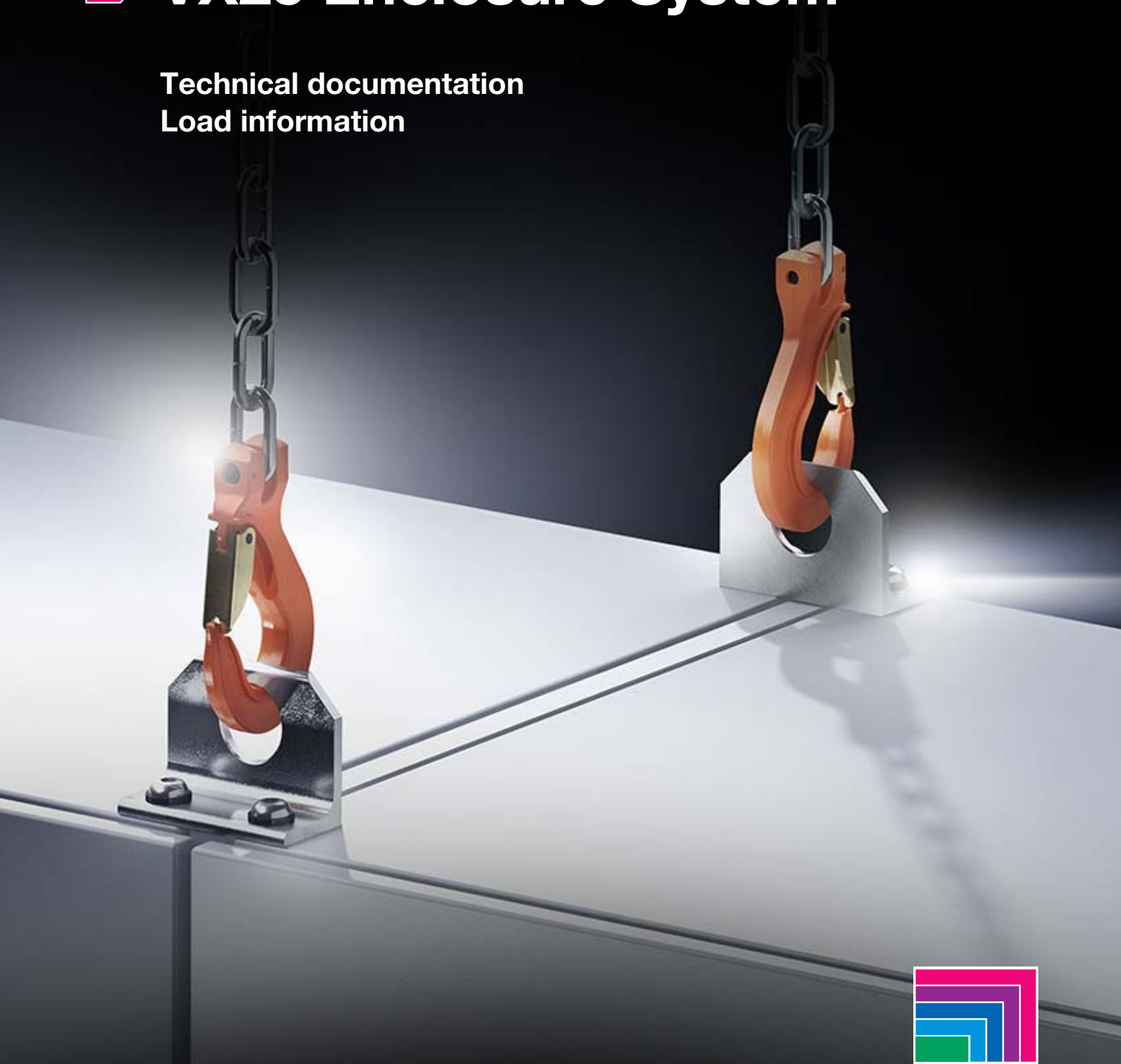


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VX25 Enclosure System

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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.

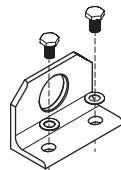
2.1 Transport by crane

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



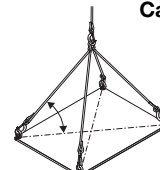
Eyebolt 4568.000

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

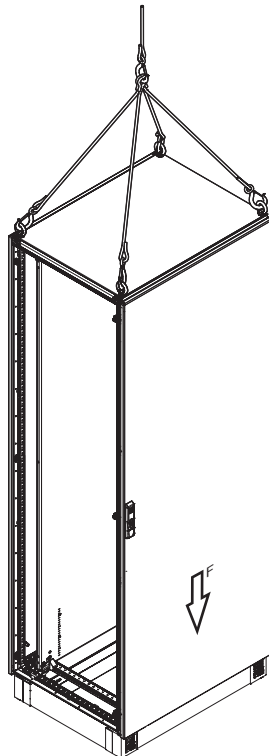
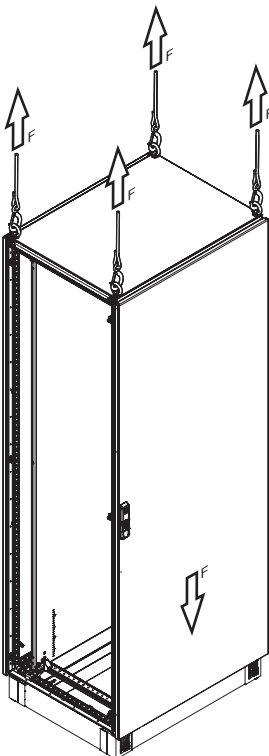
With eyebolts

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° is as follows:

F1 = 7000 N

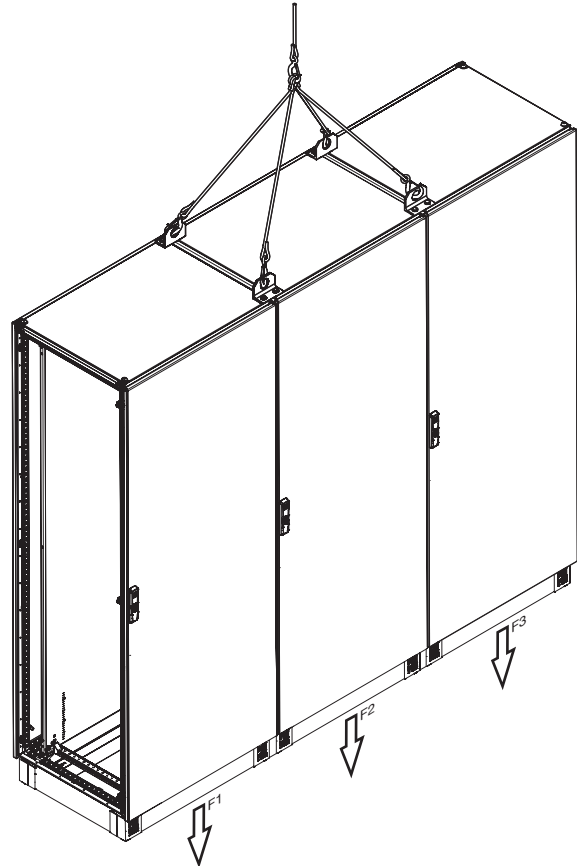
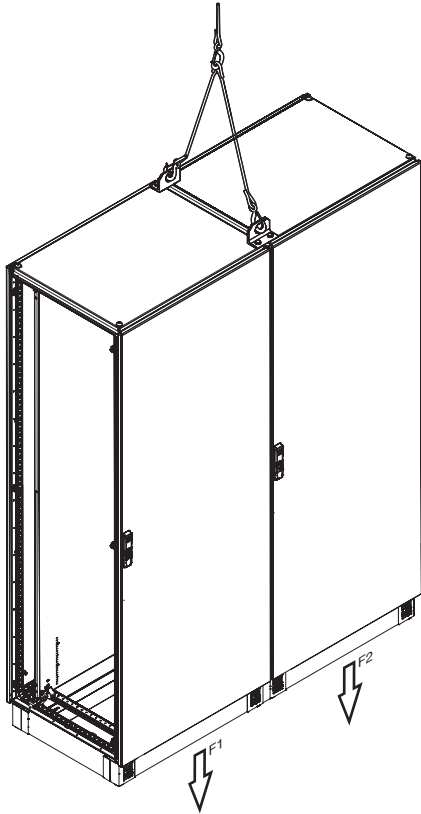
F2 = 7000 N

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° is as follows:

F1 = 7000 N

F2 = 14000 N

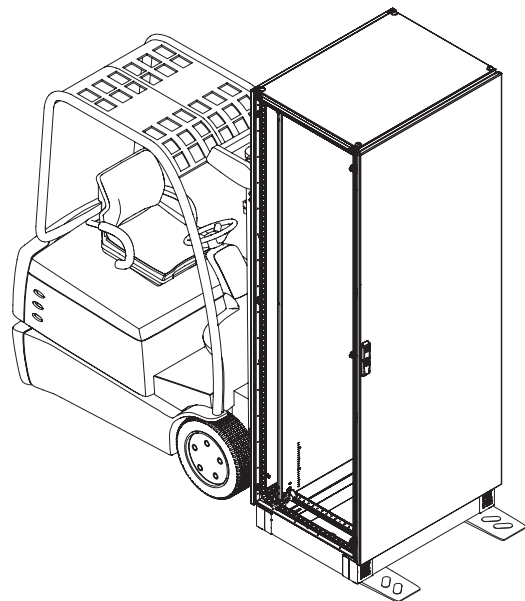
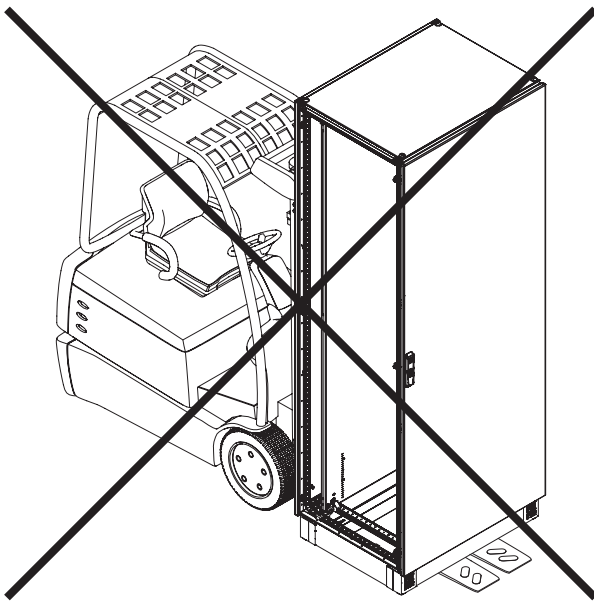
F3 = 7000 N



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

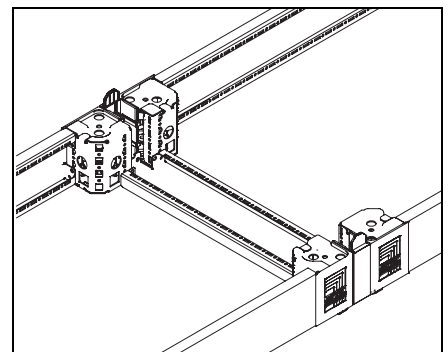
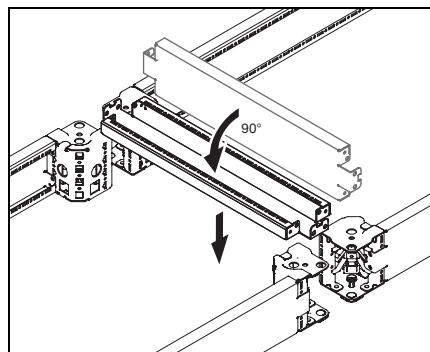
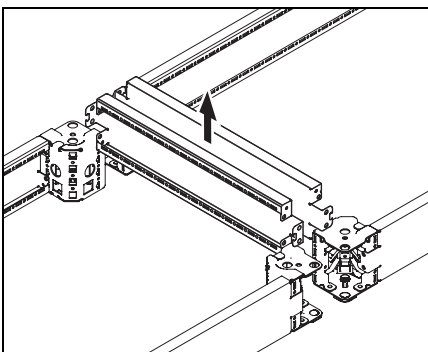


Max. 15000 N

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.



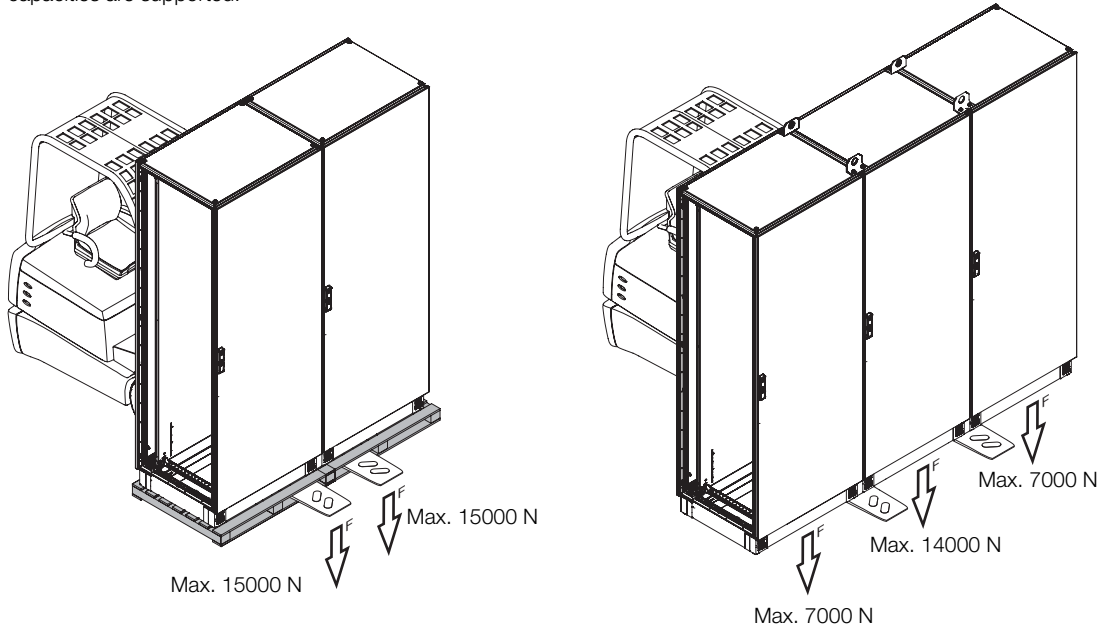
Enclosure system VX25

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

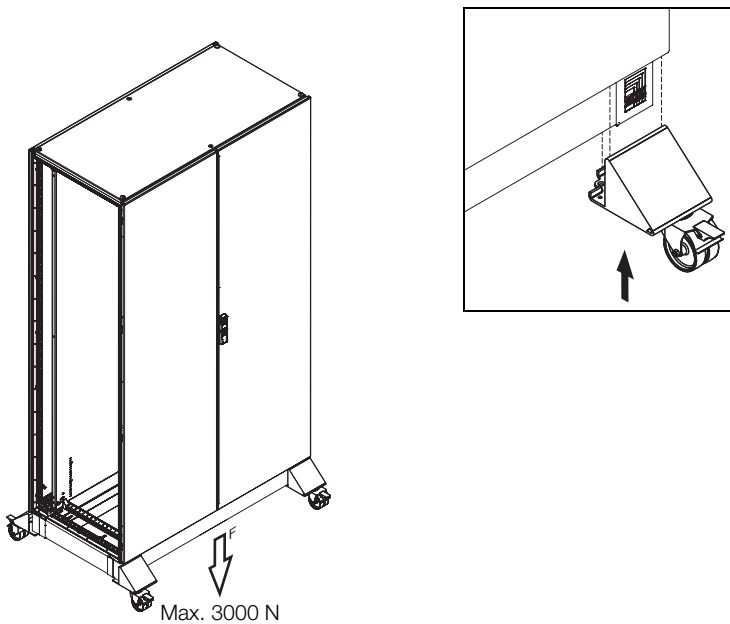
Transport castors with locks 8100.700
(only in conjunction with base/plinth)

Supply includes:

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

Max. dynamic load:

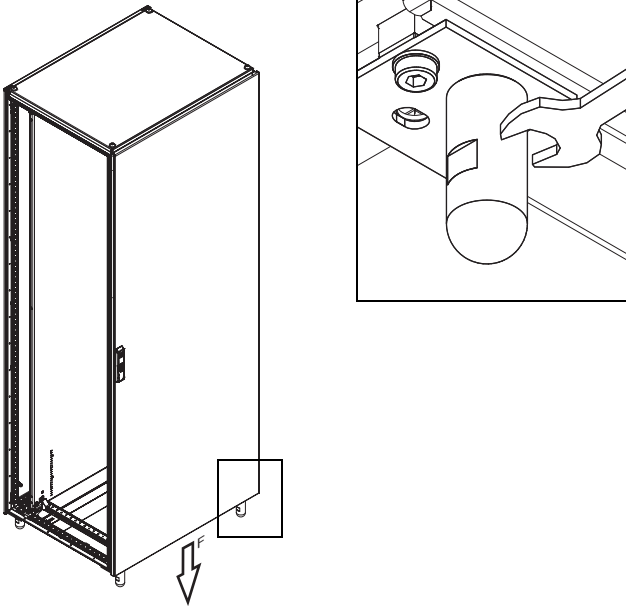
– Individual enclosure: When using 4 castors = 3000 N



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

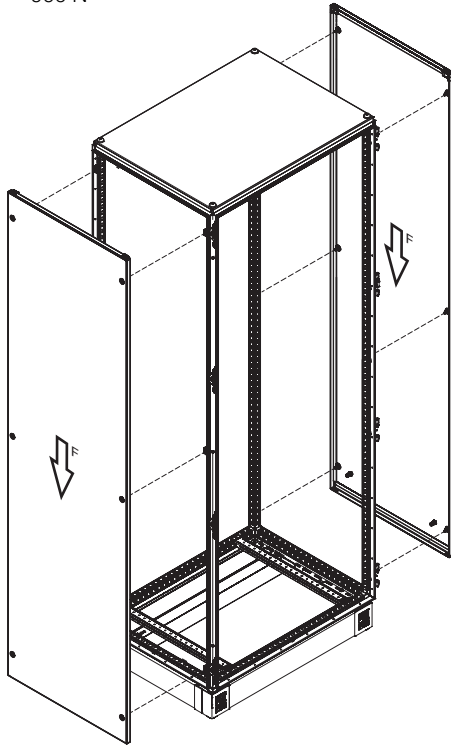
Configuration variants

4.1 Enclosure panels

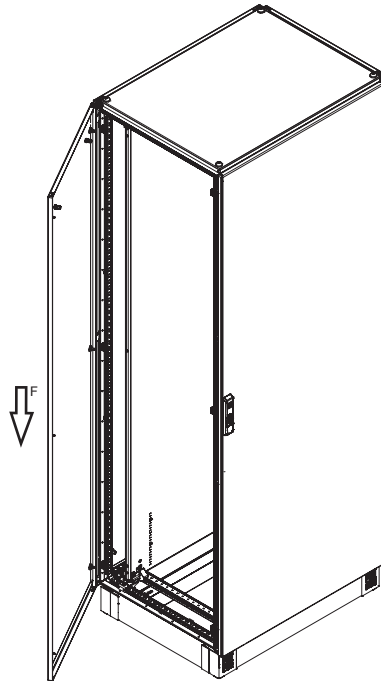
Side panel

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)
 $F = 200 \text{ N}$



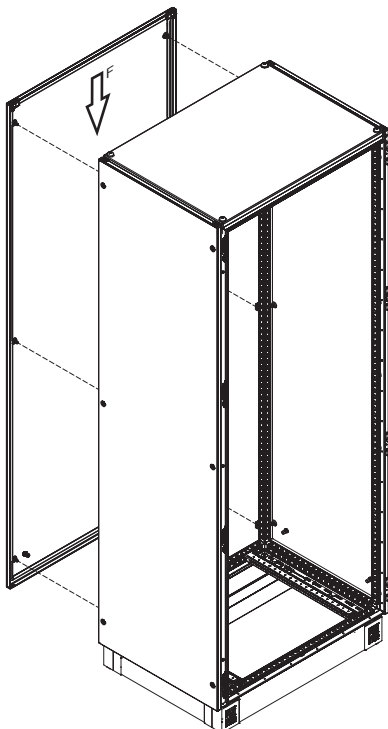
The 180° opening angle allows unrestricted access. May be mounted from both inside and outside the enclosure. Simply exchange the three enclosure panel brackets for hinges.

Note:

Hinge mounting is only possible in the vicinity of the rear panel

Rear panel

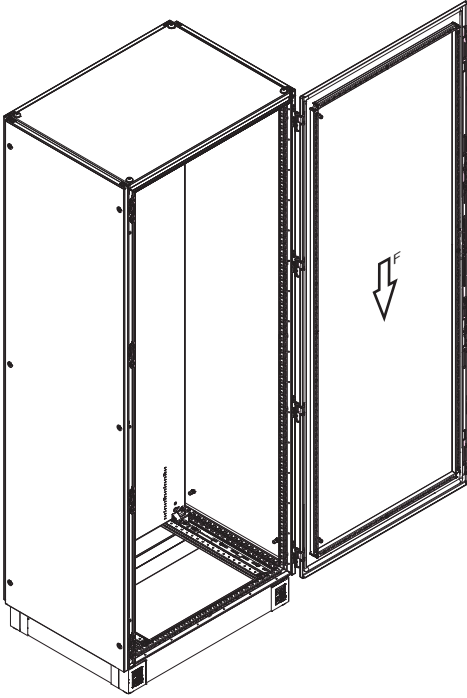
Provided the Rittal assembly components offer adequate protection against tipping over, the following maximum static loads apply to enclosures: $F = 900 \text{ N}$



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

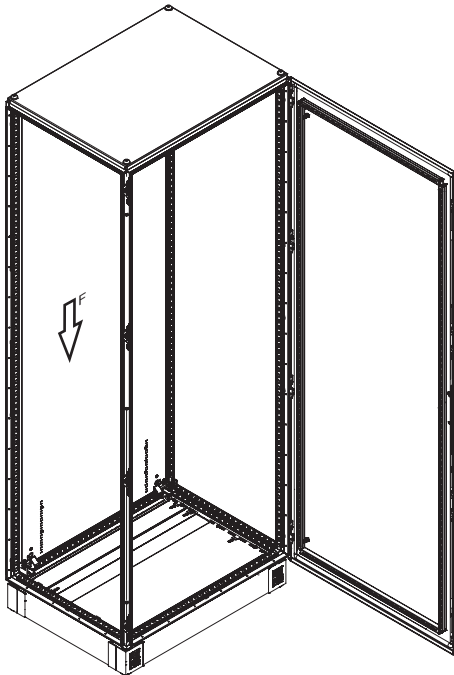
Configuration variants

4.1 Enclosure panels

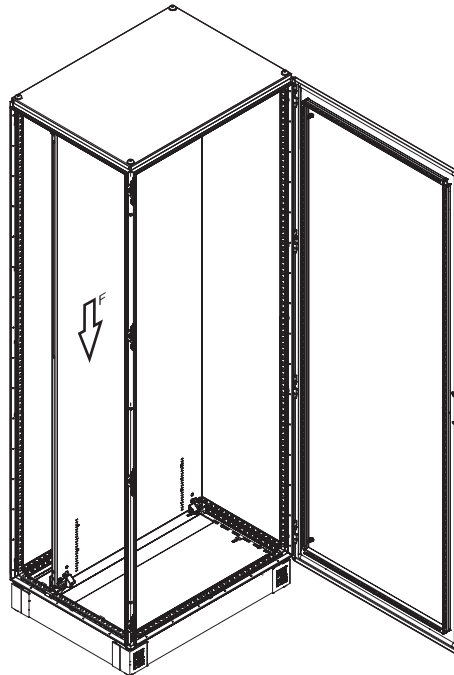
Mounting plate

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

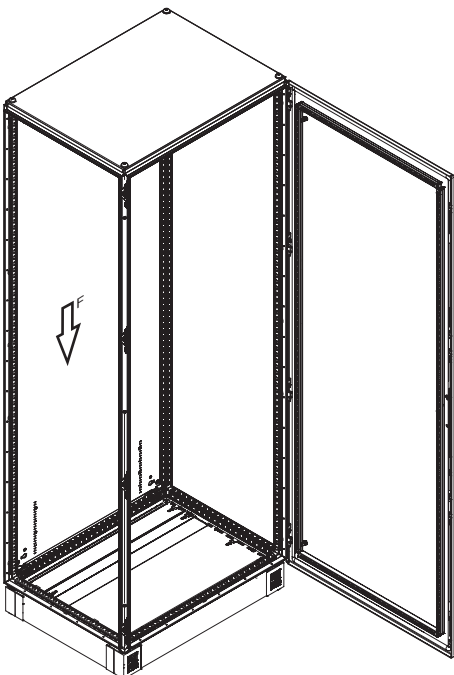
Mounting position: Flush with the enclosure frame
 $F = 6000 \text{ N}$



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



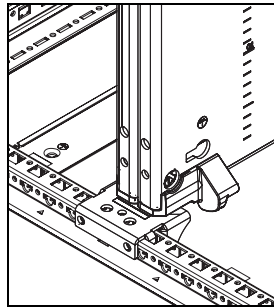
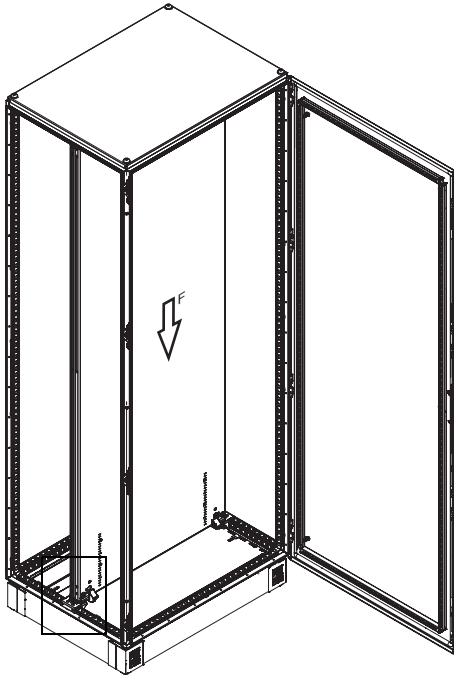
Mounting position: Plus 20 mm, set back behind the enclosure frame
 $F = 2500 \text{ N}$



4.1 Enclosure panels

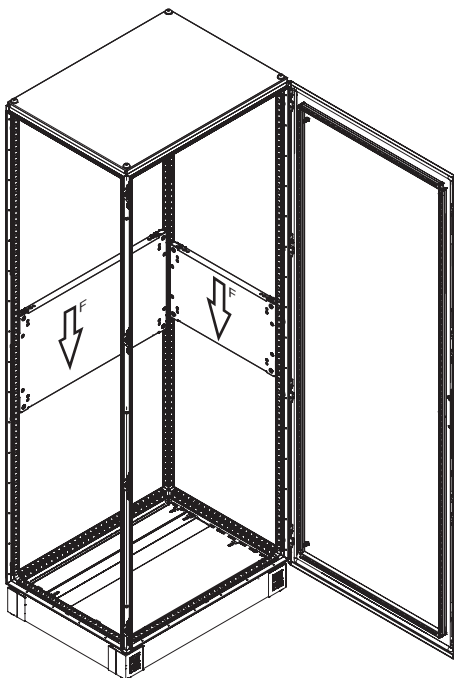
Mounting plate

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 | 8617.510 |
| | ■ | | | | | ■ | ■ | | | 500 x 400 | 1700 | 8617.520 |
| | ■ | | | | | | ■ | | | 500 x 500 | 1700 | 8617.530 |
| | ■ | ■ | | | | | ■ | ■ | | 500 x 700 | 1700 | 8617.540 |
| | ■ | | | | | | ■ | | | 500 x 775 | 1700 | 8617.550 |
| ■ | | ■ | | | ■ | | | ■ | | 700 x 300 | 1200 | 8617.560 |
| | | ■ | | | | ■ | | ■ | | 700 x 400 | 1500 | 8617.570 |
| | | ■ | | | | | | ■ | | 700 x 700 | 1700 | 8617.580 |
| ■ | | | ■ | | ■ | | | | | 900 x 300 | 700 | 8617.590 |
| | | | ■ | | | ■ | | | | 900 x 400 | 900 | 8617.600 |
| | ■ | | ■ | | | | | ■ | | 900 x 500 | 1500 | 8617.610 |
| ■ | | | | ■ | ■ | | | | | 1100 x 300 | 700 | 8617.620 |
| | | | | ■ | | ■ | | | | 1100 x 400 | 900 | 8617.630 |
| | | ■ | | ■ | | | ■ | | | 1100 x 500 | 1200 | 8617.640 |

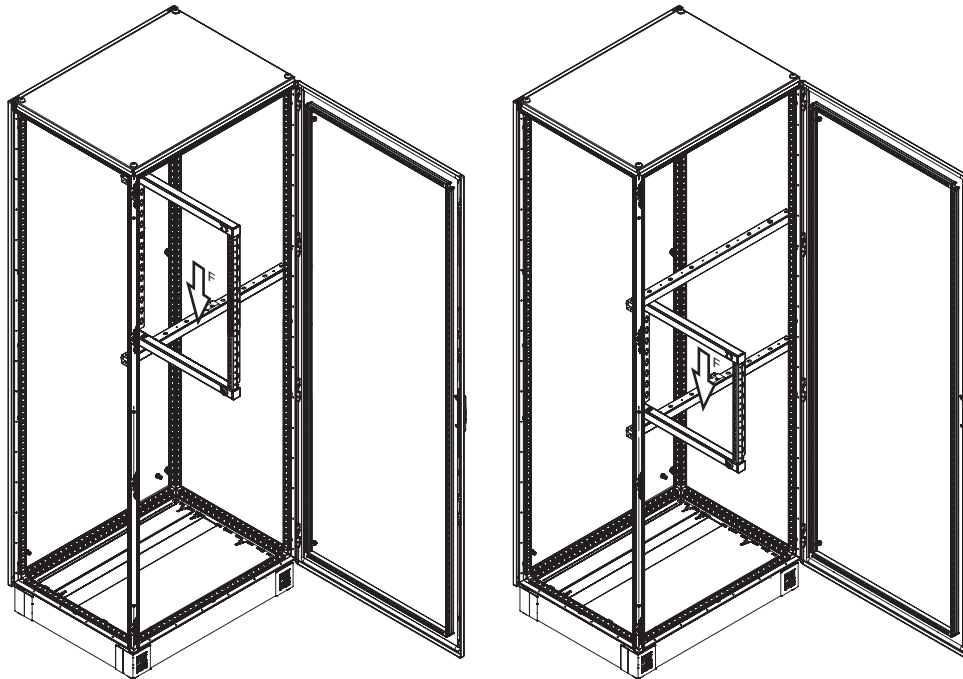
Enclosure system VX25

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

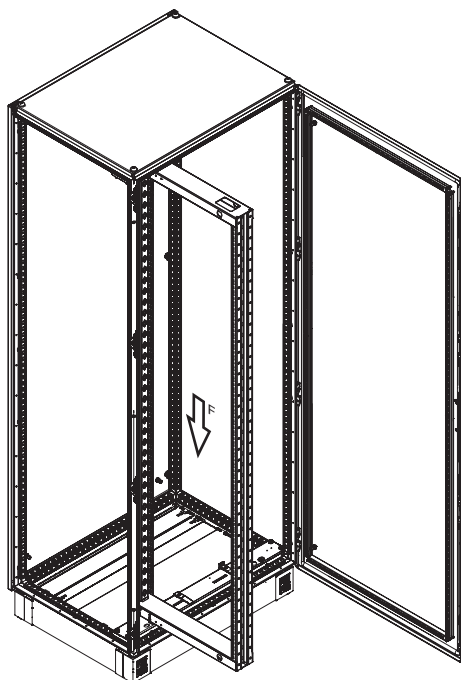
| For enclosure width mm | F [N] | U | Model No. |
|------------------------|-------|----|-----------------|
| 600 | 150 | 3 | 8619.500 |
| | 300 | 6 | 8619.510 |
| | 450 | 9 | 8619.520 |
| | 500 | 12 | 8619.530 |
| | 500 | 15 | 8619.540 |
| | 500 | 18 | 8619.550 |
| 800 | 150 | 3 | 8619.500 |
| | 300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

Installation kit

| For enclosure width mm | Model No. |
|------------------------|-----------------|
| 600 | 8619.600 |
| 800 | 8619.610 |

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 ¹⁾ |

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

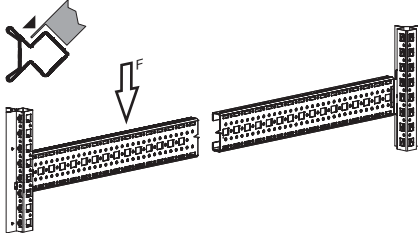
Note:

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.

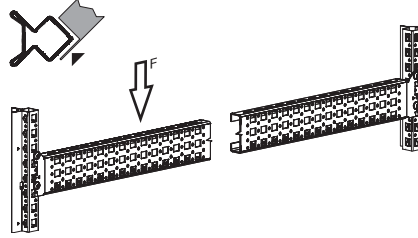


Punched section with mounting flange 18 x 64 mm

for the outer mounting level

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

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

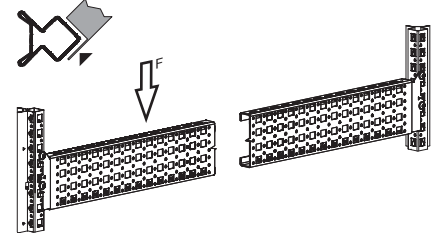


Punched section with mounting flange 23 x 64 mm

for the inner mounting level

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

¹⁾ 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

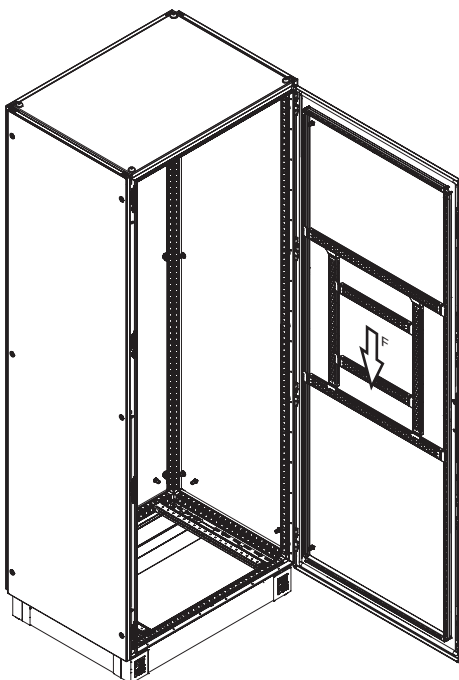
for the inner mounting level

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

¹⁾ 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 | 8619.700 |
| 500 | 500 | 8619.710 |
| 600 | 500 | 8619.720 |
| 800 | 260 | 8619.730 |

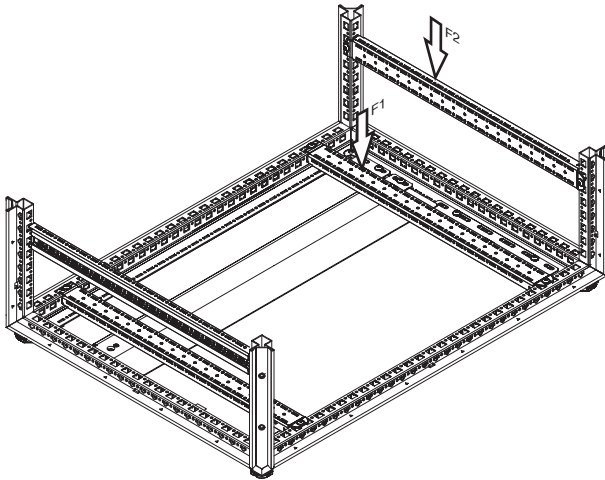
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Configuration variants

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.

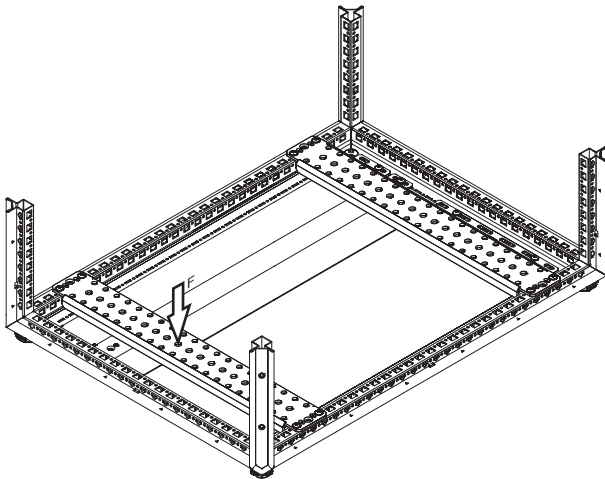


| For enclosure width/depth mm | F1 [N] ¹⁾ | F2 [N] ¹⁾ | Model No. |
|------------------------------|----------------------|----------------------|-----------------|
| 400 | 1500 | 600 | 8617.700 |
| 500 | 1500 | 600 | 8617.710 |
| 600 | 1500 | 600 | 8617.720 |
| 800 | 1100 | 600 | 8617.730 |

¹⁾ 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.



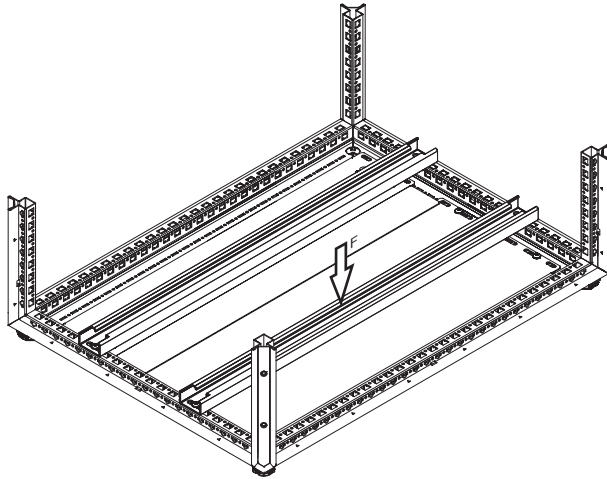
| For enclosure width/depth mm | F1 [N] ¹⁾ | Model No. | |
|------------------------------|----------------------|-----------------|-----------------|
| | | Slotted | Unslotted |
| 400 | 2600 | 4394.000 | – |
| 500 | 2100 | 4395.000 | – |
| 600 | 1750 | 4396.000 | 4396.500 |
| 800 | 1300 | 4398.000 |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

¹⁾ 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] ¹⁾ | Model No. |
|------------------------------|----------------------|-----------------|
| 600 | 3000 | 8617.800 |
| 800 | 2250 | 8617.810 |
| 1000 | 1800 | 8617.820 |
| 1200 | 1500 | 8617.830 |

¹⁾ 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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