 14" (350 mm), can be combined with component shelf D = 20" (500 mm).

EL 3-part enclosure



Grounding Page 95

Material:

- Wall and hinged part: Carbon steel, 16 ga (1.5 mm)
- Viewing window: Single-pane safety glass, 3.0 mm

Surface finish:

Powder-coated

Color:

- Wall, hinged part: RAL 7035
- Viewing door: RAL 7035/7015

Protection rating:

UL listed

Supply includes:

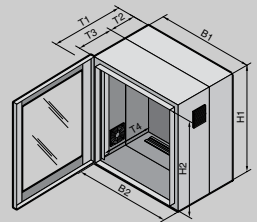
- Wall section
- Hinged middle with 25 mm hole pattern in the front and

rear frame

- Designer viewing door
- Mini comfort handle for 3 – 15 U
- Comfort handle and 2-point lock for 18 – 21 U
- Includes security lock 3524 E

Detailed drawings:

Available at www.rittal.us



Depth: 23 - 27" (573 - 673 mm), preconfigured

	Packs of	9 U	9 U	15 U	15 U	21 U	21 U
Height (H1) inches (mm)		19 (478)	19 (478)	29 (746)	29 (746)	40 (1012)	40 (1012)
Width (B1) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)
Depth (T1) inches (mm)		23 (573)	27 (673)	23 (573)	27 (673)	23 (573)	27 (673)
Clearance width (B2) inches (mm)		20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	20 (502)
Clearance height (H2) inches (mm)		16 (415)	16 (415)	27 (683)	27 (683)	37 (949)	37 (949)
Depth of wall section (T2) inches (mm)		5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	5 (135)
Depth of hinged part (T3) inches (mm)		16 (416)	20 (516)	16 (416)	20 (516)	16 (416)	20 (516)
Max. installation depth (T4) inches (mm)		20 (520)	24 (620)	20 (520)	24 (620)	20 (520)	24 (620)
Load capacity of hinged part lbs (kg, static)		99 (45)	99 (45)	165 (75)	165 (75)	165 (75)	165 (75)
Part No.	1	7709.735	7709.535	7715.735	7715.535	7721.735	7721.535

Product-specific configuration

Wall section:	Gland plate, solid, top	1	■	■	■	■	■	■
	Gland plate with brush insert, bottom	1	■	■	■	■	■	■
	Vertical system bars	2	■	■	■	■	■	■
	Horizontal C rail	1	■	■	■	■	■	■
Hinged part:	19" (482.6 mm) mounting rails, fully depth adjustable	2	■	■	■	■	■	■
	Side outlet filters left and right	2	■	■	■	■	■	■
	Ground rail with star grounding	1 set	■	■	■	■	■	■
	Wall mounting bracket, 0.39" (10 mm)	4	■	■	■	■	■	■

Accessories

Gland plate for metric cable glands	1	7705.235	7705.235	7705.235	7705.235	7705.235	7705.235
Fan expansion kit, 230 V	1	7980.100	7980.100	7980.100	7980.100	7980.100	7980.100
Spare filter mats	5	3322.700	3322.700	3322.700	3322.700	3322.700	3322.700
Wall mounting bracket, 1.57" (40 mm)	4	–	–	2503.200	–	2503.200	–
Component shelf, 2 U, static installation or fully extendible	1	7148.035	7148.035	7148.035	7148.035	7148.035	7148.035
Component shelf, 2 U, static installation, 9.8" (250 mm) deep	1	7119.250	7119.250	7119.250	7119.250	7119.250	7119.250
Cable mgt. panel, 1 U, 5 cable cable guide rings 1.57 x 1.97" (40 x 50 mm)	1	7257.200	7257.200	7257.200	7257.200	7257.200	7257.200

EL 3-part NEMA 12 enclosure



Grounding Page 95

Material:

- Wall, hinged part: Carbon steel, 16 ga (1.5 mm)
- Viewing window: Single-pane safety glass, 3.0 mm

Surface finish:

Powder-coated

Color:

- Wall, hinged part: RAL 7035
- Viewing door: RAL 7035/7015

Protection rating:

NEMA 12 (IP 55 to IEC 60 529);
UL listed

Supply includes:

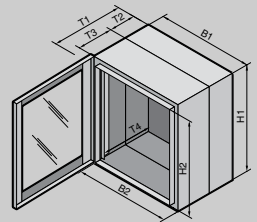
- Wall section
- Hinged part with 25 mm

hole pattern in front
and rear frame

- Designer viewing door
- Mini comfort handle for 3 – 15 U
- Comfort handle and 2-point lock for 18 – 21 U
- Includes security lock 3524 E

Detailed drawings:

Available at www.rittal.us



Depth: 19" (473 mm), with punched rails

	Packs of	6 U	9 U	12 U	15 U	18 U	21 U
Height (H1) inches (mm)		14 (345)	19 (478)	24 (612)	29 (746)	35 (878)	40 (1012)
Width (B1) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)
Depth (T1) inches (mm)		19 (473)	19 (473)	19 (473)	19 (473)	19 (473)	19 (473)
Clearance width (B2) inches (mm)		20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	20 (502)
Clearance height (H2) inches (mm)		11 (282)	16 (415)	22 (549)	27 (683)	32 (815)	37 (949)
Depth of wall section (T2) inches (mm)		5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	5 (135)
Depth of hinged part (T3) inches (mm)		12 (316)	12 (316)	12 (316)	12 (316)	12 (316)	12 (316)
Max. installation depth (T4) inches (mm)		17 (420)	17 (420)	17 (420)	17 (420)	17 (420)	17 (420)
Load capacity of hinged part lbs (kg, static)		66 (30)	99 (45)	132 (60)	165 (75)	165 (75)	165 (75)
Part No.	1	7706.135	7709.135	7712.135	7715.135	7718.135	7721.135

Product-specific configuration

Wall section:	Gland plate, solid, top and bottom	2	■	■	■	■	■	■
	Vertical punched rails	2	■	■	■	■	■	■
	Horizontal C rail for cable clamping	1	■	■	■	■	■	■
Hinged part: 19" (482.6 mm) mounting rails, fully depth adjustable		2	■	■	■	■	■	■
Wall mounting bracket, 0.39" (10 mm)		4	■	■	■	■	■	■

Accessories

Gland plate with brush insert	1	7705.035	7705.035	7705.035	7705.035	7705.035	7705.035
Gland plate for metric cable glands	1	7705.235	7705.235	7705.235	7705.235	7705.235	7705.235
Wall mounting bracket, 1.57" (40 mm)	4	2503.200	2503.200	2503.200	2503.200	2503.200	2503.200
Ground rail, horizontal	1	7113.000	7113.000	7113.000	7113.000	7113.000	7113.000
Component shelf, 2 U, static installation and fully extendible	1	7148.035	7148.035	7148.035	7148.035	7148.035	7148.035
Component shelf, 2 U, static installation, 9.8" (250 mm) deep	1	7119.250	7119.250	7119.250	7119.250	7119.250	7119.250
Component shelf, 1 U, static installation, 5.5" (140 mm) deep	1	7119.140	7119.140	7119.140	7119.140	7119.140	7119.140
Cable mgt. panel, 1 U, 5 cable cable guide rings 1.57 x 1.97" (40 x 50 mm)	1	7257.200	7257.200	7257.200	7257.200	7257.200	7257.200

EL 3-part NEMA 12 enclosure

Depth: 24" (600 mm), with punched rails

	Packs of	12 U	15 U	21 U
Height (H1) inches (mm)		24 (612)	29 (746)	40 (1012)
Width (B1) inches (mm)		24 (600)	24 (600)	24 (600)
Depth (T1) inches (mm)		24 (600)	24 (600)	24 (600)
Clearance width (B2) inches (mm)		20 (502)	20 (502)	20 (502)
Clearance height (H2) inches (mm)		22 (549)	27 (683)	37 (949)
Depth of wall section (T2) inches (mm)		5 (135)	5 (135)	5 (135)
Depth of hinged part (T3) inches (mm)		18 (445)	18 (445)	18 (445)
Max. installation depth (T4) inches (mm)		21 (530)	21 (530)	21 (530)
Load capacity of hinged part lbs (kg, static)		132 (60)	165 (75)	165 (75)
Part No.	1	9969.580¹⁾	9969.581¹⁾	9969.582¹⁾

Product-specific configuration

Wall section:	Gland plate, solid, top and bottom	2	■	■	■
	Vertical punched rails	2	■	■	■
	Horizontal C rail for cable clamping	1	■	■	■
Hinged part: 19" (482.6 mm) mounting rails, fully depth adjustable		2	■	■	■
Wall mounting bracket, 0.39" (10 mm)		4	■	■	■

Accessories

Gland plate with brush insert	1	7705.035	7705.035	7705.035
Gland plate for metric cable glands	1	7705.235	7705.235	7705.235
Wall mounting bracket, 1.57" (40 mm)	4	2503.200	2503.200	2503.200
Ground rail, horizontal	1	7113.000	7113.000	7113.000
Component shelf, 2 U, static installation and fully extendible	1	7148.035	7148.035	7148.035
Component shelf, 2 U, static installation, 9.8" (250 mm) deep	1	7119.250	7119.250	7119.250
Component shelf, 1 U, static installation, 5.5" (140 mm) deep	1	7119.140	7119.140	7119.140
Cable mgt. panel, 1 U, 5 cable cable guide rings 1.57 x 1.97" (40 x 50 mm)	1	7257.200	7257.200	7257.200

¹⁾ Not UL listed

EL 3-part NEMA 12 enclosure

Depth: 15" (373 mm), with mounting panel

	Packs of	3 U	6 U	9 U	12 U	15 U	18 U	21 U
Height (H1) inches (mm)		8 (212)	14 (345)	19 (478)	24 (612)	29 (746)	35 (878)	40 (1012)
Width (B1) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)
Depth (T1) inches (mm)		15 (373)	15 (373)	15 (373)	15 (373)	15 (373)	15 (373)	15 (373)
Clearance width (B2) inches (mm)		20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	20 (502)
Clearance height (H2) inches (mm)		6 (149)	11 (282)	16 (415)	22 (549)	27 (683)	32 (815)	37 (949)
Depth of wall section (T2) inches (mm)		5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	5 (135)
Depth of hinged part (T3) inches (mm)		9 (216)	9 (216)	9 (216)	9 (216)	9 (216)	9 (216)	9 (216)
Max. installation depth (T4) inches (mm)		13 (320)	13 (320)	13 (320)	13 (320)	13 (320)	13 (320)	13 (320)
Width of mounting panel (B3) inches (mm)		19 (485)	19 (485)	19 (485)	19 (485)	19 (485)	19 (485)	19 (485)
Height of mounting panel (H3) inches (mm)		7 (165)	12 (299)	17 (432)	22 (565)	28 (699)	33 (832)	38 (965)
Load capacity of hinged part lbs (kg, static)		33 (15)	66 (30)	99 (45)	132 (60)	165 (75)	165 (75)	165 (75)
Part No.	1	2243.605	2246.605	2249.605	2252.605	2255.605	2258.605	2261.605

Product-specific configuration

Wall section:	Gland plate, solid, top and bottom	2	■	■	■	■	■	■
	Mounting panel supplied loose	1	■	■	■	■	■	■
Hinged part:	19" (482.6 mm) mounting rails	2	■	■	■	■	■	■

Accessories

Wall mounting bracket, 0.39" (10 mm)	4	2508.200
Wall mounting bracket, 1.57" (40 mm)	4	2503.200
Gland plate with brush insert	1	7705.035
Gland plate for metric cable glands	1	7705.235
C rails	4	2238.000
Blanking panels, 19" (482.6 mm)	3	see page 107

EL 3-part NEMA 12 enclosure

Depth: 19" (473 mm), with mounting panel

	Packs of	3 U	6 U	9 U	12 U	15 U	18 U	21 U
Height (H1) inches (mm)		8 (212)	14 (345)	19 (478)	24 (612)	29 (746)	35 (878)	40 (1012)
Width (B1) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)
Depth (T1) inches (mm)		19 (473)	19 (473)	19 (473)	19 (473)	19 (473)	19 (473)	19 (473)
Clearance width (B2) inches (mm)		20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	20 (502)	20 (502)
Clearance height (H2) inches (mm)		6 (149)	11 (282)	16 (415)	22 (549)	27 (683)	32 (815)	37 (949)
Depth of wall section (T2) inches (mm)		5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	5 (135)	5 (135)
Depth of hinged part (T3) inches (mm)		13 (316)	13 (316)	13 (316)	13 (316)	13 (316)	13 (316)	13 (316)
Max. installation depth (T4) inches (mm)		17 (420)	17 (420)	17 (420)	17 (420)	17 (420)	17 (420)	17 (420)
Width of mounting panel (B3) inches (mm)		19 (485)	19 (485)	19 (485)	19 (485)	19 (485)	19 (485)	19 (485)
Height of mounting panel (H3) inches (mm)		7 (165)	12 (299)	17 (432)	22 (565)	28 (699)	33 (832)	38 (965)
Load capacity of hinged part lbs (kg, static)		33 (15)	66 (30)	99 (45)	132 (60)	165 (75)	165 (75)	165 (75)
Part No.	1	2253.605	2256.605	2259.605	2262.605	2265.605	2268.605	2271.605

Product-specific configuration

Wall section:	Gland plate, solid, top and bottom	2	■	■	■	■	■	■
	Mounting panel supplied loose	1	■	■	■	■	■	■
Hinged part:	19" (482.6 mm) mounting rails	2	■	■	■	■	■	■

Accessories

Wall mounting bracket, 0.39" (10 mm)	4	2508.200
Wall mounting bracket, 1.57" (40 mm)	4	2503.200
Gland plate with brush insert	1	7705.035
Gland plate for metric cable glands	1	7705.235
Slide Rails	10	2250.000
C rails	4	2238.000
Blanking panels, 19" (482.6 mm)	3	see page 107



Grounding Page 95

Material:

- Enclosure: Carbon steel, 16 ga (1.5 mm)
- Swing frame: carbon steel
- Front door: Extruded aluminum section, acrylic glazing, 3.0 mm

Surface finish:

- Enclosure and swing frame: Primed and powder-coated
- Front door: Anodized

Color:

- Enclosure and swing frame: RAL 7035
- Front door: Silver

Protection rating:

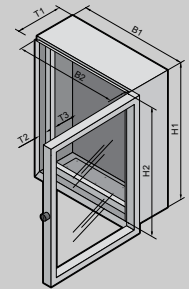
IP 55 to IEC 60 529, UL listed

Supply includes:

- Enclosure
- Front door
- Swing frame, 19" (482.6 mm) fitted
- Assembly parts

Detailed drawings:

Available at www.rittal.us



Depth: 15" (369 mm), with swing frame

	Packs of	6 U	11 U	14 U
Height (H1) inches (mm)		15 (380)	24 (600)	30 (760)
Width (B1) inches (mm)		24 (600)	24 (600)	24 (600)
Depth (T1) inches (mm)		15 (369)	15 (369)	15 (369)
Clearance width (B2) inches (mm)		21 (537)	21 (537)	21 (537)
Clearance height (H2) inches (mm)		12 (317)	21 (537)	27 (697)
Distance from viewing door to swing frame (T2) inches (mm)		3 – 4 (67 – 97)	3 – 4 (67 – 97)	3 – 4 (67 – 97)
Maximum installation depth (T3) inches (mm)		11 (270)	11 (270)	11 (270)
Part No.	1	1919.500	1920.500	1926.500

Accessories

Wall mounting bracket, 0.39" (10 mm)		2508.200
Wall mounting bracket, 1.57" (40 mm)		2503.200
Gland plates for metric cable glands		2563.010
Blanking panels, 19" (482.6 mm)		see page 107
Cable management panel, 19" (482.6 mm), 1 U, 5 cable guide rings 1.57 x 1.97" (40 x 50 mm)		7257.200

Standard swing frame with double-bit lock insert may be exchanged for 27 mm lock inserts, type A.

AE enclosure with 19" (482.6 mm) mounting rails



Captive Nuts Page 87

Material:

Enclosure: Carbon steel

Surface finish:

- Enclosure: Powder-coated
- Mounting rails: Zinc-plated

Color:

RAL 7035

Supply includes:

- Enclosure with hinged door
- Interchangeable door hinge
- Cam lock and double-bit insert
- Gland plate with brush strip for cable entry in the enclosure base

- Part number specific configuration, see table

Protection rating:

IP 55 to IEC 60 529
UL
CSA

With 19" (482.6 mm) mounting rails

	Packs of	8 U	13 U	16 U
Height inches (mm)		15 (380)	24 (600)	30 (760)
Width inches (mm)		24 (600)	24 (600)	24 (600)
Depth inches (mm)		14 (350)	14 (350)	14 (350)
Max. installation depth inches (mm)		12 (310)	12 (310)	12 (310)
Protection rating with gland plate for cable gland		IP 55 to IEC 60 529		
Mounting rails, 19" (482.6 mm), fully depth adjustable	2	■	■	■
C rail, for cable clamping on the rear panel	1	■	■	■
Metal bracket for optional accommodation of a ground rail or 19" (482.6 mm) socket strip	1	■	■	■
Cam locks	4	■ 1 x	■ 2 x	■ 2 x
Part No.	1	7641.000	7643.000	7645.000

Accessories

Gland plates in various versions	Size	5		5
	Qty.	1		1
Wall mounting bracket, 0.39" (10 mm)	4	2508.200		
Wall mounting bracket, 1.57" (40 mm)	4	2503.200		
Wall mounting bracket for external mounting	4	2508.100		
Viewing door, 1.3" (34 mm) profile depth	1	2730.000	2731.000	2732.000
Viewing door, 2.4" (60 mm) profile depth	1	2761.000		
Component shelf 2 U, static installation, 10" (250 mm) deep	1	7119.250		
Ground rail	1	7113.000		

AE enclosure with 19" (482.6 mm) pull-out frame



Captive Nuts Page 87

Material:

- Enclosure: Carbon steel
- Viewing window: Single-pane safety glass, 0.12" (3.0 mm)

Surface finish:

- Enclosure: Powder-coated
- Pull-out frame: Stainless steel

Color:

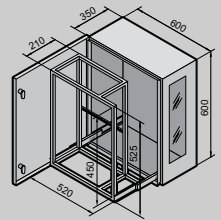
RAL 7035

Protection rating:

IP 54 to IEC 60 529

Supply includes:

- Enclosure with hinged door
- Cam lock and double-bit insert
- Gland plate with brush strip for cable entry in the enclosure base



With 19" (482.6 mm) pull-out frame

Height inches (mm)	Packs of	24 (600)
Width inches (mm)		24 (600)
Depth inches (mm)		14 (350)
L/h door hinge		■
Cam locks		2
Side installation, vertical		4 U
Front installation, vertical and horizontal		10 U
Protection rating with gland plate for cable gland		IP 54 to IEC 60 529
Pull-out frame attached to telescopic slides	1	■
Outlet filter in enclosure base and on left-hand side	2	■
Viewing window on right-hand side	1	■
Cable clamp rail on rear wall	1	■
Additional cable clamp rail for mounting on the pull-out frame		■
Part No.	1	7644.000

Accessories

	Size		5
	Qty.		1
Choice of gland plates			
Wall mounting bracket, 0.39" (10 mm)	4		2508.200
Wall mounting bracket for external mounting	4		2508.100
Wall mounting bracket, 1.57" (40 mm)	4		2503.200
Shelf	1		7644.400 ¹⁾
Component shelf, 1 U, 6" (140 mm) deep	1		7119.140
Ground rail, horizontal	1		7113.000
Fan expansion kit 230 V AC (only for use at the bottom)	1 set		7980.100
Fan expansion kit 48 V DC (only for use at the bottom)	1 set		7980.148
Spare filter mats	5		3322.700

¹⁾ Extended delivery times.

UPS – Power Modular Concept



Battery Packs Page 29

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

Supply includes:

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

Technical information:

Available at www.rittal.us

Photo shows a configuration with equipment not included in the base part number

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

UPS		UPS with integral internal hot swap-compatible batteries					
Part No.		9978.416	9978.417	9978.418	7857.430	7857.431	7857.432
Width x height		19" x 2 U (440 mm x 88 mm)					
Depth inches (mm)		16 (405)	26 (650)	26 (650)	16 (405)	26 (650)	26 (650)
Weight lbs (kg)		34.6 (15.7)	64 (29)	64 (29)	34.6 (15.7)	64 (29)	64 (29)
Power	VA	1000	2000	3000	1000	2000	3000
	Watts	800	1600	2400	800	1600	2400
	Max. heat loss (W)	105	210	252	105	210	252
Input	Rated voltage	110 V (60 – 144 V)			230 V (160 – 288 V)		
	Frequency	50/60 Hz ±5%					
	Power factor	> 0.99 with linear load					
Output	Voltage	110 V ≤ ±1% (100/110/115/120/127 V adjustable)			230 V ≤ ±1% (200/208/220/230/240 V adjustable)		
	Frequency, synchronised	±1 Hz					
	Efficiency, AC mode	85%	85%	88%	88%	88%	90%
	Power factor	0.8					
Battery 5 years EUROBAT	Autonomy at 100% load	≥ 7 min.	≥ 7 min.	≥ 5 min.	≥ 7 min.	≥ 7 min.	≥ 5 min.
Communication	Interface	1 x USB, 1 x RS232					
	SNMP	Optional network monitoring card 7857.420/relay card 7857.410					
	Operating systems supported	Windows, Unix, Linux, Novell, Apple					
	Emergency Power Off (EPO)	Included					
Connection	Input connection	110 V, 10 A C14		110 V, 16 A C20	230 V, 10 A C14		230 V, 16 A C20
	Output connection	110 V, 6 x 5-15R	110 V, 2 x 5-15R, 2 x 5-20R	110 V, 4 x 5-15R, 1 x L5-30R	230 V, 6 x 10 A, C13, 2 units switched		230 V, 4 x 10 A, C13, 2 units switched, 1 x 16 A, C19
Standards and certifications	Power	IEC/EN 62 040-3					
	EMC	EN 50 091-2/EN 62 040-2 class A, EN 61 000-4-2/-3/-4/-6-8/-11, EN 61 000-3-2/-3					
	Labelling	UL, cUL, FCC			CE, FCC		
Accessories							
Battery pack PMC 12		see page 29					

Battery packs

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

Material:

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

Supply includes:

- Fully preassembled and populated with accumulators (12 V/7 Ah)
- 20" (500 mm) connection cable with connector
- Feet

Note:

For mounting in the 19" (482.6 mm) rack, a slide rail 7063.883 is required.

Battery packs:

UPS PMC 12 system (UL, cUL, FCC)	9978.416	9978.417	9978.418
UPS PMC 12 system (CE, FCC)	7857.430	7857.431	7857.432
Part No. (UL)	9979.457	9979.458	9979.458
Part No. (CE)	7857.435	7857.437	7857.437
Height U (mm)	2 U (89)	2 U (89)	2 U (89)
Width inches (mm)	18 (465)	18 (465)	18 (465)
Depth inches (mm)	26 (650)	26 (650)	26 (650)
Weight lbs (kg)	44 (20)	44 (20)	44 (20)
Qty.	6	6	6

Autonomy (min.) at 100% load:

UPS type	In supplied state	Battery packs	
		1	2
1 kVA	7 min.	28 min.	55 min.
2 kVA	7 min.	17 min.	29 min.
3 kVA	5 min.	12 min.	20 min.

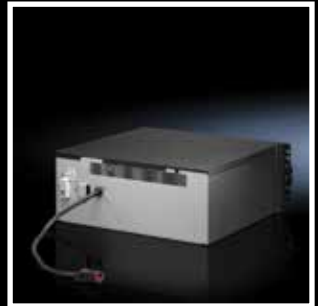
Mechanical maintenance bypass for PMC 12

Facilitates uninterrupted removal/maintenance of the UPS. Connection of the bypass for 1 – 3 kVA UPS models is via a connector (Plug & Play). It is important to ensure the correct prefuse of the UPS bypass depending on the UPS power used.

Dimensions:

W x H x D – U/inch (mm):
– 2 U x 19 x 3 (88 x 465 x 80)

	Part No.
1 – 3 kVA (incl. UPS fuse 16 A)	7857.440



UPS – Power Modular Concept

Accessories



Relay card for PMC 12

This card allows the UPS alarm messages (5 UPS alarms) to be forwarded to external indicator devices (e.g. building services management) via floating contacts. The card is plugged into the extension slot on the rear of the PMC 12 UPS.

Note:

Cannot be used together with the SNMP card.

Packs of	Part No.
1	7857.410



UPS monitoring card (SNMP card)

This optional monitoring card facilitates monitoring of the UPS via Web browsers. In this way, various monitoring states of the UPS (e.g. input voltage, output currents/power per phase, battery charging status, autonomies etc.) may be remotely monitored. However, the main application is a controlled server shutdown via the network interface.

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

Note:

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



Extended Battery Module Page 32 Rack Power Module Page 32

Designed specifically for high-density computing environments, the modular UPS delivers 12 kW of efficient, reliable power in only 6 U of rack space, including batteries. Expand capacity by combining 12 kW modules in a building block fashion to deliver 60 kW of redundant backup power from a single rack enclosure.

The standard internal batteries provide needed ride-through power until an auxiliary power source takes over or systems are gracefully shut down. Extend runtime up to 34 minutes at full load (or 76 minutes at half load) with Extended Battery Modules (see page 32).

Features

- Conserves rack space with 12 kW of power in 6U of rack height, including batteries
- Enables building-block upgrades from 12 kW to 60 kW in a single rack enclosure
- Simplifies installation and service with true plug-and-power connections and hot-swappable

- batteries and electronics modules
- Increases battery life through ABM® technology, resulting in more uptime and fewer battery replacements

Version	Stand Alone	Modular
Height U (mm)	6 U (267)	6 U (267)
Width inches (mm)	17 (442)	17 (442)
Depth inches (mm)	26 (660)	26 (660)
Weight lbs (kg)	307 (140)	307 (140)
Part No.	9971.057	9971.056
Capacity	12 kW	
Efficiency	Up to 97%	
Heat Dissipation	371W at 100%	
Input Voltage	208 Vac	
Voltage Range	180 to 265 Vac	
Frequency Range	50 or 60 Hz ± 5 Hz	
Input Requirements	Three-phase, four wire + ground	
Rated Output Voltage	208V model: 180 to 225 Vac, Ph to Ph	
Certifications	UL 1778, cUL	
Accessories		
Top Entry Bus Bar	–	9963.616
Bottom Entry Bus Bar	–	9963.617
Universal Wireway	–	9963.618
Rittal Rack Power Module (RPM)	9961.453	
SNMP Card	9970.882	
Extended Battery Modules (Max of 4 per UPS module)	9971.058	

Three phase modular UPS

Accessories



Extended Battery Module, 3 U

Connect to UPS using Anderson Connector. Up to four units can be connected together to extend runtime.

Packs of	Part No.
1	9971.058

Color:
RAL 9005

Modular UPS Typical Battery Runtime (In Minutes)

Single Module		Internal Battery	+ 1 EBMs	+ 2 EBMs	+ 3 EBMs	+ 4 EBMs
Load kW	Load %					
1.6	13%	55	118	183	253	329
2.4	20%	37	78.3	119	163	211
4	33%	23	46	69	94	120
6	50%	13	30	44	59	76
8	67%	9	21	32	43	54
9.6	80%	6.9	17	26	34	44
12	100%	4.8	12	20	27	34

Modular UPS Typical Battery Runtime (Parallel UPS, In Minutes)

Number of UPS Modules	Total Load kW	Configuration	Internal Battery	+ 1 EBMs	+ 2 EBMs	+ 3 EBMs	+ 4 EBMs
6	60	N+1	6	15	22	29	37
5	48	N+1	6.9	17	26	34	44
4	36	N+1	18	28	37	47	47
3	24	N+1	9	21	32	43	54
2	12	N+1	13	30	44	59	76



Rack Power Module, 3 U

Delivers output power of the modular UPS with configurable input connections, output receptacle plates, metering choices, and surge suppression.

Packs of	Part No.
1	9961.453

Color:
RAL 9005

Product selection:

- Choose from one of four input connectors
- Select a power cord
- Choose two output receptacle plates from the table below

Output Receptacle	Voltage	Connector Amps	Output Amps	Max kW Output Per Receptacle	Receptacles Per Plate
NEMA L21-20R	208	20	16	5.8	2
NEMA L21-30R	208	30	24	8.6	2
NEMA L6-15R	208	15	12	2.5	3
NEMA L6-20R	208	20	16	3.3	3
NEMA L6-30R	208	30	24	5.0	3
NEMA 5-15R	120	15	12	1.4	6
NEMA 5-20R	120	20	16	1.9	6
NEMA L14-20R	208	20	16	3.3	3
NEMA L14-30R	208	30	24	5.0	3
IEC320-C13 ¹⁾	208	15	12	2.5	12
IEC320-C19 ²⁾	208	20	16	3.3	6

¹⁾ Four C13 receptacles installed on each 15A breaker. Total capacity of each breaker is 2.5 kW. Do not exceed maximum breaker rating when powering multiple loads.

²⁾ Two C19 receptacles installed on each 20A breaker. Total capacity of each breaker is 3.3 kW. Do not exceed maximum breaker rating when powering multiple loads.



Button Mount Bracket Page 39

- Reliable power distribution for equipment racks and other data center applications by offering different input and output connections to distribute 110V or 208V power and 20 or 30 Amp power input feed
- Criteria for Branch Circuit Protection is met by the use of UL-listed fuses or breakers, with 30 Amp models featuring a combination of white and black outlets to easily distinguish between each branch circuit

Voltage	Amps	Receptacles	No. of receptacles	Plug	Over current protection	Orientation	H x W x D inches (mm)	Part No.
120V	20	5-20	12	C20	–	1 U	1.75 x 17 x 2.25 (44 x 482 x 57)	9970.843¹⁾
120V	20	5-20	24	C20	–	0 U	31.25 x 1.75 x 2.25 (794 x 44 x 57)	9970.847¹⁾
120V	30	5-20	12	L5-30	Fuse	1 U	1.75 x 17 x 2.25 (44 x 482 x 57)	9970.844
120V	30	5-20	24	L5-30	Fuse	0 U	31.25 x 1.75 x 2.25 (794 x 44 x 57)	9970.848
208V	20	C13	12	C20	–	1 U	1.75 x 17 x 2.25 (44 x 482 x 57)	9970.845¹⁾
208V	20	C13	24	C20	Breaker	0 U	34 x 1.75 x 3.5 (864 x 44 x 89)	9978.440¹⁾
208V	30	C13	12	L6-30	Fuse	1 U	1.75 x 17 x 2.25 (44 x 482 x 57)	9970.846
208V	30	C13	24	L6-30	Breaker	0 U	34 x 1.75 x 3.5 (864 x 44 x 89)	9978.441

¹⁾ Input power cord sold separately, see page 39.

Metered PDU



Button Mount Bracket Page 39

- Reliable power distribution for all the devices in your equipment cabinet, from 2,000 to 6,000 Watts
- Metered units are available in 20 or 30 Amps, 120 or 208 Volts single-phase
- Local input current monitoring allows the installation engineer to verify the combined load on the circuit

Voltage	Amps	Receptacles	No. of receptacles	Plug	Over current protection	Orientation	H x W x D inches (mm)	Part No.
120V	20	5-20	10	C20	–	1 U	1.75 x 17 x 5 (44 x 432 x 127)	9963.678¹⁾
120V	20	5-20	12	C20	Fuse	0 U	31.25 x 1.75 x 2.25 (794 x 44 x 57)	9963.670¹⁾
120V	20	5-20	24	C20	Fuse	0 U	54 x 1.75 x 2.25 (1372 x 44 x 57)	9963.674¹⁾
120V	30	5-20	10	L5-30	Fuse	1 U	1.75 x 17 x 5 (44 x 432 x 127)	9963.679
120V	30	5-20	12	L5-30	Fuse	0 U	31.25 x 1.75 x 2.25 (794 x 44 x 57)	9963.671
120V	30	5-20	24	L5-30	Fuse	0 U	54 x 1.75 x 2.25 (1372 x 44 x 57)	9963.675
208V	20	C13	12	C20	–	1 U	1.75 x 17 x 5 (44 x 432 x 127)	9963.680¹⁾
208V	20	C13	12	C20	Fuse	0 U	31.25 x 1.75 x 2.25 (794 x 44 x 57)	9963.672¹⁾
208V	20	C13, C19	24, 6	C20	Breaker	0 U	54.1 x 1.75 x 3.38 (1374 x 44 x 86)	9978.442¹⁾
208V	30	C13	12	L6-30	Fuse	1 U	1.75 x 17 x 5 (44 x 432 x 127)	9963.681
208V	30	C13	24	L6-30	Fuse	1 U	1.75 x 17 x 5 (44 x 432 x 127)	9978.444
208V	30	C13	12	L6-30	Fuse	0 U	31.25 x 1.75 x 2.25 (794 x 44 x 57)	9963.673
208V	30	C13, C19	24, 6	L6-30	Breaker	0 U	54.1 x 1.75 x 3.38 (1374 x 44 x 86)	9978.443

¹⁾ Input power cord sold separately, see page 39.



Button Mount Bracket Page 39

- Reliable power distribution combined with remote power and environmental monitoring for 4,000 to 20,000 Watts
- Available in 20, 30, 50, or 60 Amps, 120 or 208 Volts single-phase, 208 Volts three-phase
- Use the network interface to view power, temperature and humidity levels via a web browser, or receive SNMP-based alarms when conditions exceed defined thresholds
- PIPS PDUs provide power monitoring per inlet/infeed and includes current, voltage, power, apparent power, crest factor, reactance, power factor and accumulated energy
- Replaces branch circuit monitoring devices typically installed in the power distribution panel or remote power panel (RPP) with higher accuracy and lower cost monitoring of each circuit attached to the PDU

Voltage	Amps	Receptacles	No. of receptacles	Plug	Over current protection	Orientation	H x W x D inches (mm)	Master/Expansion	Part No.
208V	20	C13, C19	24, 6	C20	Breaker	0 U	60 x 1.75 x 3.38 (1524 x 44 x 86)	Master	9978.446¹⁾ 2)
208V	20	C13, C19	24, 6	C20	Breaker	0 U	60 x 1.75 x 3.38 (1524 x 44 x 86)	Expansion	9978.445¹⁾ 2)
208V	30	C13, C19	24, 6	L6-30	Breaker	0 U	60 x 1.75 x 3.38 (1524 x 44 x 86)	Master	9978.448¹⁾
208V	30	C13, C19	24, 6	L6-30	Breaker	0 U	60 x 1.75 x 3.38 (1524 x 44 x 86)	Expansion	9978.447¹⁾
208 3P Delta	30	C13	24	L15-30	Fuse	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9971.104¹⁾
208 3P Delta	30	C13	24	L15-30	Fuse	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9971.105¹⁾
208 3P Delta	50	C13, C19	12, 12	Cord set	Breaker	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9978.450
208 3P Delta	50	C13, C19	12, 12	Cord set	Breaker	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9978.449
208V 3P Delta	50	L6-30	6	Cord set	Breaker	2 U	3.5 x 17 x 10 (89 x 432 x 254)	Master	9978.452
208V 3P Delta	50	L6-30	6	Cord set	Breaker	2 U	3.5 x 17 x 10 (89 x 432 x 254)	Expansion	9978.451
208V 3P Delta	60	L6-30	6	Cord set	Breaker	2 U	3.5 x 17 x 10 (89 x 432 x 254)	Master	9978.459
208V 3P Delta	60	L6-30	6	Cord set	Breaker	2 U	3.5 x 17 x 10 (89 x 432 x 254)	Expansion	9978.457
208 3P Delta	60	C13, C19	12, 12	Cord set	Breaker	0 U	69 x 1.75 x 3.5 (1524 x 44 x 89)	Master	9978.455
208 3P Delta	60	C13, C19	12, 12	Cord set	Breaker	0 U	69 x 1.75 x 3.5 (1524 x 44 x 89)	Expansion	9978.453
208 3P Wye	20	5-20, C13, C19	12, 9, 9	L21-20	Breaker	0 U	68 x 2 x 3.23 (1728 x 51 x 82)	Master	9971.112

¹⁾ Includes PIPS ²⁾ Input power cord sold separately, see page 39.

Smart PDU (cont.)

Voltage	Amps	Receptacles	No. of receptacles	Plug	Over current protection	Orientation	H x W x H inches (mm)	Master/Expansion	Part No.
208 3P Wye	20	5-20, C13, C19	12, 9, 9	L21-20	Breaker	0 U	68 x 2 x 3.23 (1728 x 51 x 82)	Expansion	9971.113
208 3P Wye	30	5-20, C13, C19	12, 9, 9	L21-30	Breaker	0 U	68 x 2 x 3.23 (1728 x 51 x 82)	Master	9971.110
208 3P Wye	30	5-20, C13, C19	12, 9, 9	L21-30	Breaker	0 U	68 x 2 x 3.23 (1728 x 51 x 82)	Expansion	9971.111
208 3P Wye	30	C13	24	L21-30	Fuse	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9971.106
208 3P Wye	30	C13	24	L21-30	Fuse	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9971.107
208 3P Wye	60	C13, C19	12, 12	Cord set	Breaker	0 U	69 x 1.75 x 3.5 (1524 x 44 x 89)	Master	9978.456
208 3P Wye	60	C13, C19	12, 12	Cord set	Breaker	0 U	69 x 1.75 x 3.5 (1524 x 44 x 89)	Expansion	9978.454
208 3P Wye	60	L6-30	6	Cord set	Breaker	2 U	3.5 x 17 x 10 (89 x 432 x 254)	Master	9978.460
208 3P Wye	60	L6-30	6	Cord set	Breaker	2 U	3.5 x 17 x 10 (89 x 432 x 254)	Expansion	9978.458
415	20	C13	24	IEC Red 6Hr 3P+N+G	Fuse	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9978.462
415	20	C13	24	IEC Red 6Hr 3P+N+G	Fuse	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9978.461
415	30	C13	24	L22-30	Fuse	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9978.464
415	30	C13	24	L22-30	Fuse	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9978.463



- Switched PDU provide remote monitoring and management, including reboot commands for connected servers and network equipment
- Complete lights-out management of a data center and remote branch office
- Combine remote configuration and management with power distribution and power and environmental monitoring
- Includes ability to reboot a single or dual-power server with one command, receive SNMP alerts when power or environmental conditions exceed thresholds, and assign users specific access rights to designated outlets or groups
- Provides the flexibility needed for all data centers and remote sites, including power requirements for high-amperage, high-voltage; branch circuit protection; SSL & SSH security; and SNMP-based input current monitoring
- PIPS (Per Inlet Power Sensing) PDUs provide power monitoring per inlet/ infeed including current, voltage, power, apparent power, crest factor, reactance, power factor and accumulated energy. This information replaces branch circuit monitoring devices typically installed in the power distribution panel or remote power panel (RPP) with higher accuracy and lower cost monitoring of each circuit
- POPS (Per Outlet Power Sensing) PDUs provide information per individual outlet, including current load (A), voltage (V), power (kW), apparent power (VA), crest factor, and power factor. Using our grouping technology, power information is available per device, groups of devices (application), individual PDU or the entire cabinet

Voltage	Amps	Receptacles	No. of receptacles	Plug	Over current protection	Orientation	H x W x D inches (mm)	Master/ Expansion	Part No.
208-240V	30	C13	8	L6-30	Fuse	0 U	64 x 1.75 x 3.5 (1626 x 44 x 89)	Master	9978.472
208-240V	30	C13	8	L6-30	Fuse	0 U	64 x 1.75 x 3.5 (1626 x 44 x 89)	Expansion	9978.471
208-240V	30	C13	16	L6-30	Fuse	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9978.468¹⁾
208-240V	30	C13	16	L6-30	Fuse	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9978.465¹⁾
208-240V	30	C13	24	L6-30	Breaker	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9978.469¹⁾
208-240V	30	C13	24	L6-30	Breaker	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9978.466¹⁾
208-240V	30	C13, C19	18, 6	L6-30	Breaker	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9978.470²⁾
208-240V	30	C13, C19	18, 6	L6-30	Breaker	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9978.467²⁾
208V 3P Delta	20	C13	24	L15-20	Fuse	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9970.773
208V 3P Delta	20	C13	24	L15-20	Fuse	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9970.774
208V 3P Delta	30	C13	24	L15-30	Fuse	0 U	69 x 3.5 x 3.5 (1753 x 89 x 89)	Master	9970.777
208V 3P Delta	30	C13	24	L15-30	Fuse	0 U	69 x 3.5 x 3.5 (1753 x 89 x 89)	Expansion	9970.778

¹⁾ Includes PIPS

²⁾ Includes PIPS/POPS

Switched PDU

Voltage	Amps	Receptacles	No. of receptacles	Plug	Over current protection	Orientation	H x W x H inches (mm)	Master/ Expansion	Part No.
208V 3P Delta	30	C13, C19	18, 6	L15-30	Breaker	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9978.475²⁾
208V 3P Delta	30	C13, C19	18, 6	L15-30	Breaker	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9978.473²⁾
208V 3P Delta	50	C13, C19	12, 12	CS8365C	Breaker	0 U	69 x 3.5 x 3.5 (1753 x 89 x 89)	Master	9978.479
208V 3P Delta	50	C13, C19	12, 12	CS8365C	Breaker	0 U	69 x 3.5 x 3.5 (1753 x 89 x 89)	Expansion	9978.477
208V 3P Delta	50	C13	48	Cord Set	Breaker	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9978.480
208V 3P Delta	50	C13	48	Cord Set	Breaker	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9978.478
208V 3P Delta	60	C13, C19	12, 12	IEC Blue 9hr 3P+G	Breaker	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9978.487
208V 3P Delta	60	C13, C19	12, 12	IEC Blue 9hr 3P+G	Breaker	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9978.481
208V 3P Delta	60	C13	48	Cord Set	Breaker	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Master	9978.489
208V 3P Delta	60	C13	48	Cord Set	Breaker	0 U	69 x 1.75 x 2.25 (1753 x 44 x 57)	Expansion	9978.483
208V 3P Wye	20	C13	24	L21-20	Fuse	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9970.771
208V 3P Wye	20	C13	24	L21-20	Fuse	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9970.772
208V 3P Wye	30	C13	24	L21-30	Fuse	0 U	69 x 3.5 x 3.5 (1753 x 89 x 89)	Master	9970.775
208V 3P Wye	30	C13	24	L21-30	Fuse	0 U	69 x 3.5 x 3.5 (1753 x 89 x 89)	Expansion	9970.776
208V 3P Wye	30	C13, C19	18, 6	L21-30	Breaker	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9978.476²⁾
208V 3P Wye	30	C13, C19	18, 6	L21-30	Breaker	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9978.474²⁾
208V 3P Wye	60	C13, C19	12, 12	IEC Blue 9hr 3P+N+G	Breaker	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Master	9978.488
208V 3P Wye	60	C13, C19	12, 12	IEC Blue 9hr 3P+N+G	Breaker	0 U	69 x 1.75 x 3.5 (1753 x 44 x 89)	Expansion	9978.482
208V 3P Wye	60	C13	48	Cord Set	Breaker	0 U	69 x 3.5 x 3.5 (1753 x 89 x 89)	Master	9978.490
208V 3P Wye	60	C13	48	Cord Set	Breaker	0 U	69 x 3.5 x 3.5 (1753 x 89 x 89)	Expansion	9978.486

²⁾ Includes PIPS/POPS

Accessories

Temperature/Humidity Sensor

118" (3000 mm) cord with temperature and humidity probe. Plugs into a Smart/Switched Master PDU.

Cable length inches (mm)	Packs of	Part No.
118 (3000)	1	9970.815



Power Cord for 20 Amp PDUs

Receptacles	Length inches (mm)	Packs of	Part No.
C19/L6-20P	177 (4500)	1	9970.811
C19/L5-20P	98 (2500)	1	9970.812
C19/5-20P	98 (2500)	1	9970.813
C19/5-15P	118 (3000)	1	9970.814

Equipment Power Cord For connection of server to PDU

Receptacles	Length inches (mm)	Packs of	Part No.
C13/C13	79 (2000)	8	9970.816

Button mount bracket

- Enables tool-less installation of PDUs
- Allow 0 U mounting of PDUs
- Black, E-coated

Description	Packs of	Part No.
0 U, dual recessed button mount bracket	2	9963.800



TopTherm LCP Rack CW and DX



TS IT Enclosures Page 10

Benefits:

- Maximum energy efficiency thanks to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimizes the power consumption of the fans
- Optimum adaptability thanks to dynamic, continuous control of the cold water volume flow
- By using high water inlet temperatures, the proportion of indirect free cooling is increased, which in turn reduces operating costs
- Thanks to six modular, box-type plug-in fan units,

the cooling output can be adapted to actual requirements

- The box-type plug-in fan units are 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 water from penetrating the server enclosure
- Up to 60 kW cooling output on a footprint of just 4 ft² (0.36 m²)
- The low weight means a minimal load area
- Optional touchscreen display

Monitoring of all system-relevant parameters such as:

- Server air intake temperature
- Server waste air temperature
- Water inlet/return temperature
- Water flow
- Cooling output
- Fan speed
- Leakage
- Optional sensors
- Direct connection of the unit via SNMP/Ethernet
- Integration into RiZone

Application and mode of operation:

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

Protection rating:

IP 40 to IEC 60 529, UL listed

Color:

RAL 9005, RAL 7035

TopTherm LCP Rack CW and DX

Design		CW	CW	CW	DX
Cooling medium		Water			Refrigerant R410a
Part No. RAL 7035		–	–	–	3311.110
Part No. RAL 9005		3311.135	3311.235	3311.265	–
Rated operating voltage V, Hz		230, 1~, 50/60, 400, 3~, 50/60			
Dimensions inches (mm)	H x W x D	79 x 12 x 40 (2000 x 300 x 1000)	79 x 12 x 48 (2000 x 300 x 1200)	79 x 12 x 48 (2000 x 300 x 1200)	79 x 12 x 48 (2000 x 300 x 1200)
Usable U		42	42	42	42
Typical cooling output BTU (kW)		Up to 102364 (30)	Up to 102364 (30)	Up to 204728 (60)	Up to 34121 (10)
Duty cycle		100%			
Electrical connection		Connection cable			
Temperature control		Linear fan control			
		Two way control valve			–
Fans may be exchanged with the system operational		■	■	■	■
EC fan		■	■	■	■
Also required	Packs of				
Condenser unit	1	–	–	–	3311.310
Accessories					
Fan module, RAL 9005	1	9967.527			
Touchscreen display, colored	1	3311.030			
Connection hose, top/bottom	1	3311.040			
LCP enclosure	1	5508.220	5510.220	5510.220	5510.220



Benefits:

- Maximum energy efficiency thanks to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which minimizes the power consumption of the fans
- Optimum adaptability from 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
- Thanks to six modular, box-type plug-in fan units, the cooling output can be adapted to actual

requirements

- The box-type plug-in fan units are 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 water from penetrating the server enclosure
- Up to 60 kW cooling output on a footprint of just 0.36 m²
- The low weight means a minimal load area
- Touchscreen display may be retrofitted

Monitoring of all system-relevant parameters such as:

- Server air intake temperature
- Server waste air temperature
- Water inlet/return temperature
- Water flow
- Cooling output
- Fan speed
- Leakage
- Optional sensors
- Direct connection of the unit via SNMP/Ethernet
- Integration into RiZone

Color:

RAL 9005

Protection rating LCP CW:

IP 40 to IEC 60 529, UL Listed

Application and mode of operation:

The LCP is designed for sitting within a bayed enclosure suite. The hot air is drawn in from the room or hot aisle at the rear of the device and expelled at the front into the cold aisle after cooling. The LCP achieves maximum performance and efficiency in conjunction with Rittal cold aisle containment (see page 106). With this product a raised floor is not necessary.

TopTherm LCP Inline CW and DX

Design		CW	CW	CW	DX
Cooling medium		Water			Refrigerant R410a
Part No. RAL 7035		—	—	—	3311.210
Part No. RAL 9005		3311.535	3311.565	3311.545	—
Rated operating voltage V, Hz		230, 1~, 50/60, 400, 3~, 50/60			
Dimensions inches (mm)	H x W x D	79 x 12 x 48 (2000 x 300 x 1200)	79 x 12 x 48 (2000 x 300 x 1200)	79 x 12 x 48 (2000 x 300 x 1200)	79 x 12 x 48 (2000 x 300 x 1200)
Usable U		42	42	42	42
Typical cooling output BTU (kW)		Up to 102364 (30)	Up to 204728 (60)	Up to 102364 (30)	Up to 34121 (10)
Front alignment		Protruding		Flush	
Duty cycle		100%			
Electrical connection		Connection cable			
Temperature control		Linear fan control			
		Two-way control valve			—
Fans may be exchanged with the system operational		■	■	■	■
EC fan		■	■	■	■
Also required					
	Packs of				
Condenser unit	1	—	—	—	3311.310
Accessories					
Rear adaptor, RAL 9005	1	9967.529	9967.529	—	—
Fan module, RAL 9005	1	9967.527	9967.527	9967.530	9967.527
Touchscreen display, colored	1	3311.030	3311.030	3311.030	3311.030
Connection hose, top/bottom	1	3311.040	3311.030	3311.030	3311.030
LCP enclosure	1	5510.210	5510.210	5510.210	5510.110

TopTherm LCP T3+ CW



TS IT Enclosures Page 12

Benefits:

- Error-tolerant, efficient cooling of server racks with high thermal loads
- Fully redundant – Two active cooling circuits and two switchable power circuits ensure optimum fail-safeness
- The built-in controllers are capable of adapting all device parameters automatically to preserve the required climate conditions
- A separate decentralized intelligence which automatically recognizes emergency situations and responds

appropriately with the “auto load balancing” and “auto recovery” functions

- Interfaces which facilitate user-friendly operation and monitoring via the network or BSM systems

Optional:

- Fully integrated fire detection and extinguisher system
- Automatic server enclosure door opening
- Various sensors

Protection rating:
IP 40 to IEC 60 529

Color:
RAL 7035

Application and mode of operation:

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

TopTherm LCP T3+ CW

Cooling medium		Water
Part No.		3311.400
Rated operating voltage V, Hz		230, 1~, 50/60 400, 3~, 50/60
Dimensions inches (mm)	H x W x D	79 x 12 x 48 (2000 x 300 x 1200)
Usable U		42
Useful cooling output, redundant BTU (kW)		Up to 85303 (25)
Duty cycle		100%
Electrical connection		C19/C20
Temperature control		Linear fan control
		Two-way control valve
Fans may be exchanged with the system operational		■
EC fan		■
Auto-load balancing		■
Auto-recovery		■
Accessories		Packs of
Fan module	1	3311.010
Touchscreen display, colored	1	3311.030
Connection hose, top	1	3311.040
LCP enclosure	1	5510.110



TS IT Enclosures Page 10

Benefits:

- High cooling output of 20 kW in a minimal space
- Easily exchanged for the standard rear door of the server enclosure
- Retrofitting is not a problem
- A door opening angle of 120° allows rear access to the server enclosure and makes assembly and configuration inside the enclosure easier
- The LCP does not require its own fan, and therefore does not need an integrated control

- Maximum energy efficiency, as there is no electrical power consumption whatsoever

Application and mode of operation:

Air/water heat exchanger mechanically integrated into a rear door for server enclosures. The 19" (482.6 mm) equipment built into the server enclosure must have suitable airflow capabilities in order to route the heated waste air through the heat exchanger rear door. The waste air is cooled down to room temperature.

The heat energy absorbed by the water is transported to the external cold water supply, where it is cooled back down to the required inlet temperature.

Color:
RAL 7035

Note:
RAL 9005 version available upon request.

TopTherm LCP Passive CW

Part No. RAL 7035	3311.600
Dimensions inches (mm) H x W x D	79 x 24 x 7 (2000 x 600 x 170)
Usable U	42
Useful cooling output BTU (kW)	Up to 68242 (20)

Liquid Cooling Package

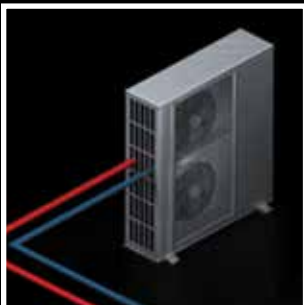
Accessories



Touchscreen display, color for LCP rack, inline, T3+

The display offers the opportunity of directly monitoring key LCP functions and implementing settings.

Packs of	Part No.
1	3311.030



Condenser unit

The condenser unit is needed to operate the refrigerant-based LCPs, and comprises the external condenser, fan and inverter-controlled compressor.

Refrigerant:
R410a

For LCP	Packs of	Part No.
3311.110, 3311.210	1	3311.310



Vertical shielding

To block the airflow on the left and right of the 19" (482.6 mm) rails, for enclosure height 79" (2000 mm).

Material:

- Cellular PU foam
- Flame-inhibiting to UL 94 (HF1)
- Length: 75" (1900 mm)
- Self-adhesive on one side

For sealing between	For enclosure width inches (mm)	Packs of	Part No.
Side panel and 19" (482.6 mm) rails	24 (600)	1	3301.380
	32 (800)	1	3301.390
LCP and 19" (482.6 mm) rails	24 (600)	1	3301.370
	32 (800)	1	3301.320



Connection hose, bottom and top

Flexible connection hose, may be shortened, including union nuts on both sides for connecting the LCP to existing pipe work.

Assembly	Thread	Length ft (mm)	Water connection from	Packs of	Part No.
Pre assembled	1½"	10 (3048)	Top/bottom	2	3311.040
Field assembled		10 (3048)			9971.173
Field assembled		15 (4572)			9971.174
Field assembled		25 (7620)			9971.175

Accessories

Add-on cover

For height compensation with 88" (2200 mm) high racks in conjunction with the 79" (2000 mm) LCP.

Material:

Carbon steel

Surface finish:

Spray-finished

Color:

RAL 9005

Depth inches (mm)	For LCP	Part No.
40 (1000)	3311.130,110	9970.164
48 (1200)	3311.235,265, 3311.535,565, 3311.405,215	9970.165

Delivery times available on request.



Rear adapter

For use with protruding LCP inline units to create an even rear row.

For LCP	Packs of	Part No.
3311.535 3311.565	1	9967.529

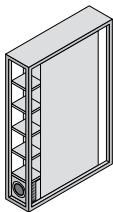


Fan module

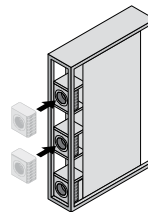
for LCP

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

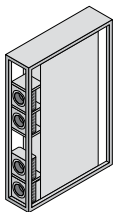
For LCP	Packs of	Part No.
3311.135, 3311.235, 3311.265, 3311.535, 3311.565	1	9967.527



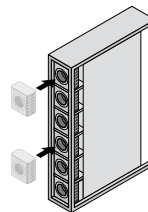
The LCP 3311.135/.235/.535 (max. 30 kW) is supplied with one fan module as standard.



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



The LCP 3311.265/.565/.535 (max. 55 kW) is supplied with four fan modules as standard.



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



Basic Safe



System Accessories Page 67

Applications:

- Micro data center for small businesses
- Protection for servers and storage applications
- Protection for business-critical data
- Storage of personal data

Benefits:

- Complete system with built-in climate control
- High level of operational and service-friendliness thanks to the two-door system
- Compatibility with other infrastructure elements

Protection standards:

- Fire protection F90 based on DIN 4102
- Compliance with limit values $\Delta T < 50$ K, relative humidity $< 85\%$ for 10 minutes
- Tested burglary protection WK II EN 1627
- Protection against dust and water jets IP 55 to IEC 60 529

The tests were performed as system tests and confirmed by way of test reports.

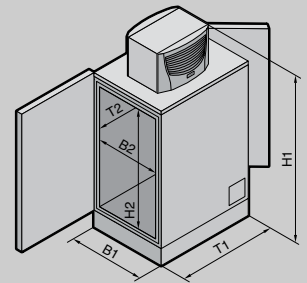
Color:

Enclosure: RAL 7035

Supply includes:

- Security enclosure with operating and service doors (three-point locking)
- Cable entry in both side elements
- Climate control 2.4 kW

Photo shows a configuration with equipment not included in the base part number



	15 U
Cooling capacity BTU (kW)	8195 (2.4)
Height (H1) inches (mm)	67 (1699)
Width (B1) inches (mm)	32 (806)
Depth (T1) inches (mm)	50 (1270)
Clearance height (H2) inches (mm)	33 (827)
Clearance width (B2) inches (mm)	24 (620)
Clearance depth (T2) inches (mm)	40 (1024)
Weight excluding internal installation approx. lbs (kg)	792 (360)
Part No. Basic Safe with built-in 19" (482.6 mm) rack	7999.999
Part No. Basic Safe without built-in 19" (482.6 mm) rack	7999.898
Accessories	
19" (482.6 mm) rack, 15 U, depth 39" (1000 mm)	7995.992
Early fire detection system EFD Plus	see page 50
Fire alarm and extinguisher system DET-AC Plus	see page 50
CMC monitoring system	see page 54

Standard protection from:



Fire



Extinguishing
water



Vandalism



Unauthorized
access



Dust



Theft/
burglary



System Accessories Page 67

Applications:

- Solid protection against potential physical threats for IT components
- Targeted configuration components transform the safe into a complete, compact data center

Benefits:

- Modular assembly
- Prepared for the installation of various IT climate control solutions
- Low weight
- User-friendly, thanks to operator and service door

Protection standards:

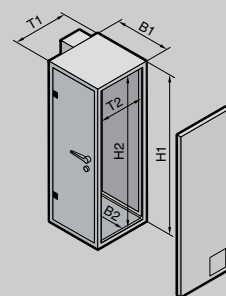
- Fire protection F90 based on DIN 4102
- Burglary protection resistance class II to EN 1627
- Protection against dust and water jets IP 56 to IEC 60 529
- Protection from acrid gases to DIN 18 095

Color:

Enclosure: RAL 7035

Supply includes:

- Security safe as a two-door system
- Cable duct in both side elements
- Both doors with semi-cylinder and two locks
- Optional cable routing in the top element, selectable positioning



		Two-door-system	
		33 U	47 U
External dimensions inches (mm)	Height (H1)	76 (1942)	91 (2321)
	Width (B1)	59 (1500)	59 (1500)
	Depth (T1)	49 (1238)	49 (1238)
Internal dimensions inches (mm)	Height (H2)	72 (1840)	87 (2219)
	Width (B2)	39 (979) ¹⁾	39 (979) ¹⁾
	Depth (T2)	40 (1010)	40 (1010)
Clearance height of door opening inches (mm)		66 (1678)	81 (2057)
Part No.		7999.892	7999.893

Accessories			
19" (482.6 mm) rack, based on TS 8, 19" (482.6 mm) rails front and rear, 6 support strips for mounting on the 19" (482.6 mm) rails, 2 system chassis with mounting flanges	H 63 (1600) x W 32 (800) x D 39 (1000)	7831.429	–
	H 79 (2000) x W 32 (800) x D 39 (1000)	–	7995.969
	H 87 (2200) x W 32 (800) x D 39 (1000)	–	7999.970
Early fire detection system EFD Plus		see page 50	
Fire alarm and extinguisher system DET-AC Plus		see page 50	
CMC monitoring system		see page 54	

¹⁾ With built-in heat exchanger.

Standard protection from:



Fire



Extinguishing
water



Vandalism



Unauthorized
access



Dust



Theft/
burglary

Modular Safe Extend



System Accessories Page 67

Applications:

- A high level of protection against potential physical threats for IT
- Targeted configuration components transform the safe into a complete, compact data center

Benefits:

- Modular assembly
- Expandable for graduated investment in line with IT growth
- Prepared for the installation of various IT climate control solutions
- Systems may be dismantled and reassembled, for maximum investment security

Protection standards:

- Fire protection F90 based on DIN 4102
- Compliance with limit values $\Delta T < 50$ K, relative humidity $< 85\%$ for 30 minutes
- Theft protection optionally resistance class II, III or IV EN 1627
- Protection against dust and water jets IP 56 to IEC 60 529
- Protection from acrid gases to DIN 18 095

The tests were performed as system tests and confirmed by way of test reports.

Color:

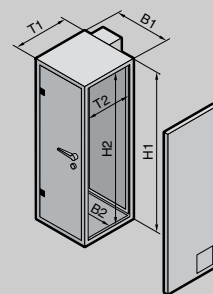
Enclosure: RAL 7035

Supply includes:

- Security safe with operator door and servicing door
- Cable entry in both side elements
- Both doors with key lock

Optional:

- Electronic combination lock
- Electronic lock preequipped for activation by an external access control system
- Cable entry in the top and base unit
- Twin-walled doors
- Choice of door hinges



		42 U	47 U	42 U	47 U
External dimensions inches (mm)	Height (H1)	87 (2210)	95 (2410)	87 (2210)	95 (2410)
	Width (B1)	43 (1100)	43 (1100)	43 (1100)	43 (1100)
	Depth (T1)	47 (1200)	47 (1200)	55 (1400)	55 (1400)
Internal dimensions inches (mm)	Height (H2)	80 (2030)	88 (2230)	80 (2030)	88 (2230)
	Width (B2)	36 (920)	36 (920)	36 (920)	36 (920)
	Depth (T2)	39 (1000)	39 (1000)	47 (1200)	47 (1200)
Part No.	Individual solution		7999.896	7999.897	7999.983
	Suite creation	Left	7999.977	7999.980	7999.984
		Center	7999.978	7999.981	7999.985
		Right	7999.979	7999.982	7999.986

Accessories

19" (482.6 mm) rack, based on TS 8, 19" (482.6 mm) rails front and rear, 6 support strips for mounting on the 19" (482.6 mm) rails, 2 system chassis with mounting flanges

H 79 (2000) x W 32 (800) x D 39 (1000)
H 87 (2200) x W 32 (800) x D 39 (1000)

7995.969

7999.970

Early fire detection system EFD Plus

see page 50

Fire alarm and extinguisher system DET-AC Plus

see page 50

CMC monitoring system

see page 54

Standard protection from:



Fire



Extinguishing
water



Vandalism



Unauthorized
access



Dust



Theft/
burglary



System Accessories Page 67

Fire protection:

- Fire protection, internal panels: F30, optionally F90 based on DIN 4102/EN1363, component-tested

Duct system:

- Type: Hard duct DN200
- Dimensions of packing space: 5 x 5 inches (120 x 120 mm)

Raised floor:

- Substructure type: Control room
- Number of slotted plates dependent on number of racks
- Total raised height: 12 inches (300 mm)

Climate control –

direct free cooling:

- Available with 23900 and 34144 BTU (7 and 10 kW) units. Up to 3 units can be integrated
- Targeted cooling via aisle containment

Power distribution:

- Infeed: CEE connector 125 A, 3-phase/N/PE, 400 V/50 Hz
- Enclosure dimensions, H x W x D inches (mm) 80 x 32 x 24 (2000 x 600 x 400)

Note on standard and

customized versions:

There is a standard range of models available with 12

preconfigured data center types.

Ask for the Rittal Data Center Container project planning form. Within just a few days, you will receive an initial quote. Bayed containers, higher cooling outputs e.g. using LCP technology or more than seven racks – we would be happy to design your own individual data center container. Additional container sizes, including ISO compliant dimensions, are available.

Optional:

- Up to seven 19" (482.6 mm) IT racks with power supply
- UPS, with up to 15 minutes autonomy

- Fire alarm/gas extinguisher system (Novec 1230)
- Access systems, access door (keyboard, code card)
- Monitoring and management (CMC, RiZone)

Sizes:

- ISO shipping container available.
- Additional dimensions available.

Photo shows a configuration with equipment not included in the base part number

Version	R7A	R7B	R7C	R7D	R14A	R14B	R14C	R14D	R20A	R20B	R20C	R20D
Height x Width x Depth inches (mm)	128 x 118 x 238 (3250 x 3000 x 6055)											
Usable area ft² (m²)	163 (15.2)											
Part No.	Project planning on request											
Cooling capacity BTU (kW)	23900 (7)	23900 (7)	23900 (7)	23900 (7)	47800 (14)	47800 (14)	47800 (14)	47800 (14)	68288 (20)	68288 (20)	68288 (20)	68288 (20)
Redundancy cooling	1+1	1+1	1+1	1+1	2+1	2+1	2+1	2+1	2+1	2+1	2+1	2+1
Available area inches (mm) (racks, UPS, DET-AC)	177 (4500)	177 (4500)	177 (4500)	177 (4500)	157 (4000)	157 (4000)	157 (4000)	157 (4000)	157 (4000)	157 (4000)	157 (4000)	157 (4000)
Heavy-duty raised floor	■	■	■	■	■	■	■	■	■	■	■	■
Plug-and-play power distribution	■	■	■	■	■	■	■	■	■	■	■	■
Hard ducts 2 x DN200	■	■	■	■	■	■	■	■	■	■	■	■
Security door WK2	■	■	■	■	■	■	■	■	■	■	■	■
Optional items												
UPS (uninterruptible power supply)	□	■	□	■	□	■	□	■	□	■	□	■
DET-AC XL fire alarm/extinguisher system	□	□	■	■	□	□	■	■	□	□	■	■
Max. no. of racks 42 U (24" (600 mm) wide)	7	6	7	6	7	6	6	5	7	6	6	5
Max. no. of racks 42 U (32" (800 mm) wide)	5	4	5	4	5	4	4	4	5	4	4	4
Higher racks (47 U)	□	□	□	□	□	□	□	□	□	□	□	□
Rack power supply (PSM, PDM)	□	□	□	□	□	□	□	□	□	□	□	□
Monitoring package (CMC)	□	□	□	□	□	□	□	□	□	□	□	□
Security door WK3	□	□	□	□	□	□	□	□	□	□	□	□
Additional hard ducts	□	□	□	□	□	□	□	□	□	□	□	□
Metal sun shade	□	□	□	□	□	□	□	□	□	□	□	□

■ Standard □ Option

Make IT easy: Enclosure, power and cooling solutions

Metric measurements for are exact, imperial measurements are rounded

Fire alarm and extinguisher system DET-AC/EFD Plus



System Accessories Page 67

EFD Plus

The EFD Plus system is a compact early fire detection system with active smoke extraction system. The integral fan system continuously extracts the air from the enclosure, and passes it over two smoke detectors. The first smoke detector is extremely sensitive and triggers a prealarm. The second smoke detector triggers the main alarm.

DET-AC Plus

The DET-AC Plus is a compact fire alarm and active extinguisher system with smoke extraction system, built into one height unit. The detection system is identical to that used in the EFD Plus system. Fire extinguishing with the extinguisher gas NOVEC 1230 is automatically activated when a main alarm is triggered. With the extinguisher gas supply provided, a volume of up to 32 ft³ (3 m³) can be extinguished.

DET-AC Plus Slave

In conjunction with the DET-AC Plus slave system, up to five bayed enclosures may be extinguished. In addition to the DET-AC Plus unit, a DET-AC Plus Slave unit is used for each additional enclosure and contains the extinguisher gas for one enclosure. For detection purposes, the pipework from the DET-AC Plus system is laid in all enclosures.

Benefits:

- Early fire detection
- Automatic extinguishing
- Innovative extinguisher gas NOVEC 1230
- Eco-friendly
- 19" (482.6 mm) rack mount with just 1 U



	Fire alarm and extinguisher system DET-AC Plus	Add-on unit DET-AC Plus Slave	Early fire detection system EFD Plus
Height U (mm)	1 U (44)		
Width inches (mm)	19" (482.6 mm) rack mount		
Depth inches (mm)	25 (640)	22 (570)	20 (500)
Weight lbs (kg)	Approx. 33 (15)	Approx. 26 (12)	Approx. 18 (8)
Part No.	7338.120	7338.320	7338.220
Protection rating	IP 20		
Ambient temperature (operation)	+ 50°F to +95°F (+10°C to +35°C)		
Battery storage	+ 14°F to +95°F (– 10°C to +50°C)		
Operating voltage	100/240 V AC 50/60 Hz	24 V DC	100/240 V AC 50/60 Hz
Uninterruptible mains electricity operation	2 x 12 V; 2.2 A/approx. 4 h		
Connections	3 RJ 12 connectors for connecting to the CMC, alternatively 3 relay outputs, max. contact load 24 V DC/0.5 A		
Sensors	2 different scattered-light sensors	–	2 different scattered-light sensors
Display	LCD display with plain text info.	–	LCD display with plain text info.
No. of slave modules	Max. 4	–	Max. 5
No. of monitored enclosures	Max. 5	–	Max. 5
Extinguisher gas	NOVEC 1230		–
Fill volume of extinguisher gas	32		–
Admissible max. protection volume ft³ (m³)	106 (3)		–
Also required			
Pipe kit	7338.130		
RJ 12 cable for alarm relaying to CMC, packs of 2	7320.814 ¹⁾		
Access sensors	7320.530		–
Depth-variable slide rails	–	–	7063.883
			–

¹⁾ 2 packs are required.

We plan and implement data centers

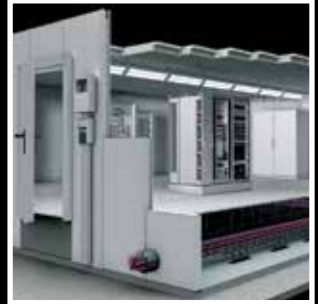
Whether you are planning a new build, an extension or an optimization to your data center, we are at your side as a trustworthy partner and leading provider with decades of experience.

- Basic protection or high-MBTf protection for data centers
- Extendible
- Dismantling and reassembly = investment protection
- Dust- and noise-reduced installation
- System-tested
- Multi-functional risk coverage

Criteria	Standards	Conventional design ²⁾	Basic protection		High-MBTf
			LER Extend	LER Basic	LSR Extend
System testing	 Testing of the following standards as complete system or structure ¹⁾	–	■	■	■
Fire protection Testing at temperatures of up to 1000°C and above	 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	–	–	–	■
	50 K temperature rise and 85% rel. humidity over 30 minutes, without reheat period	–	■	–	■
	F120 as system test, according to the limits of EN 1363 (DIN 4102), for the cellular structure and its built-in modules	–	–	–	■
	F90 as system test, according to the limits of EN 1363 (DIN 4102), for the cellular structure and its built-in modules	–	■	■	■
	F180 only as component testing to EN 1363 (DIN 4102), wall system only	–	–	–	■
	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	–	–	–	■
Water	Standing water, 72 hours, 40 cm, maximum 20 drops	–	–	–	■
	Extinguisher water, IP x 6 as system testing to IEC 60 529, for the cellular structure and its built-in modules	–	■	■	■
	Relative humidity, 85%, over 24 hours (reheat period), 60 minutes flame impingement time, to EN 1047-2	–	–	–	■
	Relative humidity, 85%, over 30 minutes	–	■	–	■
Dust-tightness	IP 5x as system testing to IEC 60 529, for the cellular structure and its built-in modules	–	■	■	■
Corrosive fire gases	Acrid gas-tightness, based on EN 1634-3 (DIN 18095)	–	■	■	■
Unauthorized access	WK 3 as system test to EN 1627/1630, for the cellular structure and its built-in modules, such as doors	–	■	■	■
	WK 2 as system test to EN 1627/1630, for the cellular structure and its built-in modules, such as doors	–	■	■	■
	WK 4 only as component testing to EN 1627/ DIN 1630, door system only	–	–	–	■
Falling debris	Shock test as system test, 3 shocks of 200 kg from 1.5 m after 45 minutes flame impingement time	–	–	–	■
	Shock test as system test, 1 shock of 200 kg from 1.5 m after 30 minutes flame impingement time	–	■	■	■
EMC protection	Protection against high-frequency irradiation and radiation, verified by tests on comparable components by TU Aachen	–	■	■	■
EMC optional package	Extended high-frequency shielding in accordance with BSI TL-03304	–	–	–	■

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 center applications. Conventional designs are generally tested for use as fire walls.

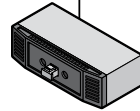


CMC III Processing Unit Compact

System overview

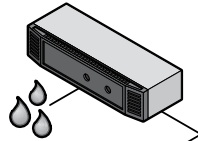


Up to 4 CAN-Bus components are supported.¹⁾



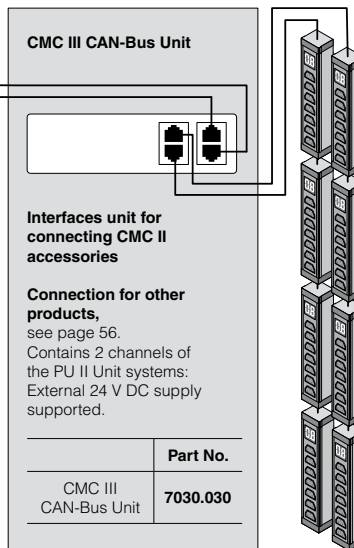
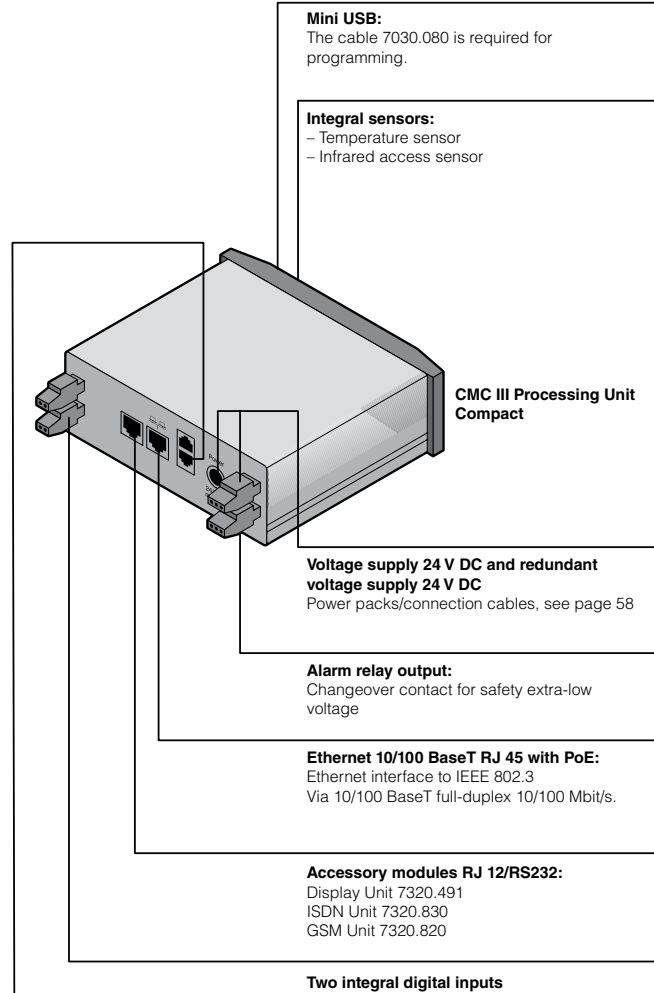
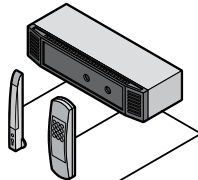
CMC III sensors
for direct connection

CMC III CAN-Bus sensor



CMC II sensors

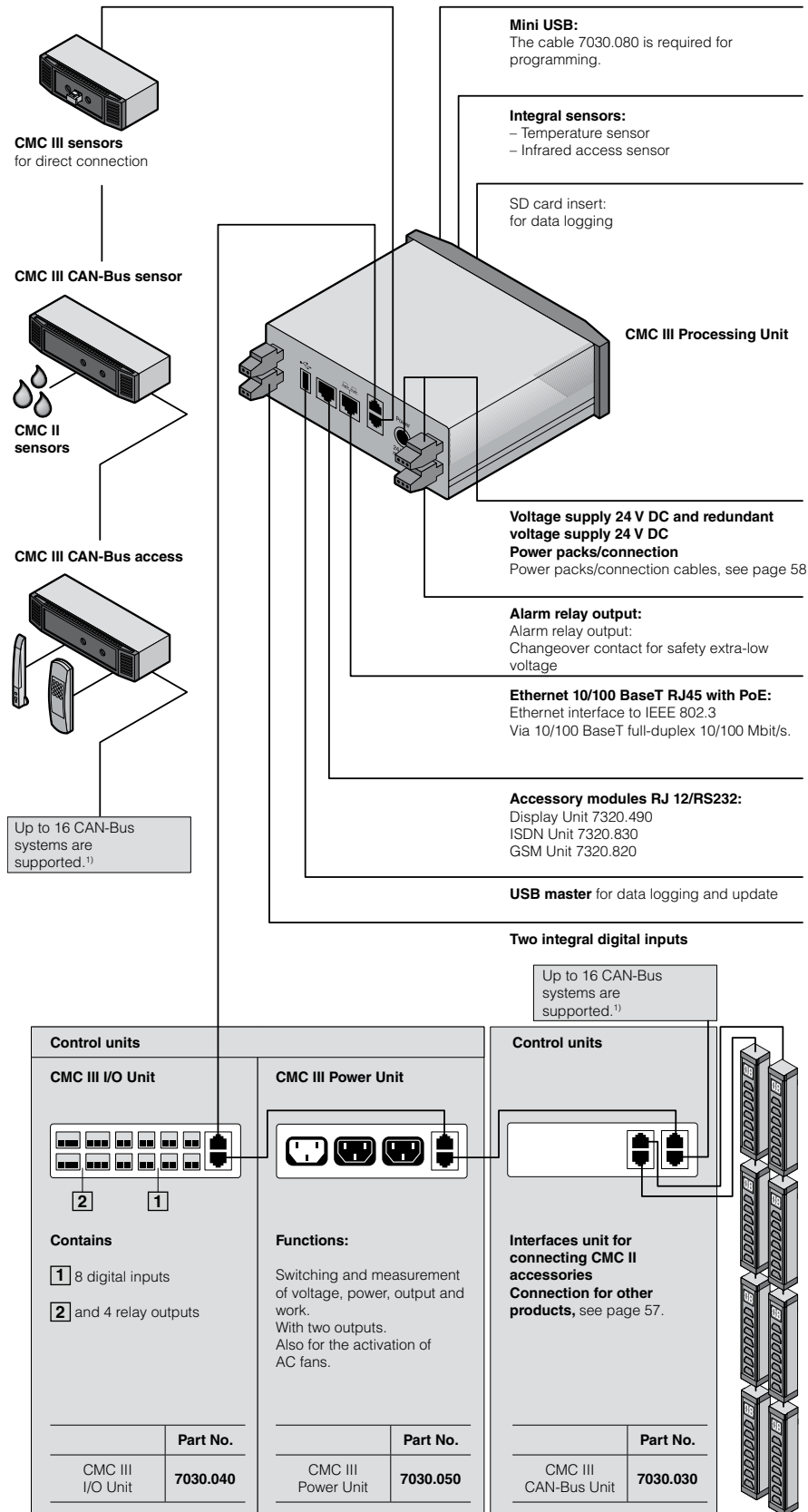
CMC III CAN-Bus access



¹⁾ Depending on the power supply/connection combinations, see page 57.

CMC III Processing Unit Compact

System overview



¹⁾ Depending on the power supply/connection combinations, see page 57.



CMC III Processing Unit Compact



Basic Modules and Connection Accessories Page 56

CMC III Processing Unit Compact:

- Industrial/enclosure monitoring
- Building monitoring
- Small monitoring applications in IT

CMC III Processing Unit

- Larger monitoring applications in IT and industry

Material:

Plastic

Surface finish: Front smooth, enclosure textured

Color:

- Front: RAL 9005
- Enclosure: RAL 7035

Protection rating:

IP 30 to IEC 60 529

Supply includes:

- Basic system
- Quick-start instructions
- 4 mounting feet

Photo shows a configuration with equipment not included in the base part number

		CMC III Processing Unit Compact	CMC III Processing Unit
W x H x D U inches (mm)		1 U x 5.4 x 4.7 + 0.5 (1 U x 138 x 120+12 (front assembly))	1 U x 5.4 x 4.7 + 0.5 (1 U x 138 x 120+12 (front assembly))
Temperature range F° (C°)		32° to +131° F (0° to +55° C)	32° to +131° F (0° to +55° C)
Operating humidity range		5% to 95% relative humidity, non-condensing	5% to 95% relative humidity, non-condensing
Sensors/CAN-Bus connection units		max. 4	max. 32
Max. overall cable length for CAN-Bus		1 x 164 ft (1 x 50 m)	2 x 164 ft (2 x 50 m)
Part No.		7030.010	7030.000
Interfaces	Network interface (RJ 45)	Ethernet to IEEE 802.3 via 10/100BaseT with PoE	Ethernet to IEEE 802.3 via 10/100BaseT with PoE
	Front USB interface	Mini USB for system setting	Mini USB for system setting
	Rear USB interface	–	For USB data recording and SW updates up to 32 GB
	Front SD-HC slot	–	1x up to 32 GB for data recording
	Rear serial RS232 (RJ 12)	1 x for connecting Display Unit 7320.491 or GSM Unit 7320.820 or ISDN Unit 7320.830	1 x for connecting Display Unit 7320.491 or GSM Unit 7320.820 or ISDN Unit 7320.830
Inputs and outputs	Digital inputs (terminal)	2	2
	Relay output (terminal)	Change-over contact max. 24 V DC, 1 A	Change-over contact max. 24 V DC, 1 A
	CAN-Bus (RJ 45)	1 x for max. 4 sensors (quantity restriction, see page 56)	2 x for max. 16 sensors each = 32 sensors in total (quantity restriction, see page 56)
Operation/ signals	Push-button	1 x acknowledgement button	1 x acknowledgement button
	Concealed reset button	1 x service button	1 x service button
	Piezo signal generator	1	1
	LED display	1 x multi-color OK/warning/alarm	1 x multi-color OK/warning/alarm
	Rear LED	1 x for the network status	1 x for the network status
Protocols	Ethernet	TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv3, Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS server, SMTP, XML, Syslog, LDAP	TCP/IPv4, TCP/IPv6, SNMPv1, 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/connecting CMC III power pack	1 x for direct connection/connecting CMC III power pack
	Power over Ethernet	1 x	1 x

CMC III Processing Unit Compact

		CMC III Processing Unit Compact	CMC III Processing Unit
Part No.		7030.010	7030.000
Functions	Time function	Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP	Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP
	User administration	LDAP	LDAP
	User interface	Integral WEB server	Integral WEB server
	Control room connection	Integral OPC server	Integral OPC server
Integral sensors	Temperature sensor	NTC sensor in the enclosure front	NTC sensor in the enclosure front
	Access sensor	Infrared technology in the enclosure front	Infrared technology in the enclosure front



Control units for CMC III Processing Unit

	Part No.	PU Compact	PU
		Maximum qty.	
CMC III I/O Unit, 8 digital inputs + 4 relay outputs	7030.040³⁾	–	16
CMC III Power Unit, 1 input (C14) + 2 outputs (C13) 230 V, 50/60 Hz	7030.050³⁾	–	16

CMC III sensors for direct connection

Temperature sensor	7030.110	4	32
Temperature/humidity sensor	7030.111	4	32
Infrared access sensor	7030.120	4	32
Vandalism sensor	7030.130	4	32
Analog airflow sensor	7030.140	4	10 ¹⁾
Analog differential pressure sensor	7030.150	4	32
Universal sensor (digital input or 4-20 mA or SoBus power meter or Wiegand interface)	7030.190	4	32

CMC III sensors for direct connection

CMC III CAN-Bus Unit for sensor	7030.100	4	32
For connecting the following products:			
5 x access sensors (packs of 2), connect a max. of 5 in series	7320.530		
1 x smoke detector	7320.560		
1 x motion detector	7320.570		
1 x voltage monitor 48 V DC	7320.620		
1 x leakage sensor	7320.630		
1 x leakage sensor, with sensor length 49 ft (15 m)	7320.631		
1/3 x fire detector and extinguisher system DET-AC Plus with 3 messages	7338.120		
1/3 x fire early detector system DET-AC Plus with 3 messages	7338.220		
1/2 x Door Control System with 2 enclosure channels	7320.790		

Leak sensor cable

1 x leak sensor control unit 5V DC	9978.506		
1 x sensing cable 25 ft (7600 mm) preinstalled male/female connectors	9978.507		
1 x sensing cable 100 ft (35000 mm) preinstalled male/female connectors	9978.508		
1 x power supply 100-240V to 5V dc, stripped end	9978.509		
1 x sensing cable holder	9978.521		25

Access System

CMC III CAN-Bus Unit Access (with integral infrared access sensor and interface for one reader III)	7030.200	2	16 ¹⁾
For connecting the following products:			
1 x Ergoform-S handle (electro-magnetic)	7320.700		
1 x RAL 7035 comfort handle TS 8 (electro-magnetic TS 8 handle with master key function, with and without CCP)	7320.721		
1 x RAL 9005 comfort handle TS 8 (electro-magnetic TS 8 handle with master key function, with and without CCP)	9970.139		
1 x universal lock	7320.730		
1 x universal handle	7320.950		
1 x CMC III coded lock	7030.220	2	16 ¹⁾
1 x CMC III transponder reader	7030.230	2	16 ¹⁾

¹⁾Max. 5 p. and

²⁾Max. 1 p. for power supply with PoE or 48 V power pack.

³⁾Optional attachment see pages 59, 60.

Interface for PCU, FCS, DRC

	Part No.	PU Compact	PU
		Maximum qty.	
CMC III CAN-Bus Unit for 2 unit channels	7030.030³⁾	1	4 ²⁾
For connecting the following products (note: separate supply via power pack possible):			
2 x Fan Control System FCS (7320.812 fan 24 V DC for FCS)	7320.810		
2 x fan mounting panel DC (universal fan roof W x D 32" x 32" (800 x 800 mm) with FCS)	7858.488		
2 x RFID controller DRC	7890.500		

²⁾ max. 1 p. for power supply with PoE or 48 V power pack.

³⁾ Optional attachment see pages 59, 60.





Power pack

The CMC III power pack may be integrated into the CMC III assembly unit.

CMC III power pack	Part No.
Input voltage 100 – 240 V 50/60 Hz, output voltage 24 V DC, 2 A	7030.060¹⁾

¹⁾ Connection cable/extension required
 USA/CDN: 230/115 V, Part No. 7200.214
 D/F/B: 230 V, Part No. 7200.210
 C13/C14: 230/115 V, Part No. 7200.215



Power pack

for PU II/Basic CMC/FCS

A 24 V DC power pack is required to supply the power. Both power packs include an output cable, 65" (1650 mm) long. There are two versions available:

- The 100 – 240 V AC power pack requires an IEC connection cable to supply the voltage
- An alternative power pack is designed for the telecommunications sector (48 V battery voltages) and is connected at the input end via a terminal block

Primary input voltage	Output voltage	Part No.
48 V DC	24 V DC	7320.435

Connection cable for PU II/Basic CMC/FCS for direct connection, provided the 24 V DC supply is available.

Packs of	Length inches (mm)	Part No.
1	79 (2000)	7320.813

Technical specifications 7320.425:

- Rated voltage: 100 – 240 V AC, 50/60 Hz
- Rated current: max. 1.5 A
- Secondary range: 24 V DC, 3 A

Technical specifications 7320.435:

- Rated voltage: 20 – 72 V DC
- Rated current: max. 2.5 A
- Secondary range: 24 V DC, 1.3 A

Also required:

Connection cable for 7320.425 power pack



Programming cable

The programming cable is required for commissioning of the Processing Unit (PU) or PU Compact.

CMC III programming cable USB	Part No.
	7030.080

CAN-Bus connection cable

This can be used to connect the PU with the CAN-Bus sensors III, units III, control units III as a bus. Also for cabling together.

Cable	Length inches (mm)	PU	Part No.
CMC III CAN-Bus connection cable RJ 45	20 (500)	1	7030.090
CMC III CAN-Bus connection cable RJ 45	39 (1000)	1	7030.091
CMC III CAN-Bus connection cable RJ 45	59 (1500)	1	7030.092
CMC III CAN-Bus connection cable RJ 45	79 (2000)	1	7030.093
CMC III CAN-Bus connection cable RJ 45	197 (5000)	1	7030.094
CMC III CAN-Bus connection cable RJ 45	394 (10000)	1	7030.095



Connection cable/extension

The cable is used to connect to:

- CMC III power pack C13
- CMC III power unit C13
- PCU

Technical specifications:

PVC cable, 3-pole, with IEC connector (non-heating appliances) with contact protection CEE22. Length: Minimum 71" (1800 mm)

Country version	Voltage Volt	Part No.
USA/CDN/C13	230/115	7200.214
D/F/B/C13	230	7200.210
IEC 320 device extension C13/C14	230/115	7200.215
Connection cable D/C19	230/115	7200.216
Connection cable C19/C20	230/115	7200.217



Extension cable for sensor cable

Connector/jack	Length inches (mm)	Packs of	Part No.
RJ 12	197 (5000)	4	7200.450
RJ 12	39 (1000)	2	7320.814



CMC III mounting unit, 1 U

To accommodate PU, PU Compact, control units, CMC III CAN-Bus unit and CMC III power pack.

The mounting unit can accommodate up to 3 units and is secured in the 19" (482.6 mm) frame.

	Packs of	Part No.
CMC III mounting unit, 1 U	1	7030.070





CMC III mounting unit

for enclosure frame

Can accommodate one unit and is mounted on the enclosure frame.

	Packs of	Part No.
CMC III mounting unit for enclosure frame	1	7030.071



Mounting unit, 1 U

For display, ISDN and GSM unit, fan control system, door control module

For accommodating between two 19" (482.6 mm) mounting rails. Cable clamp straps 7610.000 or 7611.000 can be used for cable clamping.

Material:

Carbon steel

Surface finish:

Spray-finished

Color:

RAL 7035

Mounting unit, 1 U

Packs of	Part No.
1	7320.440

Single cover

Packs of	Part No.
2	7320.441



Display Unit II

The Display Unit II may be linked directly to the CMC III. CMC alarms, status messages, temperatures, voltages, currents etc. may be displayed on the screen, depending on the monitoring application.

Note:

The serial interface RS232 of the PU/PUC may only be assigned to one accessory module.

Also required:

- Processing unit, see page 54
- Mounting unit, see above

Packs of	Part No.
1	7320.491



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. Power supply is via the processing unit.

Requirements for the ISDN connection:

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

Supply includes:

Connection cable

Components	Part No.
ISDN unit	7320.830 ¹⁾

¹⁾ Extended delivery times.

Note:

The serial interface RS232 of the PU/PUC may only be assigned to one accessory module.

Also required:

- Processing unit, see page 54
- Mounting unit, see above

GSM Unit Quad-Band

For configuring a redundant transmission channel or, if there is no network infrastructure available, the unit may be used for alarm forwarding. The alarm signal is designed in SMS format. The GSM unit quad-band covers 4 GSM frequencies: 850 MHz, 900 MHz, 1800 MHz and 1900 MHz. A standard, commercially available SIM card for GSM must be provided by the customer.

Note:

The serial interface RS232 of the PU may only be assigned to one accessory module.

GSM Unit Quad-Band	Part No.
SMS function	7320.820

Also required:

- Processing unit, see page 54
- Mounting unit, see page 60



Fan Control System FCS

Speed-controlled fan system

The Fan Control System regulates and controls the speed of up to 6 fans, 24 V DC. It may optionally be connected to the CMC III CAN-bus unit 7030.030.

Functions:

- Speed-regulated speed control
- Fan speed monitoring
- Optional connection via Web/SNMP

Note:

FCS fitted in fan mounting panel, Part No. 7858.488.

FCS	Part No.
Without fan	7320.810

Also required:

- Power pack 7030.060, see page 58
- Connection cable 7200.210, see page 59
- Fan 7320.812, see below
- Extension cable 7320.814, see page 59
- 1 U mounting unit 7320.440, see page 60



Fan 24 V DC for FCS

with speed monitoring

Fan with integral speed monitoring with RJ 12 connector/connection cable 24" (600 mm) for connecting to FCS 7320.810.

Technical specifications:

- Rated voltage: 24 V DC
- Rated current: 0.28 A (max.)
- Rated output: 6.72 W (max.)
- Air throughput (unimpeded air flow): 175 m³/h
- Speed: 2650 rpm
- Noise level: 45 dB (A)

Also required:

RJ 12 extension, 39" (1000 mm), 7320.814, see page 59

Packs of	Part No.
2	7320.812





Universal lock unit

The security lock consists of a base unit and a lock counterpart. The base unit is attached to the enclosure frame. The lock counterpart is attached to the door.

Technical specifications:

- Rated voltage: 24 V DC
- Rated current: 140 mA

Note:

Supplied without mounting kit.

Also required:

CMC III CAN-Bus unit access 7030.200,
see page 56

Packs of	Part No.
1 set	7320.730



Automatic door opening kit

For fitting a standard door for the Door Control System

- The door kit operates with a gas pressure damper system, allowing the door to be opened in any emergency situation. The doors are kept closed by a magnet system, which unlike mechanical lock systems will release the door in every instance
- The door kit is connected and activated using the corresponding door control module 7320.790

Supply includes:

- Gas pressure damper
- Cable harness
- Magnetic lock
- Assembly parts

	Packs of	Part No.
Complete kit	1	9971.115



Monitor and keyboard unit, 1 U With 17" TFT display and VGA/DVI connection

Benefits:

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

Technical design

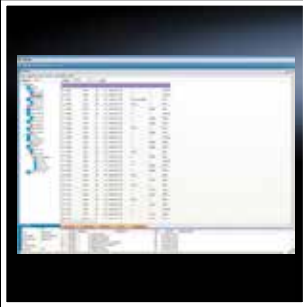
- 17" (432 mm) TFT display
- Native resolution 1280 x 1024
- Format 4 : 3
- 16.7 million colors
- Brightness approx. 350 cd/m² (typ.)
- Contrast ratio approx. 1000 : 1
- Mains voltage 100 – 240 V AC, 50 – 60 Hz
- Ambient temperature +41° to +113° F (+5° to +45° C) in operation
- Max. power consumption in operation, without optional KVM switch: 32 W
- Max. power consumption when closed, without optional KVM switch: < 1 W
- Rear connections: Mains power, VGA, DVI-D, PS/2, USB, power supply for KVM
- Lockable at the front
- Cables are safely routed in the energy chain

Height	Width inches (mm)	Depth inches (mm)	Installation depth inches (mm)	Packs of	Color	Part No.
1 U	19 (482.6)	27 (680)	27 – 33 (680 – 850)	1	RAL 7035	9055.312
					RAL 9005	9055.412¹⁾

Other country-specific versions available on request.

¹⁾ Extended delivery times.





RiZone Appliance Standard

RiZone is supplied as an appliance or a software appliance.

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

The RiZone operating manual and registration for RiZone Light are available at www.rittal.us/software.

Also required:

RiZone Appliance IP node license according to the number of IP nodes available.

Standard version	Part No.		
Hardware appliance ¹⁾	Server with Windows	RiZone software	RiZone graphics tool
	7990.101	7990.201	7990.301
Software appliance ¹⁾	Server with Windows	RiZone software	RiZone graphics tool
	7990.103	7990.203	7990.303

¹⁾ All part numbers on the same line belong together, and must always be ordered together.

RiZone Appliance High-MTBF

In addition to the standard version, the high-MTBF version scales up to Tier IV availability as per the Uptime Institute's definition.

RiZone is supplied as an appliance or a software appliance.

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

Also required:

RiZone Appliance IP node license according to the number of IP nodes available.

High-MTBF version	Part No.		
Hardware appliance ¹⁾	Server with Windows	RiZone software	RiZone graphics tool
	7990.102	7990.202	7990.302
Software appliance ¹⁾	Server with Windows	RiZone software	RiZone graphics tool
	7990.104	7990.204	7990.304

¹⁾ All part numbers on the same line belong together, and must always be ordered together.

RiZone Appliance IP node license

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

The volume licenses for the IP nodes are graduated from 10 to 1000 nodes and may be adapted precisely to the size of the data center. For each active component or other SNMP-compatible component to be covered, one node license is required.

For no. of IP nodes ¹⁾	Console licenses included	Part No.	
		RiZone software	RiZone graphics tool
10	2	7990.205	7990.305
25	4	7990.206	7990.306
50	4	7990.207	7990.307
100	8	7990.208	7990.308
250	10	7990.209	7990.309
500	15	7990.210	7990.310
1000	20	7990.211	7990.311

¹⁾ All part numbers on the same line belong together, and must always be ordered together.

Client Access license

Additional license for operation of another RiZone console.

	Part No.	
For 10 IP nodes ¹⁾	RiZone software	RiZone graphics tool
	7990.213	7990.313

¹⁾ All part numbers on the same line belong together, and must always be ordered together.

RiZone module SNMP support for units from other manufacturers

For the incorporation of SNMP-compatible units from other manufacturers into RiZone. With MIB browser.

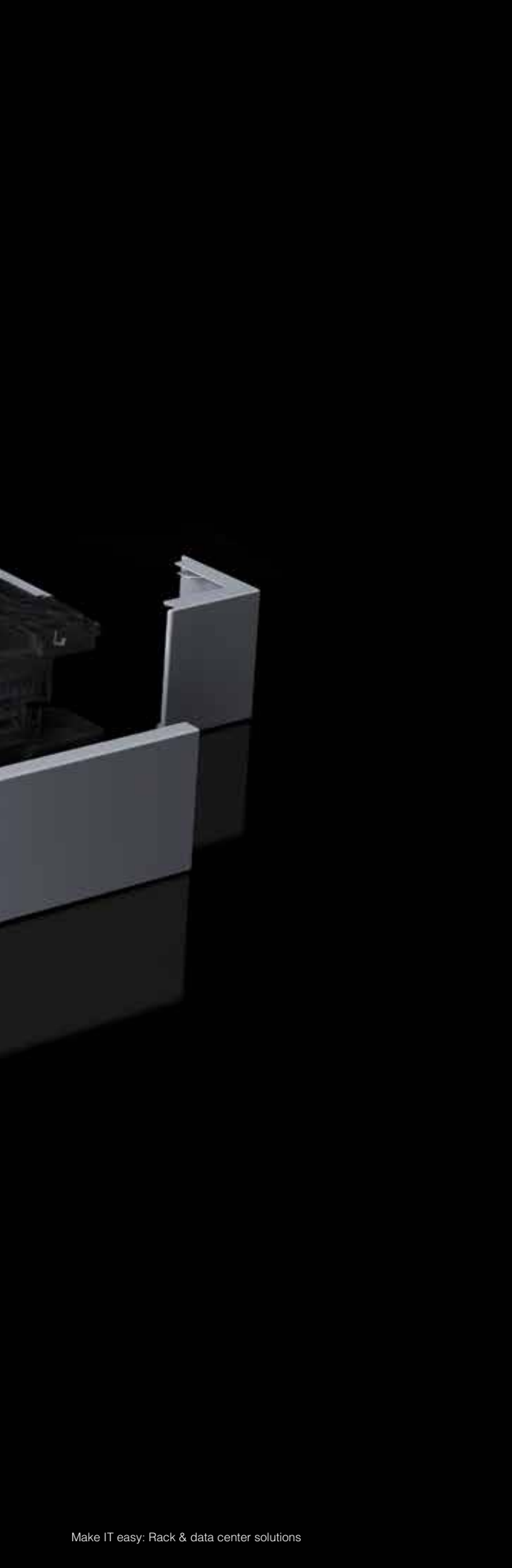
Extension	Part No.
RiZone SNMP support for units from other manufacturers	7990.014

Microsoft Operations Manager Management Pack

For integrating RiZone into the Microsoft Operations Manager.

Extension	Part No.
Microsoft SCOM Management Pack	7990.012





Accessories

Base	68
Walls	79
Baying	81
Doors/locks.....	82
Interior installation	84
Cable management.....	97
Ventilation	104

Flex-Block base/plinth system



Flex-Block

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

Material:

- Corner pieces: Fiberglass-reinforced plastic
- Cover caps: ABS
- Trim panels: Sheet steel

Color:

RAL 9005

Sealed base/plinth supply includes:

- 1 set =
- 4 corner pieces
 - 4 trim panels
 - 4 cover caps
 - Assembly parts for mounting on the enclosure

Vented base/plinth supply includes:

- 1 set =
- 4 corner pieces
 - 2 trim panels, vented (width)
 - 2 trim panels, sealed (depth)
 - 4 cover caps
 - Assembly parts for mounting on the enclosure

Base/plinth, sealed, height 4" (100 mm)

Enclosure width or depth inches (mm)		Packs of	Part No.
24 (600)	24 (600)	1	8001.660
24 (600)	32 (800)	1	8001.680
32 (800)	32 (800)	1	8001.880
32 (800)	40 (1000)	1	8001.800
40 (1000)	12 (300)	1	8001.030
40 (1000)	24 (600)	1	8001.060
48 (1200)	12 (300)	1	8001.230
48 (1200)	24 (600)	1	8001.260
48 (1200)	32 (800)	1	8001.280

Base/plinth, vented, height 4" (100 mm)

For enclosure size		Packs of	Part No.
Width inches (mm)	Depth inches (mm)		
24 (600)	24 (600)	1	8001.662
24 (600)	32 (800)	1	8001.682
24 (600)	40 (1000)	1	8001.602
24 (600)	47 (1200)	1	8001.622
32 (800)	24 (600)	1	8001.862
32 (800)	32 (800)	1	8001.882
32 (800)	40 (1000)	1	8001.802
32 (800)	47 (1200)	1	8001.822

Accessories:

- System bar 23 x 23 mm (4171.500, 4172.500), see page 69.
- Baring clip (8000.100), see page 69.
- Adaptor sleeve (8000.500), see page 69.
- Base mounting plate (2817.000), see page 70.
- Filter mats for vented base/plinth (7583.500, 7581.550), see page 69.



Flex-Block base/plinth system

System bar, 23 x 23 mm**for Flex-Block**

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

Installation options:

In the width and depth

Material:

Sheet steel

Surface finish:

Zinc-plated

Length inches (mm)	For width/depth inches (mm)	Packs of	Part No.
18 (445)	24 (600)	12	4171.500
25 (645)	32 (800)	12	4172.500

Supply includes:

- 12 system bars
- Assembly parts for mounting

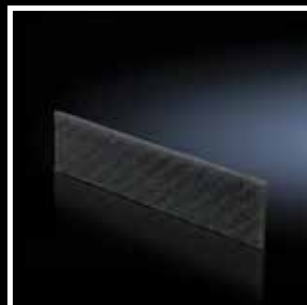
Note:

Additional sizes available for use in enclosure, see page 85.

**Filter mat****for Flex-Block, vented version**

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

For enclosure width inches (mm)	Packs of	Part No.
24/32 (600/800)	4	7583.500

**Baying clip****for baying the Flex-Block corner pieces**

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

Material:

Fiberglass-reinforced plastic

Color:

RAL 9005

Packs of	Part No.
12	8000.100

**Adaptor sleeve****for Flex-Block**

To accommodate leveling feet and twin castors on the Flex-Block and for assembling a 8"/12" (200 mm/300 mm) high base/plinth by stacking the base/plinth corner pieces.

Material:

Steel

Surface finish:

Zinc-plated

Supply includes:

- 12 adaptor sleeves
- 8 screws M12
- 8 washers

Packs of	Part No.
12	8000.500

Accessories:

- Leveling feet (4612.000), see page 72.
- Twin castors (7495.000, 6184.000), see page 72.



Base

TS base/plinth



Base/plinth components front and rear

Base/plinth component consisting of one trim panel and two preconfigured corner pieces.

Material:

- Base/plinth components: Sheet steel
- Cover caps: Plastic

Surface finish:

Spray-finished

Color:

Cover caps: RAL 9005/7035

Supply includes:

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

Accessories:

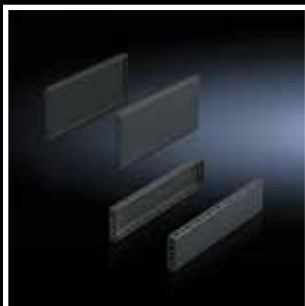
- Base mounting plate 2817.000, see below.

Detailed drawings:

Available at www.rittal.us



Enclosure width inches (mm)	Color		Part No.	
	RAL 7035	RAL 9005	4" (100 mm) high	8" (200 mm) high
12 (300)	■	–	8601.905	8602.905
12 (300)	–	■	9978.362	9967.490
24 (600)	■	–	8601.605	8602.605
24 (600)	–	■	9978.363	9967.491
32 (800)	■	–	8601.805	8602.805
32 (800)	–	■	9978.364	9967.492



Base/plinth trim panels, side

For mounting between the base/plinth components.

Material:

Sheet steel

Surface finish:

Spray-finished

Supply includes:

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

Enclosure depth inches (mm)	RAL 7035	RAL 9005	Part No.
			8" (200 mm) high
24 (600)	■	–	8602.065
32 (800)	■	–	8602.085
36 (900)	■	–	8602.095
40 (1000)	■	–	8602.015
40 (1000)	–	■	9967.493
42 (1050)	–	■	9967.494
48 (1200)	■	–	8602.025
48 (1200)	–	■	9967.495



Base mounting plate

For fastening the base/plinth to the floor without moving the enclosure or the bayed enclosure suite. For assembly screws up to 12 mm Ø.

Material:

Carbon steel

Surface finish:

Zinc-plated

Packs of	Part No.
10	2817.000

TS base/plinth

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:

Carbon steel

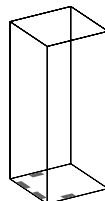
Surface finish:

Zinc-plated

Packs of	Part No.
4	8800.210

Note:

Additional holes in the base are required for mounting.

**Bolt down kits**

For anchoring the enclosure even if it is on casters, at any position of the base frame. Has a vertical slot to account for different vertical positions.

Material:

Carbon steel, E-coated

Note:

Additional holes in the base are required for mounting.

Description	Packs of	Part No.
Standard bolt down kit	4	9970.989
Bolt down anchor kit	4	9978.415¹⁾

¹⁾ Cannot be used with casters or leveling feet.

**Base/plinth adaptor for leveling feet**

Connection component for fastening M12 leveling feet 4612.000 to the TS base/plinth.

Material:

Carbon steel

Surface finish:

Zinc-plated

Also required:

Leveling feet, 4612.000, see page 72

Packs of	Part No.
4	8800.220

**Base/plinth adaptor for twin casters**

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

Material:

Carbon steel

Surface finish:

Zinc-plated

Also required:

Base/plinth trim panels, side, wherever a twin caster is fitted; see page 70.

Note:

Twin casters, see page 72.

Packs of	Part No.
4	8800.290



Base

Base



Leveling feet

0.7 – 1.7" (18 – 43 mm) high

To compensate for height differences with floor irregularities. Thread length 40 mm. Assembly thread M12.

Max. admissible static load:

approx. 661 lbs (300 kg) per leveling foot

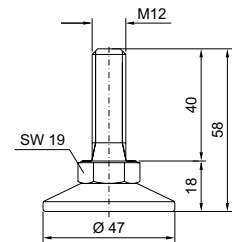
For:

– Flex-Block, also suitable for TS base/plinth

Also required:

For mounting on the TS base/plinth:

Base/plinth adaptor 8800.220, see page 71



Packs of	Part No.
4	4612.000



Leveling feet

For TS base/plinth

To compensate for uneven floors, can be mounted on enclosure or on base.

Length of thread:

2" (51 mm)

Load capacity:

800 lbs (363 kg) each

Type of thread:

M12

Packs of	Part No.
4	9961.504



Twin casters

Mounting thread M12 .4" (20 mm)

For:

- Baying system TS 8
- Data Rack

Also required:

For mounting on the TS base/plinth:

Base/plinth adaptor for twin casters 8800.290, see page 71

For mounting on Flex-Block:

Adaptor sleeve 8000.500 see page 69

Maximum permissible static load (per caster)	165 (75 kg)
Ground clearance	3" (85 mm)
Lock	2 with, 2 without
Packs of	1 set
Color	Black with grey running surface
Part No.	6148.000



Maximum permissible static load (per caster)	265 lbs (120 kg)
Ground clearance	5" (125 mm)
Lock	2 with, 2 without
Packs of	1 set
Color	Black
Part No.	7495.000

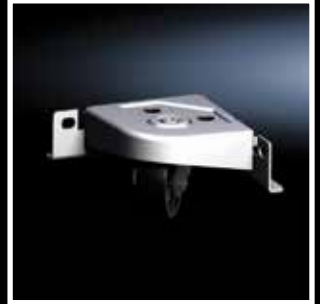
Caster kit

Casters help simple movement on even floors. Easy to install. Kit includes hardware, left and right rigid casters and two swivel casters.

Load capacity:

Supports dynamic load rating of 2250 lbs (1020 kg) per cabinet

Kit includes	Part No.
4 casters /1 wrench	9968.751



Reinforcement bracket for TS

For use as an additional stabilizer to the clamping straps when populated enclosures are screw-fastened via the base tray to the base/plinth or pallet for transportation purposes.

Material:

Carbon steel

Surface finish:

Zinc-plated

Supply includes:

Assembly parts

Packs of	Part No.
4	8800.830



Base

Gland plate, TS IT



Gland plate for TS IT

Potential equalisation is provided via assembly components and grounding points.

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

Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
Assembly parts.

Accessories:
Clips for gland plates,
see page 78.

For enclosure depth 24" (600 mm)

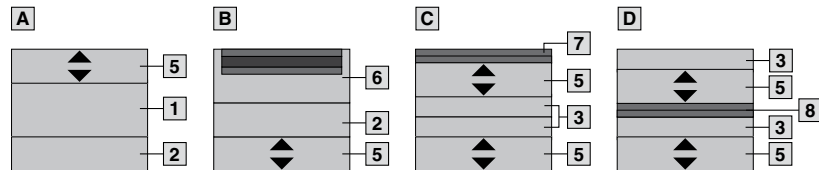
A Gland plate set	Packs of	Required packs of	For enclosure width inches (mm)	
			24 (600)	32 (800)
			Part No.	
Gland plate, solid, with sliding panel, multi-piece	1 set	1	–	5502.510

Gland plate modules	Packs of	Required packs of	For enclosure width inches (mm)	
			24 (600)	32 (800)

B 1 module plate as selected				Part No.	
Gland plate, depth 6" (150 mm)		1	1	5001.218	5001.219
Sliding panel, depth 6" (150 mm)		1	1	5001.239	5001.240
Module plate, depth 9" (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				Part No.	
Gland plate, depth 4" (100 mm)		1	2	5001.214	5001.215
Sliding panel, depth 6" (150 mm)		1	2	5001.239	5001.240
Self-adhesive foam cable clamp strip, 10 ft. (3000 mm)		1	1	2573.000	2573.000

D Cable entry, center				Part No.	
Gland plate, depth 4" (100 mm)		1	2	5001.214	5001.215
Sliding panel, depth 6" (150 mm)		1	2	5001.239	5001.240
Section for cable entry, center		1 set	1	8802.060	8802.080



- | | |
|-----------------------------------|--|
| 1 Gland plate, depth 10" (250 mm) | 5 Sliding panel, depth 6" (150 mm) |
| 2 Gland plate, depth 6" (150 mm) | 6 Module plate, depth 9" (237.5 mm) |
| 3 Gland plate, depth 4" (100 mm) | 7 Self-adhesive foam cable clamp strip |
| 4 Gland plate, depth 2" (50 mm) | 8 Section for cable entry, center |

Also required:
Base mount,
see page 78.

Note:
Total installation
depth 20" (512 mm)

Gland plate, TS IT

For enclosure depth 32" (800 mm)

A Gland plate set	Packs of	Required packs of	For enclosure width inches (mm)	
			24 (600)	32 (800)
			Part No.	
Gland plate, solid, with sliding panel, multi-piece	1 set	1	–	5502.530

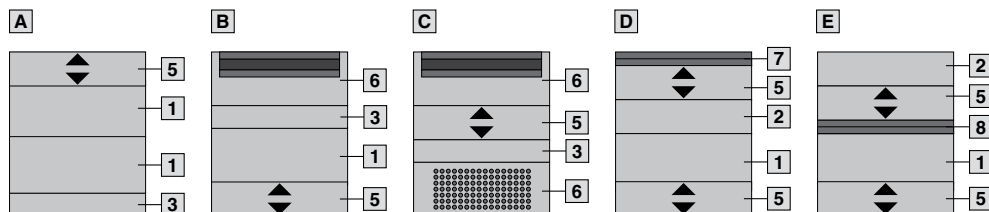
Gland plate modules	Packs of	Required packs of	For enclosure width inches (mm)	
			24 (600)	32 (800)

B 1 module plate as selected				Part No.	
Gland plate, depth 10" (250 mm)		1	1	5001.222	5001.223
Gland plate, depth 4" (100 mm)		1	1	5001.214	5001.215
Sliding panel, depth 6" (150 mm)		1	1	5001.239	5001.240
Module plate, depth 9" (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				Part No.	
Gland plate, depth 4" (100 mm)		1	1	5001.218	5001.219
Sliding panel, depth 6" (150 mm)		1	1	5001.239	5001.240
Module plate, depth 9" (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				Part No.	
Gland plate, depth 10" (250 mm)		1	1	5001.222	5001.223
Gland plate, depth 6" (150 mm)		1	1	5001.218	5001.219
Sliding panel, depth 6" (150 mm)		1	2	5001.239	5001.240
Self-adhesive foam cable clamp strip, 10 ft. (3000 mm)		1	1	2573.000	2573.000

E Cable entry, center				Part No.	
Gland plate, depth 10" (250 mm)		1	1	5001.222	5001.223
Gland plate, depth 6" (150 mm)		1	1	5001.218	5001.219
Sliding panel, depth 6" (150 mm)		1	2	5001.239	5001.240
Section for cable entry, center		1 set	1	8802.060	8802.080



- 1 Gland plate, depth 10" (250 mm)
 2 Gland plate, depth 6" (150 mm)
 3 Gland plate, depth 4" (100 mm)
 4 Gland plate, depth 2" (50 mm)

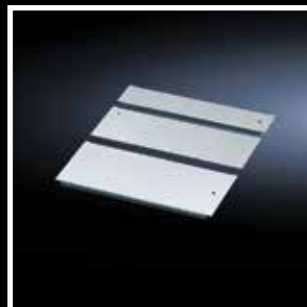
- 5 Sliding panel, depth 6" (150 mm)
 6 Module plate, depth 9" (237.5 mm)
 7 Self-adhesive foam cable clamp strip
 8 Section for cable entry, center

Also required:

Base mount,
see page 78.

Note:

Total installation
depth 28" (712 mm)



Base

Gland plate, TS IT



For enclosure depth 39" (1000 mm)

A Gland plate set	Packs of	Required packs of	For enclosure width inches (mm)	
			24 (600)	32 (800)
			Part No.	
Gland plate, solid, with sliding panel, multi-piece	1 set	1	5502.540	5502.550

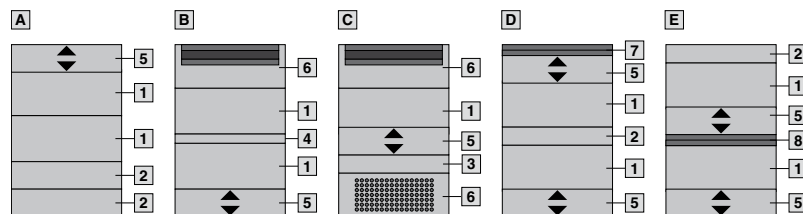
Gland plate modules	Packs of	Required packs of	For enclosure width inches (mm)	
			24 (600)	32 (800)

B 1 module plate as selected				Part No.	
Gland plate, depth 10" (250 mm)		1	2	5001.222	5001.223
Gland plate, depth 2" (50 mm)		1	1	5001.210	5001.211
Sliding panel, depth 6" (150 mm)		1	1	5001.239	5001.240
Module plate, depth 9" (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				Part No.	
Gland plate, depth 10" (250 mm)		1	1	5001.222	5001.223
Gland plate, depth 4" (100 mm)		1	1	5001.214	5001.215
Sliding panel, depth 6" (150 mm)		1	1	5001.239	5001.240
Module plate, depth 9" (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				Part No.	
Gland plate, depth 10" (250 mm)		1	2	5001.222	5001.223
Gland plate, depth 4" (100 mm)		1	1	5001.214	5001.215
Sliding panel, depth 6" (150 mm)		1	2	5001.239	5001.240
Self-adhesive foam cable clamp strip, 10 ft. (3000 mm)		1	1	2573.000	2573.000

E Cable entry, center				Part No.	
Gland plate, depth 10" (250 mm)		1	2	5001.222	5001.223
Gland plate, depth 4" (100 mm)		1	1	5001.214	5001.215
Sliding panel, depth 6" (150 mm)		1	2	5001.239	5001.240
Section for cable entry, center		1 set	1	8802.060	8802.080



Also required:

Base mount,
see page 78.

Note:

Total installation
depth 36" (912 mm)

- | | |
|-----------------------------------|--|
| 1 Gland plate, depth 10" (250 mm) | 5 Sliding panel, depth 6" (150 mm) |
| 2 Gland plate, depth 6" (150 mm) | 6 Module plate, depth 9" (237.5 mm) |
| 3 Gland plate, depth 4" (100 mm) | 7 Self-adhesive foam cable clamp strip |
| 4 Gland plate, depth 2" (50 mm) | 8 Section for cable entry, center |

Gland plate, TS IT

For enclosure depth 47" (1200 mm)

A Gland plate set	Packs of	Required packs of	For enclosure width inches (mm)	
			24 (600)	32 (800)
			Part No.	
Gland plate, solid, with sliding panel, multi-piece	1 set	1	5502.560	5502.570

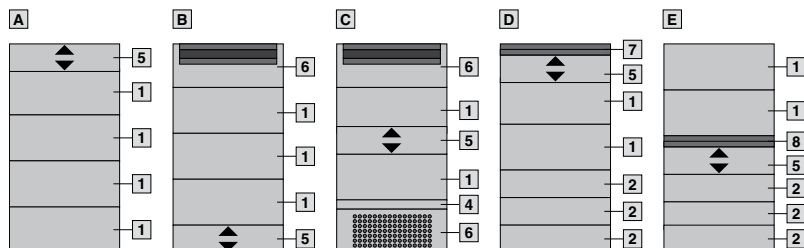
Gland plate modules	Packs of	Required packs of	For enclosure width inches (mm)	
			24 (600)	32 (800)

B 1 module plate as selected				Part No.	
Gland plate, depth 10" (250 mm)		1	3	5001.222	5001.223
Sliding panel, depth 6" (150 mm)		1	1	5001.239	5001.240
Module plate, depth 9" (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				Part No.	
Gland plate, depth 10" (250 mm)		1	1	5001.222	5001.223
Gland plate, depth 2" (50 mm)		1	1	5001.210	5001.211
Sliding panel, depth 6" (150 mm)		1	1	5001.239	5001.240
Module plate, depth 9" (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				Part No.	
Gland plate, depth 10" (250 mm)		1	2	5001.222	5001.223
Gland plate, depth 6" (150 mm)		1	3	5001.218	5001.219
Sliding panel, depth 6" (150 mm)		1	1	5001.239	5001.240
Self-adhesive foam cable clamp strip, 10 ft. (3000 mm)		1	1	2573.000	2573.000

E Cable entry, center				Part No.	
Gland plate, depth 10" (250 mm)		1	2	5001.222	5001.223
Gland plate, depth 6" (150 mm)		1	3	5001.218	5001.219
Sliding panel, depth 6" (150 mm)		1	1	5001.239	5001.240
Section for cable entry, center		1 set	1	8802.060	8802.080



Also required:

Base mount,
see page 78.

Note:

Total installation
depth 43" (1112 mm)

1 Gland plate, depth 10" (250 mm)

2 Gland plate, depth 6" (150 mm)

3 Gland plate, depth 4" (100 mm)

4 Gland plate, depth 2" (50 mm)

5 Sliding panel, depth 6" (150 mm)

6 Module plate, depth 9" (237.5 mm)

7 Self-adhesive foam cable clamp strip

8 Section for cable entry, center

Base

Gland plate accessories



Clips

for gland plates

As replacement and for additional gland plate attachments in TS.

Material:

Carbon steel

Surface finish:

Zinc-plated

Packs of	Part No.
50	8800.075



Base mount

for TS IT

To accommodate gland plate modules.

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

Material:

Sheet steel

Surface finish:

Spray-finished

Color:

RAL 7035, RAL 9005

Supply includes:

2 mounting rails including assembly parts.

For encl. depth inches (mm)	Packs of	Part No. RAL 7035	Part No. RAL 9005
24 (600)	2	5501.300	5501.305
32 (800)	2	5501.310	5501.315
39 (1000)	2	5501.320	5501.325
47 (1200)	2	5501.350	5501.355

Sidewalls

**Sidewall, divided
for TS IT**

- Easy handling and tool-free assembly
- Quick-release fastener including security lock 3524 E
- Internal latch included (cannot be opened with a key)
- Lock with chassis, cable clamp rail may be top-mounted on the outer mounting rail
- Suitable for IT climate control and rack extinguishing

Material:

Sheet steel

Color:

RAL 7035, RAL 9005

Supply includes:

- 1 console
- 1 pedestal
- Ground conductor
- Assembly parts

For enclosures		Packs of	RAL 7035 Part No.	RAL 9005 Part No.
Height inches (mm)	Depth inches (mm)			
71 (1800)	32 (800)	1	5501.000	5501.005
79 (2000)	24 (600)	1	5501.010	5501.015
79 (2000)	32 (800)	1	5501.020	5501.025
79 (2000)	39 (1000)	1	5501.030	5501.035
79 (2000)	42 (1050)	1	–	5501.095
79 (2000)	47 (1200)	1	5501.040	5501.045
87 (2200)	32 (800)	1	5501.050	5501.055
87 (2200)	39 (1000)	1	5501.060	5501.065
87 (2200)	42 (1050)	1	–	5501.105
87 (2200)	47 (1200)	1	5501.070	5501.075

**Sidewall, solid****Material:**

Sheet steel, electrophoretic dipcoat-primed, powder-coated

Color:

RAL 7035, RAL 9005

Supply includes:

2 side panels

Protection category:

IP 55

For Enclosures:		Color		Part No.
Height inches x (mm)	Depth inches x (mm)	RAL 7035	RAL 9005	
48 (1200)	24 (600)	■	–	8170.235
48 (1200)	24 (600)	–	■	9969.948
48 (1200)	32 (800)	■	–	8175.235
48 (1200)	32 (800)	–	■	9969.949
79 (2000)	24 (600)	■	–	8106.235
79 (2000)	24 (600)	–	■	9969.920
79 (2000)	32 (800)	■	–	8108.235
79 (2000)	32 (800)	–	■	9969.916

For Enclosures:		Color		Part No.
Height inches x (mm)	Depth inches x (mm)	RAL 7035	RAL 9005	
79 (2000)	36 (900)	■	–	8109.235
79 (2000)	36 (900)	–	■	9968.597
79 (2000)	40 (1000)	■	–	8100.235
79 (2000)	40 (1000)	–	■	9968.596
79 (2000)	42 (1050)	■	–	9969.309
79 (2000)	42 (1050)	–	■	9969.351
79 (2000)	48 (1200)	■	–	9969.955
79 (2000)	48 (1200)	–	■	9969.956
87 (2200)	24 (600)	■	–	8126.235
87 (2200)	24 (600)	–	■	9969.917
87 (2200)	32 (800)	■	–	8128.235
87 (2200)	32 (800)	–	■	9969.352
87 (2200)	36 (900)	■	–	9969.311
87 (2200)	36 (900)	–	■	9968.595
87 (2200)	40 (1000)	■	–	9968.593
87 (2200)	40 (1000)	–	■	9968.594
87 (2200)	42 (1050)	■	–	9969.312
87 (2200)	42 (1050)	–	■	9969.355
87 (2200)	48 (1200)	■	–	9969.957
87 (2200)	48 (1200)	–	■	9969.958



Walls

Partition wall



Cable pass through partition wall

For side partitioning of bayed TS server enclosures. Installs without the need for additional hardware or tools. Has four 4.41" (112 mm) cable pass through holes, grommet covers included.

Color:

RAL 9005

Note:

Use baying connector 8800.490 (see page 81).
Not for use in conjunction with a baying seal.
Can be installed and removed without moving the cabinet.

Height inches (mm)	Depth inches (mm)	Part No.
79 (2000)	35 (900)	9971.041
79 (2000)	39 (1000)	9971.042
79 (2000)	42 (1050)	9971.043
79 (2000)	47 (1200)	9971.044
87 (2200)	35 (900)	9971.045
87 (2200)	39 (1000)	9971.046
87 (2200)	42 (1050)	9971.047
87 (2200)	47 (1200)	9971.048



Solid partition wall

For side partitioning of bayed TS server enclosures. Installs without the need for additional hardware or tools.

Color:

RAL 9005

Note:

Use baying connector 8800.490 (see page 81).
Not for use in conjunction with a baying seal.
Can be installed and removed without moving the cabinet.

Height inches (mm)	Depth inches (mm)	Part No.
79 (2000)	36 (900)	9978.377
79 (2000)	40 (1000)	9978.378
79 (2000)	42 (1050)	9978.379
79 (2000)	48 (1200)	9978.380
87 (2200)	36 (900)	9978.381
87 (2200)	40 (1000)	9978.382
87 (2200)	42 (1050)	9978.383
87 (2200)	48 (1200)	9978.384

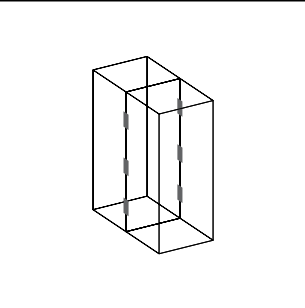
Connection hardware

Baying connectors, external

For mounting on the vertical enclosure sections. Simply position on the outside and screw-fasten either from the inside or outside.

Supply includes:
Assembly parts

Material/surface finish	Packs of	Part No.
Carbon steel, zinc-plated	6	8800.490



Baying bracket

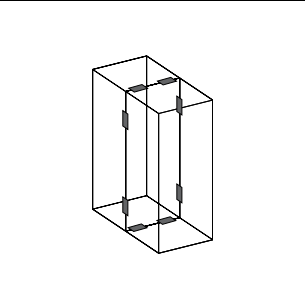
For additional stabilization, or in cases where mounting panel brackets, swing frame or busbar supports prevent the installation of angular baying brackets.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts

Accessories:
For mounting on vertical TS enclosure:
Snap-on nut M8, 8800.808

Packs of	Part No.
4	4582.500



Doors/locks

Tubular door frame/handle



Tubular door frame

for rear door, vertically divided, solid door only

Material:
Sheet steel

Surface finish:
Zinc-plated

Supply includes:
Assembly parts

Note:
Required for use of the automatic door opener.

For enclosures		Packs of	Part No.
Width inches (mm)	Height inches (mm)	1	
24 (600)	79 (2000)	1	5501.200
32 (800)	79 (2000)	1	5501.210



Comfort handle

for lock insert

Prepared for the installation of lock inserts, safety and push-button inserts.

Material:
Die-cast zinc

Color	Part No.
RAL 7035	8611.020
RAL 9005	8611.350



Comfort handle

for semi-cylinder

Prepared for the installation of commercially available semi-cylinder, 1.6 or 1.8" total length.

Length:
11.9" (302 mm)

Material:
Die-cast zinc

Design	Part No.
RAL 7035	8611.070
RAL 9005	8611.360

Handle/lock systems

Security handle with code

Flexible access opportunities with

- individual 3-digit code without key or
- with the master key function via an additional semi-cylinder of 40 or 45 mm to DIN 18 252, irrespective of the code.

Note:

Security handle combination lock reset tool available upon request.

Design with	Part No.
RAL 7035 comfort handle for TS	7200.800
RAL 9005 comfort handle for TS	9963.601

Material:

Die-cast zinc

Accessories:

– Lock and push-button inserts, see below.



Lock and push-button inserts

For installation in comfort handles that use lock inserts.

Design	Part No.
Security lock insert no. 3524 E	8611.180¹⁾
Push-button inserts	8611.190
Push-button and lock inserts, lock no 1231; no other lock is possible	8611.200

¹⁾ 2 keys included



Lock and push-button inserts

For installation in comfort handles that use semi-cylinder inserts

Design	Part No.
Security lock inserts no. 3524 E	2467.000¹⁾
Push-button inserts	2468.000
Push-button and lock inserts, lock no. 2123 E; no other lock is possible	2469.000

¹⁾ 2 keys included



Interior installation

Rail systems



System chassis with mounting flange, 17 x 73 mm

For TS

For designing a flexible interior installation, or for accommodating additional components. The system chassis with mounting flanges may be attached directly onto a 19" (482.6 mm) mounting frame horizontally at the rear or in the enclosure depth between two mounting frames. An additional screw fastening secures the unit. Variable, with 5 rows of holes for universal skeleton structure or partial assembly.

Material:

Sheet steel, zinc-plated, passivated

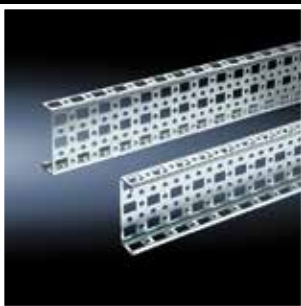
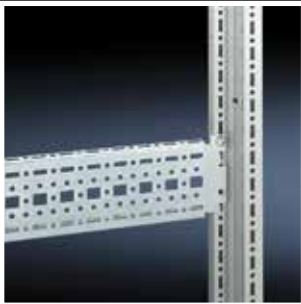
Includes:

Assembly parts

German Patent no. 196 47 802

Note:

When selecting a distance between rails outside of the mounting attachment points, it is advisable to use the depth-variable system chassis with mounting flange.

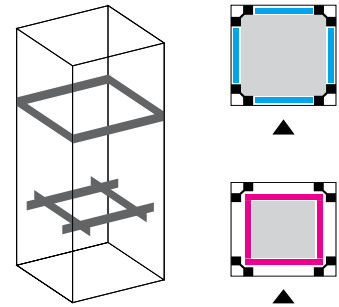


For inner mounting rail

Enclosure width/depth inches (mm)	Packs of	Part No.
24 (600)	4	8612.060
32 (800)	4	8612.080
36 (900)	4	8612.090
40 (1000)	4	8612.000
48 (1200)	4	8612.020

For outer mounting rail

Enclosure width/depth inches (mm)	Packs of	Part No.
24 (600)	4	8612.160
32 (800)	4	8612.180
40 (1000)	4	8612.100
48 (1200)	4	8612.120



System chassis without mounting flange, 23 x 73 mm

For PS

Installation options:

- On the vertical enclosure section
 - Directly via support brackets TS
 - Via adaptor rail for PS compatibility in conjunction with support brackets PS
- On the horizontal enclosure section
 - Directly via support brackets PS

Material:

Sheet steel

Surface finish:

Zinc-plated

Length inches (mm)	For WHD inches (mm)	Packs of	Part No.
35 (895)	39 (1000)	4	4382.000
43 (1095)	47 (1200)	4	4378.000
75 (1895)	79 (2000)	4	4380.000
82 (2095)	87 (2200)	4	4381.000

Also required:

Support bracket TS/PS (4183.000), see page 85.

Note:

May be used for TS with adaptor rail, see page 85.

Rail systems/assembly components

System bars, 23 x 23 mm

For TS/PS

Installation options:

- On the vertical enclosure section
 - Directly via support brackets TS
 - Via adapter rail for PS compatibility in conjunction with angle brackets, mounting brackets or support brackets PS
- On the horizontal enclosure section
 - Directly via angle brackets, mounting brackets or support brackets PS

Note: The two smallest sizes can also be used for Flex-Block installations (see page 69 for further details).

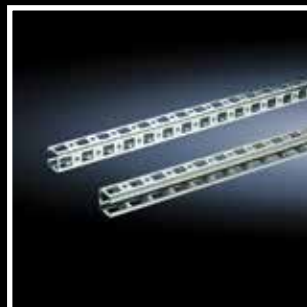
Length inches (mm)	For WHD inches (mm)	Packs of	Part No.
18 (445)	24 (600)	12	4171.500
25 (645)	24 (600)	12	4172.500
75 (1895)	79 (2000)	6	4177.000
82 (2095)	87 (2200)	6	4178.000

Material:

Sheet steel, zinc-plated, passivated

Note:

Requires mounting bracket 4182.000, see below, for uses other than Flex-Block.



Adapter rail

for TS

Installation in the vertical TS enclosure sections (across the entire enclosure height or in subsections) to create compatibility with:

- PS system bars, 23 x 23 mm
- PS system chassis without mounting flange, 23 x 73 mm
- PS system chassis with mounting flange, 23 x 23 mm

For enclosure height inches (mm)	Packs of	Part No.
72 (1800)	4	8800.380
79 (2000)	4	8800.300
87 (2200)	4	8800.320

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly screws



Mounting bracket

For TS/PS

For variable attachment of system bar 23 x 23 mm.

Installation options:

- Optionally flush with:
 - Outer enclosure edge or
 - Enclosure clearance width
- On the vertical TS enclosure section via
 - Adaptor rail for PS compatibility, see above
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular system hole patterns 12.5 x 10.5 mm

Packs of	Part No.
24	4182.000

Material:

Die-cast zinc

Supply includes:

1 set = 1 mounting bracket, 1 screw M6 x 12 mm, 1 cage nut M6

Also required:

- U nuts for system bars (recommended: M6, 4179.000), see page 86
- Multi-tooth screws M6 x 12 mm (2504.500), see page 88



Support bracket

For TS/PS

For the attachment of system chassis without mounting flange, 23 x 73 mm or system bars, 23 x 23 mm.

Installation options:

- On the vertical TS enclosure section via
 - Adaptor rail for PS compatibility (8800.380)
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular hole patterns, 12.5 x 10.5 mm.

Material:

Die-cast zinc

Packs of	Part No.
24 set	4183.000

Supply includes:

1 set =
1 support bracket,
2 countersunk screws,
2 serrated lock washers.

Also required:

- U nuts for system bars (recommended: M6, 4179.000), see page 86
- Multi-tooth screws M6 x 12 mm (2504.500), see page 88



Interior installation

Assembly components



U nuts

For

- System bars 23 x 23 mm
- System chassis without mounting flange, 23 x 73 mm
- System chassis without mounting flange, 45 x 88 mm
- System chassis with mounting flange, 23 x 73 mm

For mounting system bars and system chassis without mounting flanges on angle brackets, mounting brackets and support brackets, we recommend U nuts with M6 thread (4179.000).

Thread	Packs of	Part No.
M4	20	4119.000
M5	20	4157.000
M6	20	4179.000
M8	20	4180.000

Accessories:

Multi-tooth screws M6 x 12 mm, (for 4179.000), see page 88



Mounting plate

Screw-fastened, small

Material:

Carbon steel

Surface finish:

Zinc-plated

Supply includes:

Assembly screws

Detailed drawings:

Available at www.rittal.us

Packs of	Part No.
4	4532.000



Mounting bracket

May be screw-fastened onto all enclosures and mounting parts with 25 mm hole patterns.

Material:

Carbon steel

Surface finish:

Zinc-plated

Supply includes:

Assembly screws

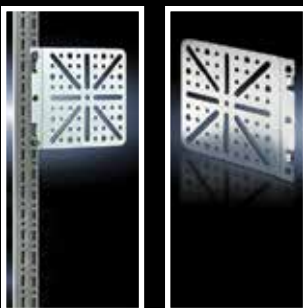
Packs of	Part No.
4	4597.000

Accessories:

- Screws, see page 98.
- Cable tie for fast assembly 2597.000, see page 97.

Detailed drawings:

Available at www.rittal.us



Mounting plate

Locatable

on

- the vertical TS enclosure section
- TS system chassis with mounting flange, 17 x 73 mm

Material:

Carbon steel

Surface finish:

Zinc-plated

Packs of	Part No.
4	8612.400

Supply includes:

Assembly screws

Detailed drawings:

Available at www.rittal.us

Assembly components

Mounting plate

Screw-fastened, large

On all enclosures and mounting parts with 25 mm hole patterns.

Material:

Carbon steel

Surface finish:

Zinc-plated

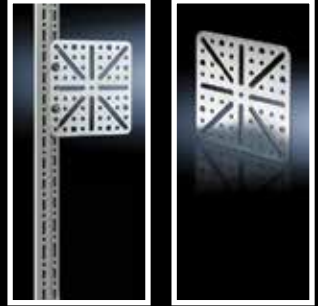
Supply includes:

Assembly screws

Packs of	Part No.
4	8612.410

Detailed drawings:

Available at www.rittal.us



Front-mounting cage nut, 19" (482.6 mm)

The cage nut consists of an expanding nut which is simply inserted into the square attachment hole at the front and then secured with the assembly screw. When tightening the screw, the cage expands and thus secures the required components. Clamping range from 0.05 – 0.18" (1.2 – 4.5 mm). Multi-tooth screw head, bit size T 30.

Material:

Sheet steel

Dimensions mm	Size of mounting hole inches (mm)	Packs of	Part No.
M6 x 16	0.37 x 0.37 (9.5 x 9.5)	50	2094.400

Surface finish:

Zinc-plated

Supply includes:

- 50 expanding nuts
- Assembly screws
- Plastic washers



Captive nut M5/M6

For the attachment of rack-mounted electronic equipment, 19" (482.6 mm) installed equipment and blanking plates to mounting rails, 19" (482.6 mm). For use with metal thickness from 20 – 14 ga (0.8 – 2.0 mm). In areas of narrow tolerance, captive nuts for metal thicknesses of 18 – 16 ga (1.2 – 1.5 mm) should be used. Optionally with or without contact of the installed equipment to the 19" (482.6 mm) section/ enclosure.

Captive nut M5

Design	For metal thicknesses ga (mm)	Packs of	Part No.
With contact	20 – 14 (0.8 – 2.0)	50	2094.500
Without contact	20 – 14 (0.8 – 2.0)	50	2092.500

Captive nut M6

Design	For metal thicknesses ga (mm)	Packs of	Part No.
With contact	20 – 14 (0.8 – 2.0)	50	2094.200
Without contact	20 – 14 (0.8 – 2.0)	50	2092.200
With contact	18 – 16 (1.2 – 1.5)	50	2094.300
Without contact	18 – 16 (1.2 – 1.5)	50	2092.300

Captive nut 10/32

Design	For metal thicknesses ga (mm)	Packs of	Part No.
Without contact	20 – 14 (0.8 – 2.0)	50	9957.324



Interior installation

Assembly components



1

1 Multi-tooth screw

M6 x 12 to fit:

- Snap-on nuts (8800.806)
- U nuts for system bars (4179.000)
- Captive nuts (4164.000)
- Threaded blocks (4162.000)

M8 x 12 to fit:

- Snap-on nuts (8800.808)



2

2 Metal multi-tooth screw

For the round holes 4.5 mm diameter in the enclosure section, system bars and system chassis without mounting flanges



3

3 Self-tapping screw

For the round holes 4.5 mm diameter in the enclosure section, system bars and system chassis without mounting flanges



4

4 Self-tapping screw

Mark, drill and tighten in a single operation using electric or pneumatic tools

For metal thickness: 20 – 11 ga (0.8 – 3 mm)

Length: 0.6" (16 mm)

Usable length: 0.4" (9.5 mm)

Width across flats: 0.3" (8 mm)

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

Dimensions mm	Packs of	Part No.
Multi-tooth screws		
M6 x 12	300	2504.500
M8 x 12	300	2504.800
Metal multi-tooth screws		
5.5 x 13	300	2486.500
Metal multi-tooth screws for stainless steel		
5 x 13	300	2486.300
Self-tapping hex screws		
M5 x 10	500	2504.000
Self-tapping posidrive raised countersunk screws		
M5 x 12	500	2488.000
Self-tapping pan-head screws, posidrive		
M5 x 12	500	2489.000
Self-tapping multi-tooth pan-head screws		
M5 x 12	500	2489.500
Self-tapping screws		
ST 4.8 x 16	300	2487.000



Assembly screws M6 x 0.63" (16 mm), M5 x 0.63" (16 mm)

For captive nuts, 19" (482.6 mm) enclosure mount components and blanking panels. Plastic washers included.



Type	Packs of	Part No.
Slotted screw M6	50	7094.110
Phillips screw M6	50	7094.100¹⁾
Phillips screw M5	50	7094.120

¹⁾Included standard with TS8 network and server enclosures in this publication.

Component shelves

Component shelf, fixed depth static installation

For static installation between 19" (482.6 mm) mounting rails.

Load capacity:

55 lbs (25 kg) surface load, static

Material:

Sheet steel

Surface finish:

Spray-finished

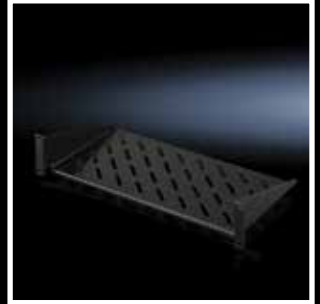
Color:

RAL 9005

Supply includes:

Assembly parts.

Component shelf depth inches (mm)	Packs of	Part No.
10 (250)	1 set	5501.615
16 (400)	1 set	5501.625



Component shelf, depth variable, static installation

For static installation between two 19" (482.6 mm) mounting rails.

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

Material:

Sheet steel

Surface finish:

Spray-finished

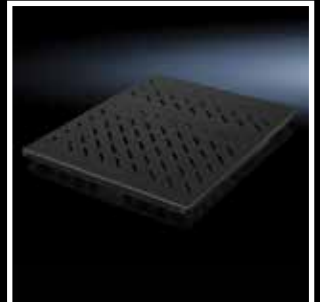
Color:

RAL 9005

Supply includes:

Assembly parts.

Distance between rails inches (mm)	Load capacity, static lbs (kg)	Height U	Packs of	Part No.
16–24 (400–600)	110 (50)	½	1 set	5501.655
24–35 (600–900)	110 (50)	½	1 set	5501.665
16–24 (400–600)	220 (100)	1	1 set	5501.695
24–35 (600–900)	220 (100)	1	1 set	5501.705



Interior installation

Component shelves/handle/drawer



Component shelf, depth variable, pull-out

- For mounting between two 19" (482.6 mm) mounting rails.
- Depth-variable to adapt to individual distances between rails
 - Tool-free, time-saving one-man assembly from the enclosure front
 - Self-locking
 - Fully extendible

Material:
Sheet steel

Surface finish:
Spray-finished

Color:
RAL 9005

Supply includes:

- Installation kit
- Telescopic slide with mounting kit
- Assembly parts

Accessory:
Handle, 3636.010, see below.

Distance between rails inches (mm)	Load capacity, static lbs (kg)	Height U	Depth inches (mm)	Packs of	Part No.
16–24 (400–600)	110 (50)	1	20 (500)	1 set	5501.675
24–35 (600–900)	110 (50)	1	28 (700)	1 set	5501.685
16–24 (400–600)	220 (100)	1½	20 (500)	1 set	5501.715
24–35 (600–900)	220 (100)	1½	28 (700)	1 set	5501.725



Handle for pull-out component shelves

All component shelves have mounting holes for handles.

Material:
Die-cast zinc

Surface finish:
Spray-finished, silver-grey

Supply includes:
Assembly parts

Packs of	Part No.
2	3636.010



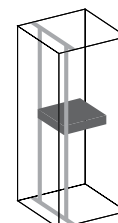
Pull-out drawer

For front attachment to mounting rails. With cover and telescopic slides to accommodate assignment lists, operating manuals and small parts. The 2 U version is also suitable for mounting inside a swing frame. Fully assembled, including assembly parts.

Material:
Sheet steel

Color:
RAL 9005

U	Clearance openings		Install depth inches (mm)	Packs of	Part No.
	Width inches (mm)	Depth inches (mm)			
2	16 (411)	16 (419)	17 (427)	1	5502.305
3	16 (411)	16 (419)	17 (427)	1	5502.325



Slide rails

Telescopic support rail, heavy duty

These telescopic support rails are designed to support components from underneath, and can support up to 200 lbs (91 kg). Rails extend from 22" (560.5 mm), totally retracted, to 30" (762 mm), totally extended.

Supply includes:

2 support rails

Packs of	Part No.
2	9963.499



Slide rails, static installation

For mounting between a front and a rear pair of mounting rails.

- To support heavy installed equipment
- Side system hole pattern for mounting accessories and cooling components that expel to the side
- Fit into the system hole pattern of the TS IT

Technical specifications:

Load capacity: 176 lbs (80 kg), static

Material:

Sheet steel

U	19" (482.6 mm) distance between rails inches (mm)	Packs of	Part No.
1	14 (345)	2	5501.410
1	18 (445)	2	5501.420
1	21 (545)	2	5501.430
1	25 (645)	2	5501.440
1	29 (745)	2	5501.450

Surface finish:

Zinc-plated

Supply includes:

Assembly parts



Slide rails, depth-variable

For mounting between a front and a rear pair of mounting rails.

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

Material:

Sheet steel

Surface finish:

Zinc-plated

Supply includes:

Assembly parts

19" (482.6 mm) distance between rails inches (mm)	Load capacity lbs (kg)	Packs of	Part No.
16-24 (400-600)	176 (80)	2	5501.460
24-35 (600-900)	331 (150)	2	5501.480



Interior installation

Slide rails/mounting kit



Slide rails, static installation

For mounting between two 19" (482.6 mm) mounting rails.

- System hole pattern for mounting accessories and cooling active components

Technical specifications:

Load capacity: 66 lbs (30 kg), static

Material:

Sheet steel

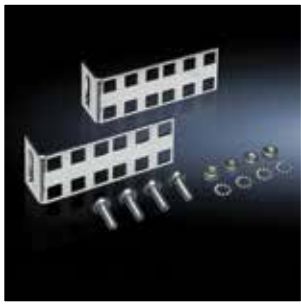
U	Length inches (mm)	Packs of	Part No.
2	6 (150)	2	5501.400

Surface finish:

Zinc-plated

Supply includes:

Assembly parts



Mounting kit

for 19" (482.6 mm) equipment

Facilitates fast, simple integration of additional mounting space within an enclosure by attaching to the enclosure frame or to the existing mounting rails at the sides. The flexible slot fastening of the brackets means that the distance between the two installation brackets may be freely selected, so that other 19" (482.6 mm) attachment dimensions may be implemented. The second row of holes is used for the optional configuration of additional mounting surfaces.

U	Color	Packs	Part No.
1	Black	2	9970.986
2	Sheet steel	2	7246.420

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts

LED system light in 24 V DC version

- Max. EMC capacity
- Safe, economical and low maintenance
- Integral through-wiring
- Universal attachment options
- Vertically hinged light cone

Material:

- Light body: Extruded aluminum
- Light cover: Polycarbonate (halogen-free)
- Light ends: PC-ABS

Color:

Similar to RAL 7035

Protection rating:

IP 20 to IEC 60 529

Supply includes:

Light with clip, screw mounting kits, assembly parts

Also required:

- LED connection cable, see page 94 or
- Door-operated switch with LED connection cable, see page 104

Accessories:

- Mounting kit magnet, see below
- Adaptor power pack, see page 94

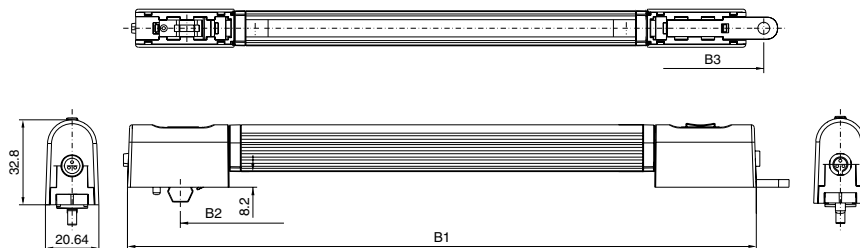
Note:

Only intended for use in enclosures and sealed cases. When using on customer-supplied power packs, it is important to obtain the requisite approvals depending on the application.



Part No.	4140.810	4140.820	4140.830	4140.840
Rated voltage	24 V DC (± 10%)			
No. of LEDs	10	20	30	40
Protection rating	III (SELV)			
Width (B1) inches (mm)	9 (230)	13 (330)	17 (430)	21 (530)
Mounting distance CLIP (B2) inches (mm)	7 (175)	11 (275)	15 (375)	19 (475)
Mounting distance, screw attachment (B3) inches (mm)	10 (250)	14 (350)	18 (450)	22 (550)
Rated current (A) ¹⁾	0.04	0.08	0.12	0.16
Circuit-breakers	Integral on/off/door-operated switch mode			

¹⁾Maximum buying up to a total rated current strength of 2 amps.



Mounting kit magnet

For reliable adhesion on all carbon steel surfaces.

Packs of	Part No.
2	4140.000



Interior installation

System light accessories



Connection accessories for LED system light

	Connection cable	Length inches (mm)	Packs of	Part No.
1	LED connection cable	118 (3000)	1	4315.800

	Interconnecting cable	Length inches (mm)	Packs of	Part No.
2	LED interconnecting cable	4 (100)	1	4315.830
		24 (600)	1	4315.840
		39 (1000)	1	4315.850

	Adaptor power pack	Technical spec.	Packs of	Part No.
	Adaptor power pack	120V AC/24 V DC	1	9970.194



Door operating switch

Switches the enclosure light on when the door is opened and switches the air conditioner off to prevent condensation.

	Packs of	Part No.
Door operating switch without power cord	1	4127.010

Grounding

Central grounding point

For connecting
 – Ground straps
 – Grounding braids
 to the vertical and horizontal enclosure profile.
 The connection bracket is connected to the enclosure frame with 2 screws and is securely contacted. Ground connection is carried out via the threaded bolt M8 x 0.8" (20 mm).

Material:

Carbon steel, zinc-plated

Packs of	Part No.
10	7829.200

Supply includes:

- 1 connection bracket
- 2 screws 5.5 x 0.5" (13 mm)
- 2 serrated washers
- 1 nut M8
- 1 contact washer M8
- 1 washer



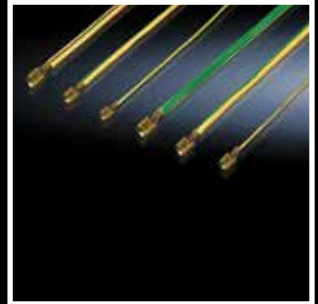
Complete grounding kit

To DIN EN 60 950/VDE 0805, Ø 4 mm², I_{max} 40 A
 For system-compatible grounding of all enclosure parts on the enclosure frame according to VDE.
 The ground conductors are preassembled ready for connection with connectors and cut to the correct length.

Supply includes:

- 8 grounding straps
- Central grounding point and assembly parts

Packs of	Part No.
1 set	7829.150



ESD connection point

Dangerously high potential differences can occur during maintenance or conversion work on the enclosure. To protect sensitive electronic components, this standardized connection point (push button) provides potential equalization. The connection point is directly conductivity connected to the enclosure frame via two screws.

Material:

Carbon steel, zinc-plated

Supply includes:

Assembly parts

Packs of	Part No.
1	7752.950



Ground rail, horizontal

Potential equalization rail, Current carrying capacity approx. 200 A.

Supply includes:

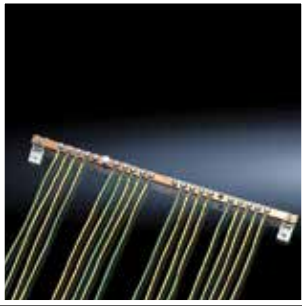
- Rail made from E-Cu 57 to DIN 12 163, DIN EN 13 601, 15 x 5 mm
- 20 connection points with M5 screws
- 2 ground connections, 25 mm²
- 2 isolators, including assembly parts

Length inches (mm)	Packs of	Part No.
18 (450)	1	7113.000



Interior installation

Grounding



Grounding kit, preassembled

For star grounding. With the preassembled ground conductors on a potential equalization rail, star potential equalization is easily integrated into network enclosures.

Supply includes:

- Ground rail made from E-Cu 57 to DIN EN 12 163, DIN EN 13 601
- 16 grounding leads, 6 mm²
- 2 insulators
- Assembly parts

For TS enclosures up to H x W x D inches (mm)	Packs of	Part No.
79 x 32 x 32 (2000 x 800 x 800)	1 set	7829.100
87 x 32 x 39 (2200 x 800 x 1000)	1 set	7829.110



Ground rail, vertical

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

Supply includes:

- Ground 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 grounding leads, 6 mm², L = 20" (500 mm)
- Assembly parts

For enc. height inches (mm)	Length inches (mm)	Packs of	Part No.
32 (800)	24 (600)	1 set	7541.000
39 (1000)	32 (800)	1 set	7542.000
47 (1200)	39 (1000)	1 set	7543.000
55 (1400)	47 (1200)	1 set	7544.000
63 (1600)	55 (1400)	1 set	7545.000
71 (1800)	63 (1600)	1 set	7546.000
79 (2000)	71 (1800)	1 set	7547.000
87 (2200)	79 (2000)	1 set	7548.000



Extension kit for ground rail, vertical

For system-compatible expansion of the star grounding on the vertical potential equalization rail.

Supply includes:

- 15 grounding leads 6 mm², L = 20" (500 mm)
- Preassembled, with ring terminal and wire end ferrule
- Ground terminals, (2.5 – 16 mm²)
- Assembly parts

Packs of	Part No.
10	7549.000

Routing

Cable management panel

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

Material:
Sheet steel

U	Depth inches (mm)	Packs of	Part No.
2	3 (85)	1	5502.235

Color:
RAL 9005

Accessories:
Cable clamp straps, see below.



Horizontal cable management with hingeable/removable cover

Attaches to the 19" rack mount and provides cable management side to side. Available in 1 U or 2 U.

Description	Packs of	Cable Diameter (sq. in.)							Part No.
		0.15	0.17	0.19	0.21	0.23	0.25	0.27	
1 U	2	260	202	162	132	110	93	80	9969.736
2 U	2	127	98	79	64	54	45	39	9969.597



Cable clamp strap for patch panels

To provide strain relief of incoming or outgoing data cables. Optionally available with spring brackets for accommodating and contacting the cable screen. Connection to the patch panel is by means of bolts on the panel itself.

Material:
Carbon steel, 14 ga (2.0 mm), zinc-plated

Supply includes:
Assembly parts

Design	Packs of	Part No.
Without cable screen contact	1	7610.000
With spring clips for contacting the cable screen	1	7611.000



Cable tie

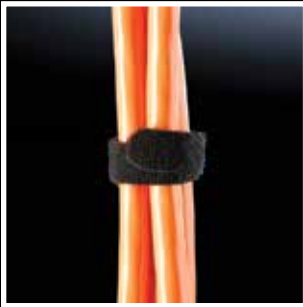
The super-fast solution for fastening cables to the enclosure profile or mounting system parts. Simply clip into the round hole patterns.

Length inches (mm)	Packs of	Part No.
6 (150)	100	2597.000



Cable management

Routing



Nylon tape

For tidy cable routing. Supplied on a reel for cutting to the required length. Unlike cable ties, nylon tape

- protects the cable sheathing
- is easily reopened and
- is reusable

Length ft (mm)	Width inches (mm)	Packs of	Part No.
16 (5000)	0.6 (16)	1	2203.400



Nylon loop

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

Width inches (mm)	Length inches (mm)	Max. cable diam. inches (mm)	PU	Part No.
0.8 (20)	5 (130)	1.2 (30)	10	7072.220
0.8 (20)	0.8 (20)	2.0 (50)	10	7072.230
0.8 (20)	12 (300)	3.5 (90)	10	7072.240

Color:

Black

Supply includes:

Quick-release fastener

Also required:

Screw 2486.500 for screw-fastening to the round hole pattern, see page 88.



Quarter-turn cable fastener

Adjustable hook and loop fastening strap provides flexibility for bundling cables. Strap attaches to cabinet with a quarter turn base.

Strap length inches (mm)	Packs of	Part No.
17 (420)	10	9969.599



Quarter-turn nylon tape supports

- For simple, fast cable attachment
- Tool-free mounting in the system hole pattern with a quarter rotation
- Direct use on the horizontal TS section, on the support strips and mounting rails of the 19" (482.6 mm) interior installation on the cable route or on system chassis with mounting flanges
- Length of nylon tape: 16" (400 mm)

Material:

Plastic

Supply includes:

10 supports including nylon tape

Packs of	Part No.
10	5502.155

Cable manager

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

Material:

Plastic, UL 94-V0

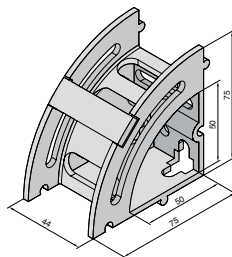
Color:

RAL 9005

Supply includes:

Mounting clips and assembly parts

Packs of	Part No.
20	5502.405



Cable guide ring

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

Material:

Carbon steel, zinc-plated

Supply includes:

Mounting accessories

Dimensions inches (mm)	Packs of	Part No.
5 x 3 (125 x 85)	10	7111.900
5 x 3 (125 x 65)	10	7111.000
3 x 2 (85 x 43)	10	7112.000



Quarter-turn cable collection

Collection claw organizes cables and can attach to the enclosure frame and EIA rails.

Width x depth inches (mm)	Packs of	Part No.
3.00 x 4.45 (76.2 x 113)	10	9969.600



Cable management

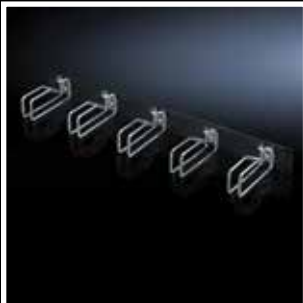
Routing



Quarter-turn D-ring

D-ring organizes cables and can be used on enclosure frame and side of EIA rails.

Description	Packs of	Part No.
5.00 x 3.50" (127 x 88.9 mm)	10	9961.780
3.50 x 1.75" (88.9 x 44.5 mm)	10	9961.779



Cable management panel, 19" (482.6 mm)

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

Material:

- Panel: Carbon steel
- Ring: Steel

Surface finish:

Ring: Zinc-plated

Color:

RAL 9005

U	Ring size inches (mm)	Packs of	Part No.
1	2 x 3 (43 x 55)	1	5502.205
1	4 x 2 (105 x 43)	1	7257.005
2	5 x 3 (125 x 85)	1	7257.105¹⁾

¹⁾ Extended delivery times.

Note:

The sizes given are external dimensions.



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

Color:

RAL 9005

Supply includes:

- Cable routing bars
- Connection combs



19" (482.6 mm) attachment

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

U	No. of connection combs	Packs of	Part No.
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	Part No.
4	2	4	7111.222
1	5	10	7111.212

Routing

Cable finger, 6 U

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

Material:

Plastic, UL 94-V0

Color:

RAL 9005

Packs of	Part No.
14	5502.115



Cable duct

High packing density due to U-based cable routing

- Removable duct cover hinged on both sides
- Optional cable slack spool may be used (7827.330, see below)
- 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

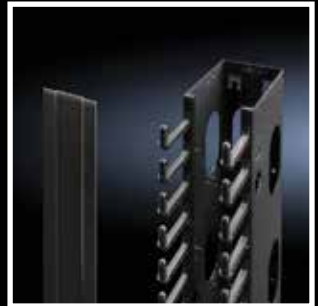
For enclosure height inches (mm)	U	Packs of	Part No.
79 (2000)	36	1	5502.105
87 (2200)	42	1	5502.145

Color:

RAL 9005

Supply includes:

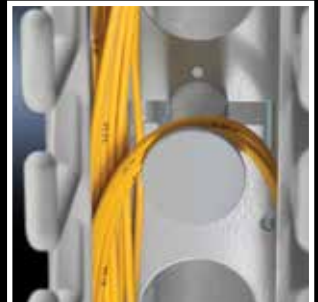
Cover and assembly parts



Cable slack spool

For use with cable duct (see above).

Packs of	Part No.
4	7827.330



Cable management panel with cable routing bars

19" (482.6 mm)

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

Color:

- Panel: RAL 9005
- Cable routing bars: Black

U	Aprox. bar depth mm (inches)	No. of bars/U	Packs of	Part No.
1	3 (80)	5	1	5502.225



Cable management

Routing



Cable routing channel 19" (482.6 mm)

To hold the patching cables.

Material:
Sheet steel

Color:
RAL 9005

U	Depth inches (mm)	Packs of	Part No.
1	3 (85)	1	5502.245



Cable entry panel 19" (482.6 mm)

Cut-out 15" x 1 U (390 x 44 mm) or 15" x 2 U (390 x 89 mm) with brush insert. With accommodation facility for cable clamp straps 7610.000 or 7611.000.

Material:
Sheet steel

Color:
RAL 9005

Accessories:
Cable clamp straps, see page 97.

U	Packs of	Part No.
1	1	5502.255
2	1	5502.265



Roof system supports for cable routes

The depth-variable support system may be attached to all 32 – 47" (800 – 1200 mm) deep TS enclosures with external screw-fastening of the roof plate. The integral hole pattern, 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 system bar, suitable for accommodating additional cable guide rails or pipelines.

Packs of	Color	Part No.
2	RAL 7035	7831.472
2	RAL 9005	5502.135

Material:
Sheet steel

Surface finish:
Powder-coated

Accessories:
– Metal multi-tooth screws 5.5 x 13 mm, 2486.500, see page 88.
– Cage nuts M6, 8800.340.



Cable route

For cable clamping and routing with network and server applications

- Mounting across the entire depth with 32" (800 mm) width, mounting only behind the second 19" (482.6 mm) pair of mounting rails with 24" (600 mm) width
- Tool-free, fast assembly
- Alternatively suitable for screw-fastening
- Multi-functional openings for cable management accessories

Material:
Sheet steel

Color:
RAL 9005

Height inches (mm)	Packs of	Part No.
79 - 87 (2000 - 2200)	1	5502.120

Accessories:
– Cable ties, nylon loops, see page 97, 98.
– Cable guide rings, see page 99.
– Cable routing bars, see page 100.

Cable management panel

Organizes and stores cables in the 0 U space. Includes attachment points for tool-less quarter turn cable management accessories and PDU mounting locations. Attaches securely to the frame.

Color:

RAL 9005

Note:

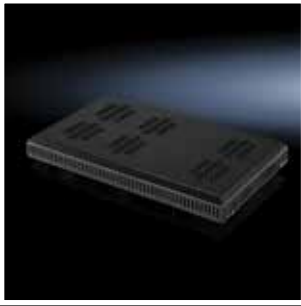
Only for use in 24 - 28" (700 - 800 mm) wide cabinets.

Dimensions		Packs of	Part No.
Height inches (mm)	Width inches (mm)		
79 (2000)	8 (215)	1	9978.360
87 (2200)	8 (215)	1	9978.361



Ventilation

Fans



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:

Uses 7980.000 fans, see below for further details.

Technical specifications of thermostat:

- Rated operating voltage: 250 V
- Temperature range: +41° to +131° F (+5° to +55° C)

Supply includes:

- Fan unit
- 2 fans
- 1 thermostat
- Open connection cable
- Assembly parts.

Note:

Connection via distributor box or country-specific connector.

W x D inches (mm)	Number of prewired fans	Possible number of fans	Color		Part No.
			RAL 9005	RAL 7035	
32x24, 24x39, 24x47 (800x600, 600x1000, 600x1200)	2	3	–	■	5502.010
			■	–	5502.015
32x32, 32x39, 32x47 (800x800, 800x1000, 800x1200)	2	6	–	■	5502.020
			■	–	5502.025



Fan expansion kit

For retrofitting various fan units or to supplement the fan mounting panel and modular fan roof.

Technical specifications 7980.000:

- Rated operating voltage: 230 V~
- Power consumption: 15/14 W at 50/60 Hz
- Air throughput (unimpeded air flow): 94/106 cfm (160/180 m³/h), 50/60 Hz
- Noise level (unimpeded air flow): 37 dB (A)
- Operating temperature range: +14° to +131° F (–10° to +55° C)

Technical specifications 7980.100, 110:

- Rated operating voltage: 230 V~
- Power consumption: 14/12 W at 50/60 Hz
- Air throughput (unimpeded air flow): 64/71 cfm (108/120 m³/h), 50/60 Hz
- Noise level (unimpeded air flow): 34 dB (A)
- Operating temperature range: –4° to +158° F (–20° to +70° C)

Technical specifications 7980.148:

- Rated operating voltage: 48 V (DC)
- Power consumption: 7.7 W
- Air throughput (unimpeded air flow): 108 cfm (184 m³/h)
- Noise level (unimpeded air flow): 43 dB (A)
- Operating temperature range: –4° to +158° F (–20° to +70° C)

Dimensions W x H x D inches (mm)	Packs of	Part No.
5 x 5 x 1 (119 x 119 x 25)	1	7980.110
5 x 5 x 2 (119 x 119 x 38)	1	7980.000
5 x 5 x 1 (119 x 119 x 25)	1	7980.100
5 x 5 x 2 (119 x 119 x 38)	1	7980.148

Supply includes:

- Fans
- Assembly parts
- Connection cable 24" (0.61 m)

Fans

Air baffle plate for TS IT

- To separate the hot/cold zones within an enclosure with aisle containment or when using an LCP system
- With all-round brush strip for collision-free shielding with installed bar systems on the outer mounting rail
- For width 32" (800 mm), 6 U blanking panel additionally included

Material:

Sheet steel, plastic UL 94 V0

Width x height inches (mm)	Packs of	Part No.
24 x 79 (600 x 2000)	1 set	5501.805
32 x 79 (800 x 2000)	1 set	5501.815
24 x 87 (600 x 2200)	1 set	5501.825
32 x 87 (800 x 2200)	1 set	5501.835

Surface finish:

Spray-finished

Supply includes:

Assembly parts



Cover, magnetic

For optionally covering the front mounting rail holes in the event of complete air blocking of the front, or in the absence of installed cable fingers.

Length ft. (mm)	Packs of	Part No.
16.4 (5000)	1	5501.895



Split rear door fan

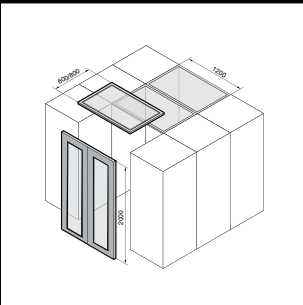
Split rear door fans take advantage of the front to rear airflow of most servers. The design allows for positioning the fan assembly in the most critical location within the cabinet. Two high pressure fans provide the ability to exhaust hot air out the rear of the enclosure at a dramatically higher rate than traditional roof mount fan trays. The result is cooler operating equipment, even with very high enclosure heat loads.

Supply includes:

- 2 fans per assembly (210 cfm total)
- Includes 10 ft (3048 mm) cord/plug, mounting hardware
- Can be used for venting through roof by installing system bars/dual brackets (not included)

Volts	Total cfm (m³/hr)	Enclosure width inches (mm)	Color	Part No.
110	210 (356)	24 - 39 (600 - 1000)	RAL 7035	9969.936
			RAL 9005	9969.937
208			RAL 7035	9969.938
			RAL 9005	9969.939





Aisle Containment

By providing a chamber to contain the air and keep cool air in front and heated air behind individual units cooling efficiency can be enhanced. Aisle containment is a combination of door and roof components to facilitate consistent separation of air in the data center.

Depending upon individual applications, aisle containment may be used with CRAC systems or Rittal TopTherm LCP Inline CW and DX as hot or cold aisle containment.

Benefits:

- Relatively low-cost, easily implemented solution, can be retrofitted
- Fully compatible with existing enclosure systems

- Energy efficiency can be enhanced
- Performance of cooling system can be enhanced
- Superior output density is facilitated by a consistent cool air supply
- Can be installed within existing data center to extend the life of the facility

Supply includes:

- Slimline door element with viewing window, sliding door
- Stable roof elements of composite metal
- High level of light penetration
- May be used with safety glass where required

	Roof panel	Roof support rail			Door assembly			
Position	Attaches to roof support rail	Attaches to top of the enclosures			Attaches to the top of the enclosures at the end of the aisle			
Part No.	9978.497	9978.499	9978.500	9978.501	9978.502	9978.503	9978.504	9978.505
Width inches (mm)	32 (800)	–	–	–	–	–	–	–
Depth inches (mm)	48 (1219)	32 (800)	24 (600)	12 (300)	–	–	–	–
Height of aisle inches (mm)	–	–	–	–	79 (2000)	87 (2200)	79 (2000)	87 (2200)
Width of aisle inches (mm)	48 (1219)	48 (1219)	48 (1219)	48 (1219)	48 (1219)	48 (1219)	48 (1219)	48 (1219)
Enclosure depth inches (mm)	–	–	–	–	42 (1050)	42 (1050)	47 (1200)	47 (1200)



Chimney

Chimney design directs hot air toward ceiling ducts through the top of the roof at the rear of a cabinet. Conditioned air enters the perforated front door and is pulled through via component fans. A solid rear door directs air upward to the roof and chimney, isolating the hot air to improve efficiency. Designed to remove heat and reduce energy costs by separating air paths, chimney units are adjustable. The flexible design, which can expand from 20 to 34", accommodates varying ceiling heights. Passive solutions can be used on 42 U and 47 U, 24 – 32" (600 – 800 mm) wide and 42 – 47" (1050 – 1200 mm) deep enclosures. Existing installations can be retrofitted using a modified roof and appropriately sized chimney.

Color:

RAL 9005

Passive Chimney

Adjustable height range inches (mm)	Part No.
20 – 34 (508 – 864)	9979.454

Replacement Roof

Width x Depth inches (mm)	Part No.
24 x 42 (600 x 1050)	9979.441
28 x 42 (700 x 1050)	9979.442
32 x 42 (800 x 1050)	9979.443
24 x 47 (600 x 1200)	9979.444
28 x 47 (700 x 1200)	9979.445
32 x 47 (800 x 1200)	9979.446

Blanking panels

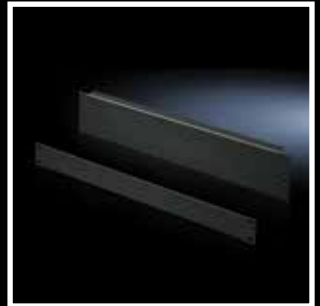
To place in unused or vacant space, to block off airflow. Installs without the need for additional hardware or tools.

U	Packs of	Item	Part No.
1	12	RAL 9005 tool-less (plastic)	9960.676¹⁾
1	10	RAL 9005 tool-less (metal)	9970.016
3	5	RAL 9005 tool-less (metal)	9970.017
1	2	RAL 9005, 5 cutouts for quarter turn cable management accessories (metal)	9967.363²⁾
1	2	RAL 9005 (metal)	7151.005
2	2	RAL 9005 (metal)	7152.005
3	2	RAL 9005 (metal)	7153.005³⁾
6	2	RAL 9005 (metal)	7156.005³⁾
1	3	Aluminium, natural-anodized	1931.200
2	3	Aluminium, natural-anodized	1932.200
3	3	Aluminium, natural-anodized	1933.200
4	3	Aluminium, natural-anodized	1934.200
6	3	Aluminium, natural-anodized	1936.200
9	3	Aluminium, natural-anodized	1939.200

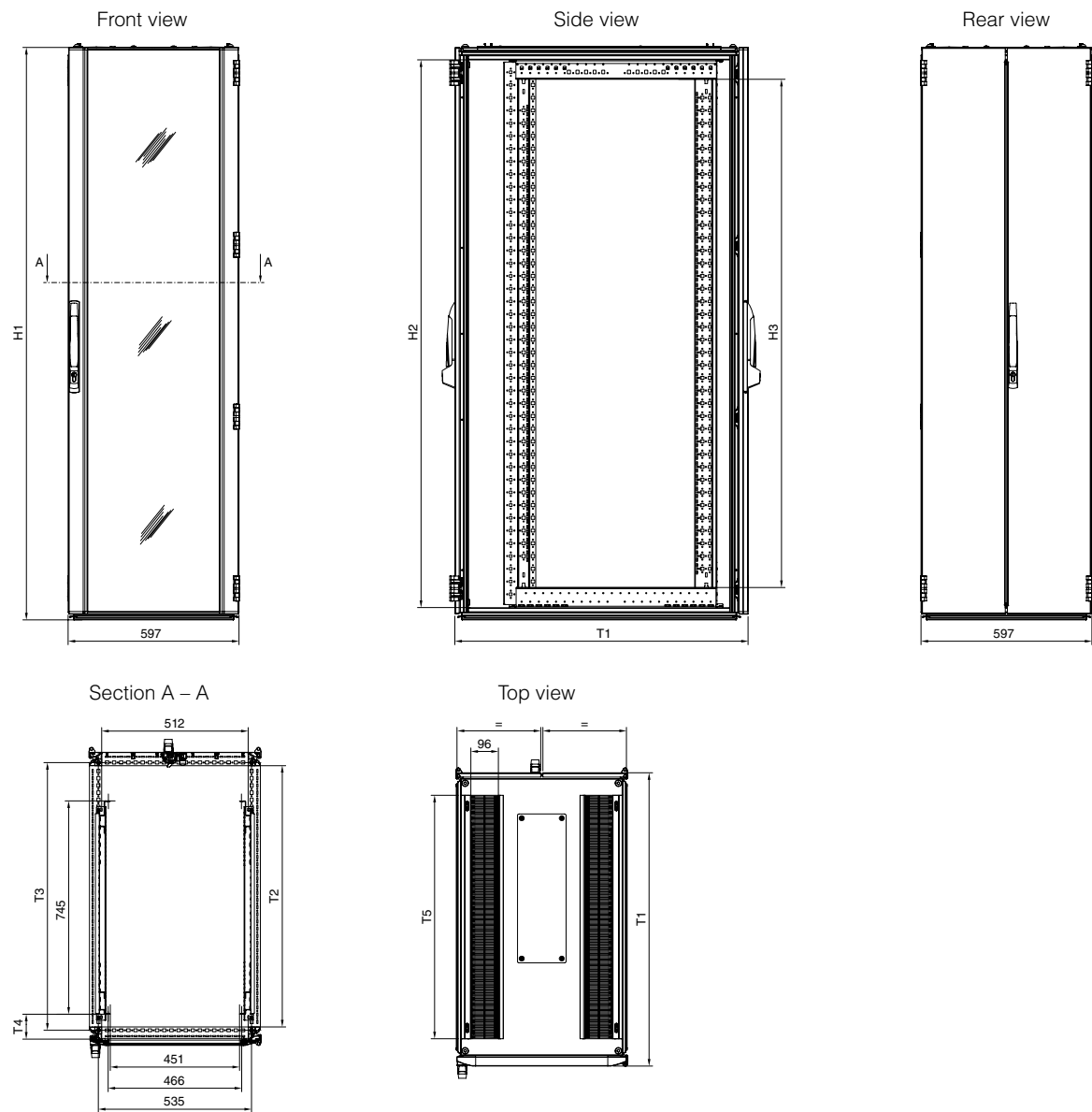
¹⁾ UL 94-VO

²⁾ Quarter turn cable management accessories not included, see page 98-100.

³⁾ Extended delivery times

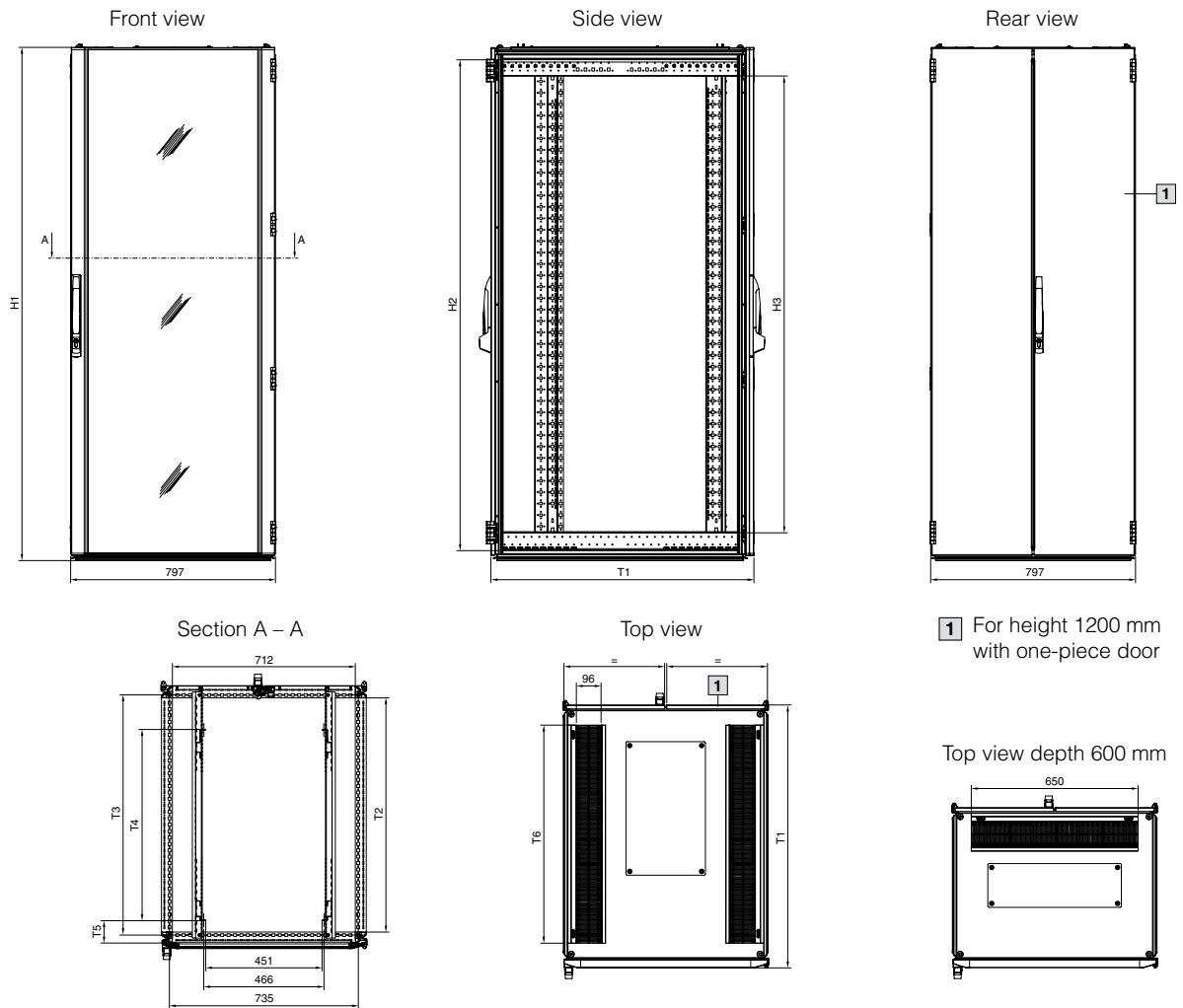


TS IT network/server enclosure with viewing door – 24” (600 mm) wide



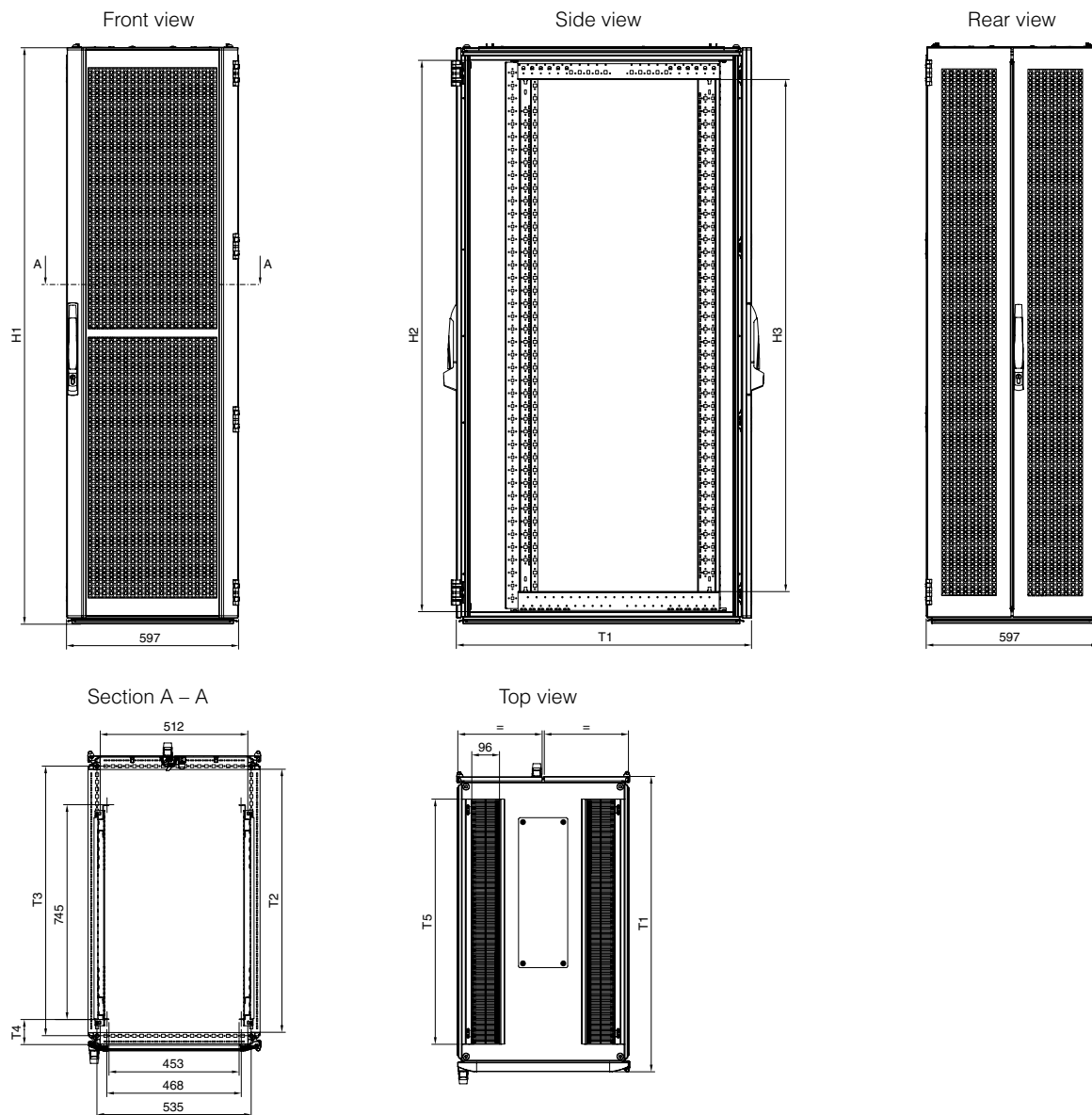
Part No.	U	Color		Height inches (mm)			Depth dimensions inches (mm)				
		RAL 7035	RAL 9005	H1	H2	H3	T1	T2	T3	T4	T5
5508.120	42	■	—	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5508.220	42	—	■	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5510.120	42	■	—	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	40.32 (1024)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)
5510.220	42	—	■	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	40.32 (1024)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)

TS IT network/server enclosure with viewing door – 32” (800 mm) wide



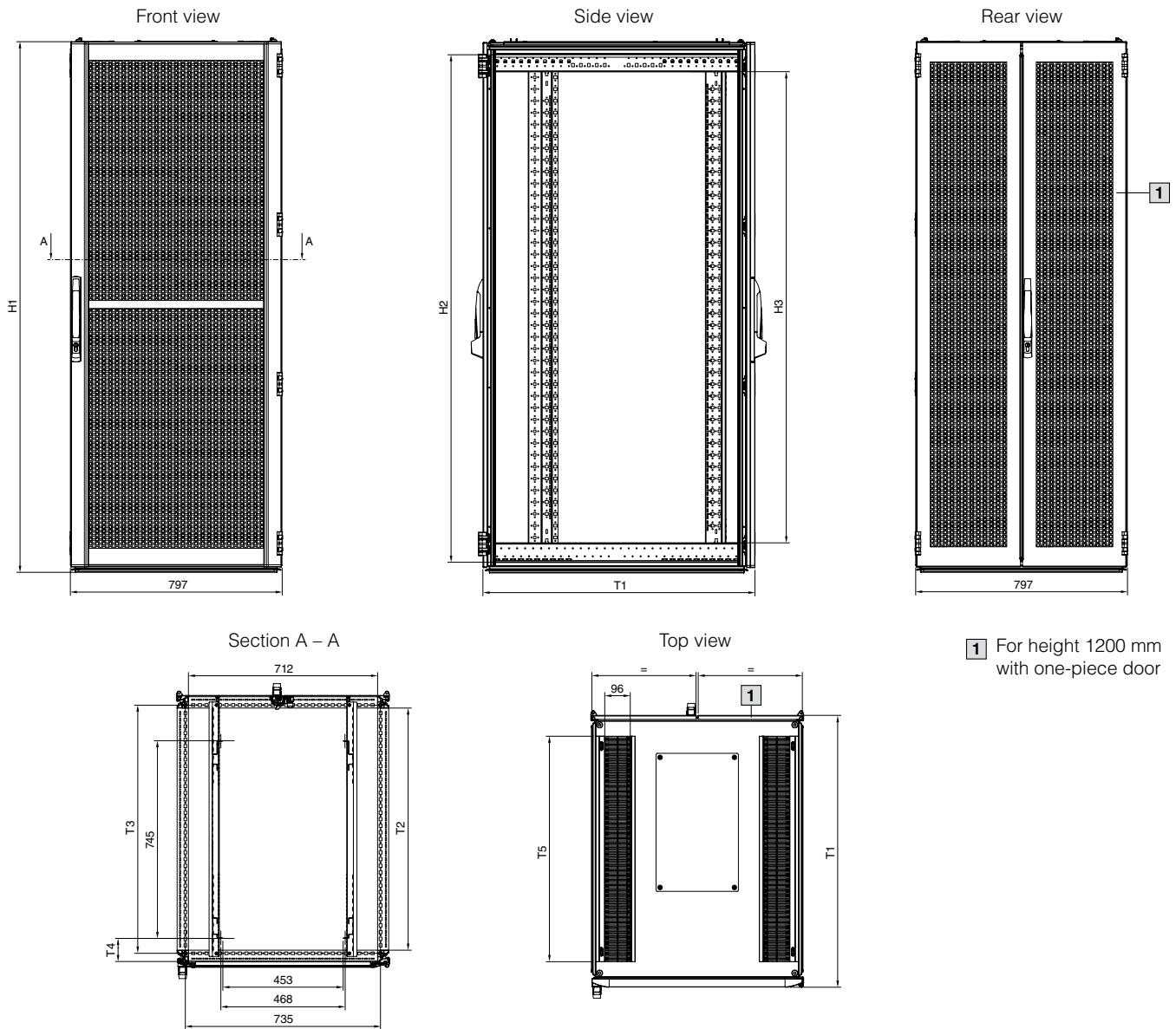
Part No.	U	Color		Height dimensions inches (mm)			Depth dimensions inches (mm)					
		RAL 7035	RAL 9005	H1	H2	H3	T1	T2	T3	T4	T5	T6
5503.120	24	■	–	47.19 (1198.5)	43.78 (1112)	38.35 (974)	32.44 (824)	28.03 (712)	28.94 (735)	21.46 (545)	5.79 (147)	25.59 (650)
5503.220	24	–	■	47.19 (1198.5)	43.78 (1112)	38.35 (974)	32.44 (824)	28.03 (712)	28.94 (735)	21.46 (545)	5.79 (147)	25.59 (650)
5504.120	24	■	–	47.19 (1198.5)	43.78 (1112)	38.35 (974)	40.32 (1024)	35.91 (912)	36.81 (935)	29.33 (745)	3.43 (87)	33.47 (850)
5504.220	24	–	■	47.19 (1198.5)	43.78 (1112)	38.35 (974)	40.32 (1024)	35.91 (912)	36.81 (935)	29.33 (745)	3.43 (87)	33.47 (850)
5505.120	38	■	–	70.81 (1798.5)	67.40 (1712)	61.97 (1574)	32.44 (824)	28.03 (712)	28.94 (735)	21.46 (545)	5.79 (147)	25.59 (650)
5505.220	38	–	■	70.81 (1798.5)	67.40 (1712)	61.97 (1574)	32.44 (824)	28.03 (712)	28.94 (735)	21.46 (545)	5.79 (147)	25.59 (650)
5506.120	42	■	–	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	24.57 (624)	20.16 (512)	21.06 (535)	17.52 (445)	3.43 (87)	25.59 (650)
5506.220	42	–	■	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	24.57 (624)	20.16 (512)	21.06 (535)	17.52 (445)	3.43 (87)	25.59 (650)
5507.120	42	■	–	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	32.44 (824)	28.03 (712)	28.94 (735)	21.46 (545)	5.79 (147)	25.59 (650)
5507.220	42	–	■	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	32.44 (824)	28.03 (712)	28.94 (735)	21.46 (545)	5.79 (147)	25.59 (650)
5509.120	42	■	–	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	40.32 (1024)	35.91 (912)	36.81 (935)	29.33 (745)	3.43 (87)	33.47 (850)
5509.220	42	–	■	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	40.32 (1024)	35.91 (912)	36.81 (935)	29.33 (745)	3.43 (87)	33.47 (850)
5511.120	42	■	–	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	48.19 (1224)	43.78 (1112)	44.69 (1135)	29.33 (745)	3.43 (87)	41.34 (1050)
5511.220	42	–	■	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	48.19 (1224)	43.78 (1112)	44.69 (1135)	29.33 (745)	3.43 (87)	41.34 (1050)
5512.120	47	■	–	86.56 (2198.5)	83.15 (2112)	77.72 (1974)	32.44 (824)	28.03 (712)	28.94 (735)	21.46 (545)	5.79 (147)	25.59 (650)
5512.220	47	–	■	86.56 (2198.5)	83.15 (2112)	77.72 (1974)	32.44 (824)	28.03 (712)	28.94 (735)	21.46 (545)	5.79 (147)	25.59 (650)

TS IT network/server enclosure with perforated door – 24” (600 mm) wide



Part No.	U	Color		Height dimensions inches (mm)			Depth dimensions inches (mm)				
		RAL 7035	RAL 9005	H1	H2	H3	T1	T2	T3	T4	T5
5508.110	42	■	–	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5508.210	42	–	■	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5510.110	42	■	–	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	48.19 (1224)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)
5510.210	42	–	■	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	48.19 (1224)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)
5521.210	42	–	■	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	48.19 (1224)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)
5513.110	47	■	–	86.56 (2198.5)	83.15 (2112)	77.72 (1974)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5513.210	47	–	■	86.56 (2198.5)	83.15 (2112)	77.72 (1974)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5515.110	47	■	–	86.56 (2198.5)	83.15 (2112)	77.72 (1974)	48.19 (1224)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)
5515.210	47	–	■	86.56 (2198.5)	83.15 (2112)	77.72 (1974)	48.19 (1224)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)
5523.210	47	–	■	86.56 (2198.5)	83.15 (2112)	77.72 (1974)	48.19 (1224)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)

TS IT network/server enclosure with perforated door – 32” (800 mm) wide



Part No.	U	Color		Height dimensions inches (mm)			Depth dimensions inches (mm)				
		RAL 7035	RAL 9005	H1	H2	H3	T1	T2	T3	T4	T5
5504.110	24	■	–	47.19 (1198.5)	43.78 (1112)	38.35 (974)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5504.210	24	–	■	47.19 (1198.5)	43.78 (1112)	38.35 (974)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5509.110	42	■	–	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5509.210	42	–	■	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5511.110	42	■	–	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	40.32 (1024)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)
5511.210	42	–	■	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	48.19 (1224)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)
5522.210	42	–	■	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	48.19 (1224)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)
5514.110	47	■	–	86.56 (2198.5)	83.15 (2112)	77.72 (1974)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5514.210	47	–	■	86.56 (2198.5)	83.15 (2112)	77.72 (1974)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5516.110	47	■	–	86.56 (2198.5)	83.15 (2112)	77.72 (1974)	48.19 (1224)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)
5516.210	47	–	■	86.56 (2198.5)	83.15 (2112)	77.72 (1974)	48.19 (1224)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)
5524.210	47	–	■	86.56 (2198.5)	83.15 (2112)	77.72 (1974)	48.19 (1224)	43.78 (1112)	44.69 (1135)	5.79 (147)	41.34 (1050)

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2249.605	23	4157.000	86	5501.305	78	5502.550	76	7030.070	59
2252.605	23	4171.500	69, 85	5501.310	78	5502.560	77	7030.071	60
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2255.605	23	4177.000	85	5501.320	78	5503.120	10	7030.090	59
2256.605	24	4178.000	85	5501.325	78	5503.220	10	7030.091	59
2258.605	23	4179.000	86	5501.350	78	5504.110	12	7030.092	59
2259.605	24	4180.000	86	5501.355	78	5504.120	10	7030.093	59
2261.605	23	4182.000	85	5501.400	92	5504.210	12	7030.094	59
2262.605	24	4183.000	85	5501.410	91	5504.220	10	7030.095	59
2265.605	24	4315.800	94	5501.420	91	5505.120	10	7030.100	56
2268.605	24	4315.830	94	5501.430	91	5505.220	10	7030.110	56
2271.605	24	4315.840	94	5501.440	91	5506.120	10	7030.111	56
2467.000	83	4315.850	94	5501.450	91	5506.220	10	7030.120	56
2468.000	83	4378.000	84	5501.460	91	5507.120	10	7030.130	56
2469.000	83	4380.000	84	5501.480	91	5507.220	10	7030.140	56
2486.300	88	4381.000	84	5501.615	89	5508.110	12	7030.150	56
2486.500	88	4382.000	84	5501.625	89	5508.120	11	7030.190	56
2487.000	88	4532.000	86	5501.655	89	5508.210	12	7030.200	56
2488.000	88	4582.500	81	5501.665	89	5508.220	11	7030.220	56
2489.000	88	4597.000	86	5501.675	90	5509.110	12	7030.230	56
2489.500	88	4612.000	72	5501.685	90	5509.120	11	7072.220	98
2504.000	88	5001.210	76, 77	5501.695	89	5509.210	12	7072.230	98
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2597.000	97	5001.218	74, 75, 77	5501.805	105	5510.210	12	7094.120	88
2817.000	70	5001.219	74, 75, 77	5501.815	105	5510.220	11	7111.000	99
3301.320	44	5001.222	75, 76, 77	5501.825	105	5511.110	12	7111.212	100
3301.370	44	5001.223	75, 76, 77	5501.835	105	5511.120	11	7111.214	100
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