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You can read more about products from the apra-group at [www.apra-norm.com](http://www.apra-norm.com)



From IT server cabinet  
to industry professional

**TiRAX**



The modular and fully symmetrical "TiRAX 318" cabinet system is the perfect shell both for structured cabling in the IT and industrial sectors and also for innovative and design-oriented automation engineers in plant construction.

The TiRAX cabinet rack is a sheet metal construction, which, with just one screw per corner, can be easily dismantled. The force and form-locked connection ensures both a very high level of stability and a high degree of protection (IP 54).



**In addition to the complete solutions including**

- 19" "plug & play" cabinet
- 19" "active/passive" cabinet
- 19" "cool-box" cabinet
- 19" "cool-roof" cabinet
- 19" EMC „60 dB" cabinet
- 19" "heavy-weight" pivot frame cabinet
- 19" computer cabinet
- 19" server cabinet

an extensive range of parts are available for individual configurations.

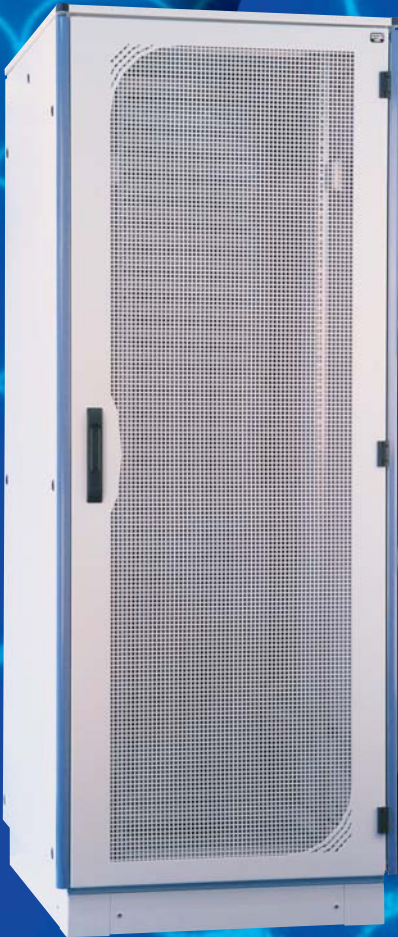
**For use in office areas and in data centre environments, the TiRAX is also available in the IP 20 design as a project cabinet.**



**TiRAX**

**completely dismantlable,  
modular,  
completely symmetric,  
load capacity up to  
1500 kgs**

- **Fully symmetrical cabinet design**  
All doors and side panels can be mounted from any direction (e.g.: door hinge reversible).
- **Protection class IP 20 / IP 54**  
The cabinet system is suitable for use in IT environments through to industrial applications.
- **Stylish design**  
The two-tone design adds "colour" to data environments. In addition, by changing the colours of the vertical design profiles of your cabinet, you can create an individual look.
- **Modular assembly**  
Cable entry and fan mounting are possible on the top and bottom frames plus the universal use of shortened trim panels.
- **Modular interior construction**  
Symmetrical cabinet rack allows flexible positioning of cable ducts, multi-purpose struts etc.
- **Flexible cabinet dimensions**  
The available cabinet heights range from 1200 mm (24 U) to 2200 mm (46 U). Depths start at 600 mm and are also available in 800 mm, 1000 mm and 1200 mm. The two standard cabinet widths of 600 mm and 800 mm are available.
- **"Cabinet mounting" - cost and time savings**  
We supply your cabinet **completely pre-assembled** according to your wishes. No more looking after installation materials and no expensive rebuilding of the various cabinet and mounting parts.  
**The cabinet can be dismantled completely.**
- **Stability / conductivity**  
The milled and laser-welded vertical profile of the cabinet side rail provides high distortion rigidity and continuous electric conductivity.



(Fig. does not correspond to standard delivery)

### TiRAX server cabinets IP 20

- dismantlable steel profile cabinet rack
- two lateral sash doors with quick lock mechanism
- front and rear perforated sheet metal door with three-point lock mechanism (perforated door surface: 83 %)
- installation of a profile half-cylinder possible
- 19" level 42 U, front and rear
- top panel with cable entry and/or fan module option
- base provided
- cover plates in the bottom area can be removed for cable entry
- for W=800 mm: metal cable clamps 66 mm x 125 mm at the front 19" level (10 pieces)
- earthing kit (installed)
- screw set M 5 (50x)

#### Finish:

Trim parts/base:

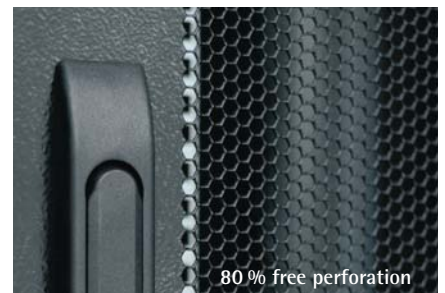
RAL 7035 light grey,  
Design profile: RAL 5014  
pigeon blue (other colours on request)  
or

Trim parts/base:

RAL 9005 jet black,  
Design profile: RAL 7037  
dusty grey (other colours on request)

#### Delivery:

fully assembled, base provided



80 % free perforation

### Order information

Height mm	Width mm	Depth mm	Colour	Order no.
2000	600	1000	RAL 9005 jet black	318-200-60
2000	800	1000	RAL 9005 jet black	318-200-61
2000	600	1200	RAL 9005 jet black	318-200-62
2000	800	1200	RAL 9005 jet black	318-200-63
2000	600	1000	RAL 7035 light grey	318-200-64
2000	800	1000	RAL 7035 light grey	318-200-65
2000	600	1200	RAL 7035 light grey	318-200-66
2000	800	1200	RAL 7035 light grey	318-200-67



## TiRAX IP 20

- dismantlable steel profile cabinet rack
- front viewing door with tinted toughened safety glass
- rear sheet metal door (can also be mounted as side door if basic size is square)
- both doors can accommodate a profile half cylinder
- side panels (connector cabinet: without side panels, includes cabinet connectors)
- 19" level front and rear
- for W=800 mm: metal cable clamps 66 mm x 125 mm at the front 19" level
- top panel with cable entry and/or fan module option
- open bottom plate
- base provided
- earthing kit (installed)
- screw set M 5 (50x)

### Finish:

Trim parts/base:

RAL 7035 light grey

Design profile:

RAL 3002 carmine red

(other colours on request)

### Delivery:

fully assembled, base provided

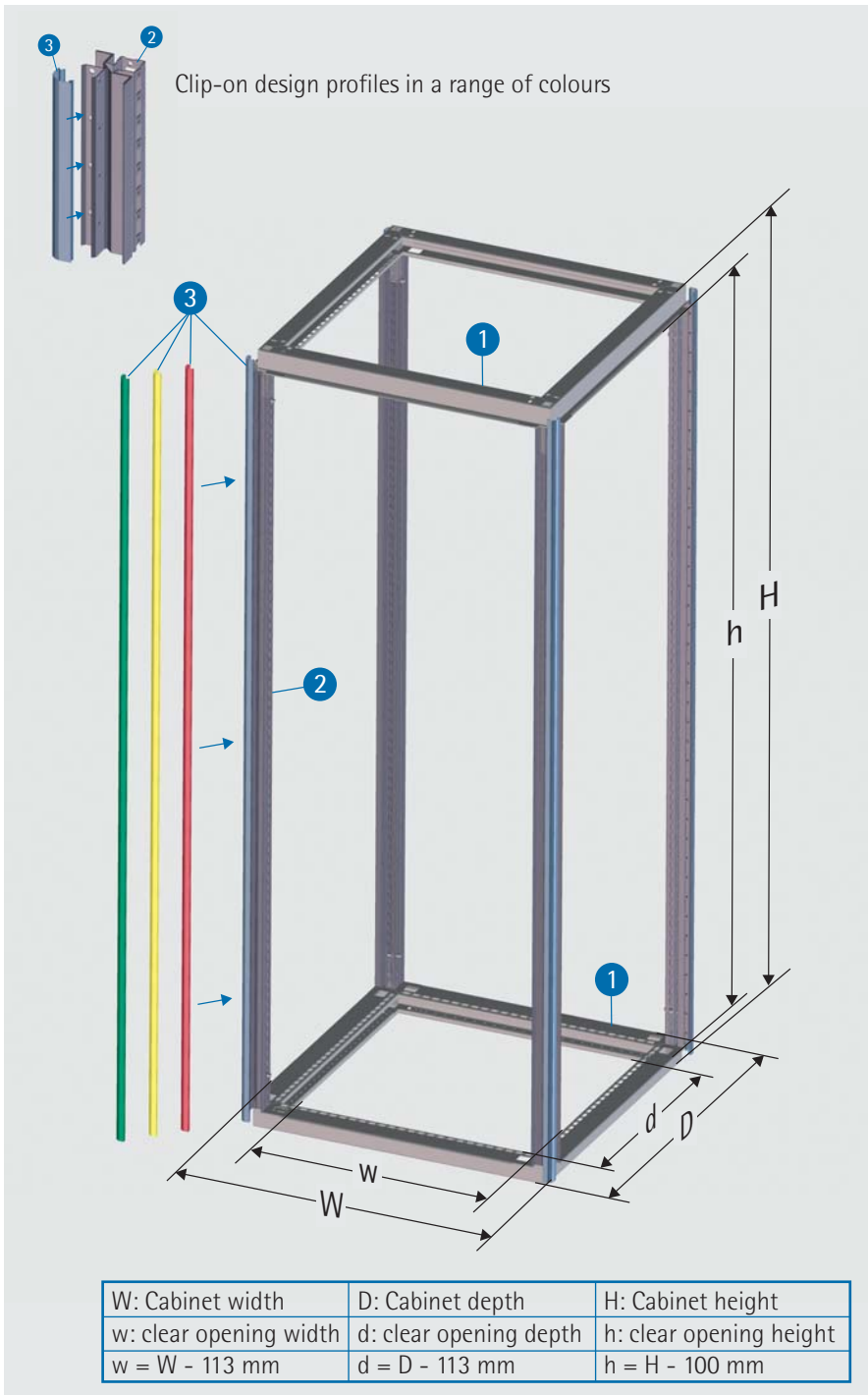


Design profile in RAL 3002 carmine red

Design profile in RAL 5014 pigeon blue

## Order information

Height mm	Width mm	Depth mm	Order no. Basic Cabinet	Order no. Connector Cabinet
1200	600	600	317-200-40	317-200-50
1200	800	600	317-200-41	317-200-51
1200	600	800	317-200-42	317-200-52
1200	800	800	317-200-43	317-200-53
2000	600	600	317-200-44	317-200-54
2000	800	600	317-200-45	317-200-55
2000	600	800	317-200-46	317-200-56
2000	800	800	317-200-47	317-200-57



### Cabinet rack, dismantlable

The cabinet rack consists of two identical sheet metal frames **1**, four sheet metal functional profiles **2** and four painted sheet metal design profiles **3** clipped onto the functional profiles.

#### Finish:

- 1** Top/bottom frame:  
RAL 7035 light grey
- 2** Functional profile:  
galvanised
- 3** Design profile:  
RAL 5014 pigeon blue

#### Delivery:

fully assembled

The design profile **3** can be matched to your company colour if desired.

The TiRAX "IT" cabinet system can be extended with all the classic TiRAX accessories such as the 19" extension, base, multi-purpose crossbars etc (from page 17).

### Other preferred colours:

- RAL 1032 (broom yellow)
- RAL 5010 (gentian blue)
- RAL 3002 (carmine red)
- RAL 6029 (mint green)
- RAL 7037 (dusty grey)

Colour display similar!

Dimensions (W × D) mm	Dimensions (H) mm	U	Order no.
600 × 600	1200	24	318-660-02
800 × 600	1200		318-860-02
800 × 800	1200		318-880-02
600 × 1000	1200		318-601-02
800 × 1000	1200		318-810-02
600 × 600	2000	42	318-660-10
800 × 600	2000		318-860-10
800 × 800	2000		318-880-10
600 × 1000	2000		318-610-10
800 × 1000	2000		318-810-10



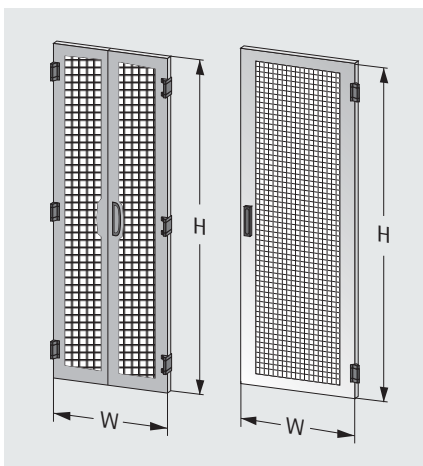
## Viewing door



- with turning lever lock for profile half cylinder (with push button opening)

**Finish:** RAL 7035 light grey  
**Material:** frame: sheet metal, toughened safety glass: 4 mm, grey

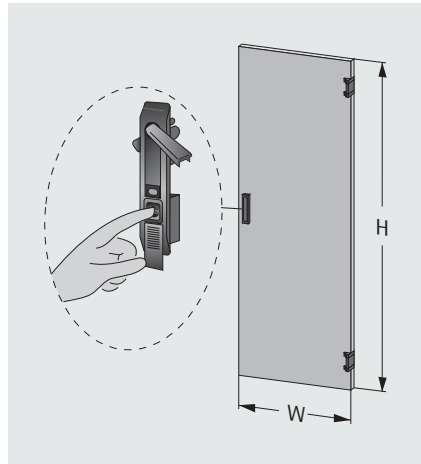
## Door, perforated



- Perforation 83 %
- with turning lever lock for profile half cylinder (with push button opening)

**Finish:** RAL 7035 light grey  
**Material:** sheet metal, perforated insert

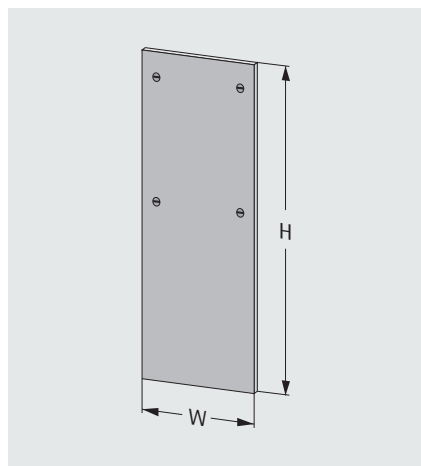
## Door, solid



- with turning lever lock for profile half cylinder (with push button opening)

**Finish:** RAL 7035 light grey  
**Material:** sheet metal

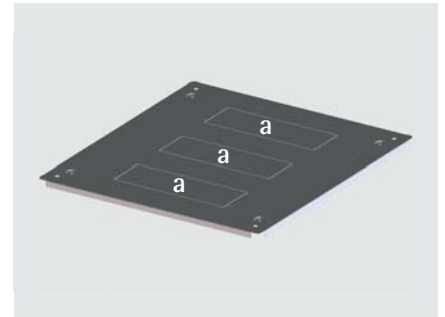
## Sash door



- with 2 or 4 sash fasteners and "double bit key 5 mm" mechanism

**Finish:** RAL 7035 light grey  
**Material:** sheet metal

## Top

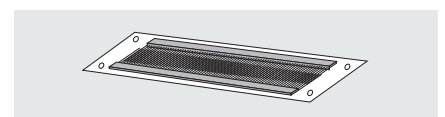


- can be raise mounted with lifting eye bolts (see below)
- for each pre-perforated field "a" extendable with **fan module** (see page 23) or **brush set** (see below)

**Finish:** RAL 7035 light grey  
**Material:** sheet metal

Dimensions (W x D) mm	No. of fields "a"	Order no.
600 x 600	2	317-016-62
600 x 800	2	317-018-62
600 x 1000	2	317-020-64
800 x 600	2	317-018-62
800 x 800	3	317-018-82
800 x 1000	4	317-020-82

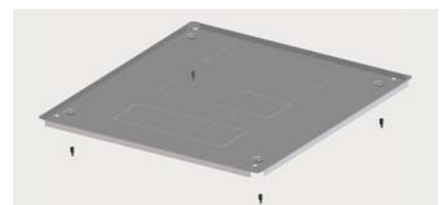
## Brush set



- matches breakout "a"

Order no.
316-111-10

## Lifting eye bolts for top



- The further lifting (H=15 mm) of top panel is possible with additional lifting eye bolts.

**Material:** steel

Order no. (4 pieces)
316-016-65

Dimensions (H x W) mm	Viewing door	Door, solid	Door, perforated	Split door, perforated	Sash door
1200 x 600	317-612-01	317-612-02	318-612-16	-	317-612-23
1200 x 800	317-812-01	317-812-02	318-812-16	-	317-812-23
1200 x 1000	-	-	-	-	317-012-23
2000 x 600	317-620-01	317-620-02	318-620-16	-	317-620-23
2000 x 800	317-820-01	317-820-02	318-820-16	318-820-25	317-820-23
2000 x 1000	-	-	-	-	317-020-23



### TiRAX "plug & play"

- dismantlable steel profile cabinet rack
- two lateral sash doors with quick lock mechanism
- front viewing door with three-point locking and tinted toughened safety glass
- rear sheet metal door with three-point locking, installation as side door possible
- both doors can accommodate a profile half cylinder, L=40 mm
- 19" level 42 U/24 U, front and rear
- 10 metal cable clamps at the front 19" mount (6 clamps if H=1200 mm)
- two cable guard rails with integrated cable management bracket
- top plate 2-part, with triple fan module
- 19" power strip 1 U (9-way)
- multi-part bottom plate with

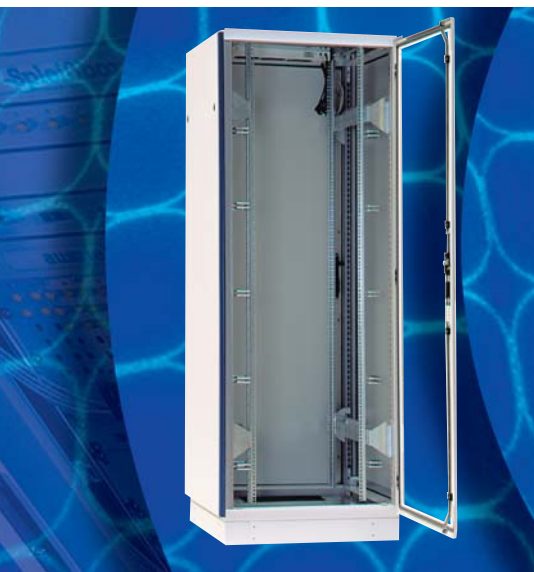
- rubber foam cable entry
- cabinet lamp with power outlet and magnetic holder
- earthing kit (installed)
- cable entry base H=100 mm
- screw set M 5 (50x)

**Finish:**

Trim parts/base:  
RAL 7035 light grey  
Design profiles:  
RAL 5014 pigeon blue

**Delivery:** fully assembled, prewired on central socket and tested / base provided

Dimensions H x W x D mm	Order no.
(2000 + 100) x 800 x 800	318-200-01
(1200 + 100) x 800 x 800	318-200-29



### TiRAX "active"

- dismantlable steel profile cabinet rack
- two lateral sash doors with quick lock mechanism
- front viewing door with three-point locking and tinted toughened safety glass
- rear sheet metal door with three-point locking, installation as side door possible
- both doors can accommodate a profile half cylinder, L=40 mm
- 19" level 42 U/24 U, front and rear
- 10 metal cable clamps at the front 19" level
- 2-part cover plates in top sheet, with 3-way fan module

- 19" power strip 1 U (9-way)
- multi-part bottom plate with rubber foam cable entry
- earthing kit (installed)
- cable entry base H=100 mm
- screw set M 5 (50x)

**Finish:**

Trim parts/base:  
RAL 7035 light grey  
Design profiles:  
RAL 5014 pigeon blue

**Delivery:** fully assembled/base provided

Dimensions H x W x D mm	Order no.
(2000 + 100) x 800 x 800	318-200-02
(1200 + 100) x 800 x 800	318-200-09



### TiRAX "passive" IP 54

- dismantlable steel profile cabinet rack
- two lateral sash doors with quick lock mechanism
- front viewing door with three-point locking and tinted toughened safety glass
- rear sheet metal door with three-point locking, installation as side door possible
- both doors can accommodate a profile half cylinder, L=40 mm
- 19" level 42 U/24 U, front and rear
- 10 metal cable clamps at the front 19" level
- top panel, single-piece, liftable if necessary

- multi-part bottom plate with rubber foam cable entry
- earthing kit (installed)
- cable entry base H=100 mm
- screw set M 5 (50x)

**Finish:**

Trim parts/base:  
RAL 7035 light grey  
Design profiles:  
RAL 5014 pigeon blue

**Delivery:** fully assembled / base provided

Dimensions H x W x D mm	Order no.
(2000 + 100) x 800 x 800	318-200-03
(1200 + 100) x 800 x 800	318-200-08





## TiRAX "cool-box", IP 54 • TiRAX "cool-roof", IP 54

- dismantlable steel profile cabinet rack
- two lateral sash doors with quick lock mechanism
- front viewing door with three-point locking and tinted toughened safety glass
- rear sheet metal door with three-point locking
- both doors can accommodate a profile half cylinder, L=40 mm
- 19" level 42 U, front and back
- 10 metal cable clamps at the front 19" level
- top panel, single-piece
- 19" power strip 1 U (9-way)
- earthing kit (installed)
- door contact switch for shutdown of air conditioning if front door is opened
- cable entry base H=100 mm
- screw set M 5 (50x)
- multi-part bottom plate with rubber foam cable entry

### TiRAX "cool-box":

- air conditioning 1050 W (Ta35/Ti35) installed on lateral hinged door (mounted alternatively right or left)

### TiRAX "cool-roof":

- air conditioning 1050 W (Ta35/Ti35), installed on the top

**Air conditioning units: cooling capacities of up to 6 KW** are possible on request. Contact us to find out more!

### Finish: Trim parts/base:

RAL 7035 light grey  
Design profiles:  
RAL 5014 pigeon blue

**Delivery:** partially assembled (air conditioning mountable with 6 screws on lateral hinged door or on top panel)/base provided

Description	Dimensions H x W x D mm	Order no.
TiRAX "cool-box" 24 U	(1200+100) x (800+140) x 800	318-200-55
TiRAX "cool-box" 42 U	(2000+100) x (800+140) x 800	318-200-04
TiRAX "cool-box" server cabinet 24 U	(1200+100) x (800+140) x 1000	318-200-54
TiRAX "cool-box" server cabinet 42 U	(2000+100) x (800+140) x 1000	318-200-11
TiRAX "cool-roof" 42 U	(2000+500) x 800 x 800	318-200-05
TiRAX "cool-roof" server cabinet 42 U	(2000+500) x 800 x 1000	318-200-28



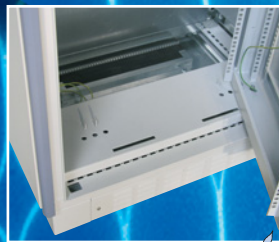
## apra cooling system

Cooling units for data centres and server applications are listed on pages 77-84.





(Fig. does not correspond to standard delivery)



Cabinet bottom with pivot frame crossbar and flexible cable entry via foam rubber



### 19" TiRAX "heavy-weight" pivot frame cabinet

The "heavy-weight" pivot frame cabinet is based on the TiRAX cabinet series and enables a pivot integration of 19" plug-in units with **high loads of up to 250 kg** (e.g. power amplifiers).

- visually stylish cabinet system
- protection class IP 54
- consists of stable cabinet rack and easily detachable trim parts
- good accessibility for plant engineering and on-site installation
- cable entry possible as standard from below, above or from the sides
- optional mounting plate in the rear area enables the installation of connection splitters, cable ducts, c-profiles or top hat rails
- lateral offset mounting possible
- maximum mounting depth: 440 mm
- pivot frame can be hinged on the left as well as on the right side and is equipped with a double-bit key lock
- frame can be pivoted up to 95°

#### Finish:

RAL 7035 light grey  
RAL 5014 pigeon blue

#### Delivery:

fully assembled/base provided

Further sizes on request!

Dimensions H x W x D mm	Order no.
(2000+100) x 800 x 800	318-200-40

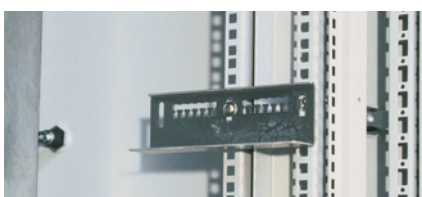
### Scope of delivery

Item	Pc.	Description
1	1	Cabinet rack
2	1	Heavy load pivot frame with 19" level 39 U
3	1	Viewing door with turning lever lock
4	1	Rear door with turning lever lock
5	2	lateral sash doors with quick lock mechanisms

Item	Pc.	Description
6	1	Two piece bottom panel with cable entry
7	1	Top, height-adjustable (for passive ventilation)
8	1	Earthing kit, installed
9	1	Base H=100 mm, front side with ventilated cover panel
10	1	Screw set M 5 (50x)

### Accessories

#### Slide rails

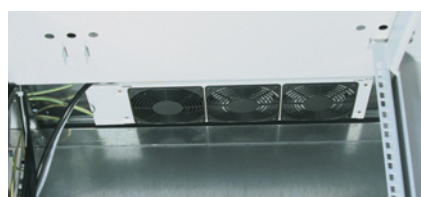


- to support heavy and/or deep plug-in units

Load capacity: 50 kg

<b>Order no. (pair)</b>
318-129

#### 3-way fan module



- air flow rate: unimpeded air flow: 345 m<sup>3</sup>/h
- complete with Earthing-pin connecting cable, temperature regulation and adapter for cabinet mounting

<b>Order no.</b>
318-100-55

#### Pivot frame panel



- to cover the lateral area in case of offset installation

Finish: RAL 7035 light grey

<b>Order no.</b>
318-129-22



### 19" EMC cabinet TiRAX "60 dB"

Based on the TiRAX cabinet series, the EMC cabinet "60 dB" offers a reliable EMC and IP protection even in rough industrial environment conditions.

- fully symmetrical cabinet construction: all doors and lateral sash doors are universally mountable
- protection class IP 54
- stylish design: two-tone look with coloured design profiles
- modular interior construction: symmetrical design of cabinet rack enables cable ducts, multi-purpose struts etc. to be universally mountable
- all enclosure parts are connected to each other conductively via EMC sealings
- double-walled trim parts
- the milled and laser welded profile of the cabinet's galvanised sheet metal side rail ensures high rigidity and permanent electrical conductivity

#### Finish:

Trim parts/base:

RAL 7035 light grey

Design profiles:

RAL 5014 pigeon blue

#### Delivery:

fully assembled

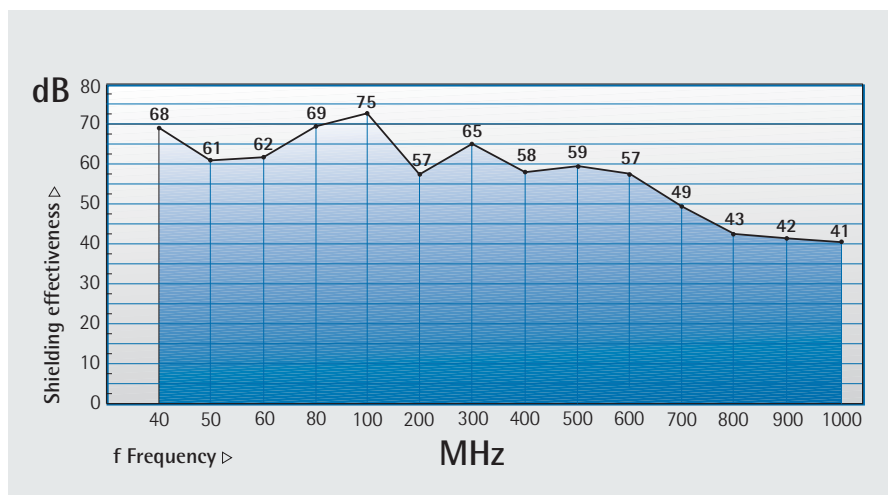


### Scope of delivery

Item	Pc.	Description
1	1	Cabinet rack
2	2	19" levels 42 U
3	2	Front and rear door, solid, with turning lever lock
4	2	Sash doors, lateral
5	1	Bottom panel, solid
6	1	Top panel, solid
7	1	Earthing kit, installed
8	1	Base H=100 mm

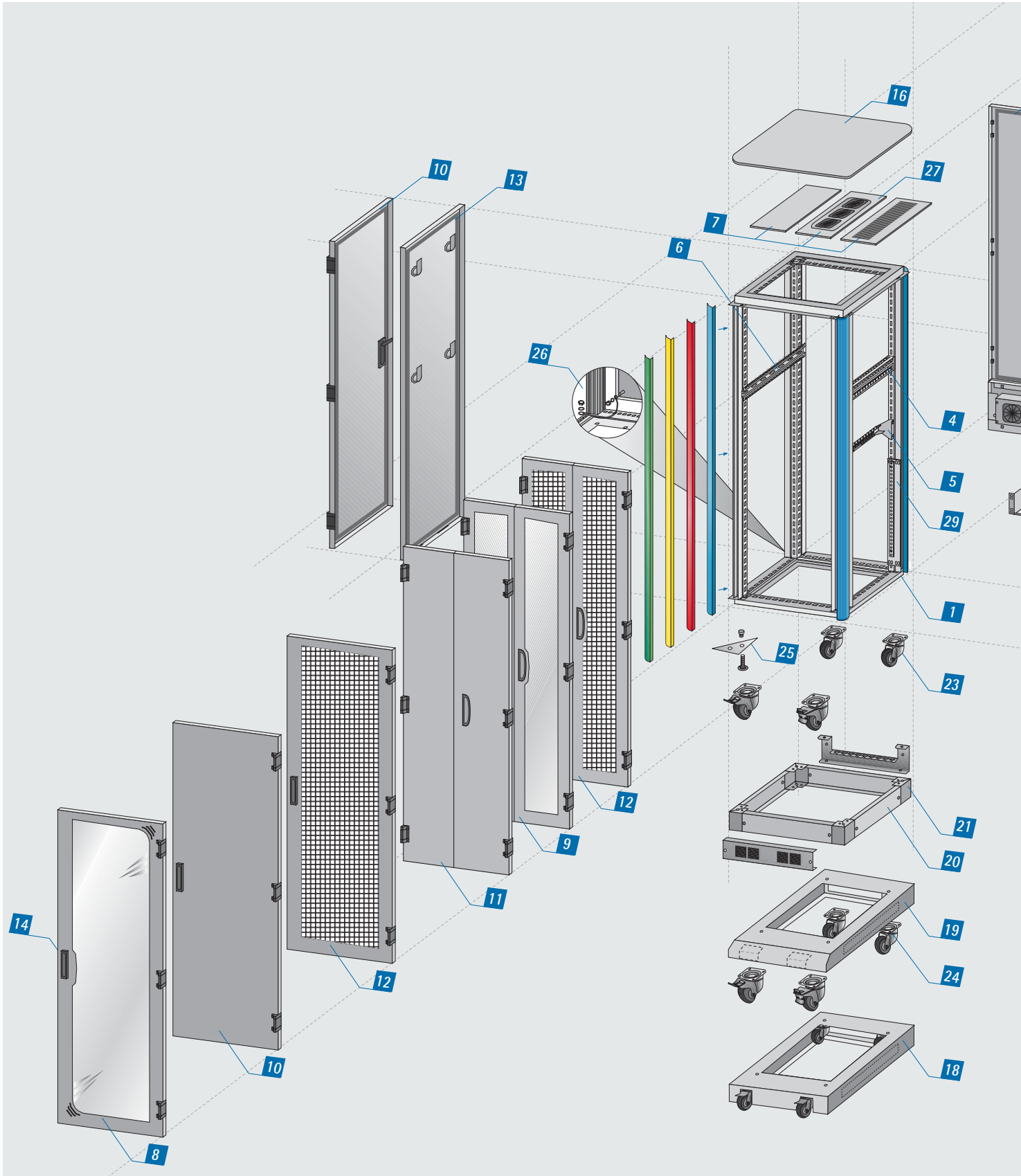
Further sizes on request!

Dimensions H x W x D mm	Order no.
(2000+100) x 600 x 800	318-210-10



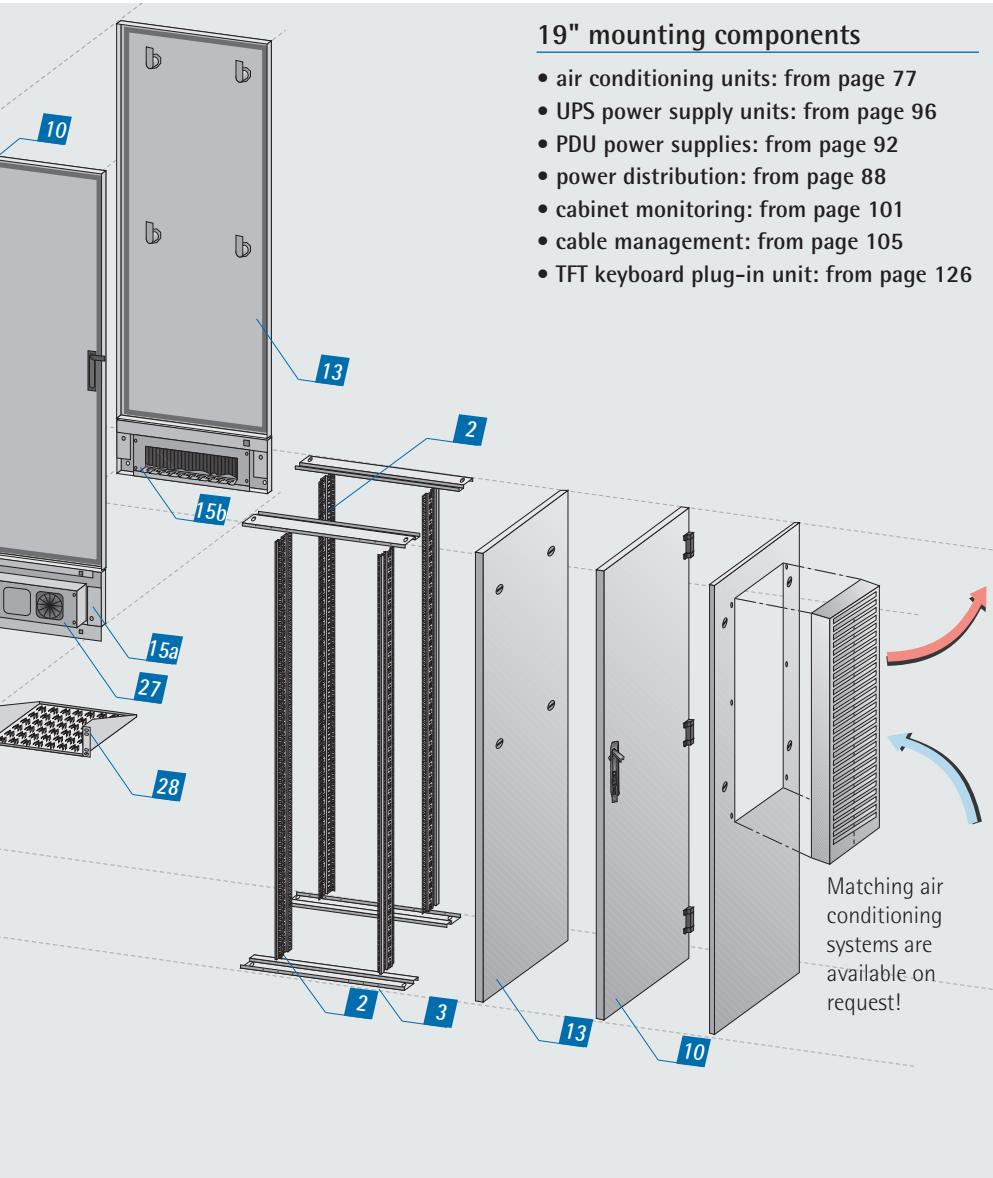


Individual configuration: Configure your own individual cabinet.





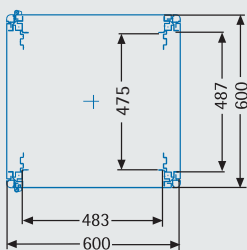
## Select step by step the cabinet components you want:



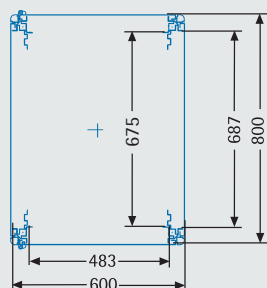
Item	Description	Page
1	Cabinet rack with design profiles	16
2	19" vertical mountings	17
3	Crossbar for 19" installation	17
4	Multi-purpose crossbar	17
5	Reduction crossbar	17
6	Cable guard rail	17
7	Cover plates	19
8	Viewing door	20
9	Viewing door, split	20
10	Solid door	20
11	Split door, solid	20
12	Door, perforated	20
13	Sash door	20
14	Locking system for doors	21
15a	Fan installation module	21
15b	Cable entry module	21
16	Top panel, solid	21
17	Cabinet connection set (without fig.)	21
18	Castor base	22
19	Tilt prevention base	22
20	Base covers	22
21	Base corners	22
22	Filter set (without fig.)	23
23	Castor set	22
24	Castor set, tilt prevention	22
25	Adjusting foot	22
26	Earthing kit TiRAX	22
27	Fan base module	23
28	Shelves	24
29	Potential equalisation rail	25

For more extension parts and accessories from page 22!

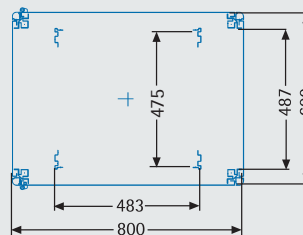
### Technical information: max. 19" installation dimension



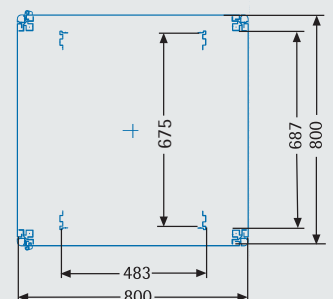
Top view cabinet rack  
W x D = 600 x 600 mm



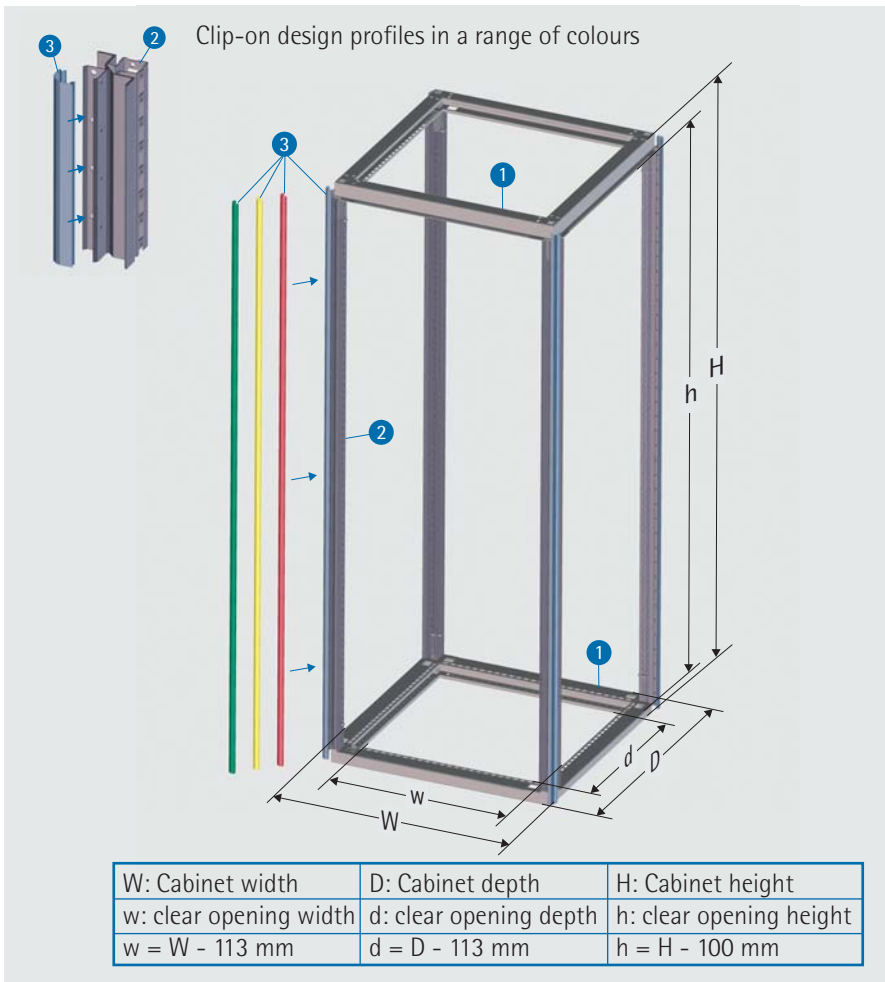
Top view cabinet rack  
W x D = 600 x 800 mm



Top view cabinet rack  
W x D = 800 x 600 mm



Top view cabinet rack  
W x D = 800 x 800 mm



### 1 Cabinet rack, dismantlable

The cabinet rack consists of two identical sheet metal frames **1**, four sheet metal functional profiles **2** and four painted sheet metal design profiles **3** clipped onto the functional profiles.

#### Finish:

- 1** Top/bottom frame: RAL 7035 light grey
- 2** Functional profile: galvanised
- 3** Design profile: RAL 5014 pigeon blue

#### Delivery:

fully assembled

The design profile **3** can be matched to your company colour if desired.

Dimensions (W × D) mm	Dimensions (H) mm	U	Order no.
600 × 600	1200	24	318-660-02
800 × 600	1200		318-860-02
800 × 800	1200		318-880-02
600 × 1000	1200		318-601-02
800 × 1000	1200		318-810-02
600 × 600	1600	33	318-660-06
800 × 600	1600		318-860-06
800 × 800	1600		318-880-06
600 × 600	1800	37	318-660-08
800 × 600	1800		318-860-08
800 × 800	1800		318-880-08
600 × 600	2000	42	318-660-10
800 × 600	2000		318-860-10
800 × 800	2000		318-880-10
600 × 1000	2000		318-610-10
800 × 1000	2000		318-810-10
600 × 1200	2000		318-612-10
800 × 1200	2000	318-812-10	
600 × 600	2200	46	318-660-12
800 × 600	2200		318-860-12
800 × 800	2200		318-880-12
600 × 1000	2200		318-610-12
800 × 1000	2200		318-810-12
600 × 1200	2200		318-612-12
800 × 1200	2200		318-812-12

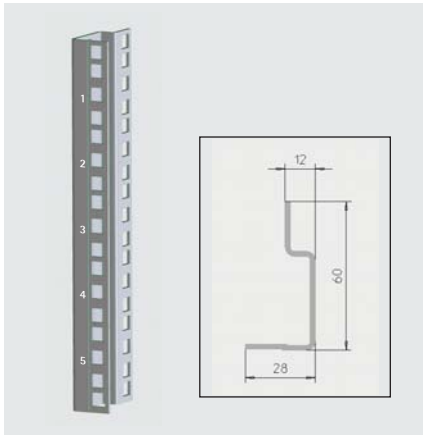
#### Other preferred colours:

- RAL 1032 (broom yellow)
- RAL 5010 (gentian blue)
- RAL 3002 (carmin red)
- RAL 6029 (mint green)
- RAL 7037 (dusty grey)

Colour display similar!



## 2 19" vertical mounting

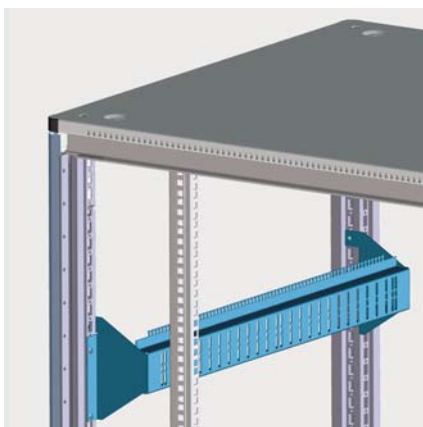


- ASA-perforation (1/2 19" perforation)
- with U-labelling

**Material:** sheet metal, galvanised

U	Order no.
6	316-120-06
12	316-120-12
15	316-120-15
24	316-120-24
33	316-120-33
37	316-120-37
42	316-120-42
46	316-120-46

## 5 Reduction crossbar

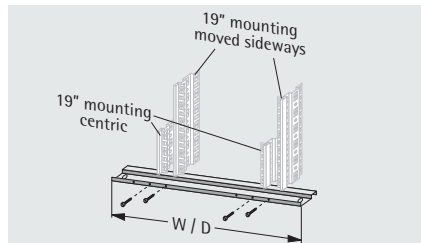


- reduces W=800 mm to 19"
- with integrated cable management bracket
- can be hung up or screwed on

**Material:** sheet metal, galvanised

Depth (D) / Width (W) mm	Order no. (1 piece)
600	318-120-10
800	318-120-12
1000	318-120-14
1200	318-120-21

## 3 Crossbar for 19" installation



- to install the 19" vertical mountings two cross bars per 19" level are required
- infinitely depth adjustable
- at W=800 mm the 19" level can be moved laterally
- in case of partial mounting, multi-purpose crossbars 4 are needed

**Material:** sheet metal, galvanised

U	Order no. W=600 mm	Order no. W=800 mm
6	318-121-76	318-121-78
12	318-121-76	318-121-78
15	318-121-76	318-121-78
24	318-121-76	318-121-78
33	318-121-76	318-121-78
37	318-121-77	318-121-79
42	318-121-76	318-121-78
46	318-121-77	318-121-79

## 6 Cable guard rail



- with integrated cable management bracket
- holds cables in place with cable ties and cable clips

**Material:** aluminium, anodised

**Scope of delivery:** incl. mounting material

Cable clamps can be found on page 106.

Depth (D) / Width (W) mm	Order no.
600	318-121-10
800	318-121-11

## 4 Multi-purpose crossbar



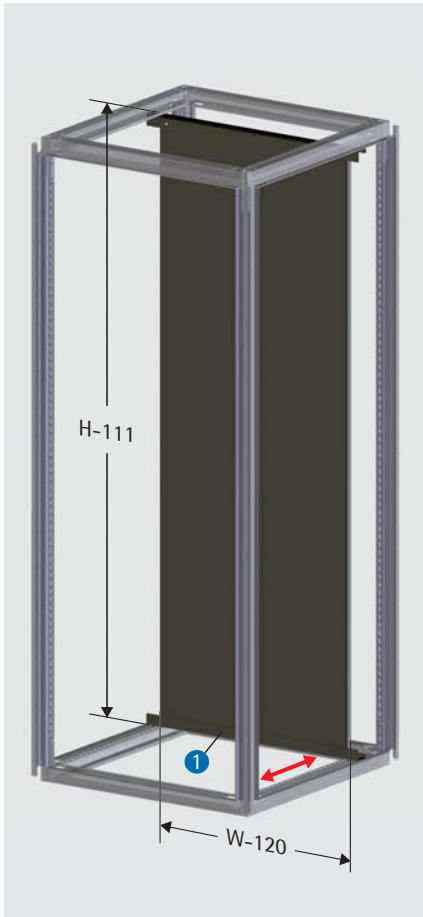
- for 19" partial mounting
- for clean cable entry
- infinitely depth adjustable

**Material:** sheet metal, galvanised

Depth (D) / Width (W) mm	Order no. (1 piece)
600	318-120-06
800	318-120-08
1000	318-120-19
1200	318-120-23



### Mounting plate

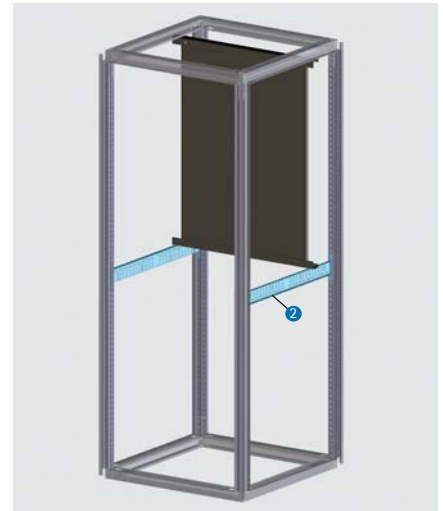


- for mounting heavy components and top hat rails
- is mounted on the cabinet with mounting rails ① and can be pushed in laterally
- option to adjust the depth in 25mm steps
- multi-purpose crossbars are needed for partial mounting ②

**Material:** sheet metal, galvanised

Height (H) mm	Order no. W=600 mm	Order no. W=800 mm
1200	318-130-12	318-130-32
1600	318-130-16	318-130-36
1800	318-130-18	318-130-38
2000	318-130-20	318-130-40
2200	318-130-22	318-130-42

### Multi-purpose crossbar

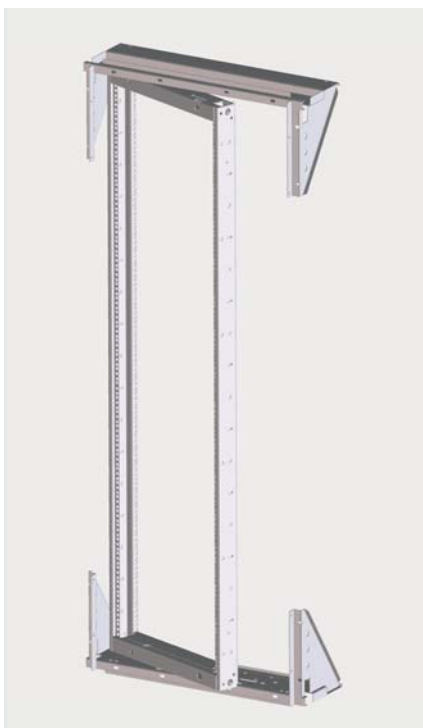


- for 19" partial mounting
- for clean cable entry
- infinitely depth adjustable

**Material:** sheet metal, galvanised

Depth (D) / Width (W) mm	Order no. (1 piece)
600	318-120-06
800	318-120-08
1000	318-120-19
1200	318-120-23

### 19" pivot frame



- for cabinet width 800 mm
- pivot angle 95°
- installation centric or asymmetrical

**Finish:** RAL 7035 light grey

**Material:** sheet metal

**Load capacity:** 200 kg

**Insert usable depth:** centric: 390 mm,  
30 mm offset: 440 mm

**Scope of delivery:** incl. crossbars

for cabinet height (H) mm	U	Order no. (1 piece)
1200	21	318-129-24
2000	39	318-129-30

### 180° hinge kit for pivot frame



- to increase the pivot angle of the 19" pivot frame to 180°

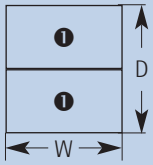
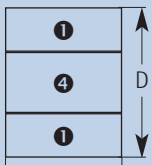
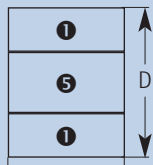
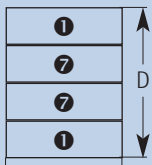
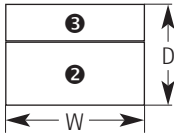
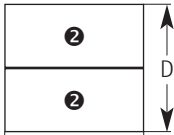
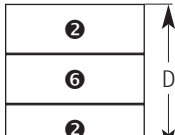
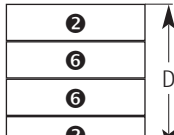
**Insert depth:** 70 mm, offset: 370 mm

Order no. (set)
318-129-20




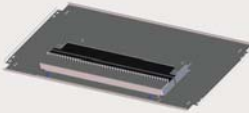


## 7 Cover plates Overview for determining cover plates for top and bottom frame

The cover plates can be mounted directly on the cabinet rack **1** (top or base) according to the layout shown.

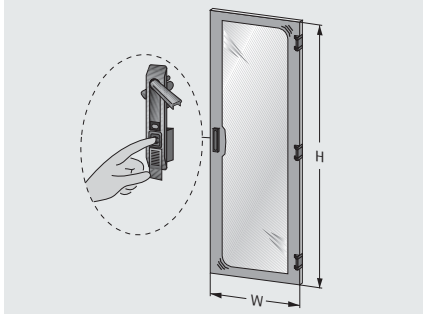
	Depth (D) 600 mm	Depth (D) 800 mm	Depth (D) 1000 mm	Depth (D) 1200 mm
(W) 600 mm				
(W) 800 mm				

### Order information

Model	Size	Application	Dimensions (w x d) mm	Order no.
<b>solid</b>				
	<b>1</b>	Cover plate, solid individual break-throughs on request	446 x 222	318-111-01
	<b>2</b>		646 x 322	318-111-02
	<b>3</b>		646 x 122	318-111-03
	<b>4</b>		446 x 202	318-111-04
	<b>5</b>		446 x 398	318-111-05
	<b>6</b>		646 x 200	318-111-06
	<b>7</b>		446 x 301	318-111-07
<b>for fan base module</b>				
	<b>1</b>	Cover plate for mounting of fan modules <b>27</b> (also mountable with filter set 316-100-99)	446 x 222	318-111-21
	<b>2</b>		646 x 322	318-111-22
<b>perforated</b>				
	<b>1</b>	Cover plate, perforated (also extendable with filter set 316-100-99)	446 x 222	318-111-23
	<b>2</b>		646 x 322	318-111-24
<b>for cable entry</b>				
	<b>1</b>	Cover plate for sealed cable entry (suitable for CEE-plugs)	446 x 222	318-111-25
	<b>2</b>		646 x 322	318-111-26
	<b>5</b>		446 x 398	318-111-37
	<b>6</b>		646 x 200	318-111-38



**8** Viewing door



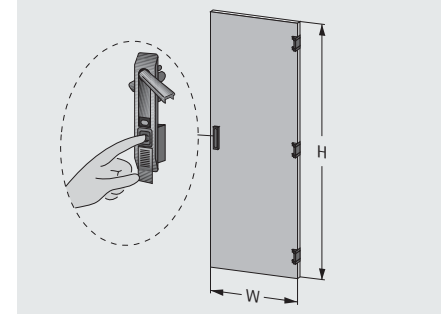
- with turning lever lock for profile half cylinder, L=40 mm (with push button opening)
- Finish:** RAL 7035 light grey  
**Material:** frame: sheet metal, glass: toughened safety glass 4 mm, grey

**9** Viewing door, split



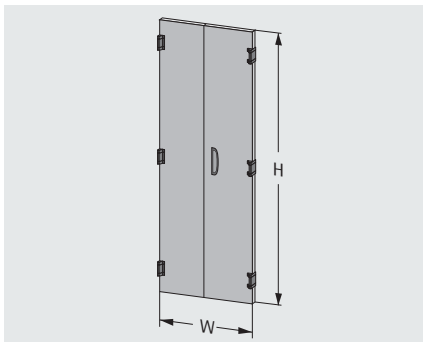
- with turning lever lock for profile half cylinder, L=40 mm (with push button opening)
- Finish:** RAL 7035 light grey  
**Material:** frame: sheet metal, glass: toughened safety glass 5 mm, grey

**10** Door, solid



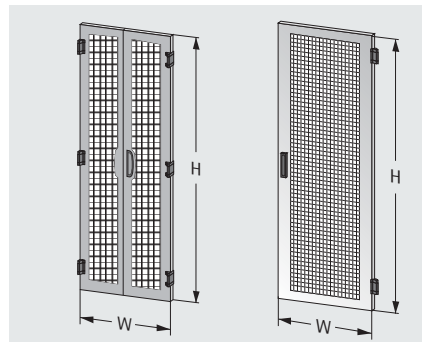
- with turning lever lock for profile half cylinder, L=40 mm (with push button opening)
- Finish:** RAL 7035 light grey  
**Material:** sheet metal

**11** Split door, solid



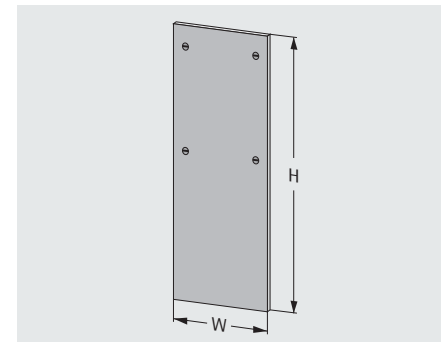
- with turning lever lock for profile half cylinder, L=40 mm (with push button opening)
- Finish:** RAL 7035 light grey  
**Material:** sheet metal

**12** Door, perforated



- perforation (83 %)
  - with turning lever lock for profile half cylinder, L=40 mm (with push button opening)
- Finish:** RAL 7035 light grey  
**Material:** sheet metal, perforated insert

**13** Sash door

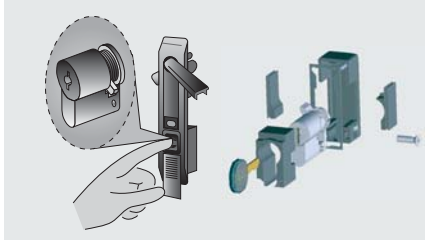


- with 2 or 4 sash fasteners and "double bit key 5 mm" mechanism
- Finish:** RAL 7035 light grey  
**Material:** sheet metal

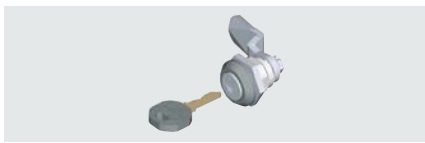
Dimensions (H x W) mm	<b>8</b> Viewing door	<b>9</b> Viewing door, split	<b>10</b> Door, solid	<b>11</b> Split door, solid	<b>12</b> Door, perforated	<b>12</b> Split door, perforated	<b>13</b> Sash door
1200 x 600	318-612-01	-	318-612-02	-	318-612-16	-	318-612-03
1200 x 800	318-812-01	-	318-812-02	-	318-812-16	-	318-812-03
1200 x 1000	-	-	-	-	-	-	318-012-03
1600 x 600	318-616-01	-	318-616-02	-	318-616-16	-	318-616-03
1600 x 800	318-816-01	-	318-816-02	-	318-816-16	-	318-816-03
1800 x 600	318-618-01	-	318-618-02	-	318-618-16	-	318-618-03
1800 x 800	318-818-01	-	318-818-02	-	318-818-16	-	318-818-03
2000 x 600	318-620-01	-	318-620-02	-	318-620-16	-	318-620-03
2000 x 800	318-820-01	318-820-08	318-820-02	318-820-26	318-820-16	318-820-25	318-820-03
2000 x 1000	-	-	-	-	-	-	318-020-03
2000 x 1200	-	-	-	-	-	-	318-020-48
2200 x 600	318-622-01	-	318-622-02	-	318-622-16	-	318-622-03
2200 x 800	318-822-01	318-822-08	318-822-02	318-822-26	318-822-16	318-822-25	318-822-03
2200 x 1000	-	-	-	-	-	-	318-022-03
2200 x 1200	-	-	-	-	-	-	318-022-48



## 14 Locking systems for doors



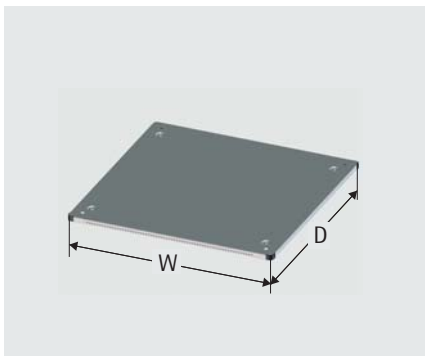
- profile half cylinder with EK333 lock for turning lever lock of doors **8** to **12**



- sash fastener with EK333 lock for locking the sash door **13**
- adapter for installing an individual cylinder (DIN 18252) (without fig.)

Description	Order no.
Profile half cylinder	676-316-00
Sash fastener	676-181
Adapter	676-316-10
Spare key EK333	676-200

## 16 Top, solid

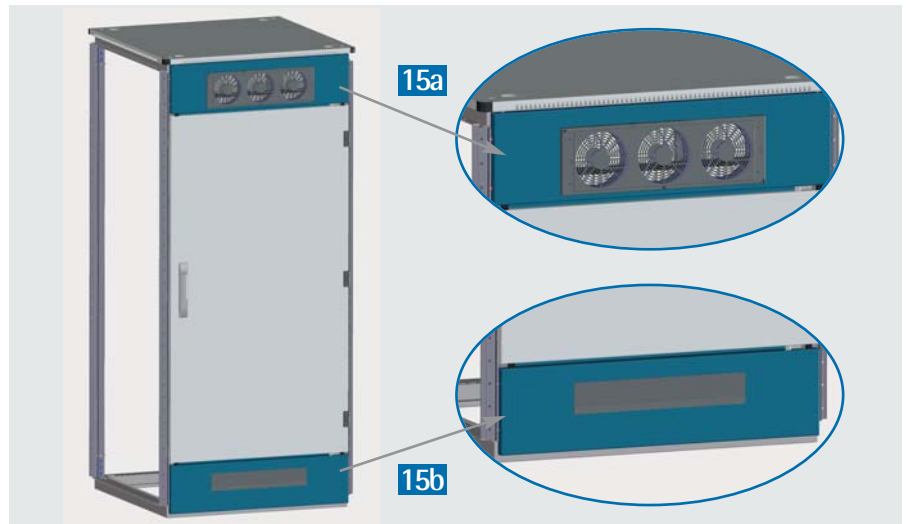


- can be raised up to 11mm for ventilation (using lifting eye bolts, see page 9)
- suitable for IP 54

**Finish:** RAL 7035 light grey

W x D mm	Order no.
600 x 600	318-016-60
600 x 800	318-016-80
600 x 1000	318-020-60
600 x 1200	318-022-60
800 x 600	318-018-60
800 x 800	318-018-80
800 x 1000	318-020-80
800 x 1200	318-022-80

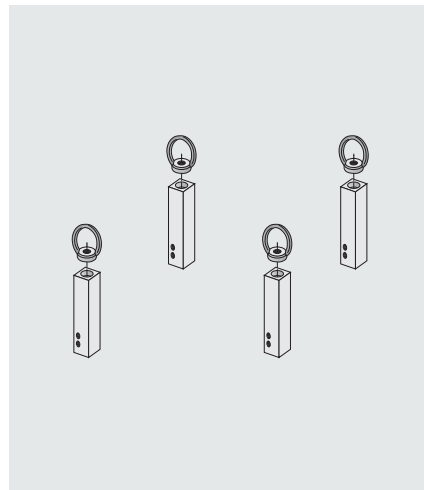
## 15 Universal modules



- can be used with shortened doors **8** and **10** or sash doors **13**
- modules can be positioned freely above and/or below the doors shortened by 200 mm
- the fan installation module **15a** is suitable for use with the basic fan module **27**

Description	Width (W)/ Depth (D) mm	Order no.
<b>15a</b> Fan installation module	600 800	318-700-00 318-800-10
<b>15b</b> Cable entry module	600 800	318-600-02 318-800-02

## Eye bolt kit



- lifting eye bolts for cabinet relocation
- set = 4 pieces

**Load capacity:** 500 kg

Order no. (set)
318-026-20

## 17 Cabinet connection set



- for connecting as many cabinets as required next to or behind each other
- the design profile of the cabinet remains unchanged

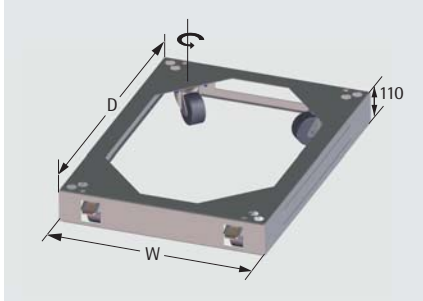
### Scope of delivery:

connecting plates, clip-on seals; mounting material included

Order no. (set)
318-105-10



### 18 Castor base

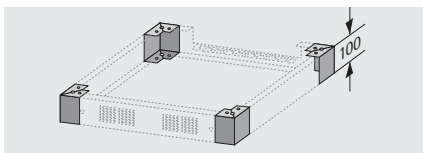


- 4 swivel castors (2 with parking brake)
- cable entry from rear (opening with brush) and side

**Load capacity:** 450 kg  
**Finish:** RAL 7035 light grey

Width (W) mm	Depth (D) mm	Order no.
600	600	318-126-60
600	800	318-126-80
800	600	318-128-60
800	800	318-128-80

### 21 Base corner set



- Set = 4 pieces
- includes mounting materials

**Material:** sheet metal  
**Finish:** RAL 7035 light grey

Height (H) mm	Order no. (set)
100	318-100-00

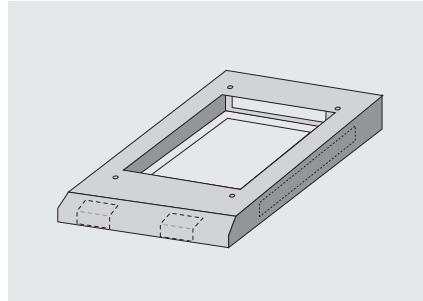
### 24 Castor set, tilt prevention base



- to be screwed to tilt prevention base **19**
  - 4 swivel castors (2 with parking brake)
- Load capacity:** 450 kg

<b>Order no. (set = 4 pieces)</b>
316-026-50

### 19 Tilt prevention base

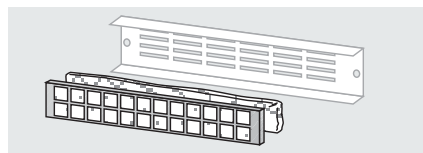


- static base with integrated tilt prevention
- offers secure standing when drawers with heavy equipment are extracted
- rear or lateral cable entry

**Finish:** RAL 7035 light grey  
**Material:** sheet metal

Width (W) mm	Depth (D) mm	Order no.
600	1000	318-026-11
800	1000	318-028-11

### 22 Filter set for base covers



- matches base covers "Type **2** ventilated" (see **20**)

**Material:** sheet metal galv. / filter fleece

Width/Depth mm	Order no. (set)
600	318-100-16
800	318-100-99

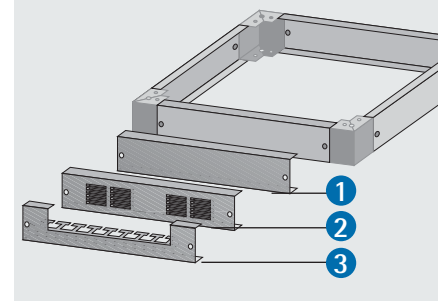
### 25 Adjusting feet (set =4 pieces)



- to be screwed onto the rack **1** or to the corners of the base

Description	Order no. (set)
mounting on rack	318-026-00
mounting on base	318-026-02

### 20 Base covers



- for individual base construction
- four covers are needed to compl. one base

**Type **1**** : solid

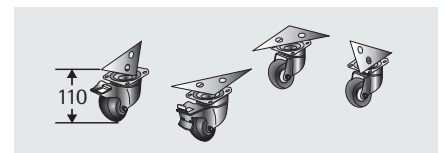
**Type **2**** : ventilated

**Type **3**** : with cable entry

**Material:** sheet steel, RAL 7035 light grey

Type	Width/Depth Cabinet Rack mm	Order no.
<b>1</b>	600	318-100-10
	800	318-100-20
	1000	318-100-30
	1200	318-100-50
<b>2</b>	600	318-100-12
	800	318-100-22
<b>3</b>	600	318-100-14
	800	318-100-24

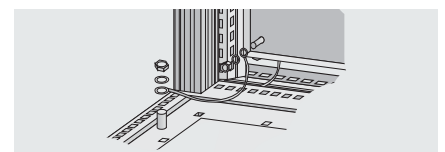
### 23 Castor set



- to be screwed directly onto the cabinet rack **1**
  - 4 swivel castors (2 with parking brake)
- Load capacity:** 450 kg

<b>Order no. (set = 4 pieces)</b>
318-026-10

### 26 Earthing kit TiRAX



- for earthing according to VDE standards
- for conductive connection of the cabinet's components (cable cross section 2,5 mm<sup>2</sup>)

<b>Order no. (set)</b>
318-150-00



## 27 Basic fan module



- fan module, fully pre-wired
- ventilation or extraction, depending on assembly position
- for installation in the top/bottom area of the cabinet
- different power cords available (see right side)

**Dimensions (H x W x D):**  
44 mm x 450 mm x 140 mm  
**Surface:** similar to RAL 9005 jet black  
**Material:** polycarbonate UL 94 V-0

## Power cord, standard



Type of connection	Length	Order no.
Earthing-pin	3m	640-044-05
Cooling devices	3m	230-500-15
Without plug for fixed connection	3m	230-500-16

## Power cord with thermostat 0-60°C

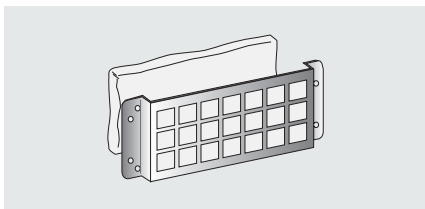


Type of connection	Length	Order no.
Earthing-pin	3m	230-500-04
Cooling devices	3m	230-500-05
Without plug for fixed connection	3m	230-500-06

The fan characteristics and noise levels can be found in the diagrams on page 81.

Description	Unimpeded air flow	Basic module	Extension module
fan module 1-fold	115m <sup>3</sup> /h	230-500-01	230-500-11
fan module 2-fold	230m <sup>3</sup> /h	230-500-02	230-500-12
fan module 3-fold	345m <sup>3</sup> /h	230-500-03	230-500-13
fan module "silent"	240m <sup>3</sup> /h	230-500-43	-

## Filter set for fan module and/or cover plate perforated



**Material:** aluminium/filter fleece

Filter set	Spare filter (5 pcs.)
316-100-99	671-200-05

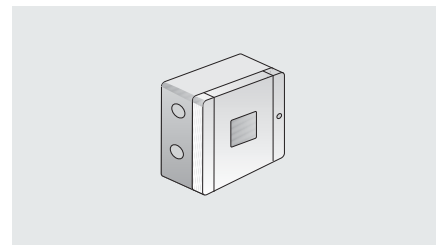
## Door contact switch



- e.g. or switching control cabinet lamps, etc. on and off
- Scope of delivery:** inc. mounting material

Order no.
640-071-00

## Terminal box



- for use as a cable distribution socket
- simple and quick installation

Order no.
640-059

## LED cabinet lamp



- cost-optimised LED technology with a power consumption of 5W (light intensity equivalent to a 75W light bulb)
- internal power supply unit with wide range voltage 100-230V / AC
- long-life and no maintenance (service life at 20 °C = 60,000 h)
- magnetic attachment for individual mounting in the cabinet

Connections must be ordered separately!

Description	Order no.
LED cabinet lamp with on/off switch	640-143-05
LED cabinet lamp with motion detector	640-143-06
Connection with Euro plug, L=2.5 m	640-143-08



### Noise absorption foam



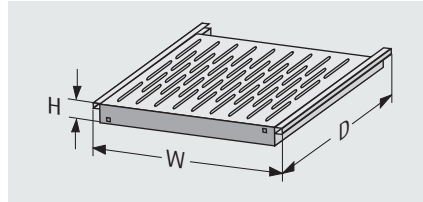
- absorbs up to 10 dB/A of sound in enclosures (e.g. fan noise)
- self-adhesive on one side
- thermal conductivity: 0.033 W/mk (to DIN 52612)
- temperature range: -40°C to +100 °C

**Material:** PUR ester foam (10 mm), colour grey, with pattern of indentations, partially compressed (air permeable)  
**Delivery:** unmounted

If required, we will be happy to affix the noise absorption foam for you before delivering your cabinets or enclosures!

Order no. (1 m <sup>2</sup> )
671-211

### 28 Shelf without 19" extension "fixed installation"

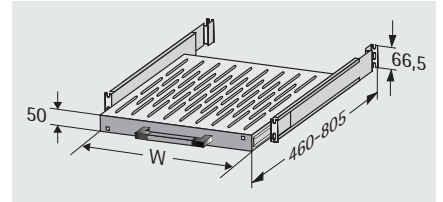


- for mounting into cabinet rack without 19" level
- extraction length 500 mm

**Finish:** RAL 7035 light grey  
**Material:** sheet metal  
**Dimensions (H x W x D):** 1.5 U (66,5 mm) x 465 x 410 mm  
**Load capacity:** 80 kg (distributed load)

Cabinet width	Order no.
600 mm	318-141-08
800 mm	318-141-05

### 28 Shelf without 19" extension "extractable"

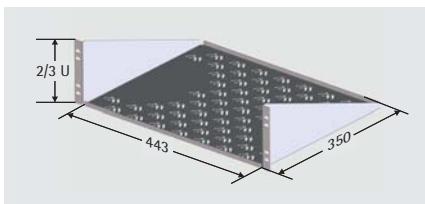


- for mounting into cabinet rack without 19" level
- extraction length 500 mm
- simple one-person assembly

**Finish:** Shelf: RAL 7035 light grey  
**Material:** sheet metal  
**Dimensions (H x W x D):** 1.5 U (66,5 mm) x 465 x 410 mm  
 1.5 U (66,5 mm) x 665 x 410 mm  
**Load capacity:** 60 kg (distributed load)

Cabinet width	Order no.
600 mm	318-141-04
800 mm	318-141-06

### 28 19" shelf, fixed

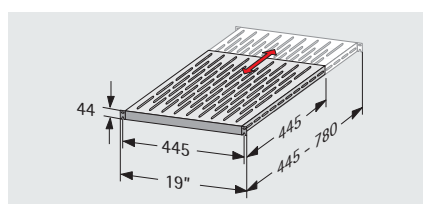


- simple assembly on a 19" grid (only one 19" level required)
- ventilated

**Finish:** RAL 7035 light grey  
**Material:** sheet metal  
**Load capacity:** 15 kg (distributed load)

Height	Order no.
2 U	315-810-20
3 U	315-810-00

### 28 19" shelf 1 U "fixed" VARIplain

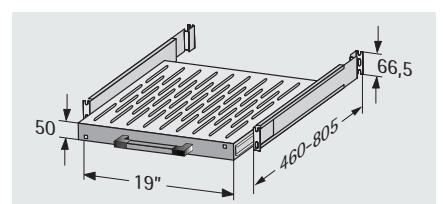


- fixed installation
- depth variable due to VARIplain technology
- telescopic: 445 - 780 mm (see fig.)
- simple one-person assembly through open long hole in the 19" front (hook-in)

**Finish:** RAL 7035 light grey  
**Material:** sheet metal  
**Dimensions (H x W x D):** 1 U (44 mm) x 19" (482.6 mm) x 445 mm-780 mm  
**Floor space (w x d):** 445 mm x (445 mm-780 mm)  
**Load capacity:** 150 kg (distributed load/static)

Order no.
316-036-99

### 28 19" shelf 1.5 U "extractable"



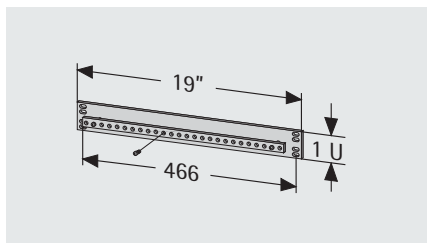
- variable-depth installation
- extraction 500 mm
- simple one-person assembly

**Finish:** RAL 7035 light grey  
**Material:** sheet metal  
**Dimensions (H x W x D):** 1.5 U (66.5 mm) x 19" (482.6 mm) x 465 / 665 mm  
**Storage space (w x d):** 410 x 465 / 665  
**Load capacity:** 60 kg (distributed load)

Depth	Order no.
465 mm	318-141-00
665 mm	318-141-01



### 29 19" Potential equalisation rail



- for 19" or cabinet rack installation
- connection options: 27 × M 5
- rail cross-section: 50 mm<sup>2</sup>

**Material:** sheet steel/copper

<b>Order no.</b>
640-028-00

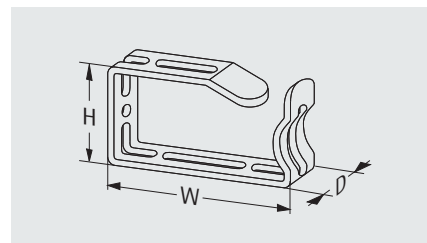
### Screw set M 5 / M 6 (50x)



- for positioning 19" components on vertical mountings

Description	Order no. (set)
M 5	630-991
M 6	630-994

### Cable clamp set, metal (set)



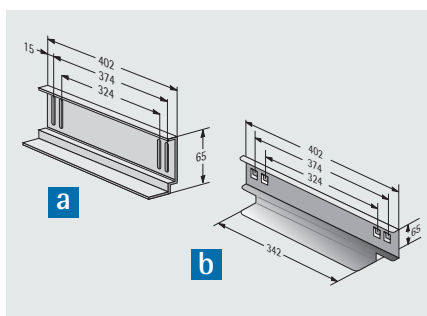
- for securing cables vertically to a 19" rack (for 800 mm wide cabinets)

• set = 10 pieces

**Scope of delivery:** inc. mounting materials

H × W × D mm	Order no. (set)
44 × 85 × 23	640-036-11
66 × 125 × 23	640-036-12
88 × 125 × 23	640-036-13

### Slide rail, screwable / hook-in



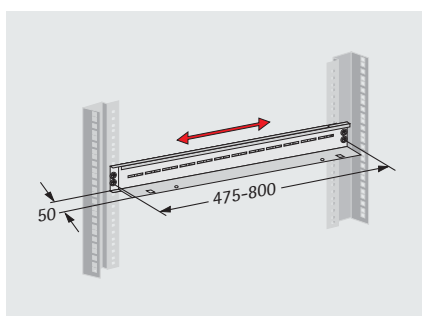
- **screwed/hooked** in onto 19" vertical mountings
- to support heavy 19" plug-in units
- two 19" levels are required for mounting

**Material:** sheet metal, galvanised

**Load capacity:** 50 kg

<b>screwable a</b>	<b>hook-in b</b>
312-544	316-544-00

### Slide rail, variable depth



- depth-adjustable
- to accommodate 19" plug-in units (e.g. servers) irrespective of the clearance between the first and second 19" level
- for use as of a cabinet depth of 800 mm

**Material:** sheet steel 1.5 mm, galvanised

**Load capacity:** 50 kg

<b>Order no. (pair)</b>
316-544-20

### TiRAX screw set



- for rotating mounting in TiRAX cabinet racks

**Scope of delivery:**

- each with 20x special cage nuts M6, lens head screw M6 × 16 and U-glass

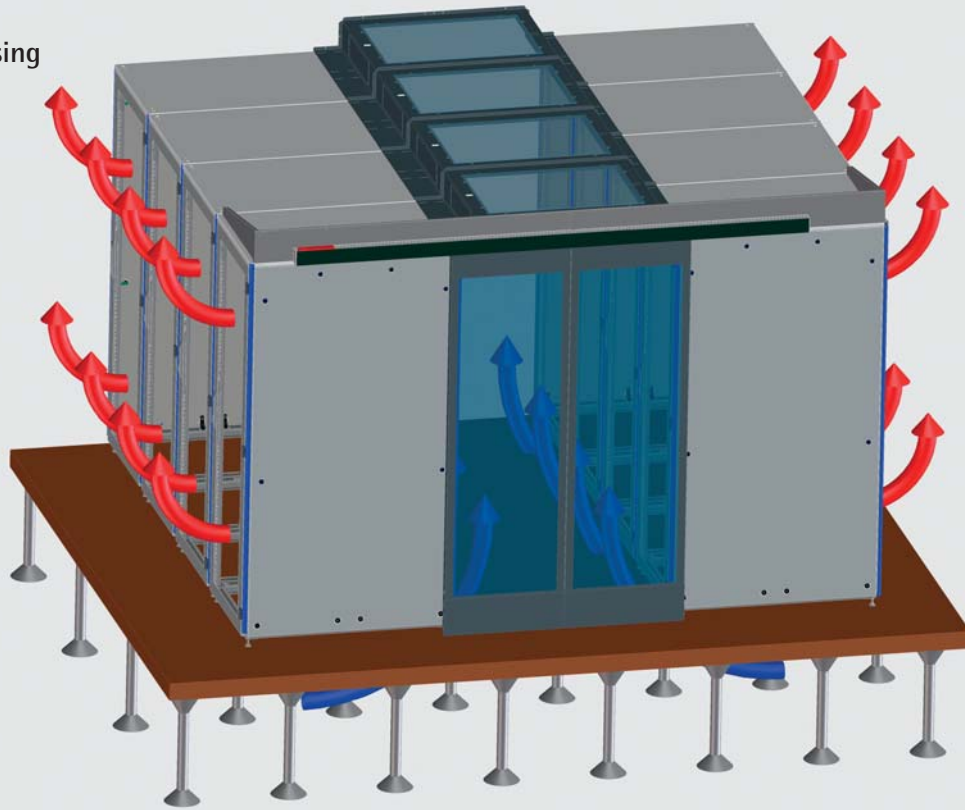
<b>Order no. (set)</b>
630-998



Other accessories can be found in this catalogue in the corresponding sections.

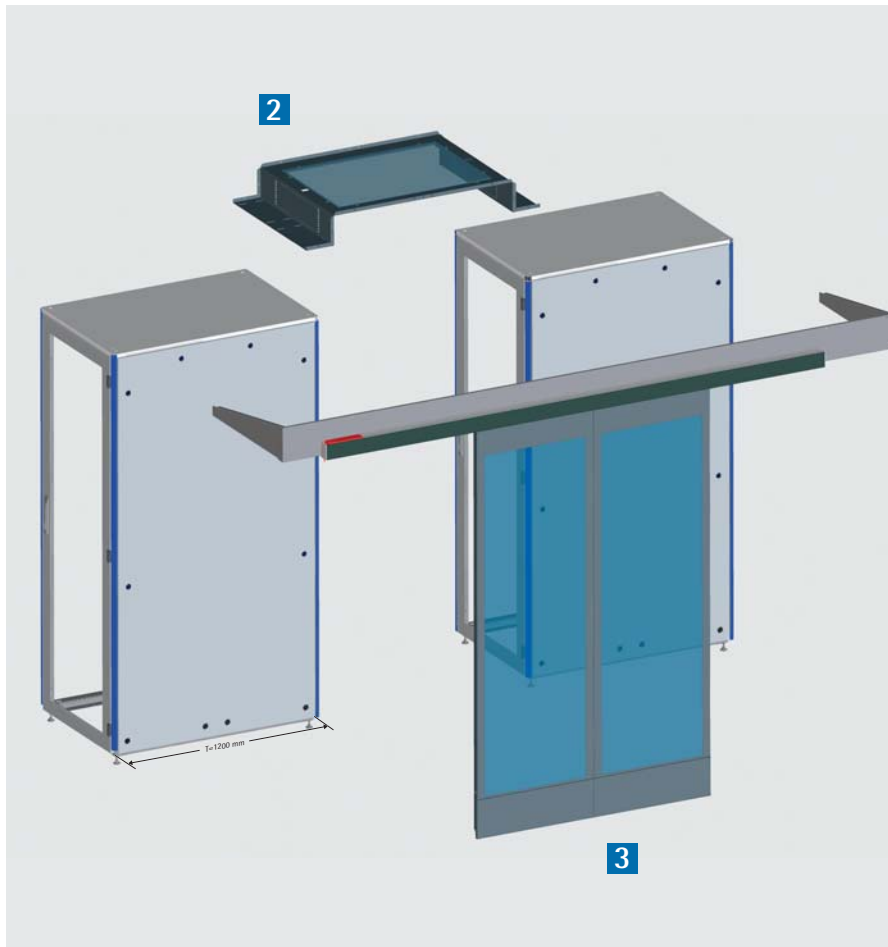


System graphic  
cool corridor housing

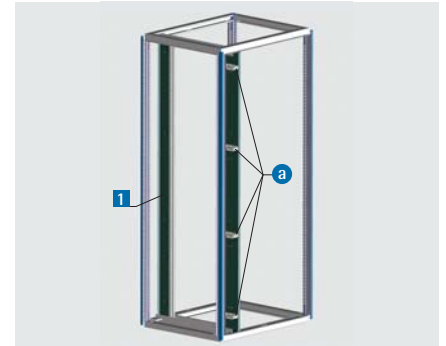


Cooling corridor system  
with TiRAX cabinet system





### 1 Partition panel kit

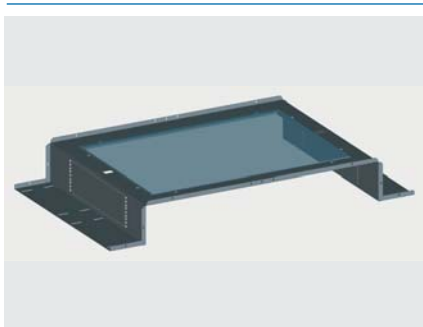


- to partition the lateral movable space for 800 mm wide cabinet between 19" level and side panel
- 3 x 1 U field per panel
- with cable clamps **a** (max. 4 pieces per panel) extendable (see page 25)

**Material:** sheet metal

Height mm	RAL 7035	RAL 9005
2000	318-121-84	318-121-85
2200	318-121-87	318-121-88

### 2 Corridor cover for cooling corridor

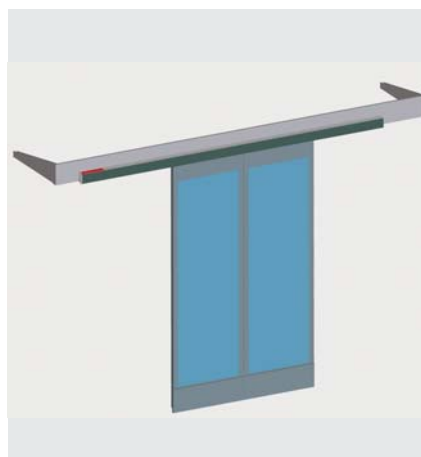


- for easy mounting on the cabinet system
- with 19" 3 U mounting section for power distributors, light systems etc.
- with toughened safety glass
- for cooling corridor with width 1.2 m

**Material:** sheet metal,  
toughened safety glass

Width mm	Finish	Order no.
600	RAL 7035	318-124-66
600	RAL 9005	318-124-67
800	RAL 7035	318-124-32
800	RAL 9005	318-124-75

### 3 Sliding door system



- for cabinet depth D=1200 mm
- simple and quick installation
- for cooling corridor with width 1.2m
- height adjustment towards floor is possible

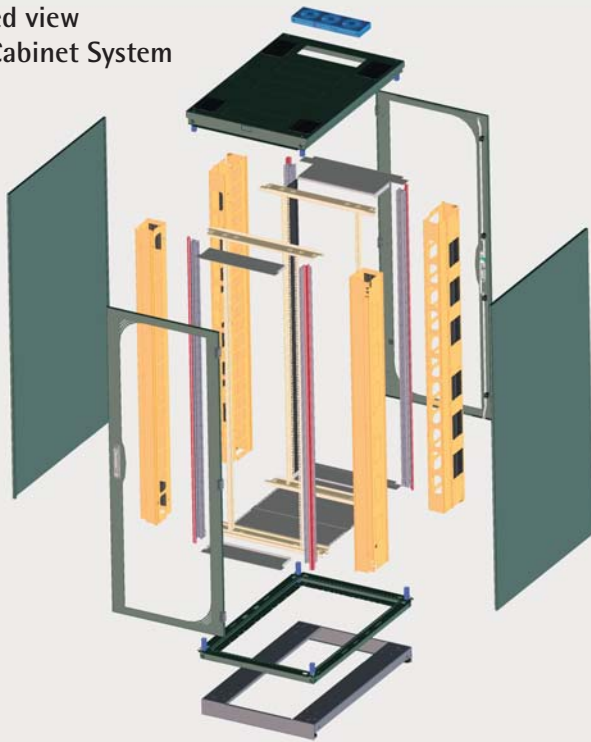
**Material:** sheet metal,  
toughened safety glass

Height mm	Finish	Drive	Order no.
2000	RAL 7035	manual	318-124-70
2000	RAL 9005	manual	318-124-80
2000	RAL 7035	electric	318-125-00
2000	RAL 9005	electric	318-125-05
2200	RAL 7035	manual	318-124-55
2200	RAL 9005	manual	318-124-65
2200	RAL 7035	electric	318-125-10
2200	RAL 9005	electric	318-125-15



## From conceptual planning to installation in your

Exploded view  
TiRAX Cabinet System



Project:  
Data centre





## data centre - everything from a single source!

