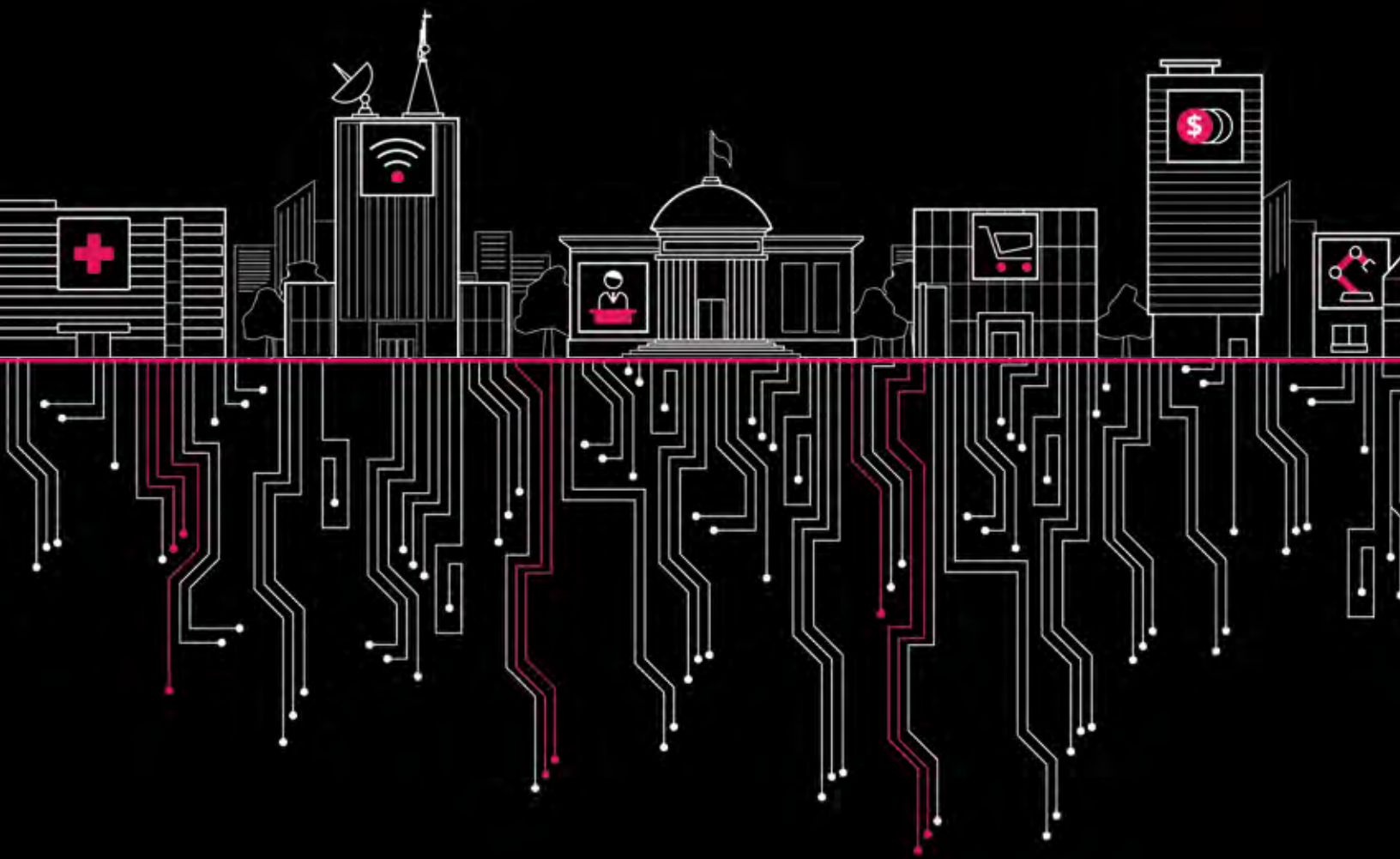


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# Discover it – a world of solutions for any IT environment.

The digital transformation in business, trade and industry offers a whole host of opportunities, but also throws up new challenges for IT infrastructures. Dealing with complex tasks and huge volumes of data calls for increasingly fast, flexible and efficient IT solutions.

Our response to this is a comprehensive product portfolio for all challenging IT scenarios. This provides a wide range of efficient and reliable options that can be purchased both quickly and cost-effectively.

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In conjunction with our consulting expertise, Rittal offers a multitude of options for all requirements. That way, you can focus on what really matters – your core business.

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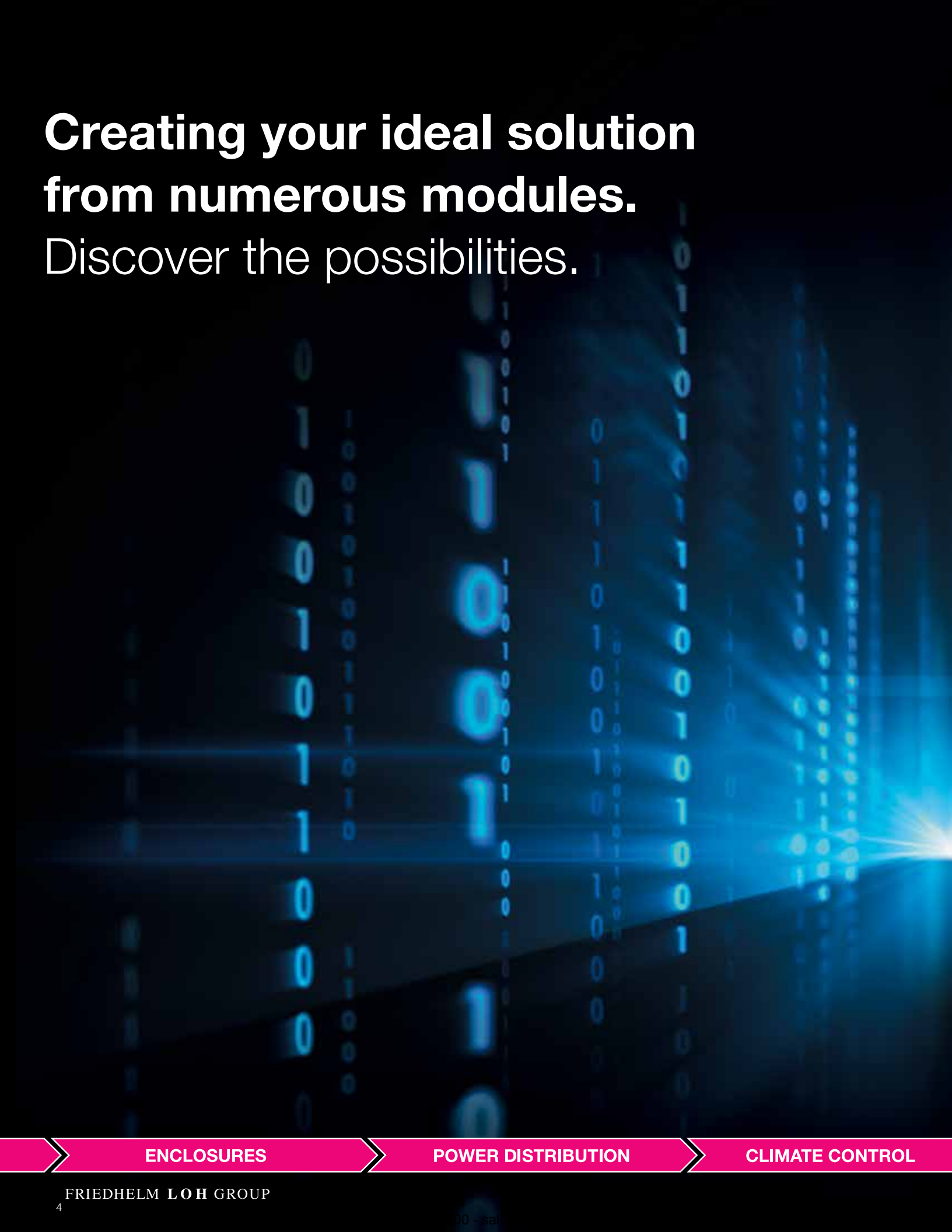
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**Creating your ideal solution  
from numerous modules.**  
Discover the possibilities.

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Digitization is leading to ever more profound changes in virtually all areas of life. Industry 4.0, the Internet of Things, big data, analytics and edge computing are the driving forces behind this process. The business world as you know it is also affected. It must use innovative IT infrastructures to meet the associated requirements – and this will apply even more in the future. To meet these challenges, you need an efficient, solution-oriented IT partner such as Rittal.

### **Maximum modularity and efficiency**

You can totally rely on our portfolio of solutions for meeting these complex, holistic requirements – from individual IT racks to a complete data center solution that offers maximum modularity and efficiency. Combined with all our expertise, this creates the right solution for each and every requirement.

### **Three dimensions – one perfect solution**

All solutions are integrated into a cyclical process that offers you the full support of our experience and consulting expertise. The IT solutions can be scaled flexibly to suit your precise needs. The range of services offered by Rittal and its partners also includes comprehensive application solutions that are perfectly tailored to your specific requirements.

The end result is a wide range of data center modules that can be up and running in no time at all. They are cost-efficient, reliable and of the quality you have come to expect from Rittal.

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# Xpress enclosure



Ships complete with perforated single front door and split rear doors keyed alike, leveling feet, casters, roof with brush baffle cable access channels, cable management wall, and dual PDU vertical mounting wall.

#### Material:

- Carbon steel
- Aluminum

#### Surface finish:

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

#### Color:

Enclosure frame and panels:  
Black RAL 9005,  
Interior installation: Black RAL 9005

#### Protection rating:

UL/cUL

#### Supply includes:

- Enclosure frame TS8 with door and roof plate
- M6 cage nuts (Package of 100)
- M6 mounting screws (Package of 100)

#### Load capacity of 19" levels:

- 3372 lbs (15000 N)

#### Distance between rails as delivered:

- 29" (745 mm)

#### Detailed drawings:

Available at [www.rittal.com](http://www.rittal.com)

Height: 80" (2000 mm), Depth: 42" – 48" (1050 - 1200 mm)

Height units U	42 U	42 U	42 U	42 U	42 U	42 U	42 U	42 U
Height inches (mm)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	80 (2000)	80 (2000)
Width inches (mm)	24 (600)	24 (600)	32 (800)	32 (800)	24 (600)	24 (600)	32 (800)	32 (800)
Depth inches (mm)	42 (1050)	48 (1200)	42 (1050)	48 (1200)	42 (1050)	48 (1200)	42 (1050)	48 (1200)
Aluminum sheet steel front door, vented Carbon steel rear door, vented	■	■	■	■	■	■	■	■
Front and rear comfort handles with push button keyed door lock	■	■	■	■	■	■	■	■
Installed caster kits	■	■	■	■	■	■	■	■
Installed leveling feet	■	■	■	■	■	■	■	■
Solid sidewalls pre-installed	■	■	■	■	–	–	–	–
PDU buckets (shipped loose)	■	■	■	■	–	–	–	–
Cable management wall pre-installed	■	■	■	■	–	–	–	–
Dual cable management walls pre-installed with integrated PDU mounting points	–	–	–	–	■	■	■	■
<b>Part No.</b> <span style="float: right;">Black RAL 9005</span>	<b>9982100</b>	<b>9982101</b>	<b>9982104</b>	<b>9982105</b>	<b>9982112</b>	<b>9982113</b>	<b>9982116</b>	<b>9982117</b>



Height: 88" (2200 mm), Depth: 42" – 48" (1050 - 1200 mm)

Height units U	47U	47U	47 U	47 U	47 U	47 U
Height inches (mm)	88 (2200)	88 (2200)	88 (2200)	88 (2200)	88 (2200)	88 (2200)
Width inches (mm)	24 (600)	24 (600)	28 (700)	28 (700)	32 (800)	32 (800)
Depth inches (mm)	42 (1050)	48 (1200)	42 (1050)	48 (1200)	42 (1050)	48 (1200)
Aluminum sheet steel front door, vented Carbon steel rear door, vented			■	■	■	■
Front and rear comfort handles with push button keyed door lock			■	■	■	■
Installed caster kits			■	■	■	■
Installed leveling feet			■	■	■	■
Solid sidewalls pre-installed	■	■	■	■	■	■
PDU buckets (shipped loose)			–	–	–	–
Cable management wall pre-installed			–	–	–	–
Dual cable management walls pre-installed with integrated PDU mounting points			■	■	■	■
Part No. Black RAL 9005	9982124	9982125	9982126	9982127	9982128	9982129

Height: 87" (2200 mm), Depth: 42" – 48" (1050 - 1200 mm)

Height units U	47U	47U	47 U	47 U	47 U	47 U
Height inches (mm)	88 (2200)	88 (2200)	88 (2200)	88 (2200)	88 (2200)	88 (2200)
Width inches (mm)	24 (600)	24 (600)	28 (700)	28 (700)	32 (800)	32 (800)
Depth inches (mm)	42 (1050)	48 (1200)	42 (1050)	48 (1200)	42 (1050)	48 (1200)
Aluminum sheet steel front door, vented Carbon steel rear door, vented			■	■	■	■
Front and rear comfort handles with push button keyed door lock			■	■	■	■
Installed caster kits			■	■	■	■
Installed leveling feet			■	■	■	■
Solid sidewalls pre-installed	–	–	–	–	–	–
PDU buckets (shipped loose)			–	–	–	–
Cable management wall pre-installed			–	–	–	–
Dual cable management walls pre-installed with integrated PDU mounting points			■	■	■	■
Part No. Black RAL 9005	9982136	9982137	9982138	9982139	9982140	9982141



# TS IT network/server enclosure with glass viewing door



## 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:

- Black RAL 9005
- Light Gray 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](http://www.rittal.us)

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

		24 U	24 U	38 U	42 U	42 U
<b>Height</b> inches (mm)		48 (1200)	48 (1200)	71 (1800)	79 (2000)	79 (2000)
<b>Width</b> inches (mm)		32 (800)	32 (800)	32 (800)	32 (800)	32 (800)
<b>Depth</b> 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		■	■	■	■	■
Carbon steel rear door, 180° hinges, with comfort handle for semi-cylinder and security lock 3524 E		■	■	–	–	–
Carbon steel rear door, 180° hinges, vertically divided, with comfort handle for semi-cylinder and security lock 3524 E		–	–	■	■	■
Depth-variable 19" (482.6 mm) rails front and rear, on depth stays with quick-release fasteners		■	■	■	■	■
Multi-piece roof plate with side cable entry in the depth and covered cut-out for fan mounting plate		■	■	■	■ <sup>1)</sup>	■
<b>Part No.</b>	Light Gray RAL 7035	<b>5503.120</b>	<b>5504.120</b>	<b>5505.120</b>	<b>5506.120</b>	<b>5507.120</b>
	Black RAL 9005	<b>5503.220</b>	<b>5504.220</b>	<b>5505.220</b>	<b>5506.220</b>	<b>5507.220</b>
<b>Accessories</b>	Packs of					
Sidewalls, lockable	Split sidewall (top/bottom), Light Gray RAL 7035 <sup>2)</sup>	1	–	–	–	5501.010 5501.020
	Split sidewall (top/bottom), Black RAL 9005 <sup>2)</sup>	1	–	–	–	5501.015 5501.025
Sidewalls, screw attachment	Solid sidewall, Light Gray RAL 7035 <sup>3)</sup>	2	8175.235	8176.235	–	–
	Solid sidewall, Black RAL 9005 <sup>3)</sup>	2	9969.949	9969.952	–	–
Base mount	Light Gray RAL 7035	2	5501.310	5501.320	5501.310	– 5501.310
	Black RAL 9005	2	5501.315	5501.325	5501.315	– 5501.315
Gland plates, modular			See Accessory Options			
Base/plinth			See Accessory Options			
Fan mounting plate for TS IT incl. thermostat	Light Gray RAL 7035	1	5502.020	5502.020	5502.020	5502.010 5502.020
	Black RAL 9005	1	5502.025	5502.025	5502.025	5502.015 5502.025
Air baffle plate		1 set	–	–	–	5501.815 5501.815
Cable route		1	–	–	–	5502.120 5502.120
Cable duct		1	–	–	–	5502.100 5502.105

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

<sup>3)</sup> Packaged as pair; set will cover both sides of cabinet



# TS IT network/server enclosure with glass viewing door

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

		42 U	42 U	42 U	42 U	47 U
<b>Height</b> inches (mm)		79 (2000)	79 (2000)	79 (2000)	79 (2000)	87 (2200)
<b>Width</b> inches (mm)		24 (600)	32 (800)	24 (600)	32 (800)	32 (800)
<b>Depth</b> 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		■	■	■	■	■
Carbon steel rear door, 180° hinges, vertically divided, with comfort handle for semi-cylinder and security lock 3524 E		■	■	■	■	■
Depth-variable 19" (482.6 mm) rails front and rear, on depth stays with quick-release fasteners		■	■	■	■	■
Multi-piece roof plate with side cable entry in the depth and covered cut-out for fan mounting plate		■	■	■	■	■
<b>Part No.</b>	Light Gray RAL 7035	<b>5508.120</b>	<b>5509.120</b>	<b>5510.120</b>	<b>5511.120</b>	<b>5512.120</b>
	Black RAL 9005	<b>5508.220</b>	<b>5509.220</b>	<b>5510.220</b>	<b>5511.220</b>	<b>5512.220</b>
<b>Accessories</b>	Packs of					
Sidewalls, lockable	Split sidewall (top/bottom), Light Gray RAL 7035 <sup>1)</sup>	1	5501.030	5501.030	5501.040	5501.050
	Split sidewall (top/bottom), Black RAL 9005 <sup>1)</sup>	1	5501.035	5501.035	5501.045	5501.055
Base mount	Light Gray RAL 7035	2	5501.320	5501.320	5501.350	5501.310
	Black RAL 9005	2	5501.325	5501.325	5501.355	5501.315
Gland plates, modular	See Accessory Options					
Base/plinth	See Accessory Options					
Fan mounting plate for TS IT incl. thermostat	Light Gray RAL 7035	1	5502.010	5502.020	5502.010	5502.020
	Black RAL 9005	1	5502.015	5502.025	5502.015	5502.025
Air baffle plate	1 set	5501.805	5501.815	5501.805	5501.815	5501.835
Cable route	1	5502.120	5502.120	5502.120	5502.120	5502.120
Cable duct	1	–	5502.100	–	5502.105	5502.101

■ Included <sup>1)</sup> 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



**Material:**  
Carbon steel

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

**Color:**  
– Frame and enclosure panels: Black RAL 9005, Light Gray RAL 7035  
– Interior installation: Black 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](http://www.rittal.us)

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

U		24 U	42 U	42 U	42 U	42 U	42 U	42 U	42 U	42 U
<b>Height</b> inches (mm)		48 (1200)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)
<b>Width</b> inches (mm)		32 (800)	24 (600)	32 (800)	24 (600)	28 (700)	32 (800)	24 (600)	28 (700)	32 (800)
<b>Depth</b> inches (mm)		40 (1000)	40 (1000)	40 (1000)	41 (1050)	41 (1050)	41 (1050)	48 (1200)	48 (1200)	48 (1200)
Perforated <sup>1)</sup> carbon steel front door, 180° hinges, with comfort handle for semi-cylinder and security lock 3524 E		■	■	■	■	■	■	■	■	■
Perforated <sup>1)</sup> carbon steel rear door, 180° hinges, with comfort handle for semi-cylinder and security lock 3524 E		■	–	–	–	–	–	–	–	–
Perforated <sup>1)</sup> carbon steel rear door, 180° hinges, vertically divided, with comfort handle for semi-cylinder and security lock 3524 E		–	■	■	■	■	■	■	■	■
Depth-variable 19" (482.6 mm) rails front and rear, on depth stays with quick-release fasteners		■	■	■	■	■	■	■	■	■
Multi-piece roof plate with side cable entry in the depth and covered cut-out for fan mounting plate		■	■	■	■	■	■	■	■	■
<b>Part No.</b>	Light Gray RAL 7035	<b>5504.110</b>	<b>5508.110</b>	<b>5509.110</b>	–	<b>9972.001</b>	–	<b>5510.110</b>	<b>9972.003</b>	<b>5511.110</b>
	Black RAL 9005	<b>5504.210</b>	<b>5508.210</b>	<b>5509.210</b>	<b>5521.210</b>	<b>9972.000</b>	<b>5522.210</b>	<b>5510.210</b>	<b>9972.002</b>	<b>5511.210</b>
<b>Accessories</b>		Pack of								
Sidewalls, lockable	Split sidewall (top/bottom), Light Gray RAL 7035 <sup>2)</sup>	1	–	5501.030	5501.030	–	–	–	5501.040	5501.040
	Split sidewall (top/bottom), Black RAL 9005 <sup>2)</sup>	1	–	5501.035	5501.035	5501.095	5501.095	5501.095	5501.045	5501.045
Sidewalls, screw attachment	Solid sidewall, Light Gray RAL 7035 <sup>3)</sup>	2	7824.120	–	–	–	–	–	–	–
	Solid sidewall, Black RAL 9005 <sup>3)</sup>	2	9969.952	–	–	–	–	–	–	–
Base mount	Light Gray RAL 7035	2	5501.320	5501.320	5501.320	–	–	–	5501.350	5501.350
	Black RAL 9005	2	5501.325	5501.325	5501.325	–	–	–	5501.355	5501.355
Gland plates, modular	Light Gray RAL 7035 or Black RAL 9005	See Accessory Options								
Base/plinth		See Accessory Options								
Fan mounting plate for TS IT incl. thermostat	Light Gray RAL 7035	1	5502.020	5502.010	5502.020	–	–	–	5502.010	–
	Black RAL 9005	1	5502.025	5502.015	5502.025	5502.015	–	5502.025	5502.015	–
Air baffle plate		1 set	–	5501.805	5501.815	5501.805	9972.925	5501.815	5501.805	9972.925
Cable route		1	–	5502.120	5502.120	5502.120	–	5502.120	5502.120	–
Cable duct		1	–	5502.100	–	–	–	–	5502.105	–

■ Included <sup>1)</sup> Vented surface area approx. 85% perforated <sup>2)</sup> Packaged as top/bottom set for one side only; order two sets to cover both sides of cabinet  
<sup>3)</sup> Packaged as pair; set will cover both sides of cabinet



# TS IT network/server enclosure with perforated viewing door

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

U		47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	
Height inches (mm)		87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	
Width inches (mm)		24 (600)	32 (800)	24 (600)	28 (700)	32 (800)	24 (600)	28 (700)	32 (800)	
Depth inches (mm)		40 (1000)	40 (1000)	42 (1050)	41 (1050)	42 (1050)	48 (1200)	48 (1200)	48 (1200)	
Perforated <sup>1)</sup> carbon steel front door, 180° hinges, with comfort handle for semi-cylinder and security lock 3524 E		■	■	■	■	■	■	■	■	
Perforated <sup>1)</sup> carbon steel rear door, 180° hinges, with comfort handle for semi-cylinder and security lock 3524 E		■	■	■	■	■	■	■	■	
Depth-variable 19" (482.6 mm) rails front and rear, on depth stays with quick-release fasteners		■	■	■	■	■	■	■	■	
Multi-piece roof plate with side cable entry in the depth and covered cut-out for fan mounting plate		■	■	■	■	■	■	■	■	
Part No.	Light Gray RAL 7035	5513.110	5514.110	–	9972.005	–	5515.110	9972.007	5516.110	
	Black RAL 9005	5513.210	5514.210	5523.210	9972.004	5524.210	5515.210	9972.006	5516.210	
Accessories		Pack of								
Sidewalls, 2-part	Split sidewall (top/bottom), Light Gray RAL 7035 <sup>2)</sup>	1	5501.060	5501.060	–	–	–	5501.070	5501.070	5501.070
	Split sidewall (top/bottom), Black RAL 9005 <sup>2)</sup>	1	5501.065	5501.065	5501.105	5501.105	5501.105	5501.075	5501.075	5501.075
Base mount	Light Gray RAL 7035	2	5501.320	5501.320	–	–	–	5501.350	5501.350	5501.350
	Black RAL 9005	2	5501.325	5501.325	–	–	–	5501.355	5501.355	5501.355
Gland plates, modular		See Accessory Options								
Base/plinth		See Accessory Options								
Fan mounting plate for TS IT incl. thermostat	Light Gray RAL 7035	1	5502.010	5502.020	–	–	–	5502.010	–	5502.020
	Black RAL 9005	1	5502.015	5502.025	5502.015	–	5502.025	5502.015	–	5502.025
Air baffle plate		1 set	5501.825	5501.835	5501.805	9972.926	5501.815	5501.825	9972.926	5501.835
Cable route		1	5502.120	5502.120	5502.120		5502.120	5502.120		5502.120
Cable duct		1	–	5502.101	–		–	–		5502.145

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



# Colocation enclosure



Intensive physical security requirements are met with durable construction, doors with 2-point latching, internal hinges, locking handles and secure cable management.

**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:**

Black RAL 9005

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

		2 – 22 U each
<b>Height</b> inches (mm)		87 (2200)
<b>Width</b> inches (mm)		24 (600)
<b>Depth</b> inches (mm)		42 (1050)
<b>Part No.</b>		<b>9963.770</b>
<b>Accessories</b>	Packs of	
Cable security kit	1	9962.840
Quick-adjust EIA rail kit	1	9962.843
Combination lock handle <sup>1)</sup>	1	7200.801
Security lock insert <sup>1)</sup>	1	2467.000
Pushbutton lock insert <sup>1)</sup>	1	2469.000

<sup>1)</sup> Handles and lock inserts sold separately



# NEMA 12/UL Type 12 network enclosure



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 capability 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)

		24 U	24 U	24 U	24 U	24 U	24 U
<b>Height</b> inches (mm)		48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)	48 (1200)
<b>Width</b> inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	32 (800)	32 (800)
<b>Depth</b> inches (mm)		24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	32 (800)
Color	Light Gray RAL 7035	■	–	■	–	■	–
	Black RAL 9005	–	■	–	■	–	■
<b>Part No.</b>	NEMA 12 viewing door, solid rear door	<b>9969.876</b>	<b>9969.877</b>	<b>9969.884</b>	<b>9969.885</b>	<b>9969.886</b>	<b>9969.887</b>
	UL Type 12 solid front & rear door	<b>9963.487</b>	–	<b>9963.488</b>	–	–	–
<b>Accessories</b>		Packs of					
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	7825.900	7825.900	7825.900	7825.900	7825.900	7825.900



# NEMA 12/UL Type 12 network enclosure

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

	42 U	42 U	47 U	47 U	42 U	42 U	42 U	42 U
<b>Height</b> inches (mm)	79 (2000)	79 (2000)	87 (2200)	87 (2200)	79 (2000)	79 (2000)	79 (2000)	79 (2000)
<b>Width</b> inches (mm)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	32 (800)	32 (800)
<b>Depth</b> inches (mm)	24 (600)	24 (600)	24 (600)	24 (600)	32 (800)	32 (800)	32 (800)	32 (800)
Color	Light Gray RAL 7035	■	–	■	–	■	–	■
	Black RAL 9005	–	■	–	■	–	■	–
<b>Part No.</b>	NEMA 12 viewing door, solid rear door	<b>9969.880</b>	<b>9969.881</b>	<b>9969.882</b>	<b>9969.883</b>	<b>9969.892</b>	<b>9969.893</b>	<b>9969.894</b>
	UL Type 12 solid front & rear door	<b>9960.301</b>	–	<b>9963.492</b>	–	<b>9960.302</b>	–	<b>9960.303</b>
<b>Accessories</b>	Packs of							
Sidewalls - full	2	8106.235	9969.920	8126.235	9969.917	8108.235	9969.916	8108.235
Base/plinths 8" (200 mm) front and rear	2	8602.605	9967.491	8602.605	9967.491	8602.605	9967.491	8602.805
Base/plinths 8" (200 mm) side trim	2	8602.065	–	8602.065	–	–	–	8602.085
Cable management panel	1	–	9978.360	–	9978.361	–	9978.360	–
Caster kit	4	7825.900	7825.900	7825.900	7825.900	7825.900	7825.900	7825.900

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

	47 U	47 U	47 U	47 U	42 U	42 U
<b>Height</b> inches (mm)	87 (2200)	87 (2200)	87 (2200)	87 (2200)	79 (2000)	79 (2000)
<b>Width</b> inches (mm)	24 (600)	24 (600)	32 (800)	32 (800)	24 (600)	32 (800)
<b>Depth</b> inches (mm)	32 (800)	32 (800)	32 (800)	32 (800)	40 (1000)	40 (1000)
Color	Light Gray RAL 7035	■	–	■	–	■
	Black RAL 9005	–	■	–	■	–
<b>Part No.</b>	NEMA 12 viewing door, solid rear door	<b>9969.896</b>	<b>9969.897</b>	<b>9969.898</b>	<b>9969.899</b>	–
	UL Type 12 solid front & rear door	–	–	–	–	<b>9963.608</b>
<b>Accessories</b>	Packs of					
Sidewalls - full	2	8128.235	9969.352	8128.235	9969.352	8100.235
Base/plinths 8" (200 mm) front and rear	2	8602.605	9967.491	8602.805	9967.492	8602.605
Base/plinths 8" (200 mm) side trim	2	8602.085	–	8602.085	–	8602.015
Cable management panel	1	–	9978.361	–	9978.361	–
Caster kit	4	7825.900	7825.900	7825.900	7825.900	7825.900

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

	47 U	47 U	47 U	47 U
<b>Height</b> inches (mm)	79 (2000)	79 (2000)	87 (2200)	87 (2200)
<b>Width</b> inches (mm)	24 (600)	32 (800)	24 (600)	32 (800)
<b>Depth</b> inches (mm)	48 (1200)	48 (1200)	48 (1200)	48 (1200)
Color	Light Gray RAL 7035	■	■	■
	Black RAL 9005	–	–	–
<b>Part No.</b>	NEMA 12 viewing door, solid rear door	–	–	–
	UL Type 12 solid front & rear door	<b>9963.491</b>	<b>9963.609</b>	<b>9963.495</b>
<b>Accessories</b>	Packs of			
Sidewalls - full	2	9969.955	9969.955	9969.957
Base/plinths 8" (200 mm) front and rear	2	8602.605	8602.805	8602.605
Base/plinths 8" (200 mm) side trim	2	8602.025	8602.025	8602.085
Cable management panel	1	–	–	–
Caster kit	4	9968.751	9968.751	7825.900





For flexible use as a wall-mounted or floor-standing enclosure.

**Advantages:**

- Tool-free quick mounting
- System configuration on an open 19" frame

**Material:**

- Carbon steel
- Viewing window: Single-pane safety glass, 3 mm

**Surface finish:**

- Powder-coated Color:
- Light Gray RAL 7035

**Supply includes:**

- Flat-packed enclosure
- 1 wall section
- 2 basic supports
- 2 roof/base plates, with cut-outs for cable entry via brush strips
- 2 sidewalls, lockable

- 1 glazed door, lockable, security lock 3524 E, door catch freely selectable
  - Connection components for tool-free, fast assembly
  - Grounding kit for system-compatible grounding of all enclosure parts
- Please note the product-specific scope of supply.

**Note:**

- Max. installation depth: 112 mm
- Max. distance between two 19" levels: Depth -126 mm

**Technical details:**

Available on the Internet

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

## Version with 19" Profile Rails

Height Units U		6	6	9	9
Height inches (mm)		14 (358)	14 (358)	19 (492)	19 (492)
Width inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)
Depth inches (mm)		16 (400)	24 (600)	16 (400)	24 (600)
Model No.		<b>7507.000</b>	<b>7507.100</b>	<b>7507.010</b>	<b>7507.110</b>
<b>Product-specific scope of supply</b>					
19" profile rails, front only		■	■	■	■
<b>Accessories</b>	Packs of				
Profile rails 19"	2 pc(s).	7507.706	7507.706	7507.709	7507.709
Ground rail, horizontal	1 pc(s).	7113.000	7113.000	7113.000	7113.000
Fan expansion kit		See Accessory Options			
Internal enclosure thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000
Cable management panel	1 pc(s).	5502.205	5502.205	5502.205	5502.205

## Version with 19" Mounting Frame

Height Units U		12	12	15	15	18	21
Height inches (mm)		25 (625)	25 (625)	30 (758)	30 (758)	35 (892)	40 (1025)
Width inches (mm)		24 (600)	24 (600)	24 (600)	28 (700)	28 (700)	28 (700)
Depth inches (mm)		16 (400)	24 (600)	16 (400)	28 (700)	28 (700)	28 (700)
Model No.		7507.020	7507.120	7507.030	7507.200	7507.210	7507.220
<b>Product-specific scope of supply</b>							
19" mounting frame, front only		■	■	■	■	■	■
Leveling feet		■	■	■	■	■	■
<b>Accessories</b>	Packs of						
Profile rails 19"	2 pc(s).	7507.712	7507.712	7507.715	7507.715	7507.718	7507.721
Ground rail, horizontal	1 pc(s).	7113.000	7113.000	7113.000	7113.000	7113.000	7113.000
Fan expansion kit		See Accessory Options					
Internal enclosure thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000
Cable management panel	1 pc(s).	5502.205	5502.205	5502.205	5502.205	5502.205	5502.205



# EL 3-part enclosure



## 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:  
Light Gray RAL 7035
- Viewing door:  
Light Gray RAL 7035/7015

## Protection rating:

UL listed

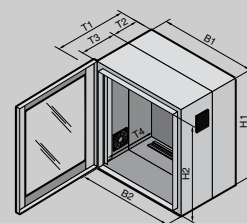
## Supply includes:

- 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](http://www.rittal.us)



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

Height units U		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.		<b>7709.735</b>	<b>7709.535</b>	<b>7715.735</b>	<b>7715.535</b>	<b>7721.735</b>	<b>7721.535</b>
<b>Product-specific configuration</b>							
Wall section:	Gland plate, solid, top	■	■	■	■	■	■
	Gland plate with brush strip, bottom	■	■	■	■	■	■
	2 Vertical punched rails	■	■	■	■	■	■
	C rail mounted horizontally for cable clamping	■	■	■	■	■	■
Hinged part:	19" (482.6 mm) mounting rails, fully depth adjustable	■	■	■	■	■	■
	Side outlet filters left and right	■	■	■	■	■	■
Ground rail with star grounding		■	■	■	■	■	■
4 x 0.0.4" (10 mm) trim panels		■	■	■	■	■	■
Mini-comfort handle		■	■	■	■	–	–
Security lock 3524E		■	■	■	■	■	■
Comfort handle and 2-point latching		–	–	–	–	■	■
<b>Accessories</b>		Packs of					
Gland plate for metric cable glands		1	7705.235	7705.235	7705.235	7705.235	7705.235
Fan expansion kit		1	7980.100	7980.100	7980.100	7980.100	7980.100
Spare filter mats		5	3322.700	3322.700	3322.700	3322.700	3322.700
Wall mounting bracket, 1.57" (40 mm)		4	2503.010	–	2503.010	–	–
Component shelf, 2 U, static installation		1	5501.615	5501.615	5501.615	5501.615	5501.615



# EL 3-part NEMA 12 enclosure



## 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:  
Light Gray RAL 7035
- Viewing door:  
Light Gray RAL 7035/7015

## Protection rating:

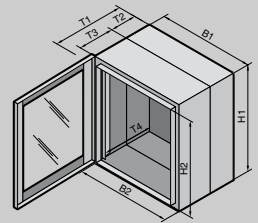
NEMA 12 (IP 55 to IEC 60 529);  
UL listed

## 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](http://www.rittal.us)



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

	6 U	9 U	12 U	15 U	21 U
<b>Height (H1) inches (mm)</b>	14 (345)	19 (478)	24 (612)	29 (746)	40 (1012)
<b>Width (B1) inches (mm)</b>	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)
<b>Depth (T1) inches (mm)</b>	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)
Clearance height (H2) inches (mm)	11 (282)	16 (415)	22 (549)	27 (683)	37 (949)
Depth of wall section (T2) inches (mm)	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)
Max. installation depth (T4) inches (mm)	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)
<b>Part No.</b>	<b>7706.135</b>	<b>7709.135</b>	<b>7712.135</b>	<b>7715.135</b>	<b>7721.135</b>

## Product-specific configuration

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

Accessories	Packs of					
Gland plate with brush insert	1	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
Wall mounting bracket, 1.57" (40 mm)	4	2503.010	2503.010	2503.010	2503.010	2503.010
Ground rail, horizontal	1	7113.000	7113.000	7113.000	7113.000	7113.000



# EL 3-part NEMA 12 enclosure

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

		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.		9969.580 <sup>1)</sup>	9969.581 <sup>1)</sup>	9969.582 <sup>1)</sup>	
Product-specific configuration		Packs of			
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		Packs of			
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	2503.010	2503.010	2503.010
Ground rail, horizontal		1	7113.000	7113.000	7113.000

<sup>1)</sup> Not UL listed

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

		3 U	6 U	9 U	12 U	15 U	21 U
<b>Height</b> (H1) inches (mm)		8 (212)	14 (345)	19 (478)	24 (612)	29 (746)	40 (1012)
<b>Width</b> (B1) inches (mm)		24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)
<b>Depth</b> (T1) inches (mm)		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)
Clearance height (H2) inches (mm)		6 (149)	11 (282)	16 (415)	22 (549)	27 (683)	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)		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)
Width of mounting panel (B3) inches (mm)		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)	38 (965)
Load capacity of hinged part lbs (kg, static)		33 (15)	66 (30)	99 (45)	132 (60)	165 (75)	165 (75)
<b>Part No.</b>		<b>2243.605</b>	<b>2246.605</b>	<b>2249.605</b>	<b>2252.605</b>	<b>2255.605</b>	<b>2261.605</b>
<b>Product-specific configuration</b>		Packs of					
Wall section:	Gland plate, solid, top and bottom	2	■	■	■	■	■
	Mounting panel supplied loose	1	■	■	■	■	■
Hinged part: 19" (482.6 mm) mounting rails		2	■	■	■	■	■
<b>Accessories</b>		Packs of					
Wall mounting bracket, 0.39" (10 mm)		4	2508.010				
Wall mounting bracket, 1.57" (40 mm)		4	2503.010				
Gland plate with brush insert		1	7705.035				
Gland plate for metric cable glands		1	7705.235				
Blanking panels, 19" (482.6 mm)		3	see Accessory Options				



# EL 3-part NEMA 12 enclosure

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

	3 U	6 U	9 U	12 U	15 U	21 U
<b>Height</b> (H1) inches (mm)	8 (212)	14 (345)	19 (478)	24 (612)	29 (746)	40 (1012)
<b>Width</b> (B1) inches (mm)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)	24 (600)
<b>Depth</b> (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)	6 (149)	11 (282)	16 (415)	22 (549)	27 (683)	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)	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)
Width of mounting panel (B3) inches (mm)	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)	38 (965)
Load capacity of hinged part lbs (kg, static)	33 (15)	66 (30)	99 (45)	132 (60)	165 (75)	165 (75)
<b>Part No.</b>	<b>2253.605</b>	<b>2256.605</b>	<b>2259.605</b>	<b>2262.605</b>	<b>2265.605</b>	<b>2271.605</b>
<b>Product-specific configuration</b>	Packs of					
Wall Gland plate, solid, top and bottom	2	■	■	■	■	■
section: Mounting panel supplied loose	1	■	■	■	■	■
Hinged part: 19" (482.6 mm) mounting rails	2	■	■	■	■	■
<b>Accessories</b>	Packs of					
Wall mounting bracket, 0.39" (10 mm)	4	2508.010				
Wall mounting bracket, 1.57" (40 mm)	4	2503.010				
Gland plate with brush insert	1	7705.035				
Gland plate for metric cable glands	1	7705.235				
Blanking panels, 19" (482.6 mm)	3	See Accessory Options				



# LCP–Liquid Cooling Package Rack CW



## Benefits:

- Maximum energy efficiency due 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
- Control of the server intake air temperature
- Redundant temperature sensor integrated at the air end
- Optimum adaptability due to dynamic, continuous control of the cold water volume flow
- By using high water inlet temperatures the proportion of indirect free cooling is increased, which in turn reduces operating costs

- Targeted cooling output due to modular fan units
- Fan modules configurable as n+1 redundancy
- The separation of cooling and enclosure prevents water from entering the server enclosure
- Up to 60 kW cooling output on a footprint of just 3.87 ft<sup>2</sup>
- Minimal area load thanks to low weight

## Approvals:

- UL
- cUL

## Functions:

The LCP draws in the air at the sides at the rear of the server enclosures, cools it using a

high performance multi-row heat exchanger, and blows the cooled air back into the front part of the server enclosure at the sides.

## Monitoring:

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

## Temperature control:

- Infinitely variable fan control
- 2-way control valve

## Color:

- Black RAL 9005

## Protection category IP to IEC 60 529:

- IP 20

## Cooling medium:

- Water

## Optional:

- Automatic server enclosure door opening
- Various sensors
- Racks 2200 mm high

## Technical details:

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

LCP Rack CW (North American Version) Model Number		3311.238	3311.268
Total cooling output/number of fan modules required BTU (kW)		34121 (10)/1 68243 (20)/2 102364 (30)/3	136486 (40)/4 153546 (45)/5 187668 (60)/6
Number of fan modules in supplied state		1	4
Height inches (mm)		79 (2000)	79 (2000)
Width inches (mm)		12 (300)	12 (300)
Depth inches (mm)		47 (1200)	47 (1200)
Installation in bayed enclosure suite		Flush	Flush
Rated operating voltage V, ~, Hz		208, 2~, 60 230, 1~, 50/60	208, 2~, 60 230, 1~, 50/60
Type of connection (electrical)		Hard-wired	Hard-wired
Air throughput at max. cooling output cfm (m <sup>3</sup> /h)		2825 (4800)	4709 (8000)
Fans may be exchanged with the system operational		■	■
EC fan		■	■
Water inlet temperature °F		59	59
Permissible operating pressure (p. max.) psi (bar)		87 (6)	87 (6)
Duty cycle %		100	100
Water connection		1½" BSP Male Thread	1½" BSP Male Thread
Weight in supplied state lb (kg)		485 (220.0)	529 (240.0)
<b>Accessories</b>	Packs of		
Fan module	1 pc(s).	3311.016	3311.016
Touchscreen display, color	1 pc(s).	3311.030	3311.030



# LCP—Liquid Cooling Package Inline CW



## Benefits:

- Maximum energy efficiency due 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 due to dynamic, continuous control of the cold water volume flow
- By using high water inlet temperatures the proportion of indirect free cooling is increased, which in turn reduces operating costs
- Targeted cooling output due to modular fan units
- Fan modules configurable as n+1 redundancy
- Redundant temperature sensor integrated at air end

- The separation of cooling and enclosure prevents water from entering the server enclosure
- Water supply can be set to either top or bottom
- Up to 60 kW cooling output on a footprint of just 3.87 ft<sup>2</sup>
- Minimal area load thanks to low weight

## Functions:

The hot air is drawn in from the room or hot aisle at the rear of the device and passing through a high efficiency multi-row heat exchanger expelled at the front into the cold aisle after cooling. The LCP achieves maximum performance and efficiency

in conjunction with cold aisle containment. With this product, a raised floor is not necessary.

## Approvals:

- UL
- cUL

## Monitoring:

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

## Temperature control:

- Infinitely variable fan control
- 2-way control valve

## Color:

- Black RAL 9005

## Protection category IP to IEC 60 529:

- IP 20

## Cooling medium:

- Water
- Water/Glycol

## Optional:

- Various sensors
- Racks 2200 mm high

## Technical details:

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

LCP Inline CW North American Version Model No.	3311.148	3311.538	3311.548	3311.568
<b>Total cooling output/number of fan modules required BTU (kW)</b>	<b>61419 (18)/2</b> <b>92128 (27)/3</b> <b>102364 (30)/4</b>	<b>34121 (10)/1</b> <b>68243 (20)/2</b> <b>102364 (30)/3</b>	<b>61419 (18)/2</b> <b>92128 (27)/3</b> <b>102364 (30)/4</b>	<b>136486 (40)/4</b> <b>153546 (50)/5</b> <b>187668 (60)/6</b>
Number of fan modules in supplied state	2	1	2	4
Height inches (mm)	79 (2000)	79 (2000)	79 (2000)	79 (2000)
Width inches (mm)	12 (300)	12 (300)	12 (300)	12 (300)
Depth inches (mm)	41 (1050)	47 (1200)	47 (1200)	47 (1200)
Installation in bayed enclosure suite	Flush	Protruding	Flush	Protruding
Rated operating voltage V, ~, Hz	208, 2~, 60 230, 1~, 50/60	208, 2~, 60 230, 1~, 50/60	208, 2~, 60 230, 1~, 50/60	208, 2~, 60 230, 1~, 50/60
Type of connection (electrical)	Hard-wired	Hard-wired	Hard-wired	Hard-wired
Air throughput at max. cooling output cfm (m <sup>3</sup> /h)	2825 (4800)	2825 (4800)	2825 (4800)	4709 (8000)
Fans may be exchanged with the system operational	■	■	■	■
EC fan	■	■	■	■
Permissible operating pressure (p. max.) psi (bar)	87 (6)	87 (6)	87 (6)	87 (6)
Duty cycle %	100	100	100	100
Water connection	1½" BSP Male Thread	1½" BSP Male Thread	1½" BSP Male Thread	1½" BSP Male Thread
Water inlet temperature °F	59	59	59	59
Weight in supplied state lb (kg) 485	485 (220.0)	485 (220.0)	485 (220.0)	529 (240.0)
<b>Accessories</b>	Packs of			
Fan module	1 pc(s).	3311.016	3311.016	3311.016
Touchscreen display, color	1 pc(s).	3311.030	3311.030	3311.030



# LCP—Liquid Cooling Package DX



## Benefits:

- Cooling output up to 20kW
- Standard and high ambient condensers for all North American locations
- Small footprint due to innovative large surface area cooling design
- Easy maintenance with tool less EC fan replacement and easy access electrical connections
- High partial load efficiencies from the inverter controlled compressor which maintains set point temperature as heat loads vary
- Electronic expansion valve to quickly react to changing thermal loads and optimize system operation

- Redundancy achieved by inter-connecting up to 8 units
- Low environmental impact with R410a refrigerant
- Protects sensitive equipment by rapidly responding to changing heat loads

## Functions:

### Introducing the NEW LCP DX

**20kW:** The NEW LCP DX provides 20 kW of cooling capacity and is available in closed loop Rack and open loop Inline. The LCP Rack DX is coupled with one or two enclosed racks allowing placement in non-controlled environments. The LCP Inline DX is the optimal choice for maintaining

temperatures in re-purposed data rooms and server closets.

### LCP Rack and Inline DX 12kW:

The LCP DX 12 kW is also available in Rack and Inline versions and provide flexible and scalable cooling for small data centers. The Rack version is paired with NEMA 12 rated server racks for a completely stand-alone system in uncontrolled environments. The Inline version provides whole room cooling of racks and other equipment while maintaining optimal inlet temperatures. Redundancy is achieved through N+1 EC fans and a designated primary and backup LCP DX control scheme.

## Temperature control:

- Infinitely variable fan control
- Inverter-controlled compressor

## Color:

- Black RAL 9005

## Protection category IP to IEC 60 529:

- IP 20

## Cooling medium:

- R410a

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

Model No.	LCP Rack DX			LCP Inline DX		
	3311.415	3311.425	3311.392	3311.435	3311.445	3311.391
<b>Total cooling output/number of fan modules required BTU (kW)</b>	<b>40,946 (12)/4</b>	<b>40,946 (12)/4</b>	<b>40,946 (20)/4</b>	<b>40,946 (12)/4</b>	<b>40,946 (12)/4</b>	<b>40,946 (20)/4</b>
Height inches (mm)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)	79 (2000)
Width inches (mm)	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)	12 (300)
Depth inches (mm)	39 (1000)	47 (1200)	48 (1200)	39 (1000)	47 (1200)	48 (1200)
Rated operating voltage V, ~, Hz	208, 1~, 60	208, 1~, 60	208, 1~, 60	208, 1~, 60	208, 1~, 60	208, 1~, 60
Type of connection (electrical)	Terminal	Terminal	Terminal	Terminal	Terminal	Terminal
Air throughput at max. cooling output cfm (m³/h)	2825 (4800)	2825 (4800)	2825 (4800)	2825 (4800)	2825 (4800)	2825 (4800)
Fans may be exchanged with the system operational	Yes, toolless	Yes, toolless	Yes, toolless	Yes, toolless	Yes, toolless	Yes, toolless
Fan type (Number of fan modules)	EC (4)	EC (4)	EC (4)	EC (4)	EC (4)	EC (4)
Duty cycle %	100	100	100	100	100	100
Weight in supplied state lb (kg)	399 (181.0)	399 (181.0)	443 (201)	399 (181.0)	399 (181.0)	443 (201)
Compressor type	Twin Rotary	Twin Rotary	Scroll	Twin Rotary	Twin Rotary	Scroll
Piping (max) distance feet (m)	98 (30)	98 (30)	150 (45)	98 (30)	98 (30)	150 (45)
<b>Accessories</b>						
SNMP card	3311.320	3311.320	Included	3311.320	3311.320	Included
Condenser unit	9951.077	9951.077	9951.077	9951.077	9951.077	9951.077



# Liquid Cooling Package

## Accessories

### Touchscreen display, color for LCP CW rack and inline

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 LCP DX's, and comprises the external condenser, and fan.

**Refrigerant:**  
R410a

For LCP DX	Packs of	Model No.
3311.415 3311.425 3311.435 3311.445 3311.391 3311.392	1 pc(s).	<b>Single Circuit</b> <b>9951.077</b>
For 2 LCP DX units	1 pc(s).	<b>Dual Circuit</b> <b>9982.148</b>



**Note:**

- The pipework between the LCP DX and the condenser is not included with the supply

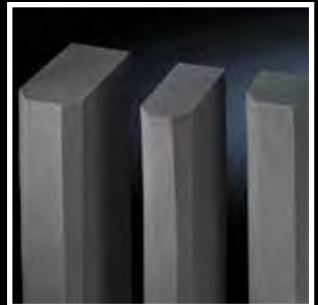
### Vertical shielding

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	<b>3301.380</b>
	32 (800)	1	<b>3301.390</b>
LCP and 19" (482.6 mm) rails	24 (600)	1	<b>3301.370</b>
	32 (800)	1	<b>3301.320</b>



### Connection hose, bottom and top

Flexible rubber hose, may be shortened.

Requires Hose Conversion Kit 9977.379 for connection to LCP CW.

Part Number	Description	Packs of
9977.379	Hose Connection Kit	1
9971.173	10' Hose	1
9971.174	15' Hose	1
9971.175	25' Hose	1

For use with LCP CW 3311.148, 3311.238, 3311.268, 3311.538, 3311.548, 3311.568





# Liquid Cooling Package

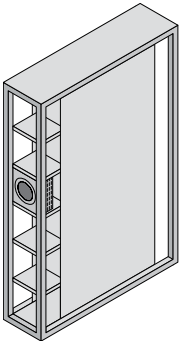
## Accessories



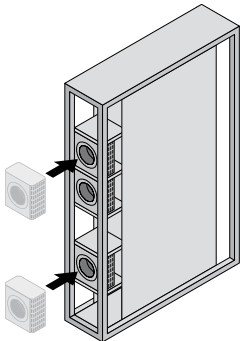
### Fan Module for LCP CW

To increase the cooling output, individual fan modules can be retro-fitted into the LCPs. This helps to generate redundancy or reduce the electrical power consumption of the LCP.

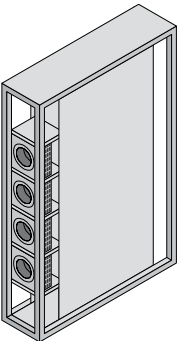
For LCP	Color	Packs of	Model No.
3311.148, 3311.238, 3311.268, 3311.538, 3311.548, 3311.568	Black RAL 9005	1 pc(s).	<b>3311.016</b>



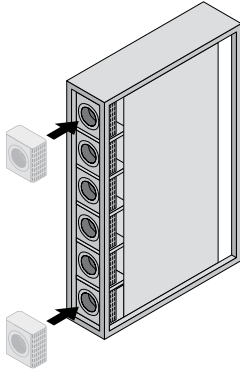
The LCP 3311.238/538 (max. 30 kW) is supplied with one fan module as standard



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



The LCP 3311.268/568 (max. 60 kW) is supplied with four fan modules as standard



To achieve the max. cooling output of 60 kW, the customer/service should install two additional fan modules



# Fire alarm and extinguisher system DET-AC/EFD Plus



## Advantages:

- Early fire detectionn
- Automatic extinguishing
  - Innovative extinguisher gas NOVEC™ 1230
  - Eco-friendly
  - Uncritical for IT compo-nents, non-conductive
- 19" slide-in equipment with just 1 U
- Testing by VdS (VdS Schadenverhütung GmbH tests and certifies accident prevention equipment components or entire systems in its own laboratories)
- CAN bus interface for direct connection with the CMC III monitoring system

## Material:

- Housing: Carbon Steel

## Protection category IP 20

### IEC 60 529:

- IP 30

## Color:

- Housing: Light Gray RAL 7035
- Front trim panel: Black RAL 9005

## Note:

- All three systems are designed exclusively for use in closed non-accessible enclosure systems
- Product based on European standards

## DET-AC III Master

The active extinguisher system for use in sealed 19" server enclosures includes the smoke extraction system and the extinguisher unit in a 19" subrack, built into just 1 height unit. The smoke extraction system is identical to that used in the EFD III. When a main alarm is triggered, the extinguishing process starts automatically. The extinguisher medium used, NOVEC™ 1230, is stored in liquid form in the extinguisher tank. For the extinguishing process, pressure is applied to the tank and the extinguisher medium vaporizes at the extinguisher nozzle and is distributed within the server enclosure. Alarms and malfunctions can be forwarded to the CMC III monitoring system directly via the CAN bus interface. Floating contacts make it possible for the alarms (pre-alarm and main alarm) and the collective fault signal from the device to be forwarded to a superordinate location (monitoring or control system).

## EFD III

The EFD III early fire detection system includes the smoke extraction system in a 19" subrack built into just 1 height unit. An integrated fan continuously extracts air from the area to be protected, via a pipeline system. The extracted air is passed over two fire detectors. If smoke aerosols are detected, the highly-sensitive detector emits a pre-alarm, with the second fire detector emitting the main alarm. The correct functioning of the fire detectors is monitored at all times by the evaluation and control electronics on the control board. Alarms and malfunctions can be forwarded to a superordinate location (monitoring or control system) via floating contacts. The integrated CAN bus interface enables direct connection to the CMC III.

## DET-AC III Slave

The add-on unit for the DET-AC III Master contains another extinguisher unit. Up to five bayed enclosures may be extinguished in combination. In addition to the DET-AC III Master unit, a DET-AC III Slave unit is used for each additional bayed enclosure and contains the extinguisher gas for the enclosure in question. Detection takes place via the DET-AC III Master unit, even if there are multiple bayed enclosures. When a main alarm goes off, the DET-AC III Master triggers extinguishing at all units simultaneously. The DET-AC III Slave unit can also be used in conjunction with the EFD III unit.

## Technical details:

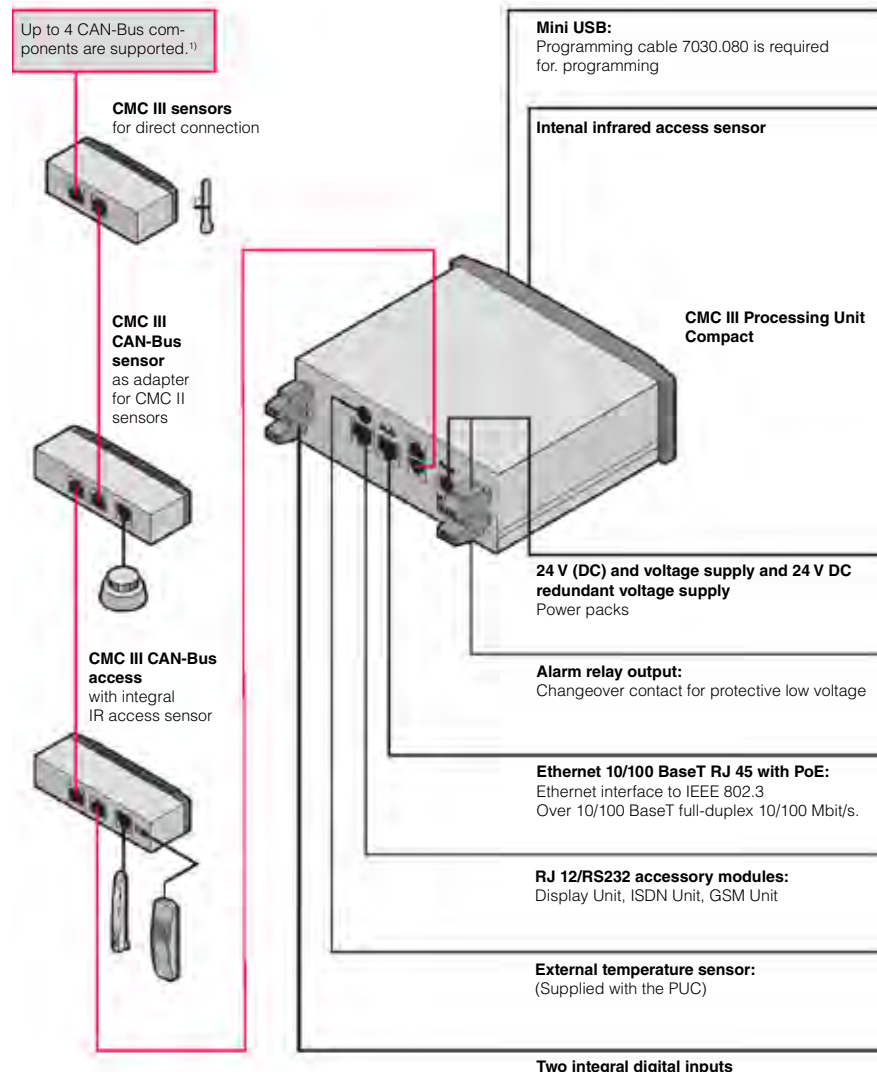
Available on the Internet

	Fire alarm and extinguisher system DET-AC III Master	Early fire detection system EFD III	Additional unit DET-AC III Slave
Height U (mm)	2 (44) (1 U)	2 (44) (1 U)	2 (44) (1 U)
Width inches (mm)	19" (482.6 mm) rack mount	19" (482.6 mm) rack mount	19" (482.6 mm) rack mount
Depth inches (mm)	26 (660)	19 (490)	26 (660)
Weight lbs (kg)	47 (21.5)	33 (15.0)	42 (19.1)
Rated voltage V, ~, Hz	100-240 (AC), 1~, 50/60	100-240 (AC), 1~, 50/60	24 (DC)
Emergency power supply h	approx. 4	approx. 4	approx. 4
Part No.	<b>7338.121</b>	<b>7338.221</b>	<b>7338.321</b>
<b>Also required</b>			
Pipe kit	7338.130	7338.130	7338.130
Access sensors	7320.530	–	7320.530
CAN bus connection cable RJ 45, 1m	7030.091	7030.091	7030.091
Slide rails, depth-variable	5501.480	5501.480	5501.480



# CMC III Processing Unit Compact

## System overview



Up to 4 CAN-Bus components are supported.<sup>1)</sup>

**CMC III sensors**  
for direct connection

**CMC III CAN-Bus sensor**  
as adapter  
for CMC II  
sensors

**CMC III CAN-Bus access**  
with integral  
IR access sensor

**Mini USB:**

Programming cable 7030.080 is required for programming

**Internal infrared access sensor**

**CMC III Processing Unit Compact**

**24 V (DC) and voltage supply and 24 V DC redundant voltage supply**  
Power packs

**Alarm relay output:**  
Changeover contact for protective low voltage

**Ethernet 10/100 BaseT RJ 45 with PoE:**  
Ethernet interface to IEEE 802.3  
Over 10/100 BaseT full-duplex 10/100 Mbit/s.

**RJ 12/RS232 accessory modules:**  
Display Unit, ISDN Unit, GSM Unit

**External temperature sensor:**  
(Supplied with the PUC)

**Two integral digital inputs**

<sup>1)</sup> Depending on the power supply/connection combinations

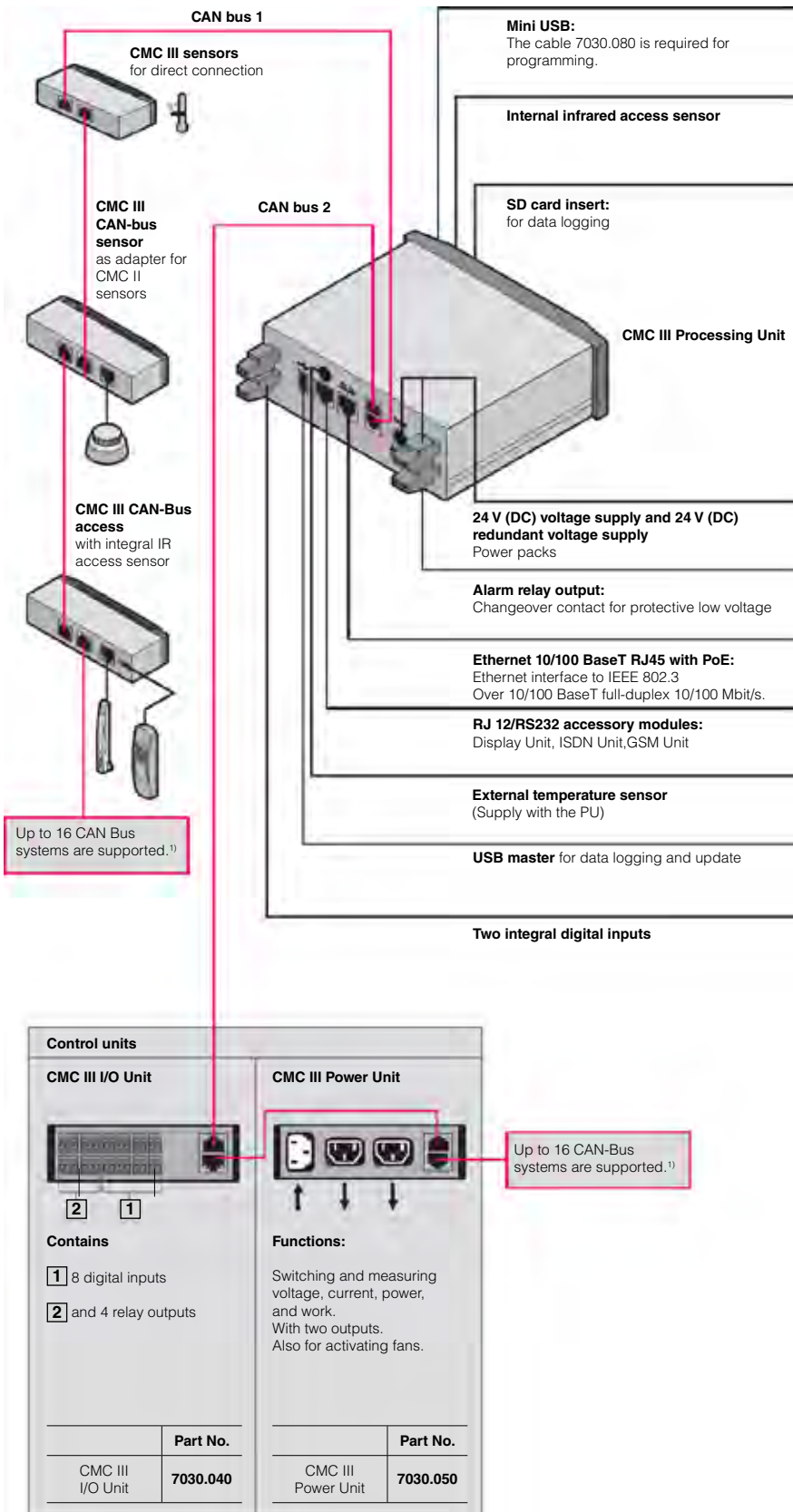
**Note:**

Server shutdown software for CMC III is required to shut down the server.



# CMC III Processing Unit

## System overview



<sup>1)</sup> Depending on the power supply/connection combinations.





# CMC III Processing Unit Compact



- Power supply designed for redundancy, plus Power over Ethernet (PoE)
- Simple cabling with the CAN bus connection system (RJ 45)
- Connection to control room systems via OPC UA

#### Material:

– Plastic

#### Surface finish:

– Front: smooth  
– Housing: textured

#### Color:

– Front: RAL Black 9005  
– Enclosure: Light Gray RAL 7035

#### Protection category IP to IEC 60 529:

– IP 30

#### Supply includes:

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

#### Approvals:

– cULus

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

		CMC III Processing Unit	CMC III Processing Unit Compact
<b>W x H x D</b> U inches (mm)		5.4 x 1.6 x 4.7 + 0.47 (138 x 40 x 120 +12 front assembly)	5.4 x 1.6 x 4.7 + 0.47 (138 x 40 x 120 +12 front assembly)
Operation temperature range		32°F...+113° F	32°F...+113° F
Operating humidity range		5% to 95% relative humidity, non-condensing	5% to 95% relative humidity, non-condensing
Sensors/CAN-Bus connection units		Max. 32	Max. 4
Max. overall cable length for CAN-bus		2 x 1969" (2 x 50 m)	1x 1969" (1 x 50 m)
<b>Part No.</b>		<b>7030.000</b>	<b>7030.010</b>
<b>Interfaces</b>	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 port	Mini USB for system setup	Mini USB for system setup
	Rear USB port	For USB stick for recording up to 32 GB of data	–
	Front SD-HC slot	1x up to 32 GB for recording data	–
	Rear serial RS232 (RJ 12)	1 x for connecting Display Unit, GSM Unit or ISDN Unit	1 x for connecting Display Unit, GSM Unit or ISDN Unit
<b>Inputs and outputs</b>	CAN bus (RJ 45)	2 x for max. 16 sensors each = 32 sensors in total (number is restricted)	1 x for max. 4 sensors (number is restricted)
	Digital inputs (terminal)	2	2
<b>Operation/ signals</b>	Relay output (terminal)	Change-over contact max. 24 V (DC), 1 A	Change-over contact max. 24 V (DC), 1 A
	Buttons	1 x acknowledgement button	1 x acknowledgement button
	Hidden reset button	1 x service button	1 x service button
	Piezoelectric signal transmitter	1	1
	LED display	1 x multi-color OK/warning/alarm	1 x multi-color OK/warning/alarm
<b>Protocols</b>	Rear LED	1 x for network status	1 x for network status
	Ethernet	TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS, SMTP, Syslog, LDAP	TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS, SMTP, Syslog, LDAP
<b>Redundant power supply</b>	Input 24 V DC (jack)	1 x for connecting CMC III power pack	1 x for connecting CMC III power pack
	Input 24 V DC (terminals)	1 x for direct connection or for connecting CMC III power pack	1 x for direct connection or for connecting CMC III power pack
	Power over Ethernet PoE	1 x 53 BTU (15.4 W)	1 x 53 BTU (15.4 W)
<b>Functions</b>	Time function	Real-time clock, energy-buffered (24h) without battery/rechargeable battery, with NTP	Real-time clock, energy-buffered (24h) without battery/rechargeable battery, with NTP
	User administration	LDAP	LDAP
	User interface	Integrated WEB server, with flexible dashboard	Integrated WEB server, with flexible dashboard
	Control room connection	Integrated OPC US server, Modbus TCP	Integrated OPC US server, Modbus TCP
<b>Integral sensors</b>	Temperature sensor	NTC sensor with cable, supplied loose	NTC sensor with cable, supplied loose
	Access sensor	Infrared technology in front of housing	Infrared technology in front of housing





## Control Units for CMC III Processing Unit

### Dimensions:

- H x W x D  
40 x 130 x 120 + 12 mm front frame

### Material:

- Plastic

### Surface finish:

- Front: Smooth
- Housing Textured

### Color:

- Front: Black RAL 9005
- Housing: Light Gray RAL 7035

### Protection category IP to IEC 60 529:

- IP 30



### Also required:

- CAN bus connection cable 7030.090/.095,
- Mounting unit 1 U, 7030.070

		① Connection RJ 45 2 x Can bus	② Inputs	③ Outputs	Model No.	PU Compact	PU
						Maximum number	
	<b>I/O Unit Control Unit</b> The relays can be linked with measurements in the software so that they switch under certain conditions. Devices can be monitored or messages forwarded in this way.  Cannot be operated with the Processing Unit Compact – Inputs for floating signals – Relay output (changeover contact) can handle loads of up to max. 24 V (DC)/1 A	■	8 x digital	4 x relay	<b>7030.040</b>	–	16
	<b>Power Unit Control Unit</b> The input is switched to the outputs by two relays. In this way the outputs can be linked with measurements and therefore switched automatically. Fan control is one application example. Manual switching via the CMC III user interface is also possible. Each output is individually monitored and different values are measured.  Cannot be operated with the Processing Unit Compact – Switches 2 outputs – Measures voltage, current, power, work – Application: Controlling and switching fans, heaters, equipment	■	1 x voltage C14 110 – 230 V 50/60 Hz	2 x current C13 Aggregate current max. 10 A	<b>7030.050</b>	–	16





## CMC III Sensors for Direct Connection

Connection III sensors are used to monitor the physical environment and can be directly connected to the PU by an RJ 45 CAN bus connection cable. The sensors can also be interconnected as a bus.

### Dimensions:

- 7030.110, .111, .120, .130  
H x W x D: 28 x 80 x 40mm
- 7030.140, .150, .190, .430, .440  
H x W x D: 30 x 110 x 40 mm
- 7030.400  
Ø x H: 100 x 60 mm

### Material:

- Plastic

### Surface finish:

- Front: Smooth
- Housing: Textured

### Color:

- Front: Black RAL 90005
- Housing: Light Gray RAL 7035
- Smoke detector: White











### Supply includes:

- Sensor
- Mounting bracket
- Assembly components
- Instructions booklet



### Also required:

- CAN bus connection cable 7030.090/.095

	RJ 45 connection 2 x CAN bus	Inputs	Model No.	PU Compact	PU
				Maximum Number	
 <b>Temperature sensor</b> – External NTC sensor, 2 m cable – Measurement range for external sensors: -40°F...+176°F	■	–	<b>7030.110</b>	4	32
 <b>Temperature/humidity sensor</b> – Measurement range 32°F...+131°F/ 55 r.h. ... 95% r.h.	■	–	<b>7030.111</b>	4	32
 <b>Infrared access sensor</b> Monitoring with reflector on the door, distance adjustable	■	–	<b>7030.120</b>	4	32
 <b>Vandalism sensor</b> – Axis: x, y, z – Acceleration limits: -7 ... 7g, adjustable	■	–	<b>7030.130</b>	4	32
 <b>Analog airflow sensor</b> – External airflow sensor: 4 –20 mA – Measurement range: 0.5 – 15 m/s – Application: Fan, filter, climate control devices	■	–	<b>7030.140</b>	4	10 <sup>1)</sup>
 <b>Analog differential pressure sensor</b> – 2 pressure measuring points (infeed via hose) – Measurement range: -500 m PA – +500 m PA – Application: Cold aisle containment, raised floor	■	–	<b>7030.150</b>	4	32
 <b>Universal sensor</b> Choice of digital inputs for an application – Floating signals – S <sub>0</sub> input for energy measurement systems – 1 Wiegand interface (external access systems)	■	2 x digital, may be switched to pulse input S <sub>0</sub> or a Wiegand interface  1 x analog 4–20 mA	<b>7030.190</b>	4	32
 <b>Smoke detector</b> – With an optical element for monitoring the ambient air for smoke particles	■	–	<b>7030.400</b>	4	32
 <b>Leakage sensor</b> – For monitoring a point on the floor in the data center or in the enclosure for liquids. The external sensor can be used to choose any location for monitoring.	■	–	<b>7030.430</b>	4	32
 <b>Leakage sensor, 15m</b> – For monitoring a larger area on the floor for liquids, using the 15 meter detection cable. The sensor also reports the section of the cable in which leakage has been detected.	■	–	<b>7030.440</b>	4	32





## Interface for CMC-TC Sensors

With the CMC III CAN bus sensor, it is possible to connect certain CMC-TC system sensors to the new CMC III. Old applications can be upgraded in this way with the CMC III Processing Unit/Compact. The unit not only has two CAN bus connections, but also one extra connection for one of the CMC-TC Sensors. The unit therefore acts as the interface between the CMC-TC sensor and the new processing unit, and adapts the sensor data to the CAN bus protocol.

### Dimensions:

- H x W x D:  
30 x 110 x 40mm

### Material:

- Plastic

### Surface finish:

- Front: Smooth
- Housing Textured

### Color:

- Front: Black RAL 90005
- Housing: Light Gray RAL 7035

### Protection category IP to IEC 60 529:

- IP 30

### Supply includes:

- Sensor
- Assembly parts
- Assembly component
- Instructions booklet

## The following CMC-TC sensors can be connected to the CMC III CAN bus sensor:

- 1 x temperature sensor
- 1 x analog input 4 – 20 mA
- 5 x access sensors in series
- 1 x airflow sensor
- 1 x smoke detector
- 1 x motion detector
- 1 x digital input
- 1 x digital relay output
- 1 x voltage monitoring system
- 1 x 48 V voltage sensor
- 1 x leakage sensor
- 1 x leakage sensor, 15 m sensor length
- 1 x door control unit (two connections)
- 1 x DET-AC extinguisher system (three connections)
- 1 x DET-AC early fire detection system (three connections)



### Also required:

- CAN bus connection cable 7030.090/.095

	①	②	③	Model No.	PU Compact	PU
					Maximum Number	
<p><b>1 CAN bus sensor</b> To connect a CMC-TC sensor</p>	■	1 x	–	<b>7030.100</b>	4	32
<b>Sensors that may be connected (max. 1 sensor per CAN bus sensor)</b>						
<p><b>2 CMC-TC access sensor</b> – Sensor: Reed Contact/Magnet – Max. 5 reed contacts in series – 2 m cable included with the supply</p>	–	–	1 x	<b>7320.530</b>	–	–
<p><b>3 CMC-TC motion detector</b> – Sensor: Infrared – 2 m cable included with the supply</p>	–	–	1 x	<b>7320.570</b>	–	–





## Access system

CMC III unit for controlling and monitoring access to the enclosures. One handle and one reader unit can be connected to each CMC III CAN bus access. The handles can be linked with different number codes or RFID card numbers via the CMC III Processing Unit/Compact website, so that all the handles connected to a CMC III Processing Unit/Compact can be controlled with just one reading system. Thanks to the integrated infrared sensor, the status of the controlled door (open/closed) is still monitored

### Dimensions:

- H x W x D:  
30 x 110 x 40mm

### Material:

- Plastic

### Surface finish:

- Front: Smooth
- Housing: Textured

### Color:

- Front: Black RAL 90005
- Housing: Light Gray RAL 7035

### Protection category IP to IEC 60 529:

- IP 30

### Supply includes:

- CAN bus access
- Assembly parts
- Assembly components
- Instructions booklet



### Also required:

- CAN bus connection cable 7030.090/.095

	Connection	Inputs		Outputs		Model No.	PU Compact	PU
		[1]	[2]	[3]	[4]		Maximum number	
		RJ 45 2 x CAN bus	RJ 12	Flat Connector	RJ 12			
<p><b>1 CAN bus access</b></p> <ul style="list-style-type: none"> <li>– To connect a handle and reader unit for monitoring a door</li> <li>– Integrated IR access sensor</li> </ul>	■	1 x	1 x	–	–	<b>7030.200</b>	2	16 <sup>1)</sup>
<b>Handles and reader units that may be connected (max. 1 handle and max. 1 reader unit per CAN bus access)</b>								
<p><b>2 Handles</b></p> <ul style="list-style-type: none"> <li>– <b>TS 8 handle with master key function</b></li> <li>– Handle monitoring</li> <li>– Rated voltage: 24 V (DC)</li> <li>– 3 m and 2 m cable included with the supply</li> </ul>	–	–	–	1 x	–	<b>7320.721</b> <b>(Light Gray RAL 7035)</b>  <b>9970.139</b> <b>(Black RAL 9005)</b>	–	–
<p><b>3 CMC III Reader Units</b></p> <ul style="list-style-type: none"> <li>– <b>Coded Lock</b></li> <li>– Any number code with up to 8 digits</li> <li>– 3 m and 2 m cable included with the supply</li> </ul>	–	–	–	–	1 x	<b>7030.220</b>	–	–
<ul style="list-style-type: none"> <li>– <b>Transponder reader</b></li> <li>– The contact-free provision of a transponder card allows the authorization (card UID) in the CMC III Processing Unit/Compact to be verified, and the relevant door/s released</li> <li>– Technology: 13.56 MHz transponder</li> <li>– Tags: ISO 14443A, ISO 14443B, ISO 15693, ISO 18000-3</li> <li>– 3 m cable included with the supply</li> </ul>	–	–	–	–	1 x	<b>7030.230</b>	–	–

<sup>1)</sup> Max. 5 pc(s) for power supply with PoE



## Power Pack Power Supply

for PU, PU Compact, CAN bus unit, CAN bus DRC, door control system.

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

### Technical specifications:

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

### Dimensions:

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

### Material:

- Plastic

### Surface finish:

- Front: Smooth
- Housing: Textured

Pack of	Part No.
1 pc(s).	<b>7030.060</b>

### Color:

- Front: Black RAL 9005
- Housing: Light Gray RAL 7035

### Supply includes:

- Assembly components
- Instructions booklet



### Also required:

- Connection cable (see page 34)



### Accessories:

- Mounting unit (see page 34)



## Interference Suppressor for Fans

### for CMC III

For connection of fans via the CMC III Power Unit 7030.050. Prevents malfunctions when switching off the fan motor. One interference suppressor is required per fan.

### Material:

- Plastic

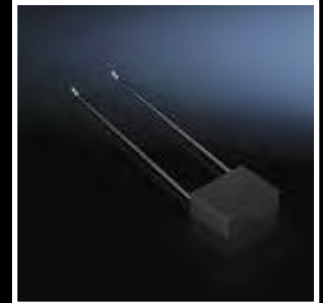
Packs of	Part No.
1 pc(s).	<b>7030.051</b>

### Color:

- Black RAL 9005

### Supply includes:

Assembly components



## Programming Cable

For initial commissioning of the Processing Unit (PU) or PU Compact. The CMC III Processing Unit/ Compact is connected to a PC USB port via the programming cable to do this. A driver for Windows systems is also supplied, which must be installed on the PC.

### Supply includes:

- CD with driver and system description

Packs of	Part No.
1 pc(s).	<b>7030.080</b>



## CAN Bus Connection Cable

With this cable, the PU can be hard-wired with the CAN bus III sensors, III units and III control units as a bus. Also for cabling with one another. The different lengths allow the CMC III system to be adapted to different applications and specifically configured.

CMC III CAN bus connection cable	length inch (mm)	Packs of	Model No.
RJ 45	20 (0.5)	1 pc(s).	<b>7030.090</b>
RJ 45	39 (1)	1 pc(s).	<b>7030.091</b>
RJ 45	59 (1.5)	1 pc(s).	<b>7030.092</b>
RJ 45	79 (2)	1 pc(s).	<b>7030.093</b>
RJ 45	118 (3)	1 pc(s).	<b>7030.480</b>
RJ 45	157 (4)	1 pc(s).	<b>7030.490</b>
RJ 45	197 (5)	1 pc(s).	<b>7030.094</b>
RJ 45	304 (10)	1 pc(s).	<b>7030.095</b>





# CMC III accessories



## Connection Cable/Extension

For connecting to:

- CMC III Power Pack C13
- CMC III Power Unit C 13.

### Technical specifications:

- PVC cable, 3-pole, with IEC connector (non-heating appliances) with CEE22 contact protection
- Length: Min. 1.8 m

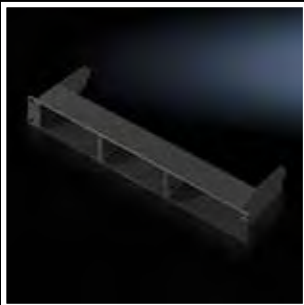
Country version	Voltage Volt	Packs of	Model No.
Non-heating appliance extension C13/C14	230/115	1 pc(s).	<b>7200.215</b>



## RJ 12 Extension Cable with RJ 12 connector/jack

To extend the cable connections to the CMC-TC sensors.

Length inches (m)	Packs of	Model No.
30 (1)	2 pc(s).	<b>7320.814</b>



## Mounting Unit, 1 U

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

To hold

- PU
- PU Compact
- Control units
- CMC III CAN bus DRC
- CMC III power pack
- CMC III GSM unit
- CMC III door control module

Can hold up to 3 CMC III housings and is mounted in the 19" frame.

Packs of	Part No.
1	<b>7030.088</b>

### Material:

- Carbon steel

### Surface finish:

- Zinc plated

### Supply includes:

- 2 blanking covers



### Accessories:

- Cable clamp bracket 7030.087 (see page 34)



## Cable Clamp Bracket for CMC III

For attachment to the rear of the CMC III 19" mounting unit 7030.070. Enables neat cable routing at the rear of the installed CMC III devices, as well as fix-ing of the cables for strain relief. The cables can easily be laid as a loop, so that the installed CMC III devices can be removed from the mounting unit without the need for any tools.

### Supply includes:

- Assembly components

Packs of	Part No.
1 pc(s).	<b>7030.087</b>



## Mounting Unit

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

To hold

- PU
- PU Compact
- Control units
- CMC III CAN bus DRC
- CMC III power pack
- CMC III GSM unit
- CMC III door control module

Can hold one CMC III housing and is mounted on the enclosure frame

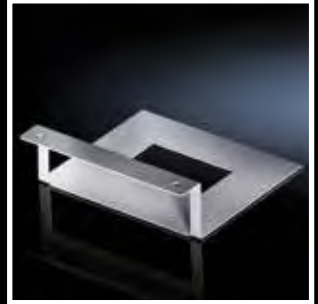
Packs of	Part No.
1 pc(s).	<b>7030.071</b>

### Material:

– Carbon steel

### Surface finish:

– Zinc plated



## CMC III GSM Unit

For establishing a redundant transmission path or, if no network infrastructure is available, for alarm forwarding. The alarm message is sent as an SMS. To cover 4 GSM frequencies (quad band): 850 MHz, 900 MHz, 1800 MHz and 1900 MHz. A standard, commercially available SIM card must be provided by the customer.

Packs of	Part No.
1	<b>7030.570</b>

### Material:

– Plastic

### Color:

– Front: Light Gray RAL 7035  
– Housing: Light Gray RAL 7035

### Supply includes:

- RJ 12 cable
- GSM aerial
- Assembly components
- Instructions booklet







## Door Control System DCS

Comprising:

- Door Control Module
- Door Control Kit

For automatic opening of TS IT rack doors

Application examples:

- Overtemperature in the sealed TS IT rack
- Extinguisher gas should get from the room to the rack

Control takes place through the Door Control Module DCM control unit. One DCM must control one rack with 2 doors (front/rear door). The use of CMC III and access sensors is recommended.

### Note:

The following door kits can be connected:

- Two door kits (magnet systems with damper) 7030.240/.241/.250 (Required for all applications, Model No. depends on the door version)
- Two door kits (spindle motor) 7030.261 (For applications with negative pressure in the rack, e.g. LCP, powerful server fan motors, etc.)
- All the power packs used must be connected to the same power supply as the server, e.g. extinguisher systems

Activation in event of alarm:

- CMC III Task
- DCM, integrated temperature sensor
- DCM digital input

Activation for user access:

- One door switch/comfort handle 7320.793/.794 per door, see page
- Coded lock/transponder reader 7030.220/.230, see page



### Also required:

- Door Control Module DCM (see page 37)
- Door kits (see page 37)
- Power packs (see page 33)
- Connection cable (see page 34)
- Mounting unit 1 U (see page 34)

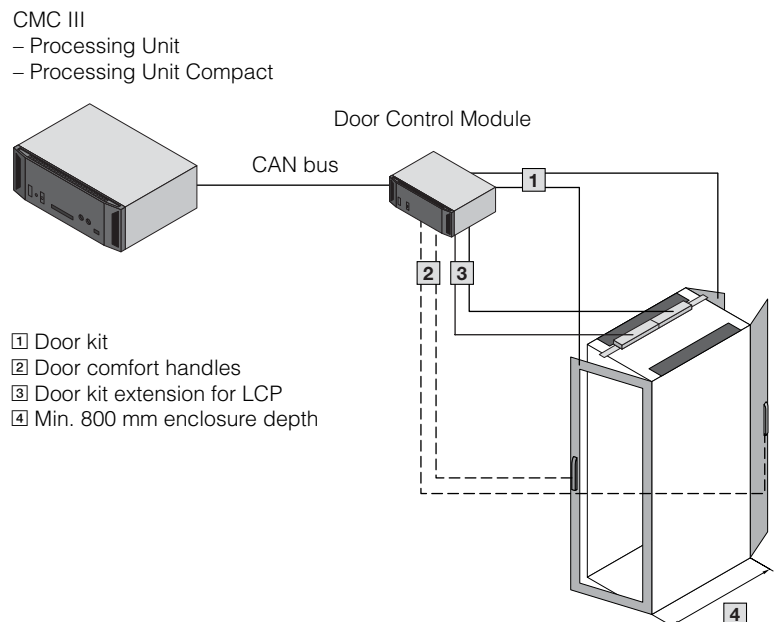


### Accessories:

- CMC III Processing Unit/Compact with connection, supply and mounting accessories (see page 28)
- Door switch/comfort handle (see page 38)
- Coded lock/transponder reader (see page 32)
- Access sensor (see from page 32)

### System Diagram Door Control System:

- Max. 16 Door Control Modules can be connected per Processing Unit
- Max. 4 Door Control Modules can be connected per Processing Unit Compact





## Door Control Module

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

### Material:

- Plastic

### Color:

- Front: Black RAL 9005
- Housing: Light Gray RAL 7035

### Supply includes:

- Basic system
- 4 mounting feet
- Quick reference guide



### Also required:

- Door kits (see page 37)
- Power packs (see page 33)
- Connection cable (see page 33)
- Mounting unit 1 U (see page 34)



### Accessories:

- CMC bus connection cable (see page 33)
- Door switch/comfort handle (see page 38)
- Coded lock/transponder reader (see page 32)



Model No.	7030.500
Packs of	1 pc(s).
1st rated voltage	24 V (DC) Door Control Module via CMC III CAN bus, redundant at 2nd rated voltage
2nd rated voltage	24 V (DC) 7030.060 for Door Control Module and magnet systems
3rd rated voltage	24 V (DC) 7030.060 for spindle motors only (protect via UPS)
1 x temperature sensor input	NTC sensor (included with the supply)
3 x digital inputs	Alarm/front door/rear door
1 x input for readers	Coded lock/transponder reader
2 x outputs for door kits	Magnet system with damper
2 x outputs for door kits extension	Spindle motors
2 x CAN bus CMC III	RJ 45 for CAN bus cables

## Door Kit

### for TS IT (magnet system with damper)

To open the door in emergency situations. Connection and activation via the Door Control Module, for standard TS IT doors. The doors are kept closed by a magnet system. If the voltage of the magnets is interrupted, the gas pressure damper system opens the door

### Technical specifications:

- Rated voltage: 24 V DC
- Rated current 7030.240/241: 390 mA
- Rated current 7030.250: 520 mA

### Material:

- Carbon Steel

### Surface finish:

- Zinc-plated

TS IT version	Packs of	Model No.
1-piece glazed aluminum door	1 pc(s).	7030.240
1-piece carbon steel door	1 pc(s).	7030.241
2-piece door	1 pc(s).	7030.250

### Supply includes:

- Gas pressure damper
- Cable harness
- Magnet system with damper
- Instruction booklet
- Assembly components



### Also required:

- Door Control Module DCM (see page 37)
- For 7030.250: Tubular door frame (see page 37)



## Door Kit Extension

### for TS IT, LCP (spindle motor)

To open the door in emergency situations. For applications with negative pressure in the rack, e.g. LCP, powerful server fan motors, etc., this kit is required in addition to the magnetic lock. The motor pushes the door open until the negative pressure is resolved. Mounting takes place on the roof.

### Technical specifications:

- Rated current: 900 mA
- Compressive force: 1000 N
- Length of travel: Max. 200 mm

### Material:

- Carbon Steel
- Aluminum
- Plastic

Packs of	Model No.
2 pc(s).	7030.261

### Supply includes:

- 2 spindle motors
- 2 push frames
- Instruction booklest
- Assembly components



### Also required:

- Door Control Module DCM (see page 37)
- Door kits (see page 37)
- Power pack (with UPS protection) (see page 33)







## Door Comfort Handle with door opener function

When the lock mechanism is actuated, the door is released by the automatic door opening system. Designed for the installation of commercially available 40 mm semi-cylinders and SZ lock and push-button inserts.  
Length: 302 mm.

### Technical specifications:

- Rated voltage: 24 V (DC)
- Rated current: Max. 3 A
- Connection cable: Length 3 m
- Temperature application range: +41°F...+104°F

### Color:

- Light Gray RAL 7035

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



### Also required:

- Handle adapter for mounting on glazed door 8611.080



### Accessories:

- Lock and push-button inserts, see page 56



## Door Switch

Switch with normally closed contact for Door Control Module 7320.790 for manual door opening. Mounting takes place in the 25 mm hole pattern of the TS IT frame profile.

### Technical specifications:

- Installation: Ø 16.2 mm
- 250 V/2 A

### Supply includes:

- 3 m connection cable
- Mounting bracket
- Assembly components

Packs of	Part No.
1 pc(s).	7320.793



# Base/plinth for TS IT





# Accessories

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# Base/plinth

## Base/plinth system for TS IT

### Modular base/plinth diversity

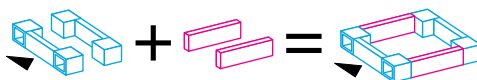
The new, innovative base/plinth system VX offers an unprecedented diversity of functions and applications. It combines all existing base/plinth functions in a single solution, as well as opening up many new applications. As if that weren't enough, it is also backward-compatible with existing enclosure solutions TS, TS IT, SE, CM, TP, PC, IW and TE. In short, it is a base/plinth system.

The base/plinth system VX comprises the following components:

- Base/plinth corner pieces with base/plinth trim panels, front and rear
- Base/plinth trim panels, sides

Due to fully symmetrical corner pieces, and by using the same base/plinth trim panels in the width and depth, the system opens up many new applications. For example, the vented trim panels and trim panels with brush strips available as accessories may now optionally be attached at the sides, or exchanged for the front/rear trim panels.

All trim panels may optionally be clipped into the corner piece, or screw-fastened. Depending on the application, for example, users can dispense with the trim panels between bayed enclosure suites, or a 100 mm high trim panel may be used to stabilize the base/plinth corner pieces. In combination with its extensive range of accessories, and due to its compatibility with enclosure accessories, the base/plinth system VX offers almost infinite possibilities in terms of siting, transportation, cable routing, cable attachment and base/plinth configuration.



One Model No. for the **base/plinth corner pieces with base/plinth trim panels, front and rear**

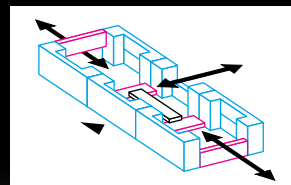
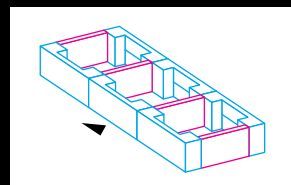
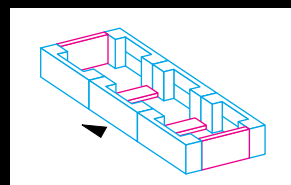
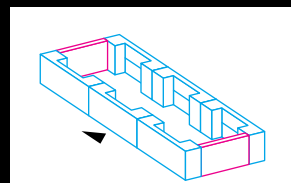
One Model No. for the **base/plinth trim panels, sides**

One complete **base/plinth VX**

Base/plinth	Basic form	Cable entry options				Stabilization of bayed base/plinths
100 mm (4 in.)						
200 mm (8 in.)						

### Configuration examples

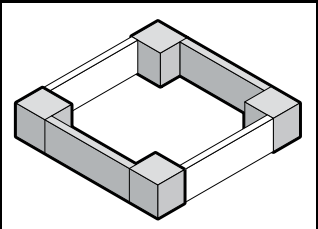
Order includes	Functional benefits
3 packs Base/plinth corner pieces with base/plinth trim panels 1 pack Base/plinth trim panels, sides 200mm (8") high	Continuous cable chamber
3 packs Base/plinth corner pieces with base/plinth trim panels 1 pack Base/plinth trim panels, sides, 200 mm (8") high 1 pack Base/plinth trim panels, sides, 100 mm (4") high 1 pack Baying brackets, internal (8617.500, packs of 6) 4 pc(s). are required for this solution	Additional stability during transportation with base/plinth trim panels rotated through 90°
3 packs Base/plinth corner pieces with base/plinth trim panels 2 packs Base/plinth trim panels, sides, 200 mm (8") high	Shielding of the base/plinths from one another
Other option; ■ Cable entry at the side by fitting a 100 mm (4") base/plinth trim panel with brush strip ■ Cable entry from the rear by dismantling one or more trim panels from the base/plinth corner pieces and replacing them with trim panels with brush strips ■ Cable routing in the base/plinth by using punched sections with mounting flanges on the base/plinth trim panels	





# Base/plinth

## Base/plinth system for TS IT



### Base/plinth corner pieces with base/plinth trim panels, front and rear

#### Carbon steel for TS IT

High-load capacity base/plinth corner pieces with molded self-positioning to the baying enclosure system VX25, may be used with or without base/plinth trim panels depending on the application. Large openings in the corner piece for optimum access to the screw-fastening point, may be concealed with a plastic corner and baying cover.

#### Material:

- Base/plinth corner piece: Carbon steel
- Base/plinth trim panel front/rear: Carbon steel
- Corner and baying cover: Plastic

#### Color:

- Black RAL 9005

#### 100 mm (4 in.) high supply includes:

- 4 base/plinth corner pieces, 100 mm (4 in.) high
- 4 corner covers
- 1 baying cover
- 2 base/plinth trim panels, front/rear, 100 mm (4 in.) high
- Assembly parts

#### 200 mm (8 in.) high supply includes:

- 4 base/plinth corner pieces, 200 mm (8 in.) high
- 4 corner covers
- 1 baying cover
- 1 base/plinth trim panel, front/rear, 200 mm (8 in.) high
- 2 base/plinth trim panels, front/rear, 100 mm (4 in.) high
- Assembly parts

#### 100 mm (4 in.) high

For enclosure width mm (in.)	Model No.
300 (12)	8640.000
600 (24)	8640.002
800 (32)	8640.003
1000 (40)	8640.005
1200 (48)	8640.007

#### 200 mm (8 in.) high

For enclosure width mm (in.)	Model No
300 (12)	8640.020
600 (24)	8640.022
800 (32)	8640.023
1000 (40)	8640.024
1200 (48)	8640.025



#### Also required:

- Base/plinth trim panels, sides, to finish off a unit, for additional stabilization between base/plinths, or for interior configuration, see page 41



#### Accessories:

- Base/plinth trim panels with brush strip, see page 43
- Base/plinth installation bracket, see page 44
- Leveling component for base/plinth, see page 45
- Base mounting plate, see page 44
- Base plinth adapter for twin casters and leveling feet, see page 45
- Baying bracket, internal, see page 44
- Transport casters for base/plinth VX, see page 44



### Base/plinth trim panels, sides

#### Carbon steel

To finish off a base/plinth unit at the sides and for additional stabilization or for the interior configuration of bayed base/plinths. One 200 mm (8 in.) or two 100 mm (4 in.) high trim panels may optionally be fitted on 200 mm (8 in.) high base/plinths.

#### Material:

- Carbon steel

#### Color:

- Black RAL 9005

#### Supply includes:

- 2 base/plinth trim panels
- Assembly parts

#### 100 mm (4 in.)

For enclosure depth mm (in.)	Model No.
300 (12)	8640.030
600 (24)	8640.033
800 (32)	8640.034
1000 (40)	8640.035
1200 (48)	8640.036

#### 200 mm (8 in.) high

For enclosure depth mm (in.)	Model No
300 (12)	8640.040
600 (24)	8640.043
800 (32)	8640.044
1000 (40)	8640.045
1200 (48)	8640.046



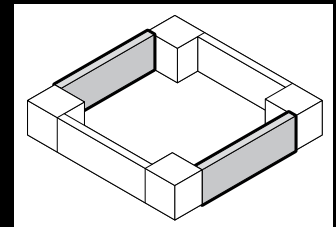
#### Accessories:

- Base/plinth installation bracket, see page 44



#### Possible alternative:

- Base/plinth trim panels with brush strip, see page 43
- Base/plinth trim panels, vented, see page



### Base/plinth trim panels with brush strip

#### Carbon steel

For cable entry in the base/plinth. With a base/plinth height of 200 mm (8 in.), one or two trim panels with brush strips may optionally be used. Due to the complete symmetry of the base/plinth system VX, the trim panels with brush strip may either be fitted at the front, rear or side on the base/plinth corner piece.

#### Material:

- Base/plinth trims: Carbon steel
- Brush strip: Plastic, self-extinguishing

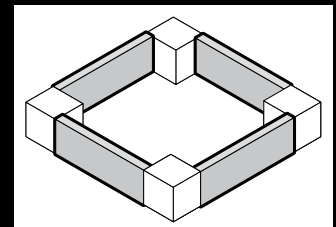
#### Color:

- Black RAL 9005

#### Supply includes:

- 2 base/plinth trim panels with brush strip
- Assembly parts

For enclosure width/depth mm (in.)	Model No.
600 (24)	8620.092
800 (32)	8620.093
1000 (40)	8620.094
1200 (48)	8620.095





# Base

## Base/plinth for TS IT



### Baying bracket, internal

- Fast, secure installation either from the front or from the side
- For all-round installation on the baying joint
- May be flexibly positioned to avoid collisions with installed equipment
- Also suitable for baying the VX base/plinth system

#### Material:

- Carbon steel

#### Surface finish:

- Zinc-plated

#### Supply includes:

- Baying bracket, internal
- Baying seal
- Assembly parts

P. of	Model No.
6 pc(s).	8617.500

### Base mounting plate

For attaching the base/plinth to the floor.  
For assembly screws up to 12 mm (.5 in.) Ø

#### Material:

- Carbon steel

#### Surface finish:

- Zinc-plated

P. of	Model No.
10 pc(s).	2817.000



## Base/plinth for TS IT

## Leveling component

For retrospective leveling on uneven floors at the installation site up to maximum of 15 mm (.6 in.) Installed through the base/plinth corner piece. Adjusted using a hex spanner, width across flats 19 mm (.8 in.)

**Benefits:**

- A door offset caused by uneven flooring can be corrected
- Installed on the assembled enclosure, i.e. no need to plan leveling in advance

**Load capacity:**

- Max. admissible load: 2500 N per leveling component (check the load capacity of the floor).

**Supply includes:**

- Assembly parts

For base/plinth height mm (in.)	P. of	Model No.
100 (4)	4 pc(s).	<b>8100.710</b>
200 (8)	4 pc(s).	<b>8100.711</b>



## Base/plinth adaptor

**For twin casters and leveling feet**

For mounting twin casters and leveling feet to the VX base/plinth system.

Material	P. of	Model No.
Carbon steel	4 pc(s).	<b>8100.770</b>
Stainless steel	4 pc(s).	<b>8100.771</b>

**Note:**

- When fitting twin casters, side trim panels, see page 43, are required.



## Leveling feet

**18 – 43 mm (1 – 2 in.) high**

To compensate for height differences with floor irregularities. Mounting thread M12.

**Load capacity:**

- Max. admissible load: approx. 3000 N per leveling foot

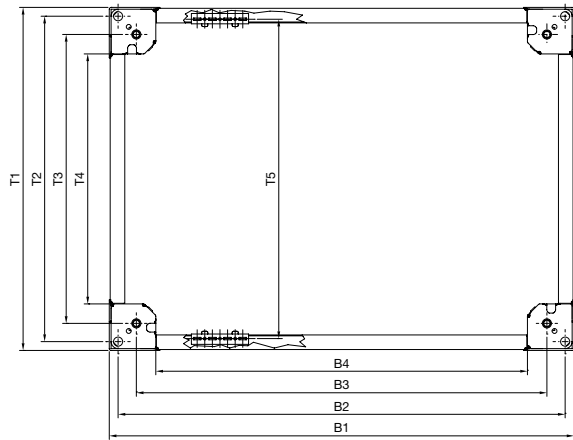
Description	Capacity	P. of	Model No.
For TS IT	675 lb (306 kg) per leveling foot	4 pc(s).	<b>4612.000</b>
For Plinth Installation	675 lb (306 kg) per leveling foot	4 pc(s).	<b>8100.780</b>
High Load	800 lb (363 kg) per leveling foot	4 pc(s).	<b>9961.504</b>



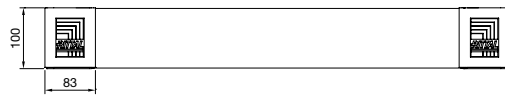


# Technical Details

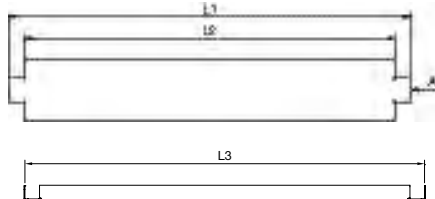
## Base/plinth for TS IT



Base/plinth, 100 mm (4 in.) high



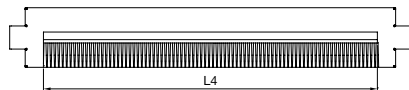
Base/plinth, trim panels, solid, 100 mm (4 in.) high, front view



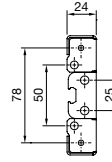
Rear view



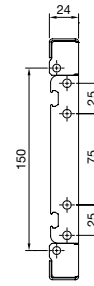
Base/plinth trim panels with brush strip, 100 mm (4 in.) high, front view



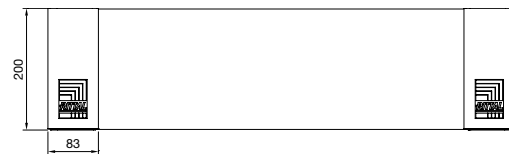
View A



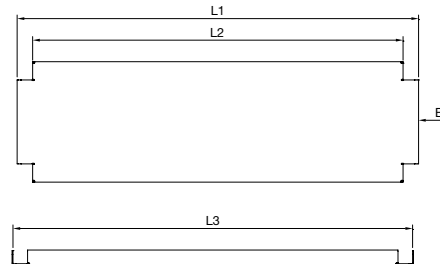
View B



Base/plinth, 200 mm (3 in.) high



Base/plinth, trim panels, solid, 200 mm (8 in.) high, front view



Rear view



For enclosure width or depth mm	Width dimensions mm				Length dimensions mm				Depth dimensions mm				
	B1	B2	B3	B4	L1	L2	L3	L4	T1	T2	T3	T4	T5 <sup>1)</sup>
300	264	235	175	111	160	109	157	–	264	235	175	111	225
600	564	535	475	411	460	409	457	349	564	535	475	411	525
800	764	735	675	611	660	609	657	549	764	735	675	611	725
1000	964	935	875	811	860	809	857	–	964	935	875	811	925
1200	1164	1135	1075	1011	1060	1009	1057	–	1164	1135	1075	1011	1125

<sup>1)</sup>T5 = Distance between system punchings including base/plinth installation bracket



## For enclosure depth 39" (1000 mm)

A Base plate set	Packs of	Packs required	For enclosure width inches (mm)	
			24 (600)	32 (800)
			Model No.	
Base plate, solid, with sliding panel, multi-piece	1 set(s)	1	5502.540	5502.550

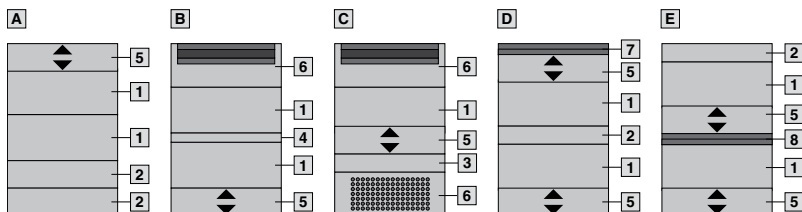
Base plate modules	Packs of	Packs required	For enclosure width inches (mm)	
			24 (600)	32 (800)

B 1 module plate as selected				Model No.	
Base plate, depth 10" (250 mm)		1 pc(s).	2	5001.222	5001.223
Base plate, depth 2" (50 mm)		1 pc(s).	1	5001.210	5001.211
Sliding plate, depth 6" (150 mm)		1 pc(s).	1	5001.239	5001.240
Module plate, depth 9.4" (237.5 mm)	Cable entry with brush strip	1 pc(s).	1	–	7825.381
	Vented			7825.360	7825.380
	Cable entry with brush strip, super-airtight			–	7825.387

C 2 module plates as selected				Model No.	
Base plate, depth 10" (250 mm)		1 pc(s).	1	5001.222	5001.223
Base plate, depth 4" (100 mm)		1 pc(s).	1	5001.214	5001.215
Sliding plate, depth 6" (150 mm)		1 pc(s).	1	5001.239	5001.240
Module plate, depth 9.4" (237.5 mm)	Cable entry with brush strip	1 pc(s).	2	–	7825.381
	Cable entry with brush strip, super-airtight			–	7825.387

D Cable entry, rear or front				Model No.	
Base plate, depth 10" (250 mm)		1 pc(s).	2	5001.222	5001.223
Base plate, depth 4" (100 mm)		1 pc(s).	1	5001.214	5001.215
Sliding plate, depth 6" (150 mm)		1 pc(s).	2	5001.239	5001.240
Self-adhesive foam cable clamp strip		1118 (3 m)	1	2573.000	2573.000

E Cable entry, center				Model No.	
Base plate, depth 10" (250 mm)		1 pc(s).	2	5001.222	5001.223
Base plate, depth 4" (100 mm)		1 pc(s).	1	5001.214	5001.215
Sliding plate, depth 6" (150 mm)		1 pc(s).	2	5001.239	5001.240
Profile for cable entry, center		1 set(s).	1	8802.060	8802.080



- 1 Base plate, depth 10" (250 mm)
- 2 Base plate, depth 6" (150 mm)
- 3 Base plate, depth 4" (100 mm)
- 4 Base plate, depth 2" (50 mm)
- 5 Sliding plate, depth 6" (150 mm)
- 6 Module plate, depth 9.4" (237.5 mm)
- 7 Self-adhesive foam cable clamp strip
- 8 Profile for cable entry, center

**!** Also required:

– Base mount, see page 51





# Base

## Base plate, TS IT



### For enclosure depth 47" (1200 mm)

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

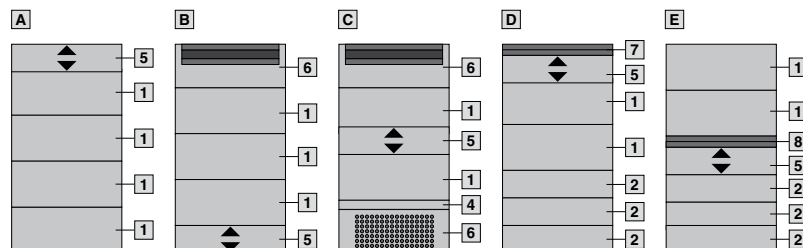
Base plate modules	Packs of	Packs required	For enclosure width inches (mm)	
			24 (600)	32 (800)

B 1 module plate as required				Model No.	
Base plate, depth 10" (250 mm)		1 pc(s)	3	5001.222	5001.223
Sliding plate, depth 6" (150 mm)		1 pc(s)	1	5001.239	5001.240
Module plate, depth 9.4" (237.5 mm)	Cable entry with brush strip	1 pc(s)	1	–	7825.381
	Cable entry with brush strip, super-airtight			–	7825.387

C 2 module plates as required				Model No.	
Base plate, depth 10" (250 mm)		1 pc(s)	2	5001.222	5001.223
Base plate, depth 2" (50 mm)		1 pc(s)	1	5001.210	5001.211
Sliding plate, depth 6" (150 mm)		1 pc(s)	1	5001.239	5001.240
Module plate, depth 9.4" (237.5 mm)	Cable entry with brush strip	1 pc(s)	2	–	7825.381
	Cable entry with brush strip, super-airtight			–	7825.387

D Cable entry, rear or front				Model No.	
Base plate, depth 10" (250 mm)		1 pc(s)	2	5001.222	5001.223
Base plate, depth 6" (150 mm)		1 pc(s)	3	5001.218	5001.219
Sliding plate, depth 6" (150 mm)		1 pc(s)	1	5001.239	5001.240
Self-adhesive foam cable clamp strip		118" (3 m)	1	2573.000	2573.000

E Cable entry, center				Model No.	
Base plate, depth 10" (250 mm)		1 pc(s)	2	5001.222	5001.223
Base plate, depth 6" (150 mm)		1 pc(s)	3	5001.218	5001.219
Sliding plate, depth 6" (150 mm)		1 pc(s)	1	5001.239	5001.240
Profile for cable entry, center		1 set	1	8802.060	8802.080



- 1 Base plate, depth 10" (250 mm)
- 2 Base plate, depth 6" (150 mm)
- 3 Base plate, depth 4" (100 mm)
- 4 Base plate, depth 2" (50 mm)
- 5 Sliding plate, depth 6" (150 mm)
- 6 Module plate, depth 9.4" (237.5 mm)
- 7 Self-adhesive foam cable clamp strip
- 8 Profile for cable entry, center

**!** Also required:

– Base mount, see page 51



## Base plate accessories

**Clips****for base plates**

As replacement and for additional gland plate attachments in TS.

Packs of	Model No.
50 pc(s).	<b>8800.075</b>

**Material:**

Carbon steel

**Surface finish:**

Zinc-plated

**Base mount  
for TS IT**

To accommodate base plate modules.

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

For enclosure depth inches (mm)	Packs of	Model No.
32 (800)	2 pc(s).	<b>5501.310</b>
39 (1000)	2 pc(s).	<b>5501.320</b>
47 (1200)	2 pc(s).	<b>5501.350</b>

**Material:**

– Carbon steel

**Surface finish:**

– Spray-finished

**Color:**

– Light Gray RAL 7035

**Supply includes:**

– 2 mounting rails including assembly parts.

**Bolt down anchoring kit**

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. Additional holes in the base are required for mounting.

Packs of	Model No.
4 pc(s).	<b>9970.989</b>

**Material:**

Carbon steel

**Surface finish:**

Primed





# Base

## Casters



### Complete caster

Complete casters have 2 casters per piece. Cable entry holes included.

#### Configuration:

1 set = 2 caster plates with 2 casters per plate  
1 caster plate with swivel casters

#### Load Capacity:

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

Width inches (mm)	Color	Part No.
24 (600)	Black RAL 9005	<b>9967.480</b>
24 (600)	Light Gray RAL 7035	<b>9967.483</b>
28 (700)	Black RAL 9005	<b>9967.481</b>
28 (700)	Light Gray RAL 7035	<b>9967.484</b>
32 (800)	Black RAL 9005	<b>9967.482</b>
32 (800)	Light Gray RAL 7035	<b>9967.485</b>



### Corner Caster Kit

Only for enclosures without base plates and base tray/base mount.

#### Configuration:

4 castors (2 steerable) including assembly components

#### Load Capacity:

Supports dynamic load rating of 551.2 lb  
(250 kg) per cabinet

Packs of	Model No.
4 pc(s).	<b>7825.900</b>



**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:**

Carbon steel

**Color:**

Light Gray RAL 7035, Black 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)			
80 (2000)	24 (600)	1	5501.010	5501.015
80 (2000)	32 (800)	1	5501.020	5501.025
80 (2000)	41 (1000)	1	5501.030	5501.035
80 (2000)	41 (1050)	1	–	5501.095
80 (2000)	48 (1200)	1	5501.040	5501.045
88 (2200)	32 (800)	1	5501.050	5501.055
87 (2200)	39 (1000)	1	5501.060	5501.065
88 (2200)	41 (1050)	1	–	5501.105
88 (2200)	48 (1200)	1	5501.070	5501.075

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

Carbon steel, electrophoretic dipcoat-primed, powder-coated

**Color:**

Light Gray RAL 7035, Black 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)	32 (800)	■	–	8175.235
48 (1200)	32 (800)	–	■	9966.010
79 (2000)	32 (800)	■	–	8108.235
79 (2000)	32 (800)	–	■	9966.011
79 (2000)	40 (1000)	■	–	8100.235
79 (2000)	40 (1000)	–	■	9966.012
79 (2000)	42 (1050)	■	–	9969.309
79 (2000)	42 (1050)	–	■	9966.013
79 (2000)	48 (1200)	■	–	9969.955
79 (2000)	48 (1200)	–	■	9966.014
87 (2200)	32 (800)	■	–	8128.235
87 (2200)	32 (800)	–	■	9966.015
87 (2200)	40 (1000)	■	–	9968.593
87 (2200)	40 (1000)	–	■	9966.016
87 (2200)	42 (1050)	■	–	9969.312
87 (2200)	42 (1050)	–	■	9966.017
87 (2200)	48 (1200)	■	–	9969.957
87 (2200)	48 (1200)	–	■	9966.018





# 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.

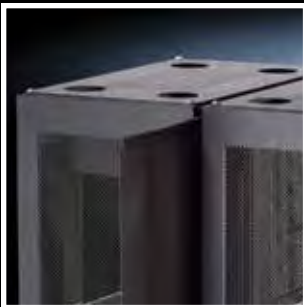
**Color:**

Black RAL 9005

**Note:**

Use baying connector 8800.490 (see page 54).  
Not for use in conjunction with a baying seal.  
Can be installed and removed without moving the cabinet. Left side mounting for cable pass through in the rear of the rack.

Height inches (mm)	Depth inches (mm)	Part No.
79 (2000)	39 (1000)	<b>9971.042</b>
79 (2000)	42 (1050)	<b>9971.043</b>
79 (2000)	47 (1200)	<b>9971.044</b>
87 (2200)	39 (1000)	<b>9971.046</b>
87 (2200)	42 (1050)	<b>9971.047</b>
87 (2200)	47 (1200)	<b>9971.048</b>



### Solid partition wall

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

**Color:**

Black RAL 9005

**Note:**

Use baying connector 8800.490 (see page 54).  
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)	40 (1000)	<b>9978.378</b>
79 (2000)	42 (1050)	<b>9978.379</b>
79 (2000)	48 (1200)	<b>9978.380</b>
87 (2200)	40 (1000)	<b>9978.382</b>
87 (2200)	42 (1050)	<b>9978.383</b>
87 (2200)	48 (1200)	<b>9978.384</b>

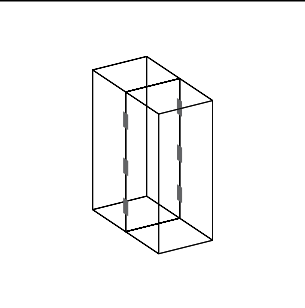


Baying connectors, external

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

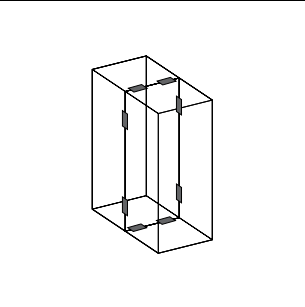
For additional stabilization, or in cases where mounting panel brackets, swing frame or busbar supports prevent the installation of angular baying brackets.

Material:  
Carbon 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

## Handle



### 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	<b>8611.020</b>
RAL 9005	<b>8611.350</b>



### 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	<b>8611.070</b>
RAL 9005	<b>8611.360</b>



### 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	<b>7200.800</b>
RAL 9005 comfort handle for TS	<b>7200.801</b>

**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	<b>8611.180<sup>1)</sup></b>
Push-button inserts	<b>8611.190</b>
Push-button and lock inserts, lock no. 1231; no other lock is possible	<b>611.200</b>

<sup>1)</sup> 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	<b>2467.000<sup>1)</sup></b>
Push-button inserts	<b>2468.000</b>
Push-button and lock inserts, lock no. 2123 E; no other lock is possible	<b>2469.000</b>

<sup>1)</sup> 2 keys included



# Interior installation

## Rail systems

### TS System chassis 17 x 73 mm

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:

– Carbon steel

#### Surface finish:

– Zinc-plated

#### Supply includes:

Assembly screws



#### Also required:

- For installation in CM, TP:  
Rail for interior fitting, see page 56



#### Accessories:

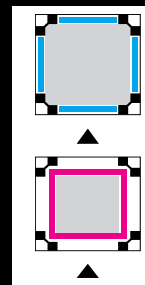
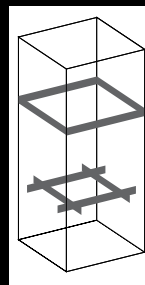
- Screws, see page
- Cable ties for quick mounting 2597.000, see page 69

#### For the outer mounting level

For Enclosure width/ depth inches (mm)	Packs of	Model No.
12 (300)	4 pc(s).	<b>8612.130</b>
16 (400)	4 pc(s).	<b>8612.140</b>
20 (500)	4 pc(s).	<b>8612.150</b>
24 (600)	4 pc(s).	<b>8612.160</b>
32 (800)	4 pc(s).	<b>8612.180</b>
39 (1000)	4 pc(s).	<b>8612.100</b>
47 (1200)	4 pc(s).	<b>8612.120</b>

#### For inner mounting level or for tubular door frames

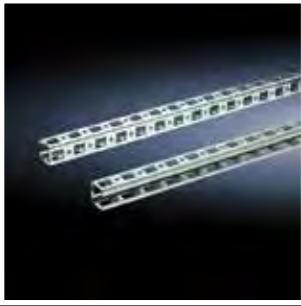
For door width (for tubular door frames) inches (mm)	For Enclosure width/ depth (for inner mounting level) inches (mm)	Length inches (mm)	Packs of	Model No.
20 (500)	16 (400)	15 (390)	4 pc(s).	<b>8612.040</b>
24 (600)	20 (500)	19 (490)	4 pc(s).	<b>8612.050</b>
–	24 (600)	23 (590)	4 pc(s).	<b>8612.060</b>
32 (800)	–	27 (690)	4 pc(s).	<b>8612.070</b>
35 (900)	32 (800)	31 (790)	4 pc(s).	<b>8612.080</b>
39 (1000)	–	35 (890)	4 pc(s).	<b>8612.090</b>
–	39 (1000)	39 (990)	4 pc(s).	<b>8612.000</b>
–	47 (1200)	47 (1190)	4 pc(s).	<b>8612.020</b>





# Interior installation

## Rail systems/assembly components



### System bars, 23 x 23 mm

#### For TS

Installation options:

- On the vertical enclosure section directly via support brackets TS
- On the horizontal enclosure section directly via angle brackets, mounting brackets

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:

Carbon steel, zinc-plated, passivated

#### Note:

Requires mounting bracket 4182.000, see below



### Mounting bracket

#### For TS

For variable attachment of system bar 23 x 23 mm.

#### Installation options:

- Optionally flush with:
  - Outer enclosure edge or
  - Enclosure clearance width
- 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 58
- Multi-tooth screws M6 x 12 mm (2504.500), see page 60



### Support bracket

#### For TS

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

#### Installation options:

- 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 58
- Multi-tooth screws M6 x 12 mm (2504.500), see page 60



# 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	<b>4119.000</b>
M5	20	<b>4157.000</b>
M6	20	<b>4179.000</b>
M8	20	<b>4180.000</b>

#### Accessories:

Multi-tooth screws M6 x 12 mm, (for 4179.000), see page 60



### Mounting plate

**Screw-fastened, small**

#### Material:

Carbon steel

#### Surface finish:

Zinc-plated

#### Supply includes:

Assembly screws

#### Detailed drawings:

Available at [www.rittal.com](http://www.rittal.com)

Packs of	Part No.
4	<b>4532.000</b>



### 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	<b>4597.000</b>

#### Accessories:

- Screws, see page 66
- Cable tie for fast assembly 2597.000, see page 69.

#### Detailed drawings:

Available at [www.rittal.com](http://www.rittal.com)



### 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

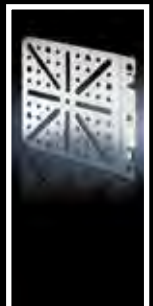
Packs of	Part No.
4	<b>8612.400</b>

#### Supply includes:

Assembly screws

#### Detailed drawings:

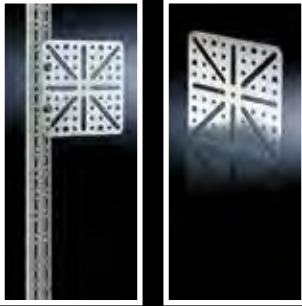
Available at [www.rittal.com](http://www.rittal.com)





# Interior installation

## 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.com](http://www.rittal.com)



### Fastener, 1 U with Contact 19" (482.6 mm)

For the simple screw-fastening of expansion components within the 482.6 mm (19") mounting level. Simply slide onto the profile rail from the inside and clip into position.

- Integrated contact for equipotential bonding
- Preconfigured 1 U support with 3 cage nuts including center attachment in accordance with EIA 310 standard
- Rapid positioning and assembly instead of using individual captive nuts
- Repeated removal and re-use possible

#### Material:

Carbon steel

Dimensions mm	Size of mounting hole inches (mm)	Packs of	Part No.
M5			2090.000

#### Material:

Carbon steel

#### Surface finish:

Zinc-plated



### 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 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 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 Self-tapping screw

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

### 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.
<b>Multi-tooth screws</b>		
M6 x 12	300	<b>2504.500</b>
M8 x 12	300	<b>2504.800</b>
<b>Metal multi-tooth screws</b>		
5.5 x 13	300	<b>2486.500</b>
<b>Metal multi-tooth screws for stainless steel</b>		
5 x 13	300	<b>2486.300</b>
<b>Self-tapping hex screws</b>		
M5 x 10	500	<b>2504.000</b>
<b>Self-tapping posidrive raised countersunk screws</b>		
M5 x 12	500	<b>2488.000</b>
<b>Self-tapping pan-head screws, posidrive</b>		
M5 x 12	500	<b>2489.000</b>
<b>Self-tapping multi-tooth pan-head screws</b>		
M5 x 12	500	<b>2489.500</b>
<b>Self-tapping screws</b>		
ST 4.8 x 16	300	<b>2487.000</b>

### 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	<b>7094.110</b>
Phillips screw M6	50	<b>7094.100<sup>1)</sup></b>
Phillips screw M5	50	<b>7094.120</b>
Multi-tooth 25 M5	50	<b>7094.130</b>
Multi-tooth 30 M6	50	<b>7094.140</b>

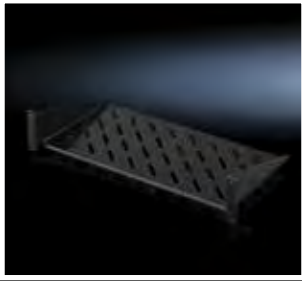
<sup>1)</sup>Included standard with TS8 network and server enclosures in this publication.





# Interior installation

## 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:**

Carbon steel

**Surface finish:**

Spray-finished

**Color:**

Black RAL 9005

**Supply includes:**

Assembly parts.

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



### Component shelf, pull-out, 2 U for one 19" mounting level

For simple, front installation of wall-mounted or floor-standing enclosures with at least one 482.6 mm (19") mounting level. This complete set includes the pre-configured variant including telescopic slides, moulded handle, flange and locking pins.

**Load capacity:**

Max. 250 N, static

**Material:**

Carbon steel

**Surface finish:**

Spray-finished

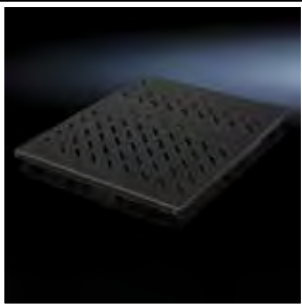
**Color:**

Black RAL 9005

**Supply includes:**

Component shelf, pre-configured  
Assembly parts.

Contact surface inches (mm)	Packs of	Part No.
11.8 (300)	1 pc(s).	<b>5501.635</b>



### 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:**

Carbon steel

**Surface finish:**

Spray-finished

**Color:**

Black 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	<b>5501.655</b>
24–35 (600–900)	110 (50)	½	1 set	<b>5501.665</b>
16–24 (400–600)	220 (100)	1	1 set	<b>5501.695</b>
24–35 (600–900)	220 (100)	1	1 set	<b>5501.705</b>





# 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:**

Carbon steel

**Surface finish:**

Spray-finished

**Color:**

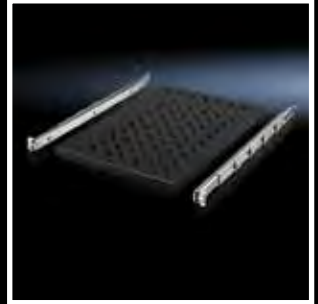
Black RAL 9005

**Supply includes:**

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

**Accessory:**

Handle, 5501.730, 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	<b>5501.675</b>
24-35 (600-900)	110 (50)	1	28 (700)	1 set	<b>5501.685</b>
16-24 (400-600)	220 (100)	1½	20 (500)	1 set	<b>5501.715</b>
24-35 (600-900)	220 (100)	1½	28 (700)	1 set	<b>5501.725</b>



### 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	<b>5501.730</b>



### 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.

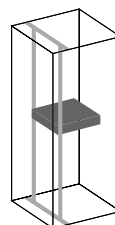
**Material:**

Carbon steel

**Color:**

Black RAL 9005

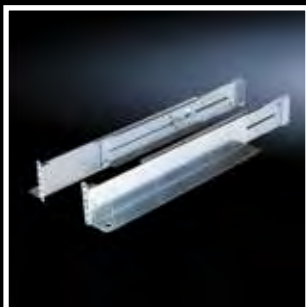
U	Clearance openings		Install depth inches (mm)	Packs of	Part No.
	Width inches (mm)	Depth inches (mm)			
2	16 (411)	16 (419)	17 (427)	1	<b>5502.305</b>
3	16 (411)	16 (419)	17 (427)	1	<b>5502.325</b>





# Interior installation

## Slide rails



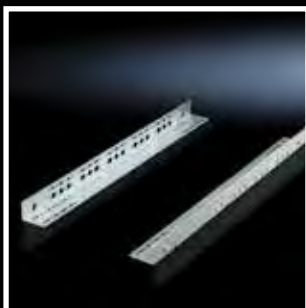
### Telescopic support rail, heavy duty

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:**

Carbon steel

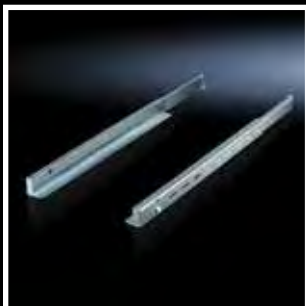
U	19" (482.6 mm) distance between rails inches (mm)	Packs of	Part No.
1	14 (345)	2	5501.410
1	18 (445)	2	5501.420
1	21 (545)	2	5501.430
1	25 (645)	2	5501.440
1	29 (745)	2	5501.450

**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:**

Carbon 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



### Button mount bracket

- Enables tool-less installation of PDUs
- Black, E-coated

Description	Packs of	Part No.
Dual PDU, Recessed	2	9963.800
0U PDU button mount	2	9971.066
Dual PDU button	2	9971.067
45 degree double PDU	2	9977.399
TS IT 0U button	2	9978.522



# 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:

Carbon steel

U	Length inches (mm)	Packs of	Part No.
2	6 (150)	2	<b>5501.400</b>

#### 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	<b>9970.986</b>
2	Carbon steel	2	<b>7246.420</b>

#### Material:

Carbon steel, zinc-plated, passivated

#### Supply includes:

Assembly parts





# Interior installation

## LED system light



### LED system light

- Optimum illumination of the entire enclosure
- Optionally with clip, screw and magnetic attachment
- A configuration to suit every application

#### Material:

- Plastic
- Aluminum

#### Color:

- Enclosure: RAL 7016

#### Light Color:

- 4000 K (neutral white)

#### Supply includes:

- Assembly screws

#### Note:

- Connection accessories should be ordered separately
- Information on other country-specific versions with socket can be found on the internet.

Model No.		2500.314	2500.300	2500.320	2500.214	2500.200	2500.220	2500.114	2500.104
Output (lumen)		1200	1200	1200	900	900	900	600	400
Length (inches/mm)		17/437	17/437	17/437	17/437	17/437	17/437	13/337	10/262
Motion sensor		■	■	■	–	–	–	–	–
Rated operating voltage	100 – 240 V AC	■	■	–	■	■	–	■	■
	24 V DC	–	–	■	–	–	■	–	–
Equipment	Socket – NEMA	■	–	–	■	–	–	–	–
	90° rotating connector	■	■	■	■	■	■	–	–
	Adjustable light direction	■	■	■	–	–	–	–	–
	Adjustable light distribution	■	■	■	■	■	■	–	–
Protection class II		II (all-insulated)		III (SELV)	II (all-insulated)		III (SELV)	II (all-insulated)	
Approvals	UL	■	■	■	■	■	■	■	■
	cUL	■	■	■	■	■	■	■	■
	CCC	–	■	■	–	■	–	■	■
	ENEC	■	■	■	■	■	■	■	■
Installation type	Screw-fastening	■	■	■	■	■	■	■	■
	Clip attachment	■	■	■	■	■	■	■	■
	Magnetic attachment	–	■	■	–	■	■	■	■
Connection options	Infeed	3-pole	3-pole	2-pole	3-pole	3-pole	2-pole	2-pole	2-pole
	Through-wiring	3-pole	3-pole	2-pole	3-pole	3-pole	2-pole	2-pole	2-pole
	Door-operated switch	–	–	–	■	■	■	■	■
<b>Accessories</b>									
Universal bracket 2373.000		2373.000	2373.000	2373.000	2373.000	2373.000	2373.000	2373.000	2373.000
Mounting kit magnet		–	2500.490	2500.490	–	2500.490	2500.490	2500.490	2500.490
Door-operated switch		–	–	–	2500.460	2500.460	2500.460	2500.460	2500.460
Door-operated switch, UL		–	–	–	2500.470	2500.470	2500.470	2500.470	2500.470
<b>Connection accessories</b>									
Infeed, 2-pole		–	–	2500.410	–	–	2500.410	2500.420	2500.420
Infeed, 2-pole, ENEC, UL		–	–	–	–	–	–	2500.520	2500.520
Infeed, 3-pole		2500.400	2500.400	–	2500.400	2500.400	–	–	–
Infeed, 3-pole, ENEC, UL		2500.500	2500.500	–	2500.500	2500.500	–	–	–
Through-wiring, 2-pole		–	–	2500.440	–	–	2500.440	2500.450	2500.450
Through-wiring, 2-pole, ENEC, UL		–	–	–	–	–	–	2500.550	2500.550
Through-wiring, 3-pole		2500.430	2500.430	–	2500.430	2500.430	–	–	–
Through-wiring, 3-pole, ENEC, UL		2500.530	2500.530	–	2500.530	2500.530	–	–	–



# Interior installation

## LED System light accessories

### Connection accessories for LED system light

The following components can be used for time-saving and simple installation of the lights.



#### Accessories:

– Cable ties for quick assembly,  
see page 69

Connection cable for		ENEC	UL	Length inches (mm)	Packs of	Model No.	
						Orange	Black
1	Infeed, 3-pole, 100–240 V/AC	■	■	118 (3000)	1 pc(s).	2500.500	–
	Infeed, 3-pole, 100–240 V/AC	■	–	118 (3000)	5 pc(s).	2500.400	–
2	Infeed, 2-pole, 100–240 V/AC	■	■	118 (3000)	1 pc(s).	2500.520	–
	Infeed, 2-pole, 100–240 V/AC	■	–	118 (3000)	5 pc(s).	2500.420	–
3	Infeed, 2-pole, 24 V DC	■	–	118 (3000)	5 pc(s).	–	2500.410
4	Through-wiring, 3-pole, 100–240 V AC	■	■	39 (1000)	1 pc(s).	2500.530	–
	Through-wiring, 3-pole, 100–240 V AC	■	–	39 (1000)	5 pc(s).	2500.430	–
5	Through-wiring, 2-pole, 100–240 V AC	■	■	39 (1000)	1 pc(s).	2500.550	–
	Through-wiring, 2-pole, 100–240 V AC	■	–	39 (1000)	5 pc(s).	2500.450	–
6	Through-wiring, 2-pole, 24 V DC	■	–	39 (1000)	5 pc(s).	–	2500.440

### Connection accessories for self-assembly for LED system light

#### Sockets for power supply/through-wiring

	P. of	Model No.
Socket, 3-pole, 100-240 V AC	5 pc(s).	2500.600
Socket, 2-pole, 24 V DC	5 pc(s).	2500.610
Socket, 2-pole, 100-240 V AC	5 pc(s).	2500.620

#### Connectors for through-wiring

	P. of	Model No.
Connector, 3-pole, 100-240 V AC	5 pc(s).	2500.630
Connector, 2-pole, 24 V DC	5 pc(s).	2500.640
Connector, 2-pole, 100-240 V AC	5 pc(s).	2500.650

#### Connection cable

	UL	Length mm.	P. of	Model No.
For door-operated switch	–	3000	1 pc(s).	2500.660
	■	3000	1 pc(s).	2500.670

### Door-operated switch for LED system light

#### Supply includes:

– Assembly parts

	ENEC	UL	Length inches (mm)	to fit	Packs of	Model No.
						Black
Connection cable	■	–	30 (800)	230 V AC/24 V DC, 1 A	1 pc(s).	2500.460
	–	■	30 (800)		1 pc(s).	2500.470

### Mounting kit magnet for LED system light

For sticking onto the rear of lights without a socket

Packs of	Model No.
2 pc(s).	2500.490





# Interior installation

## 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).

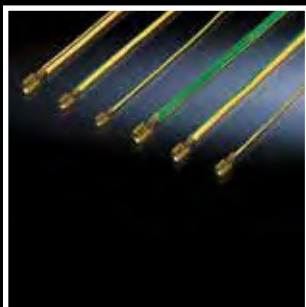
#### Material:

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<sub>max</sub>. 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



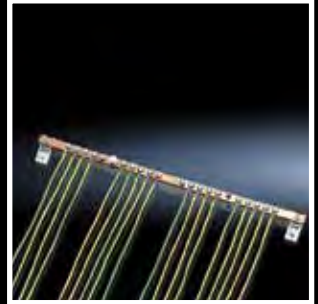
### Grounding kit, preassembled

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 mm<sup>2</sup>
- 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	<b>7829.100</b>
87 x 32 x 39 (2200 x 800 x 1000)	1 set	<b>7829.110</b>



### 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 mm<sup>2</sup>)
- 15 grounding leads, 6 mm<sup>2</sup>, L = 20" (500 mm)
- Assembly parts

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



### 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 mm<sup>2</sup>, L = 20" (500 mm)
- Preassembled, with ring terminal and wire end ferrule
- Ground terminals, (2.5 – 16 mm<sup>2</sup>)
- Assembly parts

Packs of	Part No.
10	<b>7549.000</b>





# Cable management

## 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:**

Carbon steel

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

**Color:**

Black 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	<b>9969.736</b>
2 U	2	127	98	79	64	54	45	39	<b>9969.597</b>



### 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	<b>7610.000</b>
With spring clips for contacting the cable screen	1	<b>7611.000</b>



### 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	<b>2597.000</b>



# 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	<b>2203.400</b>



### 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.

**Color:**

Black

**Supply includes:**

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	<b>7072.220</b>
0.8 (20)	0.8 (20)	2.0 (50)	10	<b>7072.230</b>
0.8 (20)	12 (300)	3.5 (90)	10	<b>7072.240</b>

**Also required:**

Screw 2486.500 for screw-fastening to the round hole pattern, see page 60



### 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	<b>9969.599</b>



### 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	<b>5502.155</b>





# Cable management

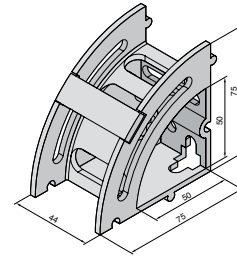
## Routing



### Cable manager

Packs of	Part No.
10	<b>5502.405</b>

- 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:

Black RAL 9005

#### Supply includes:

Mounting clips and assembly parts



### 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.

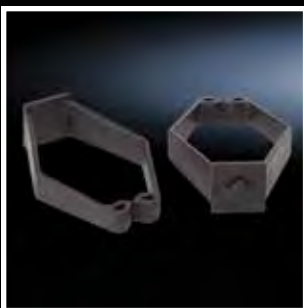
#### Material:

Carbon steel, zinc-plated

#### Supply includes:

Mounting accessories

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



### 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	<b>9969.600</b>



### 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	<b>9961.780</b>
3.50 x 1.75" (88.9 x 44.5 mm)	10	<b>9961.779</b>
3.50 x 1.75" (88.9 x 44.5 mm)	10	<b>9972.922</b>



### Cable management panel, 19" (482.6 mm)

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

#### Material:

- Panel: Carbon steel
- Ring: Steel

#### Surface finish:

Ring: Zinc-plated

#### Color:

Black RAL 9005

U	Ring size inches (mm)	Packs of	Part No.
1	2 x 3 (43 x 55)	1	<b>5502.205</b>
1	4 x 2 (105 x 43)	1	<b>7257.005</b>
2	5 x 3 (125 x 85)	1	<b>7257.105<sup>1)</sup></b>

<sup>1)</sup> 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: Carbon steel
- Cable routing bars, connection combs: Plastic

#### Color:

Black 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	<b>7111.224</b>
1	5	10	<b>7111.214</b>



#### 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	<b>7111.222</b>
1	5	10	<b>7111.212</b>





# Cable management

## Routing



### Cable finger, 6 U

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

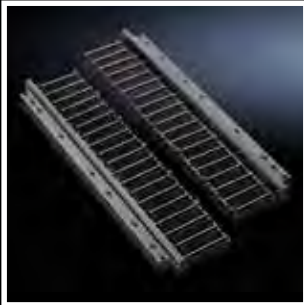
**Material:**

Plastic, UL 94-V0

**Color:**

Black RAL 9005

Packs of	Part No.
14	<b>5502.115</b>



### Cable finger, for TS IT North American version

- Cable management fingers for TS IT
- Installs on rear vertical TS IT rails

**Color:**

Black RAL 9005

Packs of	Part No.
2 pc(s).	<b>9972.912</b>
2 pc(s).	<b>9972.913</b>



### 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:**

Carbon steel, plastic UL 94 V0

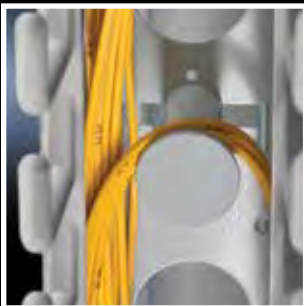
For enclosure height inches (mm)	U	Packs of	Part No.
79 (2000)	36	1	<b>5502.100</b>
87 (2200)	42	1	<b>5502.101</b>
80 (2000)	36	1	<b>9972.927</b>

**Color:**

Black RAL 9005

**Supply includes:**

Cover and assembly parts



### Cable slack spool

For use with cable duct (see above).

Packs of	Part No.
4	<b>7827.330</b>



### 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: Carbon steel, spray finished
- Cable routing bars: Plastic

**Color:**

- Panel: Black 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	<b>5502.225</b>



### Cable routing channel

**19" (482.6 mm)**

To hold the patching cables.

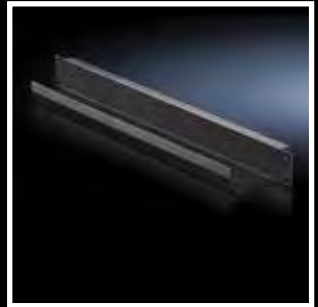
**Material:**

Carbon steel

**Color:**

Black RAL 9005

U	Depth inches (mm)	Packs of	Part No.
1	3 (85)	1	<b>5502.245</b>



### 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:**

Carbon steel

**Color:**

Black RAL 9005

**Accessories:**

Cable clamp straps, see page 69.

U	Packs of	Part No.
1	1	<b>5502.255</b>
2	1	<b>5502.265</b>



### 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. For front of rack mounting.

Packs of	Color	Part No.
2	RAL 7035	<b>7831.472</b>
2	RAL 9005	<b>5502.135</b>

**Material:**

Carbon steel

**Surface finish:**

Powder-coated

**Accessories:**

- Metal multi-tooth screws 5.5 x 13 mm, 2486.500, see page 60.
- 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:**

Carbon steel

**Color:**

Black RAL 9005

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

**Accessories:**

- Cable ties, nylon loops, see page 69, 70.
- Cable guide rings, see page 71.
- Cable routing bars, see page 72.





# Cable management

## Routing



### 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:**

Black RAL 9005

**Note:**

Only for use in 28" - 32" (700 - 800 mm) wide cabinets.

Dimensions		Packs of	Model No.
Height inches (mm)	Width inches (mm)		
79 (2000)	8 (215)	1	<b>9978.360</b>
87 (2200)	8 (215)	1	<b>9978.361</b>



### Roof-mounted Cable Management

Allows for easy cable routing outside the enclosure. Tool-free fixing to roof using 2 snap-on rings and existing cable entries on the enclosure roof. The square system punchings enables the use of cable management retaining claws and rings.

**Color:**

Black RAL 9005

Width inches (mm)	Packs of	Model No.
24 (600)	1 pc(s).	<b>9970.292</b>
28 (700)	1 pc(s).	<b>9970.293</b>
31 (800)	1 pc(s).	<b>9970.294</b>



### Roof-mounted Cable Routing with Ladder Rack

Roof mount cable manager with ladder rack provision for TS IT.

**Color:**

Black RAL 9005

Width inches (mm)	Packs of	Model No.
24 (600)	1 pc(s).	<b>9970.295</b>
28 (700)	1 pc(s).	<b>9970.296</b>
31 (800)	1 pc(s).	<b>9970.297</b>



### TS IT End Corner Brackets

End covers and installation brackets for roof mount cable managers.

**Color:**

Black RAL 9005

Packs of	Model No.
1 pair	<b>9970.298</b>



# Cable management

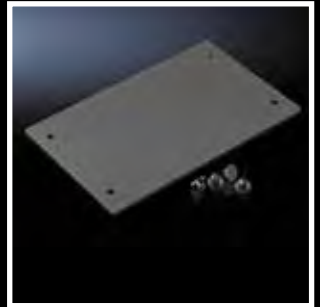
## Routing

### Roof-mounted Cable Management End Covers

End covers and installation brackets for roof mount cable managers.

**Color:**  
Black RAL 9005

Packs of	Model No.
1	9970.260



### Roof End Ladder Rack Installation Brackets

Required when ladder rack is attached at the end of the roof mount cable managers.

**Color:**  
Black RAL 9005

Packs of	Model No.
4 pack.	9970.270

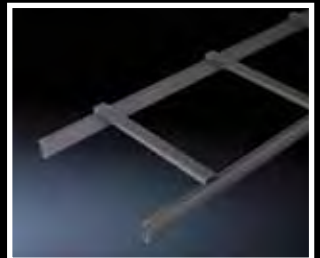


### Roof Ladder Rack

Facilitates cable management across the roof from on cabinet to the next.

**Color:**  
Black RAL 9005

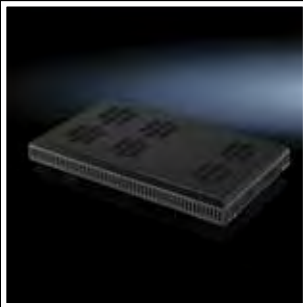
Width inches (mm)	Length ft. (m)	Packs of	Model No.
10 (254)	10 (3.04)	1 pc(s).	9970.271





# Air Flow Management

## 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:

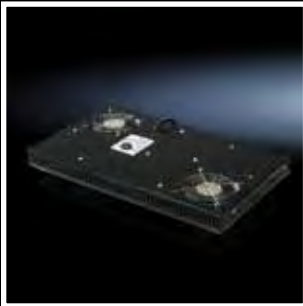
- Rated operating voltage: 250 V
- Temperature range: +41° to +131° F (+5° to +55° C)

#### 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.
			Black RAL 9005	Light Gray RAL 7035	
32x24, 24x39, 24x47 (800x600, 600x1000, 600x1050, 700x1050, 600x1200)	2	3	–	■	<b>5502.010</b>
			■	–	<b>5502.015</b>
32x32, 32x39, 32x47 (800x800, 800x1000, 800x1050, 800x1200)	2	6	–	■	<b>5502.020</b>
			■	–	<b>5502.025</b>



### Roof mounted fan

Roof-mounted fan with a high protection category and flexible installation options.

#### Dimensions:

- HxWxD  
5.24"x15.75"x15.75" (133x400x400 mm)

#### Required mounting cutout:

- WxD  
10.2"x10.2" (258x258 mm)

#### Color:

- Light Gray RAL 7035

#### Protection category:

- NEMA 12 with filter mat

Voltage	Air Throughput w/o Filter	Air Throughput With Filter	Power Consumption	Noise Level	Part No.
220V – 240V 1~	309 cfm (525 m3/h)	263 cfm (446 m3/h)	62 W	54 dB(A)	<b>3139.100</b>
220V – 240V 1~	568 cfm (965 m3/h)	447 cfm (759 m3/h)	130 W	60 dB(A)	<b>3140.100</b>
115 V 1~	309 cfm (525 m3/h)	263 cfm (446 m3/h)	65 W	54 dB(A)	<b>3139.110</b>
115 V 1~	568 cfm (965 m3/h)	447 cfm (759 m3/h)	138 W	60 dB(A)	<b>3140.110</b>



### 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)
- 7980.110 includes 6' cable with NEMA 1-15 plug

#### 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	<b>7980.110</b>
5 x 5 x 2 (119 x 119 x 38)	1	<b>7980.000</b>
5 x 5 x 1 (119 x 119 x 25)	1	<b>7980.100</b>
5 x 5 x 2 (119 x 119 x 38)	1	<b>7980.148</b>

#### Supply includes:

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



### 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)	Light Gray RAL 7035	<b>9969.936</b>
			Black RAL 9005	<b>9969.937</b>
208	210 (356)	24 - 39 (600 - 1000)	Light Gray RAL 7035	<b>9969.938</b>
			Black RAL 9005	<b>9969.939</b>





# Air Flow Management



## 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:

Carbon steel, plastic UL 94 V0

### Surface finish:

Spray-finished

Width x height inches (mm)	Packs of	Part No.
24 x 79 (600 x 2000)	1 set	<b>5501.805</b>
32 x 79 (800 x 2000)	1 set	<b>5501.815</b>
24 x 87 (600 x 2200)	1 set	<b>5501.825</b>
28 x 79 (700 x 2000)	1 set	<b>9972.925</b>
28 x 87 (700 x 2200)	1 set	<b>9972.926</b>
32 x 87 (800 x 2200)	1 set	<b>5501.835</b>

### 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	<b>5501.895</b>



## 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	Black RAL 9005 tool-less (plastic)	<b>9960.676<sup>1)</sup></b>
1	10	Black RAL 9005 tool-less (metal)	<b>9970.016</b>
3	5	Black RAL 9005 tool-less (metal)	<b>9970.017</b>
1	2	Black RAL 9005 (metal)	<b>7151.005</b>
2	2	Black RAL 9005 (metal)	<b>7152.005</b>
3	2	Black RAL 9005 (metal)	<b>7153.005<sup>2)</sup></b>
6	2	Black RAL 9005 (metal)	<b>7156.005<sup>2)</sup></b>
1	3	Aluminium, natural-anodized	<b>1931.200</b>
2	3	Aluminium, natural-anodized	<b>1932.200</b>
3	3	Aluminium, natural-anodized	<b>1933.200</b>
4	3	Aluminium, natural-anodized	<b>1934.200</b>
6	3	Aluminium, natural-anodized	<b>1936.200</b>
9	3	Aluminium, natural-anodized	<b>1939.200</b>

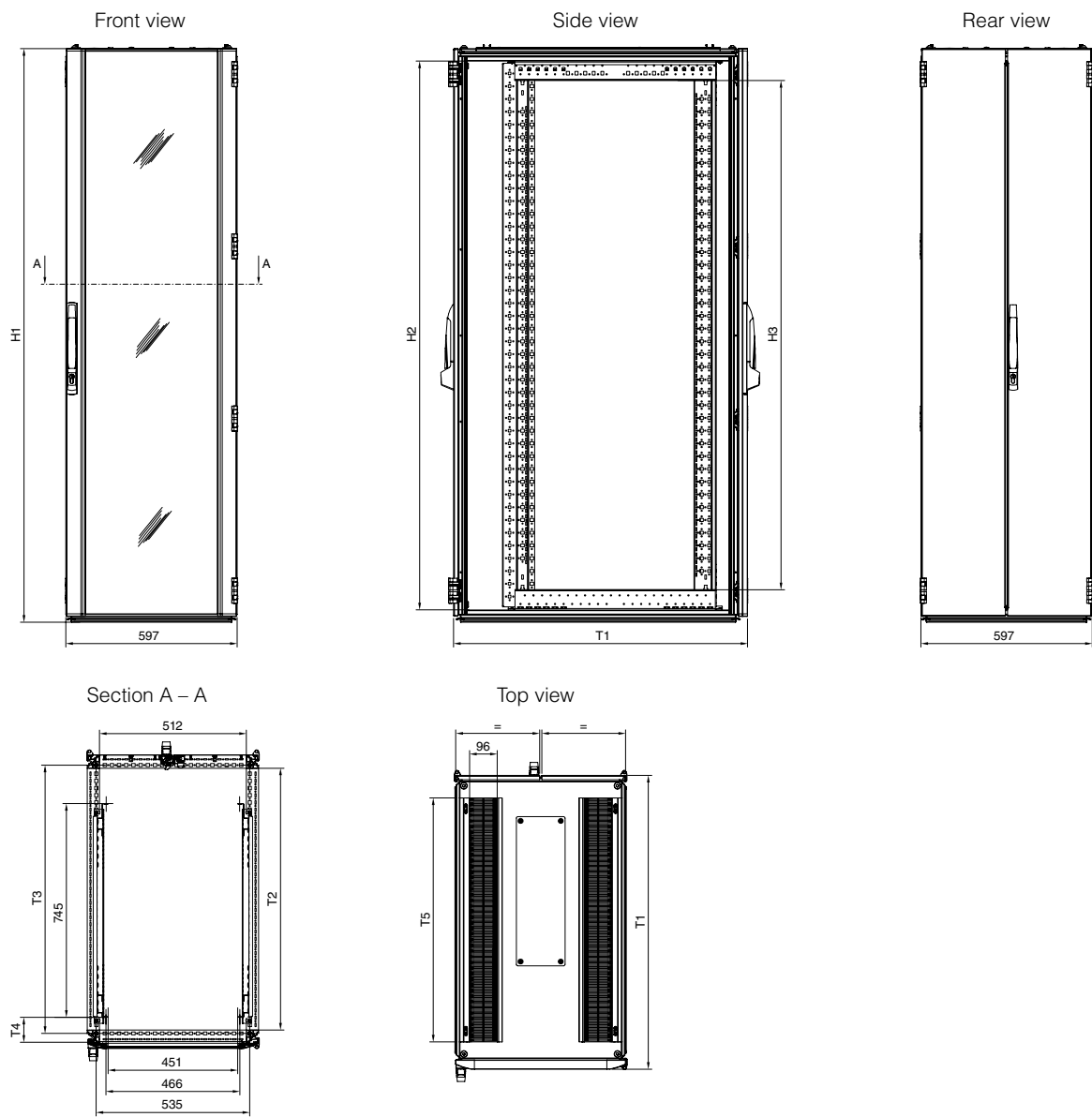
<sup>1)</sup> UL 94-VO

<sup>2)</sup> Extended delivery times





With viewing door for rack climate control  
Width 600 mm

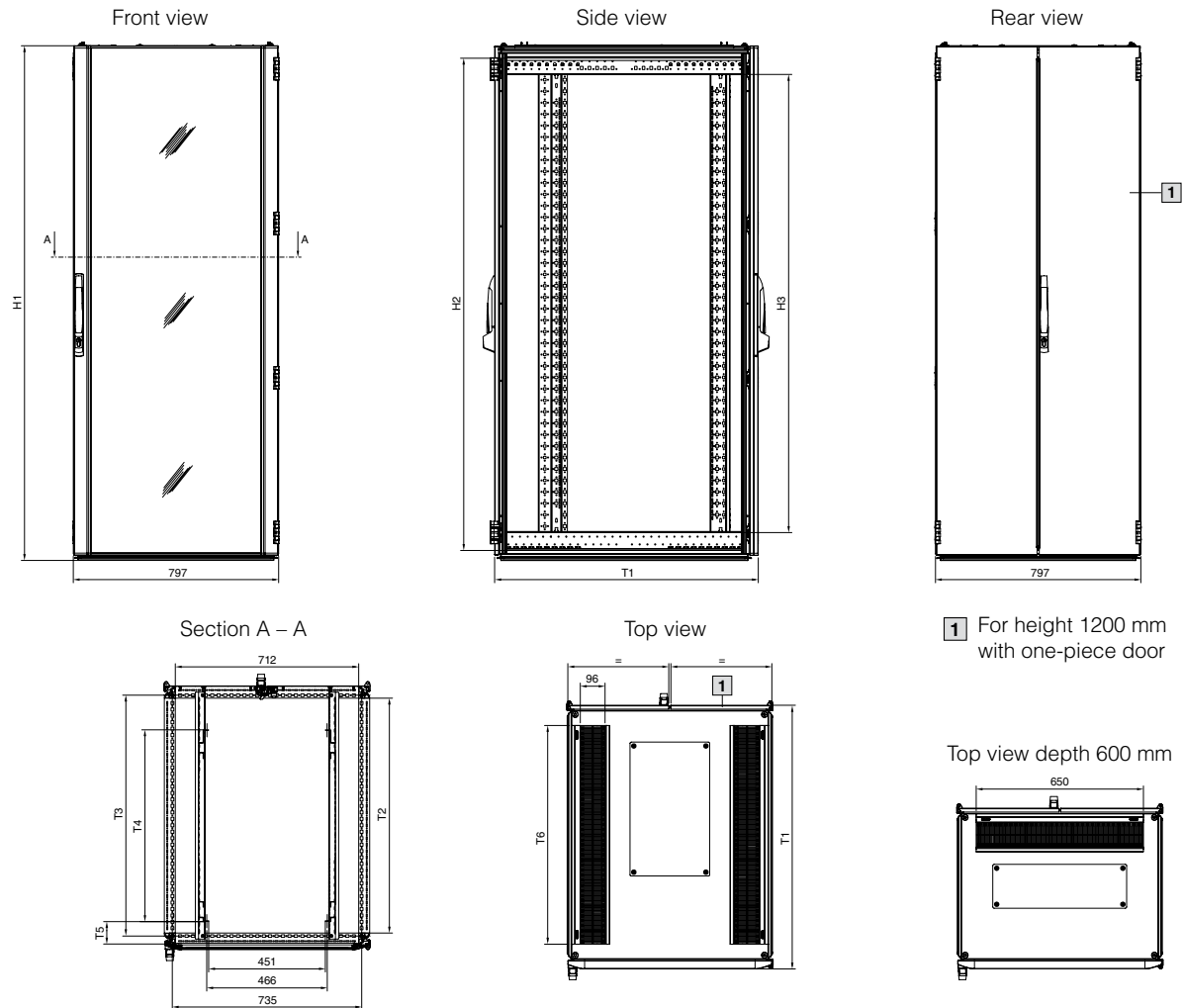


Part No.	U	Color		Height inches (mm)			Depth dimensions inches (mm)				
		Light Gray RAL7035	Black RAL9005	H1	H2	H3	T1	T2	T3	T4	T5
5508.120	42	■	–	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5508.220	42	–	■	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	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)



## With viewing door for rack climate control

Width 800 mm

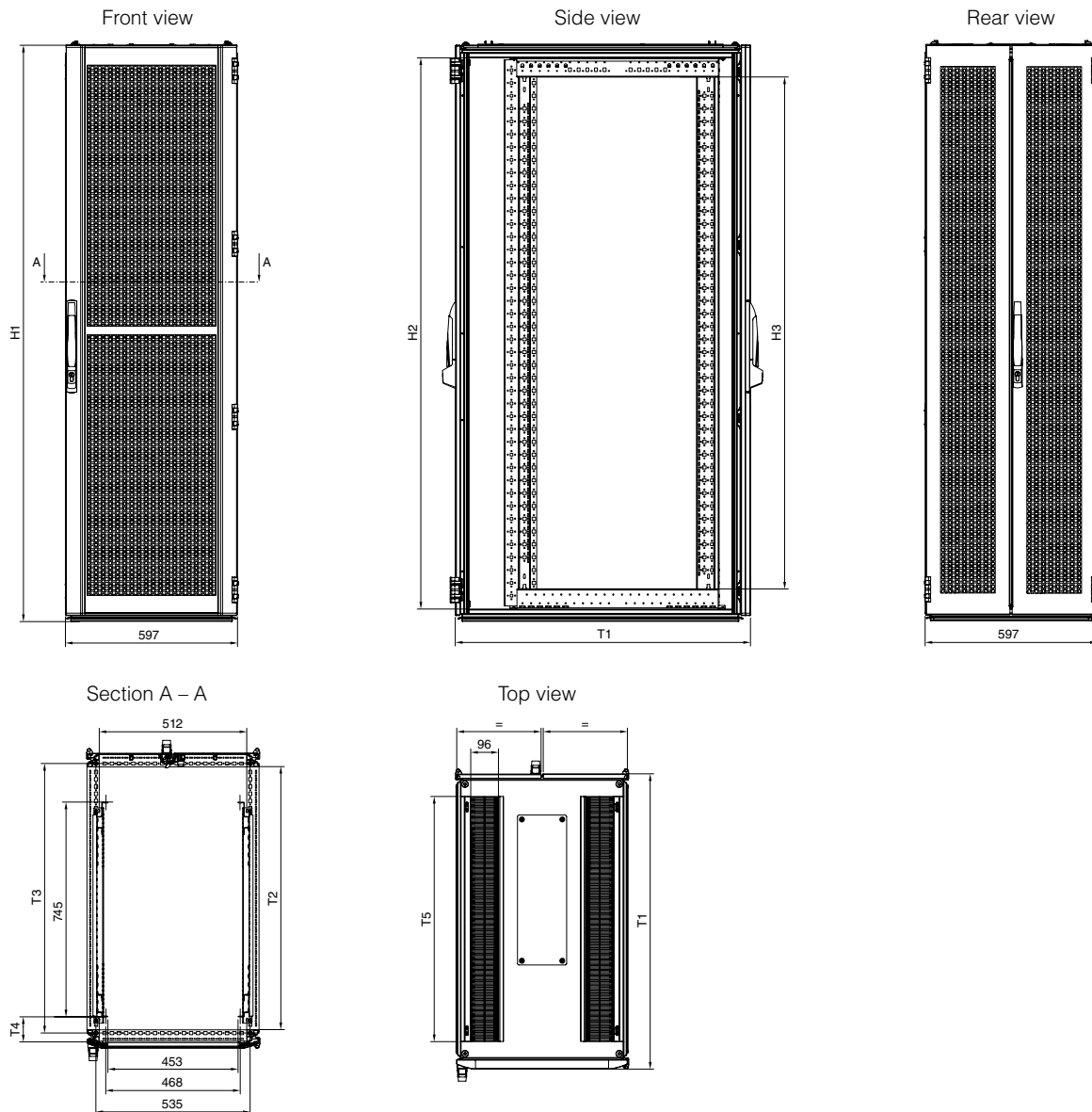


Part No.	U	Color		Height dimensions inches (mm)			Depth dimensions inches (mm)					
		Light Gray RAL7035	Black RAL9005	H1	H2	H3	T1	T2	T3	T4	T5	T6
5503.120	24	■	–	47.19 (1198.5)	43.78 (1112)	38.35 (974)	32.44 (824)	28.03 (712)	28.94 (735)	21.46 (545)	5.79 (147)	25.59 (650)
5503.220	24	–	■	47.19 (1198.5)	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)



## With perforated door for rack climate control

Width 600 mm



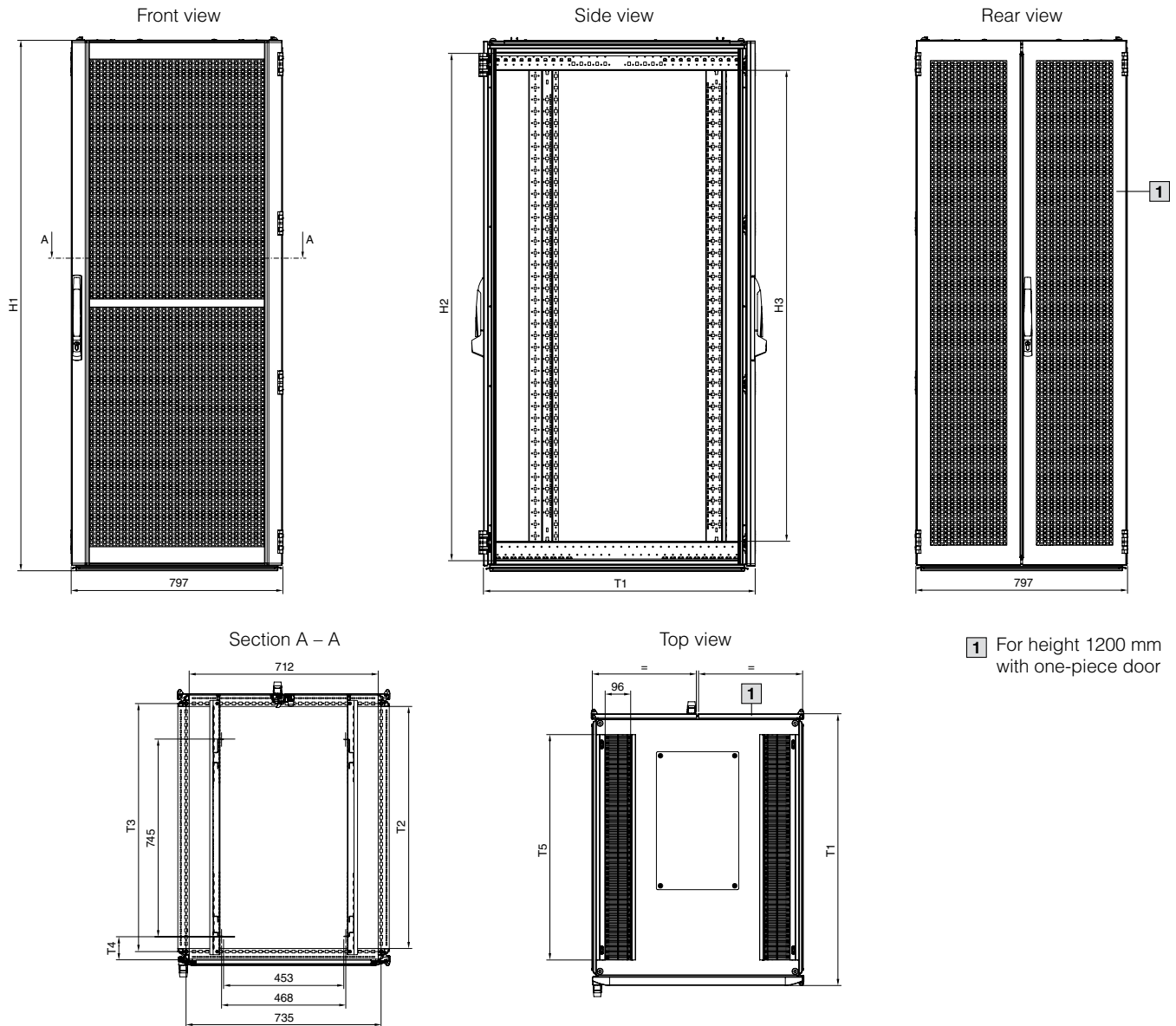
Part No.	U	Color		Height dimensions inches (mm)			Depth dimensions inches (mm)				
		Light Gray RAL7035	Black RAL9005	H1	H2	H3	T1	T2	T3	T4	T5
5508.110	42	■	–	78.68 (1998.5)	75.28 (1912)	69.84 (1774)	40.32 (1024)	35.91 (912)	36.81 (935)	3.43 (87)	33.47 (850)
5508.210	42	–	■	78.68 (1998.5)	75.28 (1912)	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)	42.28 (1074)	37.87 (962)	38.77 (985)	3.58 (91)	35.43 (900)
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)	42.28 (1074)	37.87 (962)	38.77 (985)	3.58 (91)	35.43 (900)



# Technical details

## With perforated door for rack climate control

Width 800 mm



Part No.	U	Color		Height dimensions inches (mm)			Depth dimensions inches (mm)				
		Light Gray RAL 7035	Black RAL9005	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)	42.28 (1074)	37.87 (962)	38.77 (985)	3.58 (91)	35.43 (900)
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)	42.28 (1074)	37.87 (962)	38.77 (985)	3.58 (91)	35.43 (900)



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