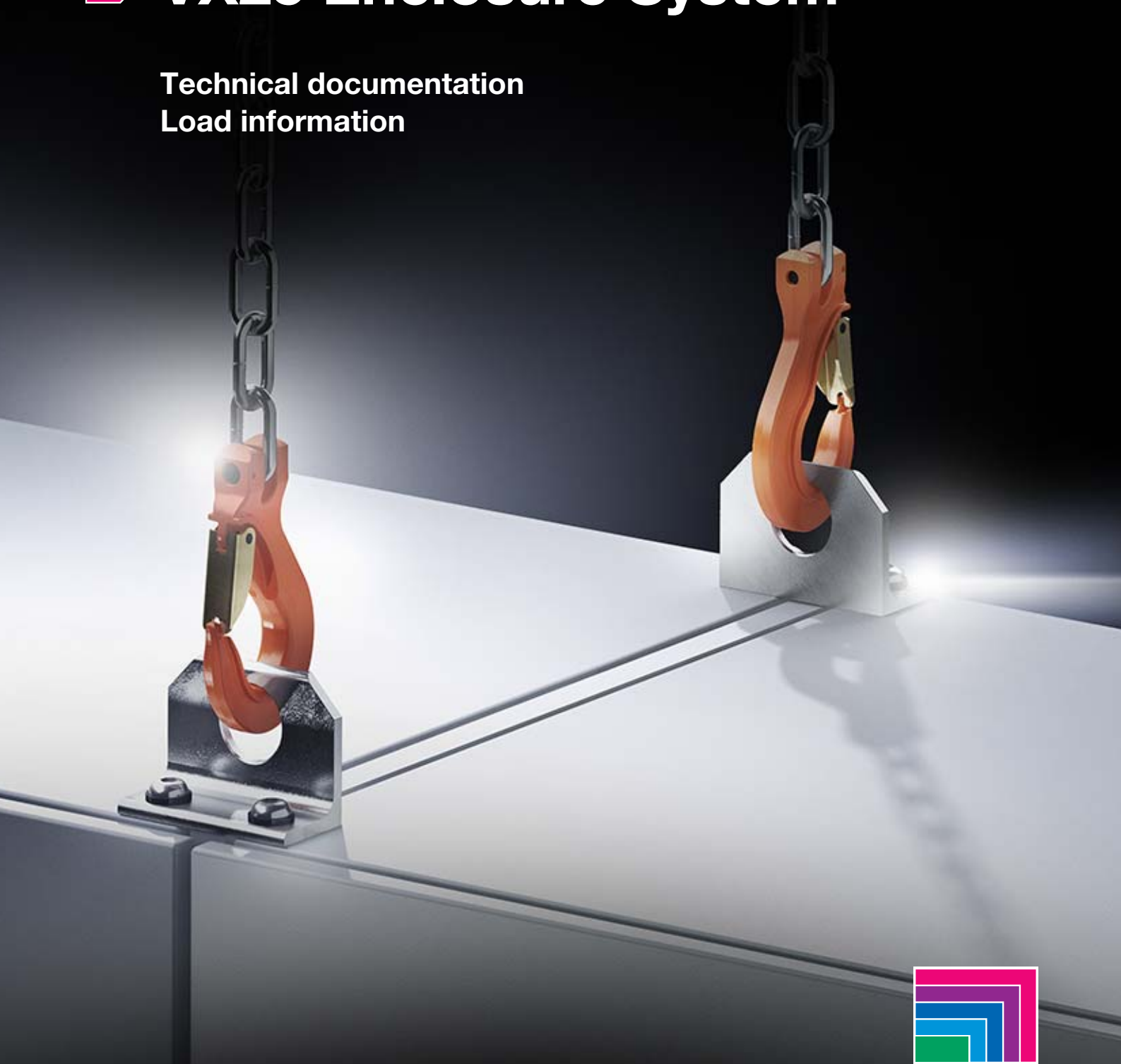


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## **VX25 Enclosure System**

Technical documentation  
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# Enclosure system VX25

## Contents/general remarks

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## 1. General remarks

Based on the results of in-depth testing and customer feedback, we hope that this technical documentation will provide you with plenty of useful tips and assistance for the transport and siting of enclosures. The technical descriptions for the various loading options with the VX25 enclosure system are not warranted properties, and we are unable to accept any liability in this regard. Additionally, Rittal reserves the right to extend or modify this technical documentation as and when necessary.

To aid understanding of the load specifications given in Newtons, here is the conversion formula for converting into kilograms.

$$F \text{ [N]} = m \text{ [kg]} \cdot g \text{ [m/s}^2\text{]}$$

$$\text{Example: } 9.81 \text{ N} = 1 \text{ kg} \cdot 9.81 \text{ m/s}^2$$

Should you have any further questions or suggestions on the points raised in this technical documentation, please get in touch with your Rittal specialist advisor.

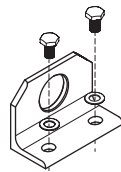
### 2.1 Transport by crane

All VX25 enclosures are suitable for transporting by crane, either as free-standing enclosures or as bayed suites.



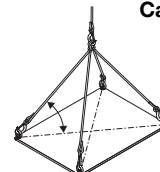
#### Eyebolt 4568.000

For transporting enclosures by crane (based on DIN 580).



#### Combination angle 4540.000

Combination angles must be used when transporting bayed enclosures by crane, to ensure the optimum distribution of tensile forces.



#### Cable pull

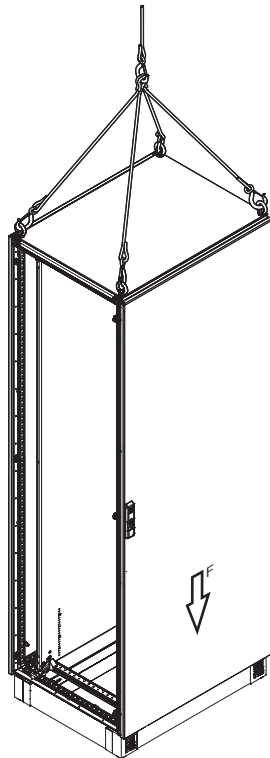
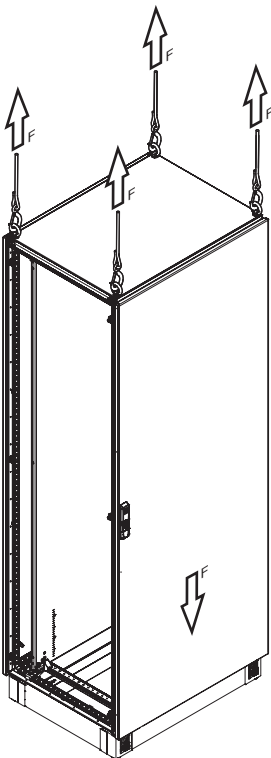
#### With eyebolts

Individual enclosures are safely transported using the eyebolts. For symmetrical loads, the following maximum permissible overall loads apply:

$F \triangleq$  for 90° cable pull angle 13600 N

$F \triangleq$  for 60° cable pull angle 6400 N

$F \triangleq$  for 45° cable pull angle 4800 N



# Enclosure system VX25

## Transport variants

### 2.1 Transport by crane

#### With combination angle

For the enclosure combination with internal baying brackets, 8617.500 (3 per vertical section) and combination angles shown here, the load capacity with a cable pull angle of  $60^\circ$  is as follows:

F1 = 7000 N

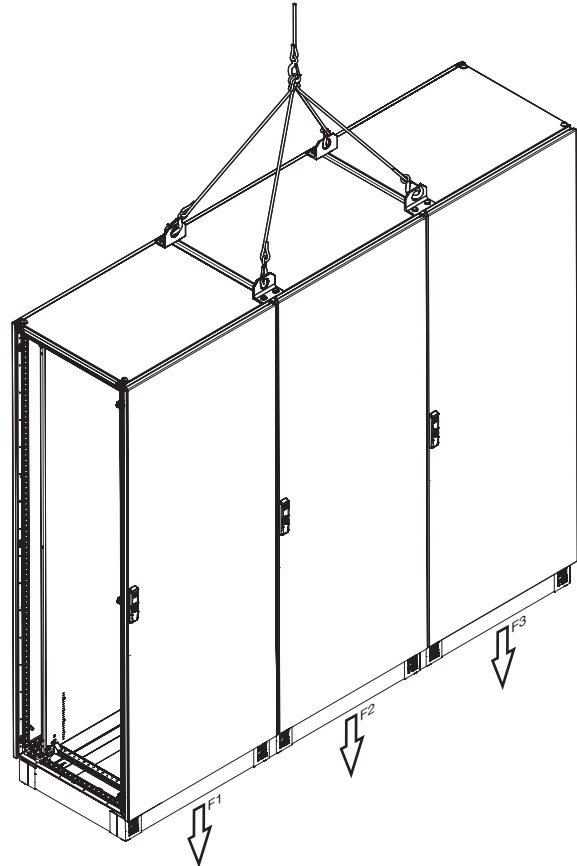
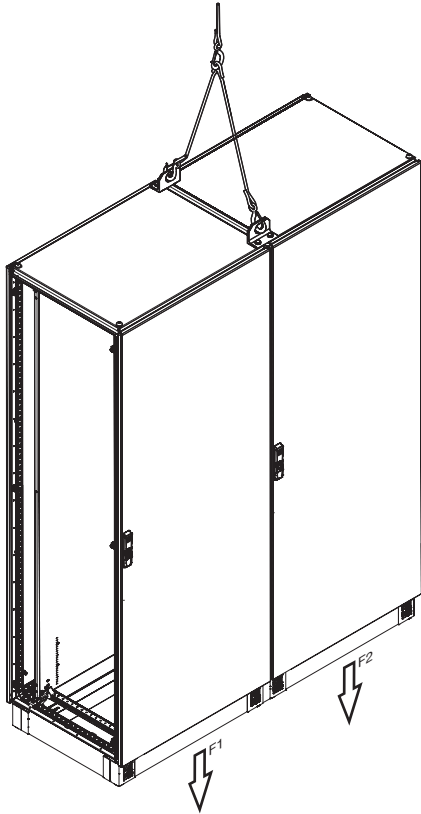
F2 = 7000 N

For the enclosure combination with internal baying brackets, 8617.500 (3 per vertical section) and combination angles shown here, the load capacity with a cable pull angle of  $60^\circ$  is as follows:

F1 = 7000 N

F2 = 14000 N

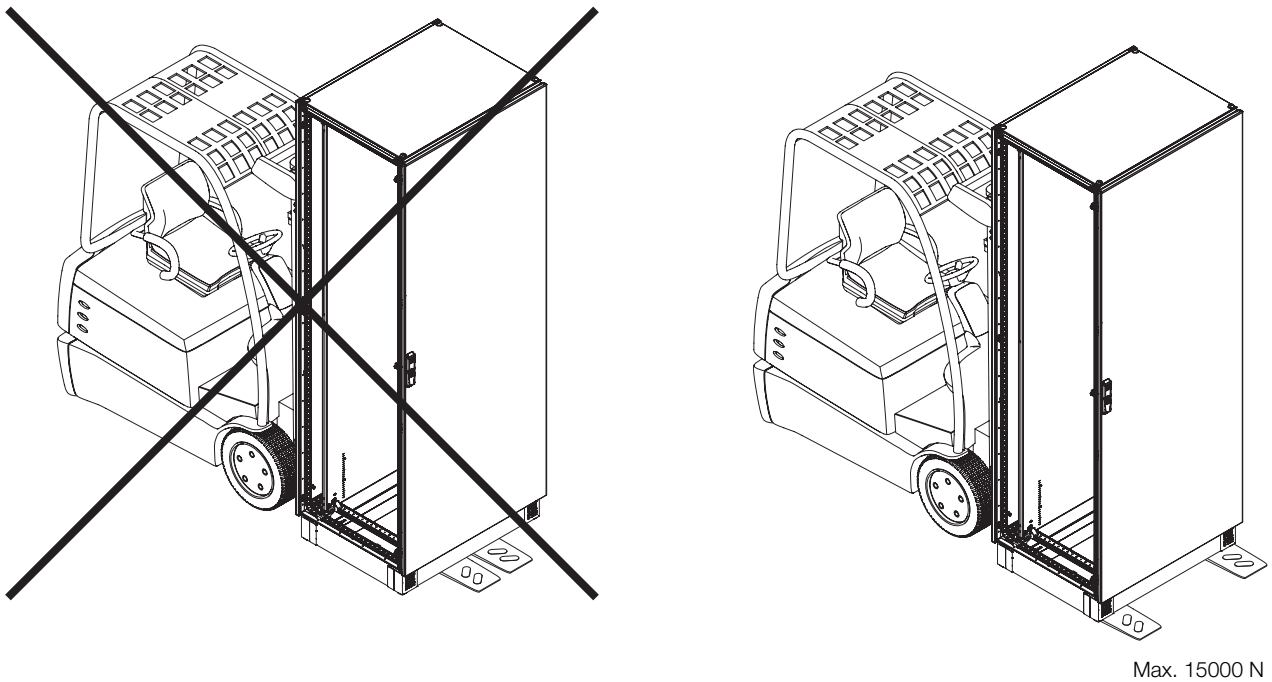
F3 = 7000 N



### 2.2 Transport by fork-lift truck

When transporting individual and bayed enclosures, please take care to ensure that the base/plinth trim panels are fitted, and loads are restricted to the immediate vicinity of the base/plinth corner pieces.

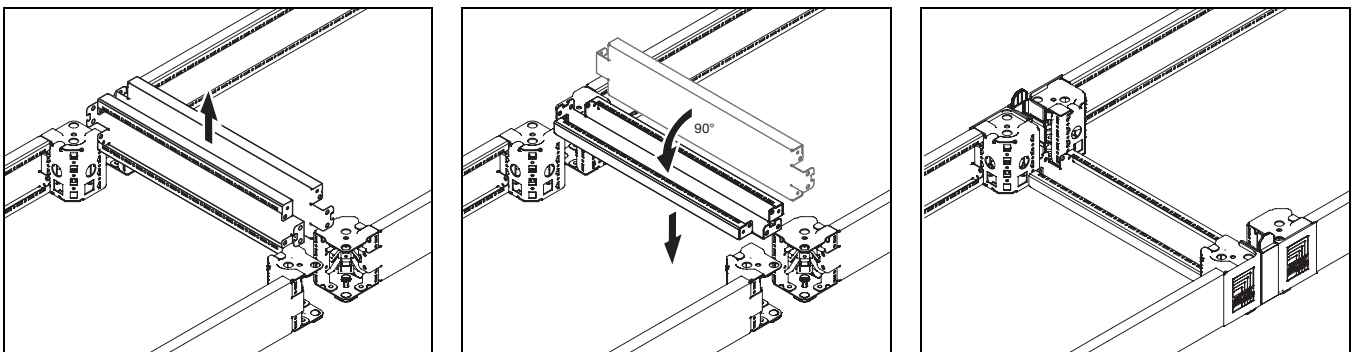
#### Transport of individual enclosures



#### Transport of bayed enclosure suites

**Note:**

- For bayed enclosure suites, one base/plinth trim panel should be folded over and fitted in such a way as to create a stable bayed connection in the base/plinth zone.



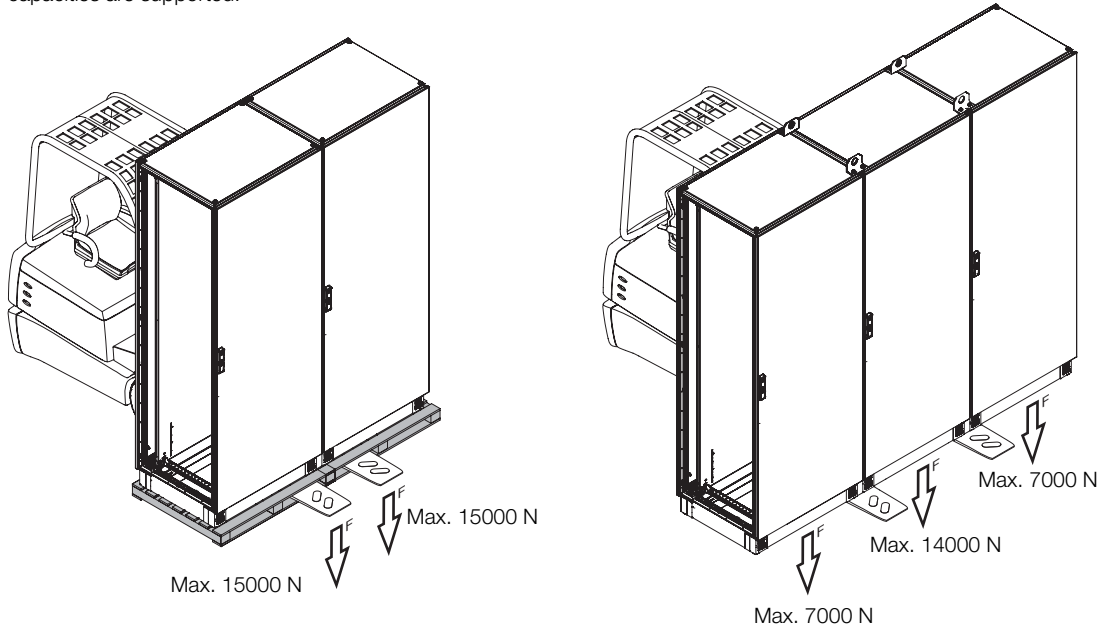
# Enclosure system VX25

## Transport variants

### 2.2 Transport by fork-lift truck

#### Transport of bayed enclosure suites

For the enclosure combination with internal baying brackets, 8617.500 (3 per vertical section) shown here, the following load capacities are supported:



### 2.3 Transport on castors

#### Transport individual and bayed enclosures

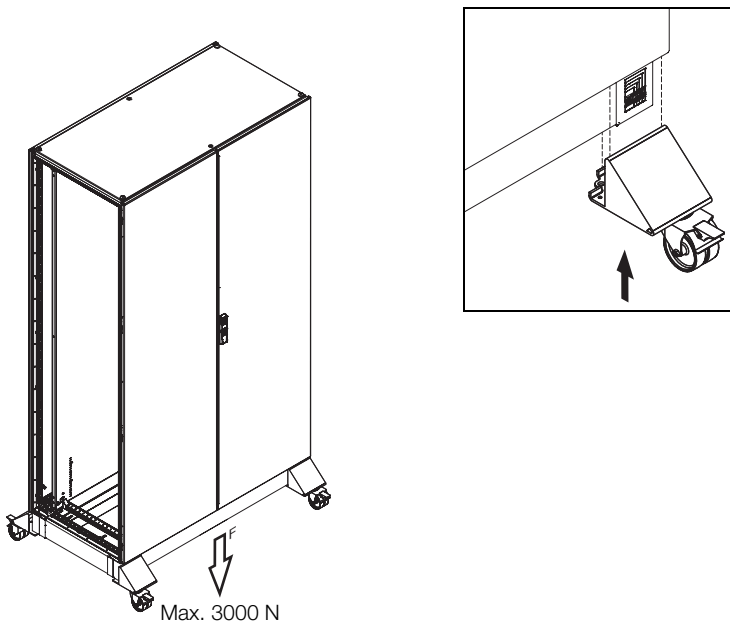
Transport castors with locks 8100.700  
(only in conjunction with base/plinth)

#### Supply includes:

4 twin castors, 2 x with, 2 x without locks

#### Max. dynamic load:

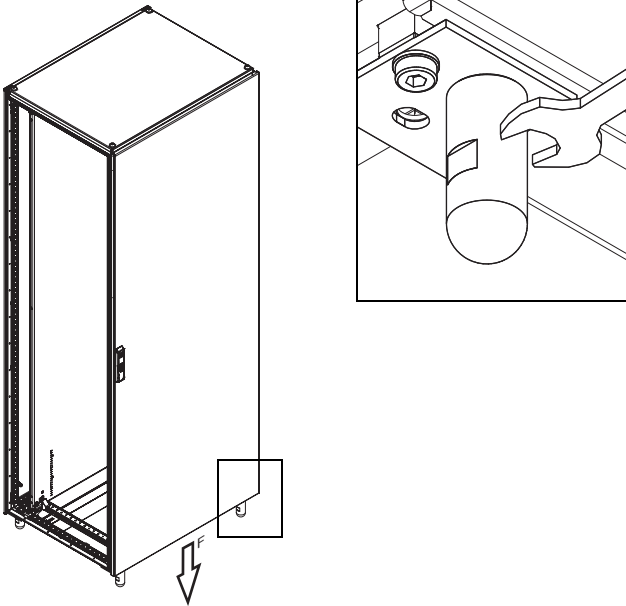
– Individual enclosure: When using 4 castors = 3000 N



### 3.1 Siting of enclosures

#### Siting on levelling feet 2859.000

With a static load, the maximum overall admissible load is  
 $F = 14000 \text{ N}$



# Enclosure system VX25

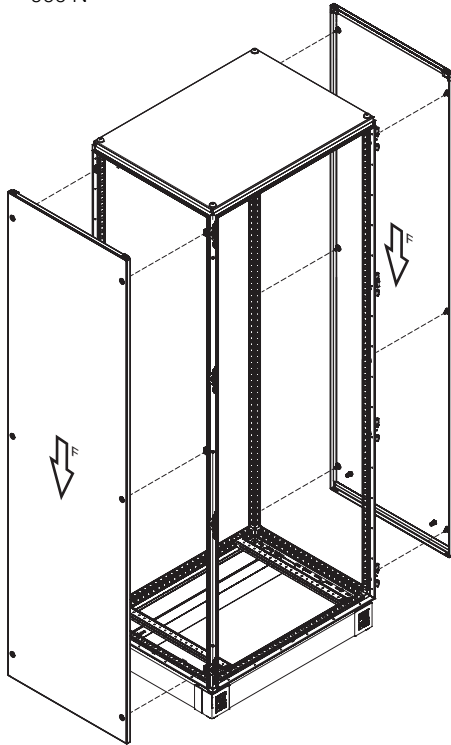
## Configuration variants

### 4.1 Enclosure panels

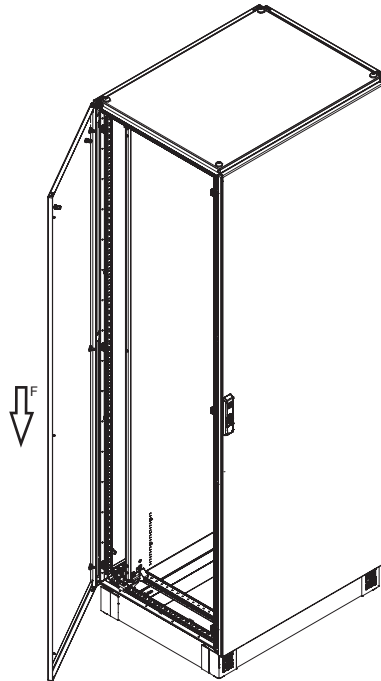
#### Side panel

Provided the Rittal assembly components offer adequate protection against tipping over, the following maximum static loads apply to enclosures:

Side panel  
 $F = 900 \text{ N}$



Side panel, hinged (hinge for side panel 8106.260)  
 $F = 200 \text{ N}$

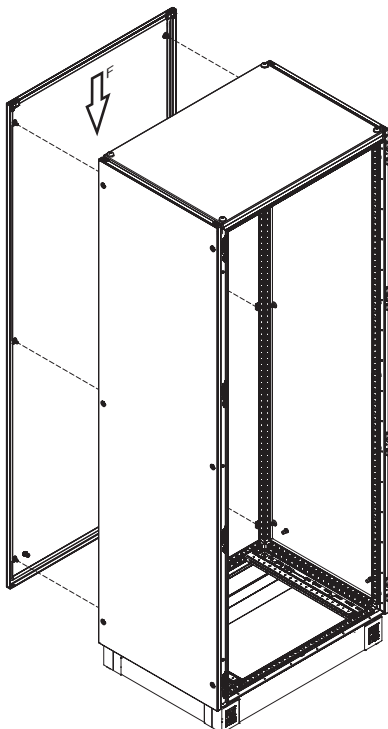


The 180° opening angle allows unrestricted access. May be mounted from both inside and outside the enclosure. Simply exchange the three enclosure panel brackets for hinges.

**Note:**  
Hinge mounting is only possible in the vicinity of the rear panel

#### Rear panel

Provided the Rittal assembly components offer adequate protection against tipping over, the following maximum static loads apply to enclosures:  $F = 900 \text{ N}$

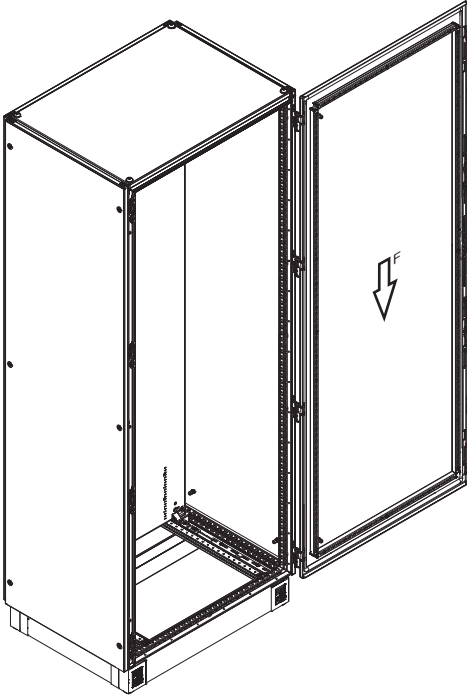




### 4.1 Enclosure panels

#### Door with 130° or 180° hinge

Provided the Rittal assembly components offer adequate protection against tipping over, the following maximum static loads apply to enclosures:  $F = 900 \text{ N}$  (130°/180°)



# Enclosure system VX25

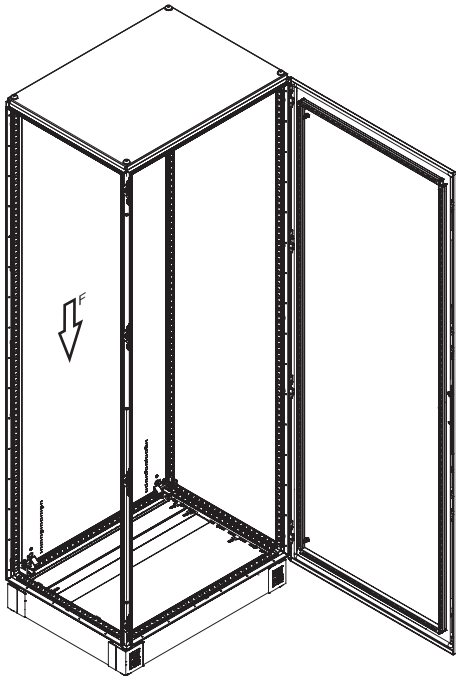
## Configuration variants

### 4.1 Enclosure panels

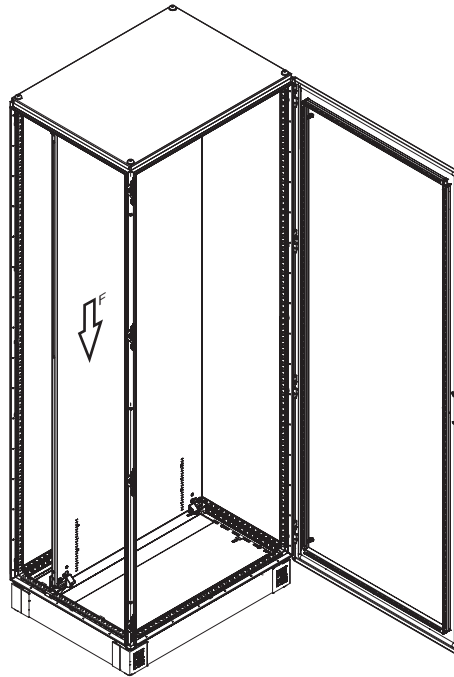
#### Mounting plate

All mounting plates are suitable for heavy loads, thanks to their exceptionally stable and functional design.

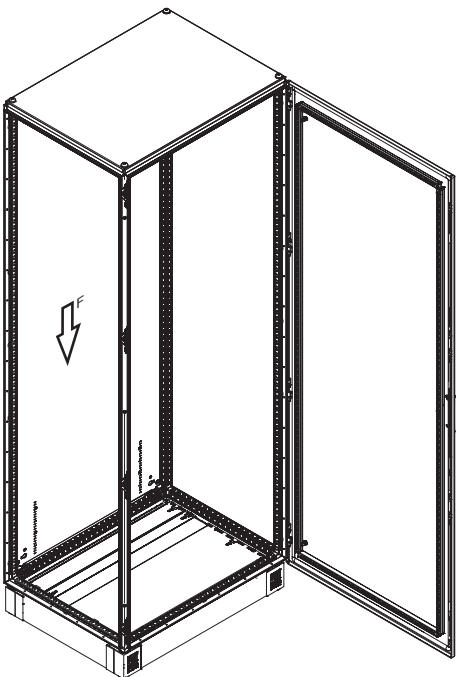
Mounting position: Flush with the enclosure frame  
 $F = 6000 \text{ N}$



Mounting position: Set forward from the enclosure frame  
 $F = 5000 \text{ N}$



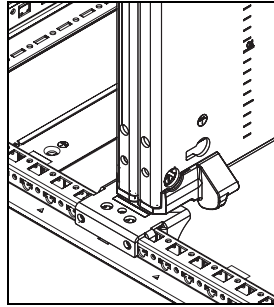
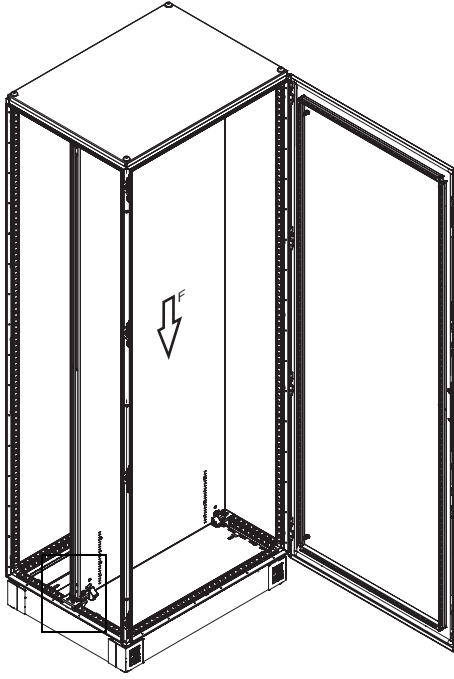
Mounting position: Plus 20 mm, set back behind the enclosure frame  
 $F = 2500 \text{ N}$



### 4.1 Enclosure panels

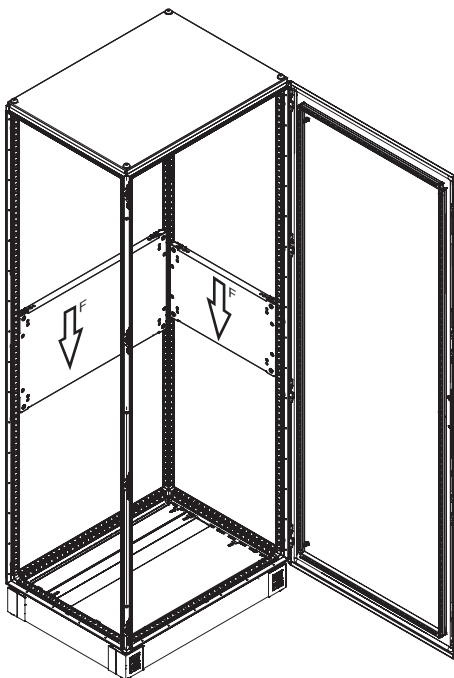
#### Mounting plate

Installation kit for back-to-back mounting plates 8617.360  
 $F = 2500 \text{ N}$  per mounting plate



#### Partial mounting plate

The load information for partial mounting plates refers solely to mounting directly on the frame section using the Rittal assembly components provided especially for this purpose.



For installation in										Dimensions mm	F [N]	Model No.
Enclosure width mm					Enclosure depth (side) mm							
400	600	800	1000	1200	400	500	600	800				
■	■				■		■			500 x 300	1500	<b>8617.510</b>
	■					■	■			500 x 400	1700	<b>8617.520</b>
	■						■			500 x 500	1700	<b>8617.530</b>
	■	■					■	■		500 x 700	1700	<b>8617.540</b>
	■						■			500 x 775	1700	<b>8617.550</b>
■		■			■			■		700 x 300	1200	<b>8617.560</b>
		■				■		■		700 x 400	1500	<b>8617.570</b>
		■						■		700 x 700	1700	<b>8617.580</b>
■			■		■					900 x 300	700	<b>8617.590</b>
			■			■				900 x 400	900	<b>8617.600</b>
	■		■					■		900 x 500	1500	<b>8617.610</b>
■				■	■					1100 x 300	700	<b>8617.620</b>
				■		■				1100 x 400	900	<b>8617.630</b>
		■		■			■			1100 x 500	1200	<b>8617.640</b>

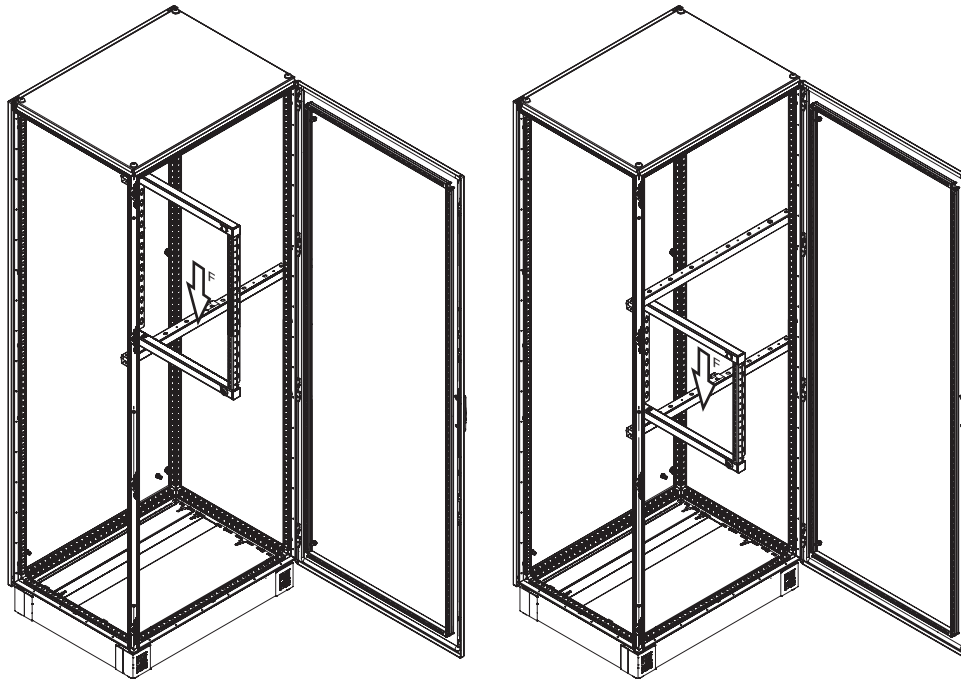
# Enclosure system VX25

## Configuration variants

### 4.2 482.6 mm (19") installation system

#### Swing frame, small

The enclosure must be adequately attached to ensure its stability.



#### Swing frame, small

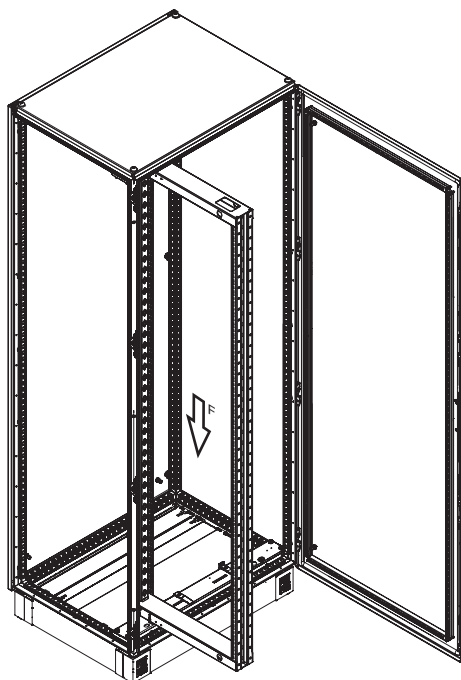
For enclosure width mm	F [N]	U	Model No.
600	150	3	<b>8619.500</b>
	300	6	<b>8619.510</b>
	450	9	<b>8619.520</b>
	500	12	<b>8619.530</b>
	500	15	<b>8619.540</b>
	500	18	<b>8619.550</b>
800	150	3	<b>8619.500</b>
	300	6	<b>8619.510</b>
	450	9	<b>8619.520</b>
	500	12	<b>8619.530</b>
	500	15	<b>8619.540</b>
	500	18	<b>8619.550</b>

#### Installation kit

For enclosure width mm	Model No.
600	<b>8619.600</b>
800	<b>8619.610</b>

#### Swing frame, large

The enclosure must be adequately attached to ensure its stability. With the large swing frame, the maximum overall load is determined by the installation kits used.



#### Installation kit

For enclosure width mm	Model No.	F [N]
600	8619.040	3500
800	8619.041	3500
1200	8619.042	1500 <sup>1)</sup>

<sup>1)</sup> For two installed swing frames, an overall load of 1000 N per swing frame applies.

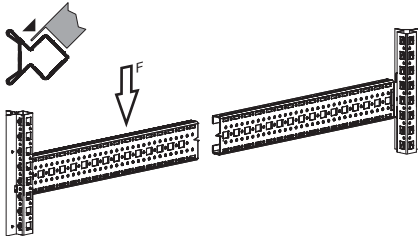
#### Note:

When using the 180° hinge (Model No. 8619.050), a maximum load of 1500 N is supported.

### 4.3 Rail systems

#### Punched section with mounting flange, 18 x 64 mm, 23 x 64 mm, 23 x 89 mm

Variable, with rows of holes for universal interior installation or partial assembly.  
Simply locate into punchings and screw-fasten.

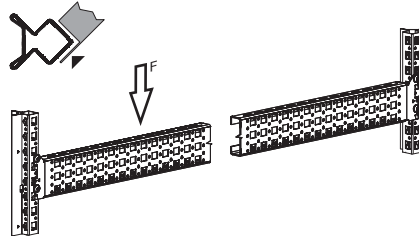


#### Punched section with mounting flange 18 x 64 mm

for the outer mounting level

For enclosure width/ height/depth mm	F [N] <sup>1)</sup>	Model No.
300	2400	<b>8617.000</b>
400	2400	<b>8617.010</b>
500	2400	<b>8617.020</b>
600	2400	<b>8617.030</b>
800	1800	<b>8617.040</b>
1000	1400	<b>8617.050</b>
1200	1200	<b>8617.060</b>

<sup>1)</sup> The maximum admissible overall load capacity of the enclosure must not be exceeded. Force data only applies to a symmetrical arrangement.

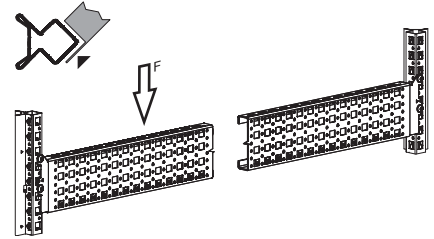


#### Punched section with mounting flange 23 x 64 mm

for the inner mounting level

For enclosure width/ height/depth mm	F [N] <sup>1)</sup>	Model No.
300	2400	<b>8617.100</b>
400	2400	<b>8617.110</b>
500	2400	<b>8617.120</b>
600	2400	<b>8617.130</b>
800	1800	<b>8617.140</b>
1000	1400	<b>8617.150</b>
1200	1200	<b>8617.160</b>
1400	800	<b>8617.170</b>
1600	800	<b>8617.180</b>
1800	800	<b>8617.190</b>
2000	700	<b>8617.200</b>
2200	650	<b>8617.210</b>

<sup>1)</sup> The maximum admissible overall load capacity of the enclosure must not be exceeded. Force data only applies to a symmetrical arrangement.



#### Punched section with mounting flange 23 x 89 mm

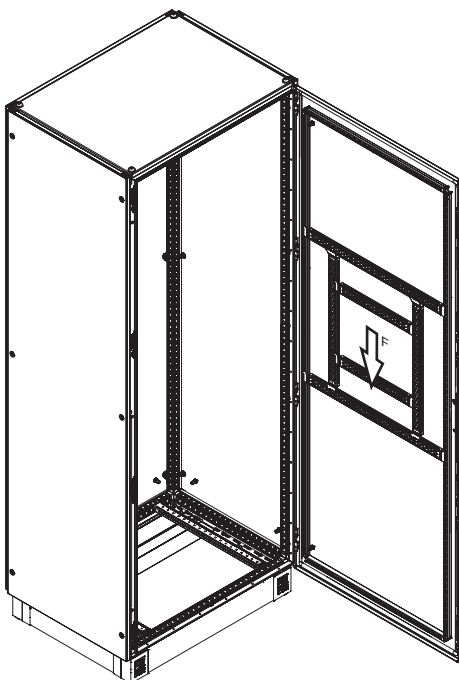
for the inner mounting level

For enclosure width/ height/depth mm	F [N] <sup>1)</sup>	Model No.
400	2400	<b>8100.730</b>
500	2400	<b>8100.731</b>
600	2400	<b>8100.732</b>
800	1800	<b>8100.733</b>

<sup>1)</sup> The maximum admissible overall load capacity of the enclosure must not be exceeded. Force data only applies to a symmetrical arrangement.

#### Punched section with mounting flange, 14 x 39 mm

for mounting on the tubular door frame



For door width mm	F [N]	Model No.
400	500	<b>8619.700</b>
500	500	<b>8619.710</b>
600	500	<b>8619.720</b>
800	260	<b>8619.730</b>

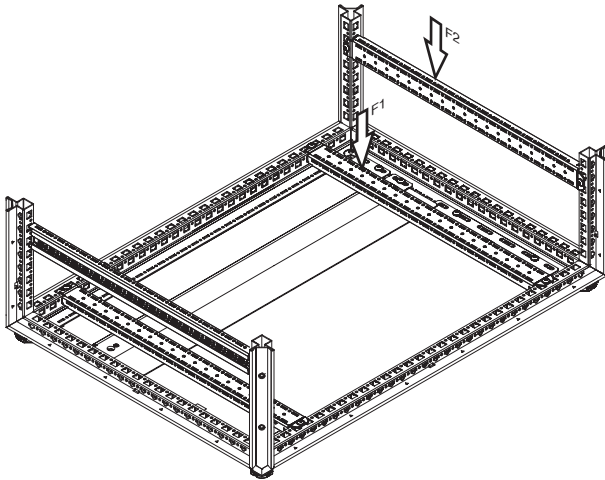
# Enclosure system VX25

## Configuration variants

### 4.3 Rail systems

#### Punched rail 18 x 39 mm

For variable, individual interior installation of the enclosure frame on the inner mounting level, may also be used in conjunction with other punched sections. Prepared at the rear to accommodate cable clamps  
For optimum cable routing in the enclosure.

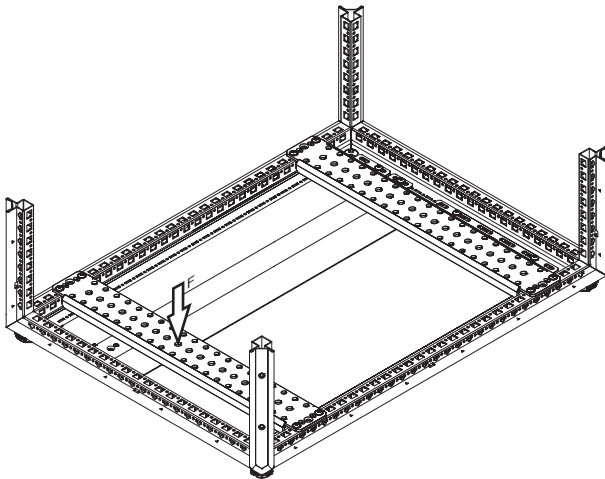


For enclosure width/depth mm	F1 [N] <sup>1)</sup>	F2 [N] <sup>1)</sup>	Model No.
400	1500	600	<b>8617.700</b>
500	1500	600	<b>8617.710</b>
600	1500	600	<b>8617.720</b>
800	1100	600	<b>8617.730</b>

<sup>1)</sup> The overall load applied to the free-standing base assembly via the support rails must not exceed 10,000 N in total. The maximum admissible overall load capacity of the enclosure (15,000 N) must not be exceeded. Force data only applies to an evenly distributed load.

#### Support rail 75 x 20 mm

For heavy installed equipment, with mounting holes.  
Particularly suitable for the installation of base isolators.



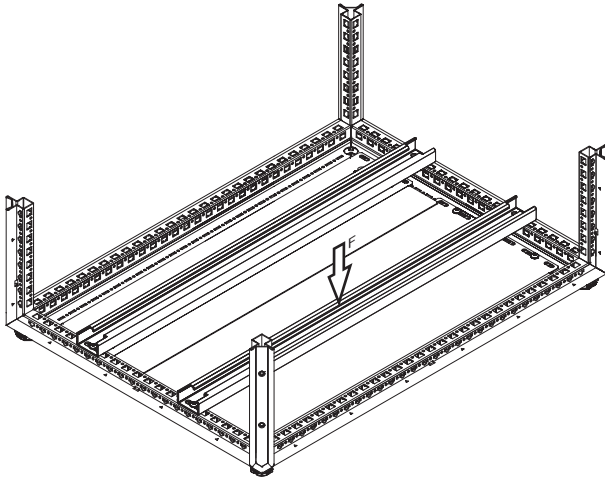
For enclosure width/depth mm	F1 [N] <sup>1)</sup>	Model No.	
		Slotted	Unslotted
400	2600	<b>4394.000</b>	–
500	2100	<b>4395.000</b>	–
600	1750	<b>4396.000</b>	<b>4396.500</b>
800	1300	<b>4398.000</b>	<b>4398.500</b>

<sup>1)</sup> The overall load applied to the free-standing base assembly via the support rails must not exceed 10,000 N in total. The maximum admissible overall load capacity of the enclosure (15,000 N) must not be exceeded. Force data only applies to an evenly distributed load.

### 4.3 Rail systems

#### Support rail 48 x 26 mm

For heavy installed equipment such as transformers.



For enclosure width/depth mm	F1 [N] <sup>1)</sup>	Model No.
600	3000	<b>8617.800</b>
800	2250	<b>8617.810</b>
1000	1800	<b>8617.820</b>
1200	1500	<b>8617.830</b>

<sup>1)</sup> The overall load applied to the free-standing base assembly via the support rails must not exceed 10,000 N in total. The maximum admissible overall load capacity of the enclosure (15,000 N) must not be exceeded. Force data only applies to an evenly distributed load.

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