XONNECT™

CONNECT TECHNOLOGY

Data Rack System

Marketed by :

temflo

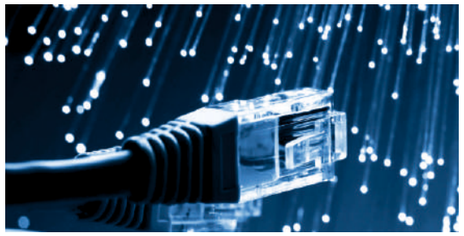
Designed &
Manufactured by :

workspace

Truly inventive

TELECOMMUNICATIONS

It is difficult to imagine social and economic development without continuous investment in telecommunications. To meet the market demand, WORKSPACE Group offers products that are dedicated to this economy sector. We supply investors who expand and create new telecommunications networks with all types of enclosures and accompanying equipment.



DATA COMMUNICATION

In the current decade, constant data expansion remains the biggest challenge of the data communication industry. To meet these requirements, WORKSPACE creates innovative solutions for 19" data communication cabinets. Our comprehensive range includes also structured wiring components, optical distribution frames and active devices, consoles, KVM switches, and UPS units.

DATA CENTRES

The continuity of corporate business and maintaining services at the highest level depends on uninterrupted operation of computational units and active devices found in data centres. To ensure access to information, you must follow the highest standards of quality for systems that affect company operation.

PUBLIC SECTOR

The unique combination of plant production capacity with highly-skilled workers of design departments forms solid foundation for development of many non-standard products which go to the public sector along with the standard offer.

GROUP

FUTURE IS TODAY

WORKSPACE is a future-oriented company that puts people, product quality and the environment first.

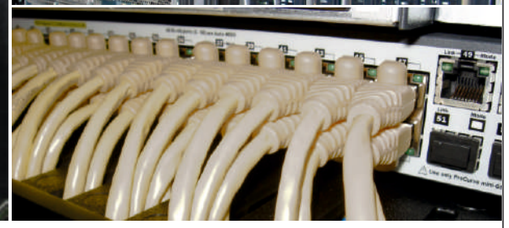
We are driven by the motto that is continuous development and providing comprehensive solutions developed together with our partners.

Being fascinated about the latest technologies and driven by innovation, we give attention to detail in the broad sense.

Thanks to such a vision, our server rooms, solutions for telecommunications, automatics and energy meet the changing trends of the future.

The growing satisfaction of our Partners, reflected by the turnover dynamics, is a proof that we have chosen the right path.

Let this catalogue we give you be the harbinger of the new standard of cooperation.



SERVER CABINETS

DATA BOX

SERVER CABINETS IN ROWS

VENTILATION AND AIR-CONDITIONING SYSTEMS

POWER SUPPLY SYSTEM

FIRE EXTINGUISHING SYSTEMS AND IT-ROOMS

MONITORING OF AMBIENT CONDITIONS

ACCES CONTROL

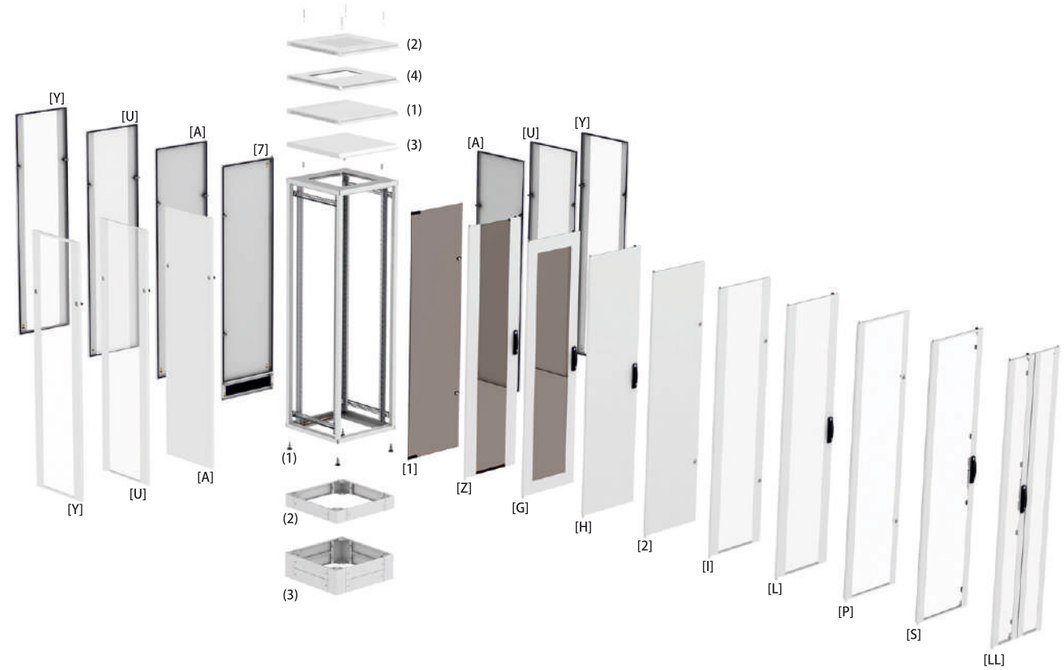
In the era of globalised business process information, appropriate
protection against business and operating risks is vital to secure company's uninterrupted operation. Unlimited and complete 24/7/365 access to information is currently becoming one of the most valuable business resource. In many cases, data stored in corporate data centres represent the most precious assets of the enterprise. Hence, important data require a suitable level of protection and security.
A server room with adequate power systems, cooling systems, access control and detection of various types of threats ensures comfort and safety of operation and the right level of corporate data security.

WORKSPACE Data Center system is a complete solution which includes: server cabinets, Data Box, cold or hot aisle system, precision air-conditioning systems, backed-up and standby power supply systems, power management systems, fire extinguishing systems, ITrooms cabins, access control and burglary alarm system, climate monitoring system.

WORKSPACE provides also full-scale implementation of Data Centre structures. Basing on the experience of our specialists, we support our customers at every stage of the project, starting from the preparation of the concept, design and implementation of the appropriate solution tailored to the needs of the company and its customers.

FLOOR-STANDING CABINETS

Possible configurations of 19″ network cabinet



Roof:
(1) - standard roof.
(2) - roof with extra perforation
(3) - tight roof IP 41
(4) - roof with opening for blanking/cable entry

Base:
(1) - levelling feet
(2) - plinth 100mm hieight (simple or with leveling feet)
(3) - plinth 200 mm height (simple or with leveling feet)

Doors and panels:
[1] - glass door with single-point locks
[2] - solid steel door with single-point locks
[7] - solid steel, shortened door with single-point locks + 1piece of 3U module panel with brush strip
[G] - steel door with glass and three-point rod-latch lock with swing handle
[H] - solid steel door with three-point rod-latch lock with swing handle
[I] - perforated steel door (type A) with single-point locks
[L] - perforated steel door (type A) with three-point rod-latch lock with swing handle
[LL] - perforated double-wing steel door (type A) with three-point rod-latch lock with swing handle
[P] - perforated steel door (type C) with single-point locks
[S] - perforated steel door (type C) with three-point rod-latch lock with swing handle
[Z] - glass door with metal sides and three-point rod-latch lock with swing handle
[A] - solid steel panel with single-point lock
[U] - perforated steel panel (type A) with single-point lock
[Y] - perforated steel panel (type C) with single-point lock

NETWORK CABINET

Cabinet in the basic configuration,
600 mm wide

STANDARD UNIVERSAL DATA COMMUNICATION CABINET

- Designed for indoor applications.
- Offered in 32 size variations ,of which 10 variations are in constant sale from our warehouse.
- Individual configuration:
  - multiple door, panel, roof options for maximum flexibility,
  - possibility to join cabinets in a row,
  - levelling feet, castor or plinth options,
  - multiple alternative cable entry options (brush, foam),
  - 21" mounting profiles also possible (in 800 mm wide cabinets),
  - individual configuration using simple coding.
- Wide range of supplementary accessories: shelves, drawers, fan units, power strips, blanking plates etc.
- Flexibility in manufacturing tailor-made cabinets.

Cabinet in the basic configuration,
800mm wide

SCOPE OF DELIVERY

Cabinet in basic configuration*

- frame,
- safety glass front door,
- two side panels,
- steel rear door shortened with 3 U module panel with brush strip, lockable,
- standard roof, raised, with perforated sides,
- 2 pairs of 19" mounting profiles,
- earthing bar and cables,
- cabinet placed on levelling feet.

TECHNICAL DATA

Material:

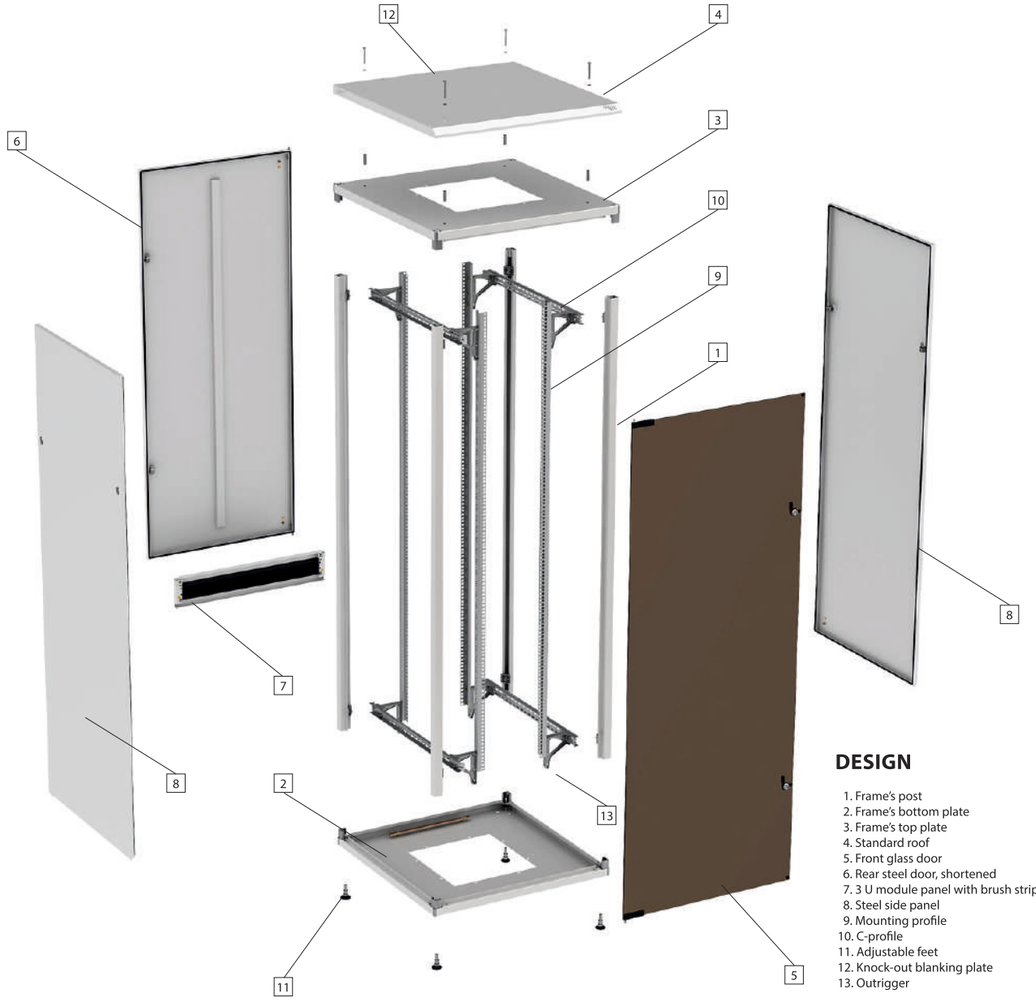
Frame, side panels, solid steel door, roof, mounting profiles, C-profiles - sheet steel
Door with glass - sheet steel, acrylic glass
Glass door - mineral safety glass
Glass door with metal sides - mineral safety glass, sheet steel

Surface finishing:

Frame, roof, panels, doors, plinth - powder paint, light grey (RAL 7035). All other colour options on request.

Mounting profiles, C-profiles - Al-Zn coated.

NETWORK CABINET



cabinet 42 U, 800x800 mm in basic configuration

DESIGN

1. Frame's post
2. Frame's bottom plate
3. Frame's top plate
4. Standard roof
5. Front glass door
6. Rear steel door, shortened
7. 3 U module panel with brush strip
8. Steel side panel
9. Mounting profile
10. C-profile
11. Adjustable feet
12. Knock-out blanking plate
13. Outrigger

INSTRUCTIONS FOR ORDERING CABINET

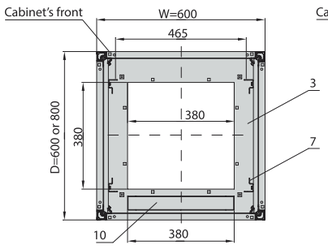
1. When ordering the cabinet, please provide the appropriate **cata-logue according to the information presented on** catalog, which specifies the overall dimensions, type of doors, panels, roof and base.
2. The next step is to specify**catalogue numbers of supplementary accesso-ries** (such as: shelves, blanking plates, power strips, fan units etc.). Supple mentary accessories are delivered in separate packaging including fixing hardware. On request it is also possible to mount supplementary accessories in the cabinet.

MAXIMUM LOAD CAPACITY FOR FSC CABINETS

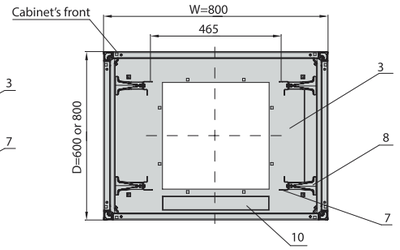
Base type	Maximum weight of equipment mounted in cabinet
levelling feet	1000 kg
castors - type 150	150 kg
castors - type 300	500 kg
plinth	1000 kg

NETWORK CABINET

A-A Section



B-B Section

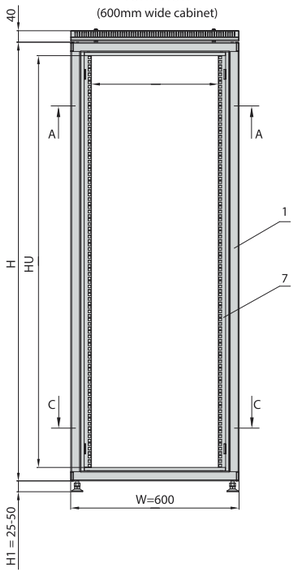


DESIGN

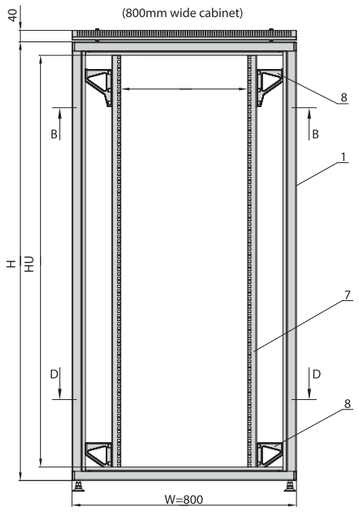
1. Frame's post
2. Frame's bottom plate
3. Frame's top plate
4. Roof
5. Base (plinth, adjustable feet or castors)
6. C-profile
7. Mounting profile
8. Outrigger
9. Earthing bar
10. Knock-out blanking plate

Maximum door opening angle: 110°

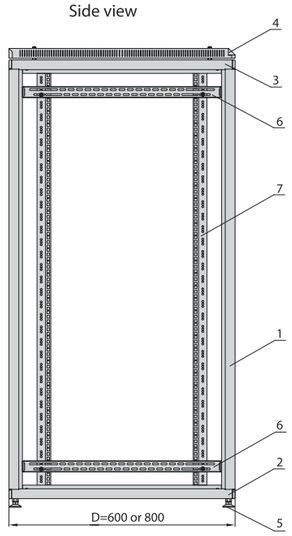
Front view
(600mm wide cabinet)



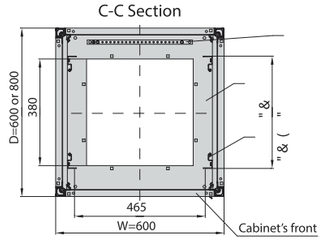
Front view
(800mm wide cabinet)



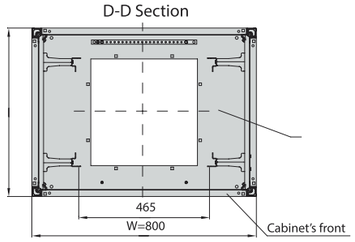
Side view



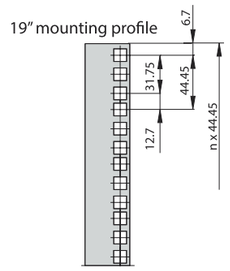
C-C Section

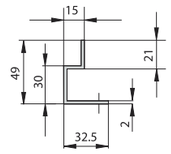


D-D Section



19" mounting profile





HEIGHT OF BASE H1

Feet: from 25 to 50 mm
Plinth: 100 or 200 mm
Castors, type 150: 108 mm
Castors, type 300: 129 mm

Notes:

- The cabinet in the drawing is shown without any panels ordoors.
- Cable opening in the top plate of the cabinet is covered with a knock-out blanking plate (12).
The same solution can be found in the roof of the cabinet

NETWORK CABINET

DOOR TYPES

[1] Glass door with single-point locks

[2] Solid steel door with single-point locks

[H] Solid steel door with three-point rod-latch lock with swing handle

[G] Steel door with glass and three-point rod-latch lock with swing handle

[LL] Perforated double-wing steel door (type A) with three-point rod-latch lock with swing handle

[I] Perforated steel door (type A) with single-point locks

[Z] Glass door with metal sides and three-point rod-latch lock with swing handle

[L] Perforated steel door (type A) with three-point rod-latch lock with swing handle

NETWORK CABINET

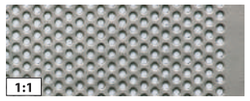
DOOR TYPES

[P] Perforated steel door (type C) with single-point locks

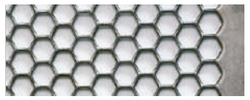
[S] Perforated steel door (type C) with three-point rod-latch lock with swing handle

[7] Solid steel, shortened door with single-point locks + 1 piece of 3 U module panel with brush strip, mounted under the shortened door

Perforation types for doors and panels



Perforation type A clearance 30%



Perforation type C clearance 80%

Total width W [mm]	Total depth D [mm]	Reference Chart							
Usable Height HU [u= 44.45 mm]		45 U	42 U	36 U	33 U	30 U	24 U	18 U	15 U
Frame Height H [mm]		2096	1963	1696	1563	1430	1163	896	763
800	800	2096	1963	1696	1563	1430	1163	896	763
	600	2096	1963	1696	1563	1430	1163	896	763
600	800	2096	1963	1696	1563	1430	1163	896	763
	600	2096	1963	1696	1563	1430	1163	896	763

NETWORK CABINET

ROOF TYPES

[1] tandard roof. After removal of the knock-out blanking plate from the roof, the cable opening can be completed with brush strip

[2] Roof with extra perforation (top)

[3] Tight roof with IP 41 protection

[4] Roof with opening 380x210 mm for blanking/cable entry plate 420x250 mm (blanking/cable entry plate should be ordered separately

NETWORK CABINET

SIDE PANEL TYPES

[A] Solid steel panel with single-point locks

[U] Perforated steel panel (type A) with single-point locks

[Y] Perforated steel panel (type C) with single-point locks

NETWORK CABINET

EXAMPLES OF NONE STANDARD CABINETS

Cabinet with easy regulation of 19" mounting profiles

Cabinet 1000 mm wide, double-sectioned Left section equipped with 19" mounting profiles Right section with mounting angles in 300 mm spacing

Cabinet 600 mm wide with double-wing door with perforation type B (clearance 69%)

Double-section cabinet

DATA COMMUNICATION COMPONENTS AND SOLUTIONS

WS - XONNECT

NETWORK CABINET

EXAMPLES OF NONE STANDARD CABINETS

Cabinets with door and panels with perforation type A

NETWORK CABINET

EXAMPLE OF CABINETS

Cabinet with door with perforation type C, without side panels

Cabinet with glass door

Cabinet with glass front door with perforated metal sides, rod-lath lock and swing handle

Server cabinets with tailor made doors

Cabinet 42 U, 800 x 800 mm with glass front door and steel rear, shortened door with 3 U module panel with a brush strip

CABINET FOR ON-SITE ASSEMBLY

- Designed for indoor applications.
- Offered in 10 different overall dimensions immediately available from the warehouse:
heights 24U, 42U; wides 600, 800 mm; depths 600, 800, 1000 mm.
- The Network cabinet is assembled from same parts as the cabinets.
- Delivered disassembled, assembly manual included.
- Quick configuration enhanced by easy coding system
- When using additional C-profiles, cabinet load capacity is 1350 kg.

SCOPE OF DELIVERY

- screwed frame (bottom plate, top plate, 4 posts, 4 C-profiles),
- glass front door, steel front door with perforation or no front door (dependant on configuration),
- 2 solid steel side panels or no side panels (dependant on configuration),
- steel rear, shortened door, steel rear door with perforation or no rear door (dependant on configuration),
- 3 U module panel with a brush strip, for assembly under or above the shortened rear door
(only where shortened rear door included),
- standard roof (with cable opening in the rear, the opening covered with a knock-out
blanking plate; cabinet roof 800 x 1000 mm have additional two side cable entries),
- 2 pairs of mounting profiles in 19" spacing,
- 8 outriggers for mounting profiles fixing (only in 800 mm wide cabinets),
- earthing bar,
- earthing cables for the steel door and side panels (dependant on configuration),
- 4 levelling feet,
- assembly manual,
- cardboard packaging.

Additional C-profiles and ootrig- gers

Additional, middle mounting profiles

TECHNICAL DATA

Material:

Frame, side panels, steel door, roof, mounting profiles, C-profiles - sheet steel
Glass door - safety glass
Outriggers - zamak casting

Surface finishing:

Frame, roof, side panels, steel door - powder paint, light grey (RAL 7035) or black (RAL 9005).
All other colour options on request.
Mounting profiles, C-profiles - Al-Zn coated

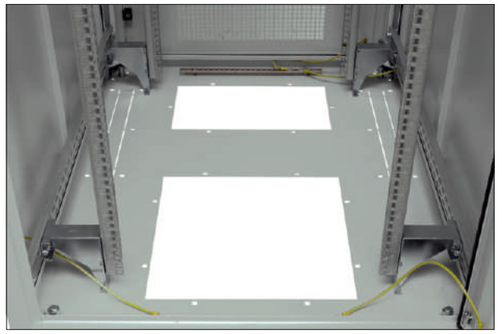
Cabinet, flat packed

NETWORK CABINET

Cabinet 24 U, 600 x 800 mm with glass front door and steel rear, shortened door with 3 U module panel with a brush strip

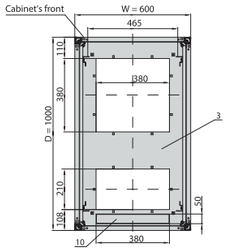
Cabinet 42 U, 800 x 1000 mm with perforated steel doors and three-point rod-latch locks with swing handle

Note: in the middle of the height we can find additional C-profiles as also outriggers, that should be ordered separately Load capacity of the cabinet equipped with additional C-profiles is 1350 kg.

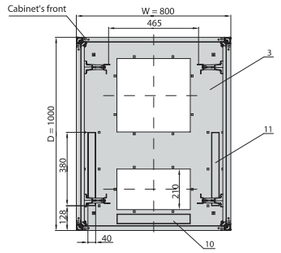


NETWORK CABINET

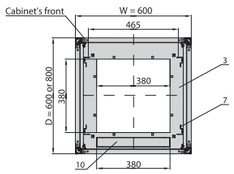
A-A section
(1000 mm deep cabinet)



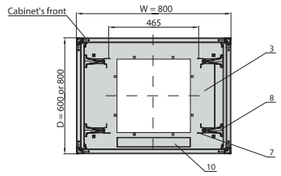
B-B section
(1000 mm deep cabinet)



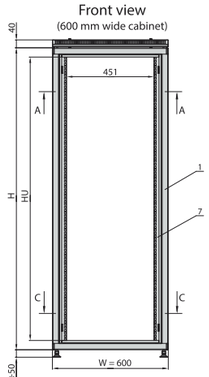
A-A section
(600 or 800 mm deep cabinet)



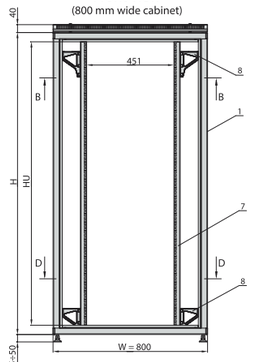
B-B section
(600 or 800 mm deep cabinet)



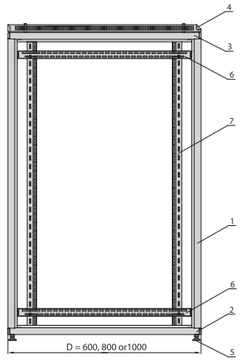
Front view
(600 mm wide cabinet)



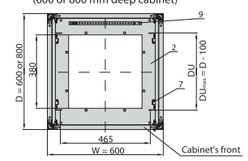
Front view
(800 mm wide cabinet)



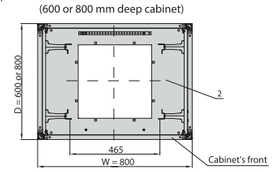
Side view



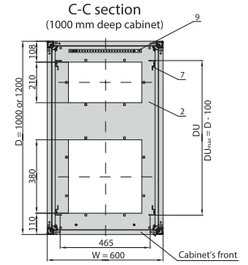
C-C section
(600 or 800 mm deep cabinet)



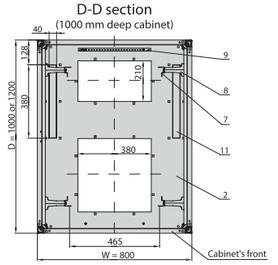
D-D section
(600 or 800 mm deep cabinet)



C-C section
(1000 mm deep cabinet)



D-D section
(1000 mm deep cabinet)

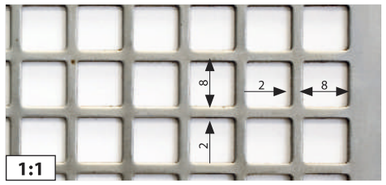


DESIGN

1. Frame's post
2. Frame's bottom plate
3. Frame's top plate
4. Roof
5. Adjustable feet
6. C-profile
7. Mounting profile
8. Outrigger
9. Earthing strip
10. Knock-out rear blanking plate
11. Knock-out side blanking plate

Note:
The cabinet in the drawing is shown without any panels or doors.

PERFORATION USED IN THE DOORS



Perforation type B
clearance 69%

COLOCATION CABINET

Cabinets bayed together

ALLOWS FOR PLACING MULTIPLE INDEPENDENT SERVERS IN ONE CABINET

MAIN FEATURES

Front and rear door made of perforated sheet steel, offered in 3 standard heights of 47 U, 23 U, 11 U. The rear of the cabinet can be also fitted with perforated sheet.
Colocation cabinets come with steel perforated side panels, these side panels can double up as cabinet dividers when cabinets are bayed together.
Doors and panels are fitted with standard single point locks; multiple point locks can be applied on request.
Individual compartments are separated with horizontal dividers that are fixed directly to the frame. Each compartment has its own set of 19" mounting profiles and split cable ducts. These ducts are on both sides of the cabinet. Cable entry points are possible from either the top or bottom of the cabinet.
Both top and bottom plate have 380x210 mm opening that might be used either for a fan unit or cable entry. These access points can be covered using various blanking plates. Additionally there are 2 slim, side cable openings. For top cable leading it is necessary to use roof with cable openings instead of the solid roof.

Colocation cabinets are typically used for indoor applications. They are specially designed to protect equipment installed inside and provide it with appropriate ventilation. There is one standard overall dimension with 6 different combination options for the colocation cabinets.

When designing cabinets, WORKSPACE applied unique design principles normally found in tailor made cabinets with ventilation systems.

TECHNICAL DATA

Material:
Sheet steel

Surface finishing:
Frame, roof, panels, doors, plinth - powder paint, light grey (RAL 7035).
All other colour options on request.
Mounting profiles and cable ducts - Al-Zn coated.

Maximum load capacity:
The maximum weight of equipment mounted in cabinets is 600 kg

SCOPE OF DELIVERY

Cabinet in standard configuration*
- frame,
- horizontal dividers (quantity dependent on number of compartments within the cabinet),
- individual front door for each compartment,
- rear single panel for the full height of the cabinet,
- 2 pairs of 19" mounting profiles for each compartment,
- cable ducts (does not refer to cabinet without any compartments),
- solid roof,
- levelling feet,
- earthing cables.

DATA COMMUNICATION COMPONENTS AND SOLUTIONS

WS - XONNECT

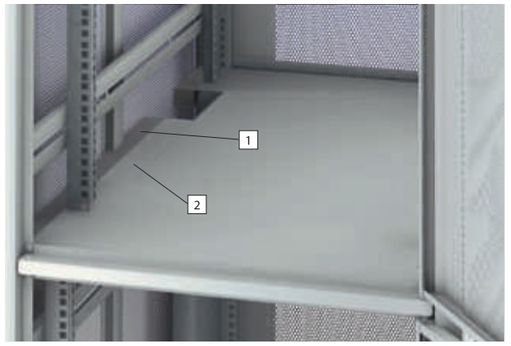
COLOCATION CABINET

Cabinet with two compartments

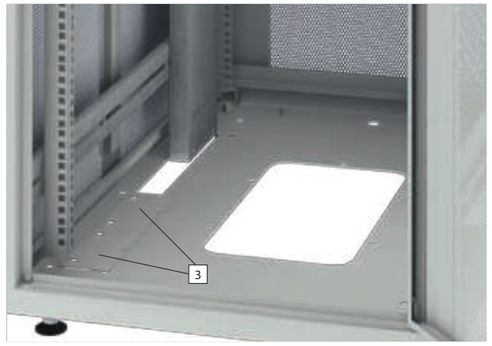
Cabinet with four compartments, cable ducts lead from the bottom

Cabinet with four compartments, cable ducts lead from the top, roof with cable openings

Width W [mm]	Depth D [mm]	Reference Chart					
Usable height HU [U = 44.45 mm]		47 U	45 U	42 U	36 U	33 U	24 U
Frame height H [mm]		2186	2096	1963	1696	1563	1163
800	1000	2186	2096	1963	1696	1563	1163
	1200	2186	2096	1963	1696	1563	1163
600	1000	2186	2096	1963	1696	1563	1163
	1200	2186	2096	1963	1696	1563	1163

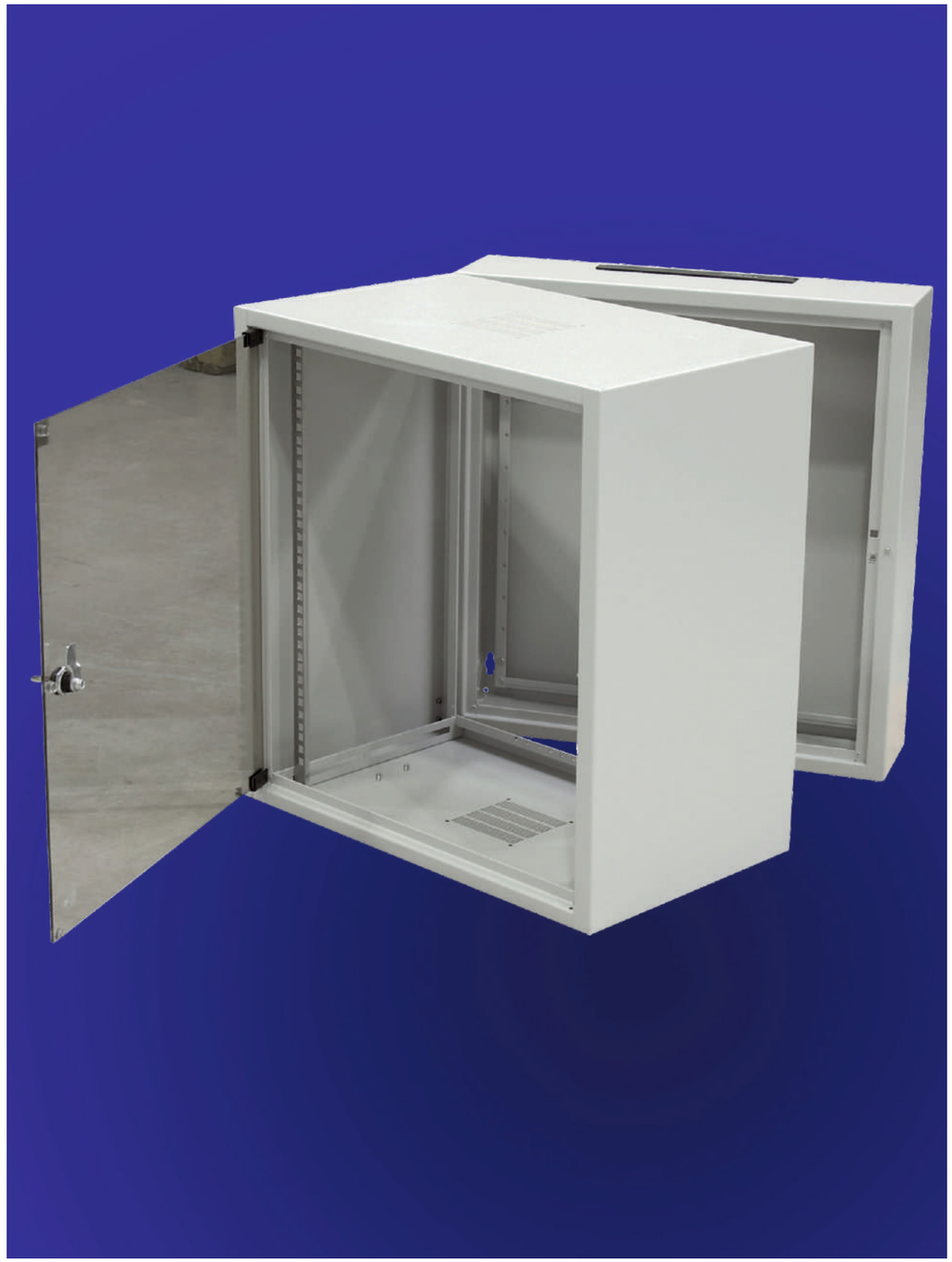


Supplementary accessories: 1 - self-adhesive insert
2 - cable opening cover



Supplementary accessories: 3 - blanking plate for cable opening

WALL-MOUNTED NETWORK CABINET



DATA COMMUNICATION COMPONENTS AND SOLUTIONS
WS - XONNECT

WALL-MOUNTED NETWORK CABINET

Cabinet 12 U high with safety glass door

Cabinet 6 U high - rear view

SINGLE-SECTION CABINET WITH REMOVABLE SIDE PANELS

- Designed for indoor applications.
- Available in 6 usable heights and 3 depths
- The design of the cabinet is based on dismountable frame with safety glass or steel front door and removable rear and side panels.
- Standard version is equipped with two adjustable 19" mounting angles, a knock-out blanking plate and a brush opening (potential cable entry point)
- The rear and side panels, as well as steel door, are provided with earthing connections.
- Cabinets can be fastened directly to the wall without using any brackets - convenient internal access to wallfixing screws.
- Easy change of door opening direction and cable opening layout by rotating by 180° .
- Wide range of supplementary accessories: shelves, drawers, fan kit, power strips etc.
- Cabinet can be equipped with additional rear adjustable 19" mounting angles or mounting profiles.

SCOPE OF DELIVERY

Cabinets are packed in cardboard boxes. In the packing there is a template for drilling holes in the wall.

TECHNICAL DATA

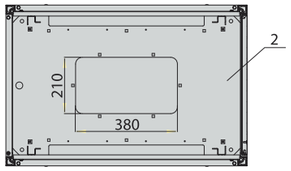
Material:
Frame, rear and side panels, mounting angles - sheet steel
Door - safety glass or sheet steel

Surface finishing:
Frame and mounting angles – Al-Zn coated.
Steel door, side panels and rear panel – powder paint, light grey (RAL 7035). All other colour options on request.

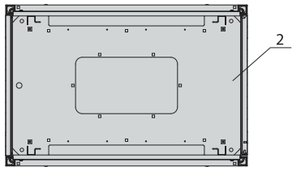
Cabinet 6 U high with safety glass door

COLOCATION CABINET

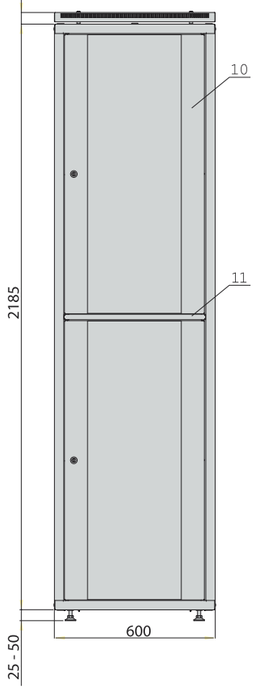
A-A section



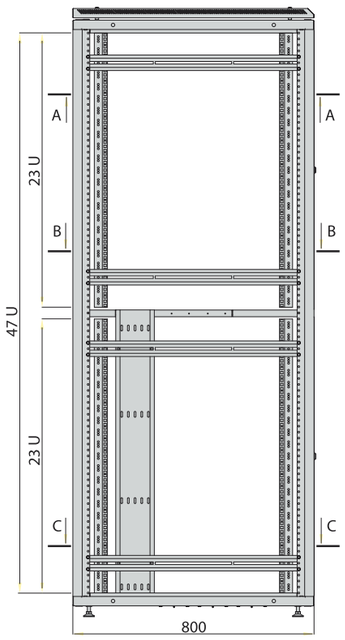
D-D section



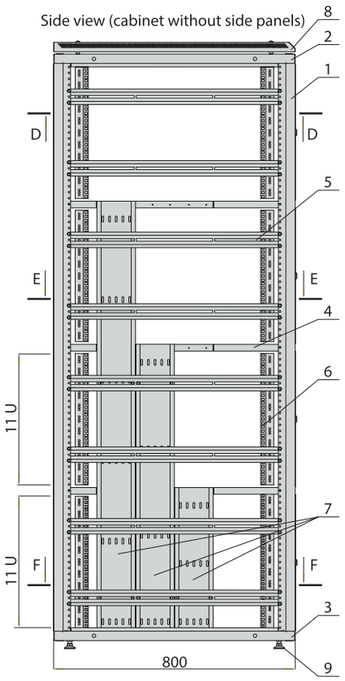
Front view



Side view (cabinet without side panels)



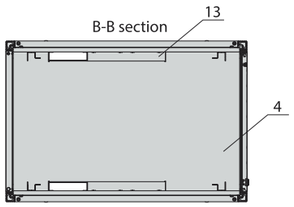
Side view (cabinet without side panels)



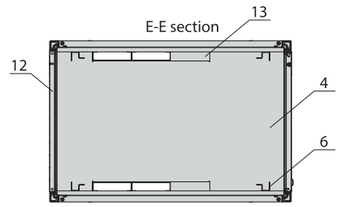
DESIGN

1. Frame's post
2. Frame's top plate
3. Frame's bottom plate
4. Divider
5. Supporting profile
6. Mounting profile
7. Cable duct
8. Solid roof
9. Levelling feet
10. Front door
11. Divider profile
12. Rear panel or rear door
13. Cable opening cover for divider (supplementary accessories)
14. Blanking plate of cable opening (supplementary accessories)

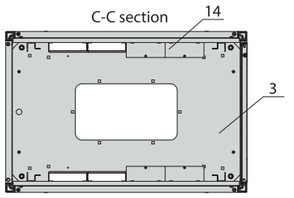
B-B section



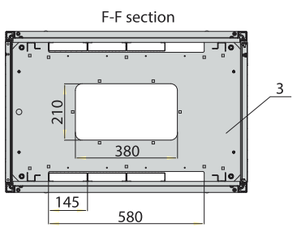
E-E section



C-C section

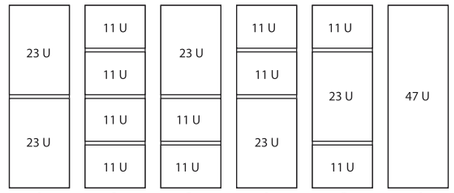


F-F section



COLOCATION CABINET

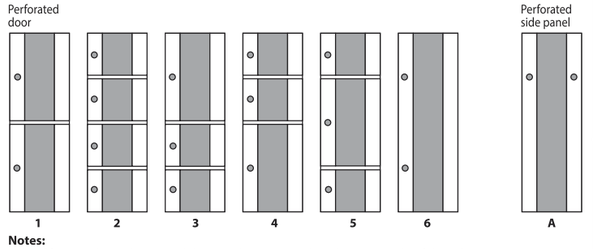
Split of cabinet's interior:



Note:
Height of horizontal dividers is 1 U.
Each compartment has individual 19" mounting profiles.

F - FRONT | **R** - REAR

Split of front and rear door/panel:

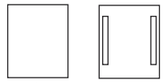


Notes:
Split of front and rear door/panel does not have to match with interior split of the cabinet.
Normally doors are fitted with single point locks without handle.
On request it is possible to use handle locking system.
As a standard, doors and panels have perforation with 30% clearance (perforation type A).
Perforation with larger clearance is available on request (types B or C

Type of base:
1 - levelling feet
2 - 100 mm plinth
3 - 100 mm plinth with levelling option
4 - 200 mm plinth
5 - 200 mm plinth with levelling option

Note:
For a detailed description of plinths,

Type of roof:

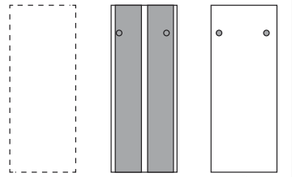


1 solid roof

2 roof with cable openings

LS - LEFT SIDE | **RS** - RIGHT SIDE

Type of side panel:



0 no side panel

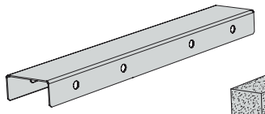
A perforated side panel

B solid side panel

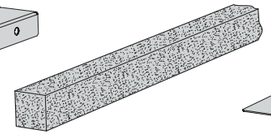
INSTRUCTIONS FOR ORDERING CABINET

1. When ordering the cabinet, please provide the appropriate **catalogue number according to the above information** which specifies the interior split of the cabinet, as well as type of doors, panels, roof and base.
2. The next step is to specify **catalogue numbers of supplementary accessories** (such as: blanking plates, power strips, fan units etc.). Supplementary accessories are delivered in separate packaging including fixing hardware.

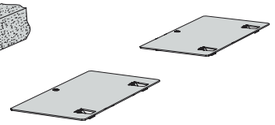
SUPPLEMENTARY ACCESSORIES



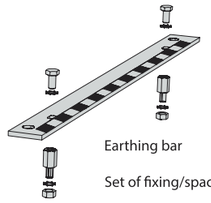
Cable opening cover for divider



Self-adhesive insert of divider



Blanking plate of cable opening

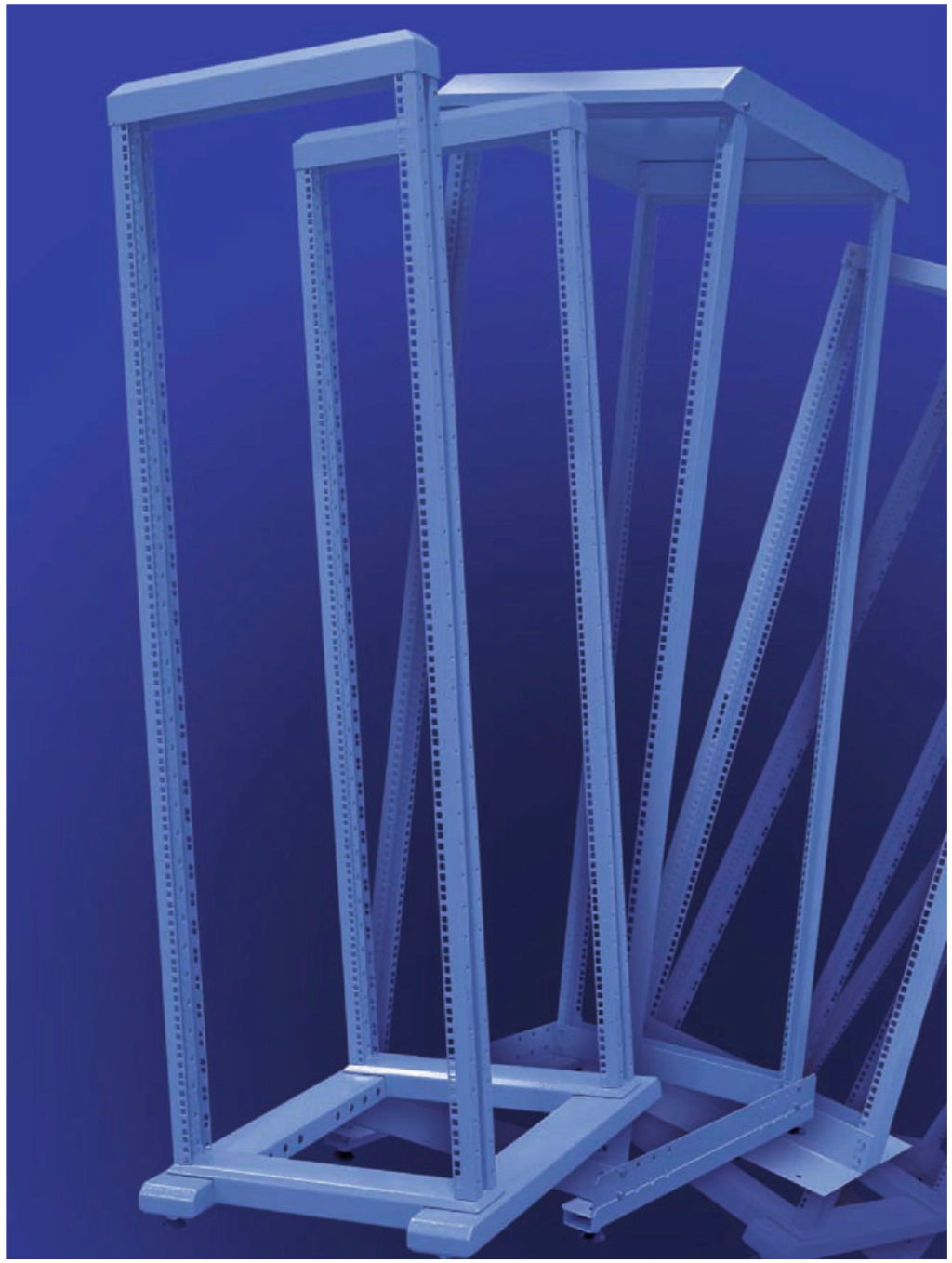


Earthing bar

Set of fixing/spacer bolt

19' OPEN RACK

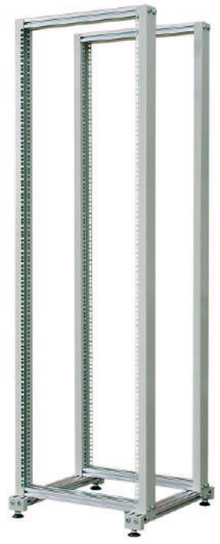
OPEN RACKS



DATA COMMUNICATION COMPONENTS AND SOLUTIONS

WS - XONNECT

19' OPEN RACK

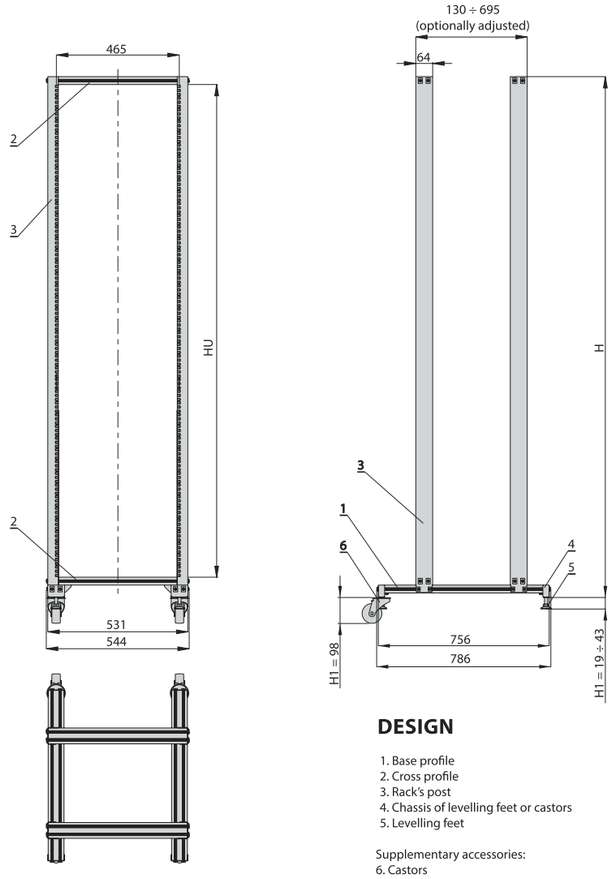


OPEN RACK WITH FULLY ADJUSTABLE 19" RACK FRAMES

Modular design based on horizontal aluminium profiles and vertical steel posts.
Open racks are set on levelling feet.
Various supplementary accessories are available as for data telecom cabinets - castors, shelves, drawers, power strips etc.

REFERENCE CHART

HU [U = 44.45 mm]	H [mm]	Maximum load capacity [kg]
24 U	1177	150
36 U	1709	150
42 U	1975	150
45 U	2109	150



TECHNICAL DATA

Material:
Sheet steel,
aluminium profile
60 x 30 mm

Surface finishing:
Powder paint, light grey (RAL 7035).
All other colour options on request.

DESIGN

1. Base profile
2. Cross profile
3. Rack's post
4. Chassis of levelling feet or castors
5. Levelling feet

Supplementary accessories:
6. Castors

WALL-MOUNTED NETWORK CABINET

Cabinet 12 U with safety glass door

Cabinet 18 U
with safety glass door

SINGLE-SECTION CABINET

- Designed for indoor applications
- Available in 2 depths and 5 usable heights (see reference chart).
- The design of the cabinet is based on a metal body with safety glass door and removable rear panel
- A standard cabinet is equipped with two easily adjustable mounting angles spaced at 19".
- The steel door and rear panel are provided with earthing cables.
- The body of the cabinet has two cable openings. One cable opening is completed with brush strip, the other with knock-out blanking plate
- The door opening direction and cable opening layout can be easily changed by rotating the cabinet by 180°.
- Wide range of supplementary accessories: shelves, drawers, fan kit, power strips etc
- Cabinet can be equipped with additional rear adjustable 19" mounting angles or mounting profiles

TECHNICAL DATA

Material:
Body, pear panel, mounting angles - sheet steel
Door - safety glass or sheet steel

Surface finishing:

Powder paint, light grey (RAL 7035).
All other colour options on request.
Mounting angles - Al-Zn coated.

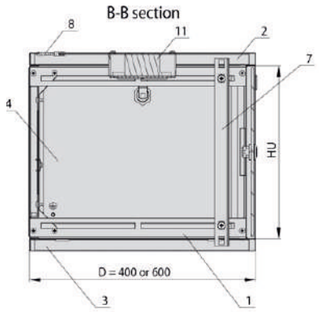
SCOPE OF DELIVERY

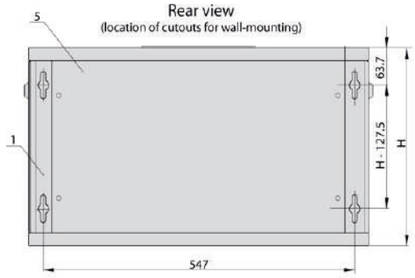
Cabinets are packed in cardboard boxes. In the packing there is a template for drilling holes in the wall.

Top plate of cabinet

Bottom plate of cabinet

WALL-MOUNTED NETWORK CABINET





CABINET FOR LIGHT EQUIPMENT

• Designed for small indoor networks.
• Available in 3 size variations (see reference chart). Other dimensions on request.
• The cabinet is based on metal body with metal solid door. It includes two 19" mounting angles fixed to the walls of the body.
• Openings in the top and bottom plate are covered with knockout blanking plates.
• The cabinet does not have a rear panel.

TECHNICAL DATA

Material:
Sheet steel
Surface finishing:
Powder painted in RAL 7035.
Application of other colours on request.

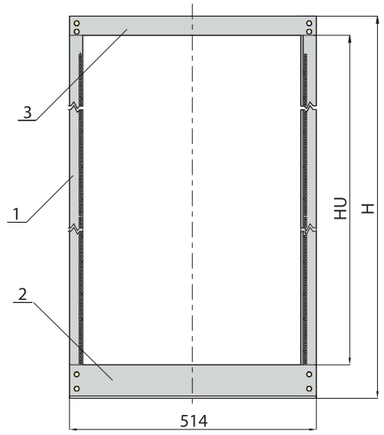
Packing method	Total width W [mm]	Total depth H [mm]	Total heigh H [mm]	Usable height HU [U = 44.45 mm]	Maximum load capacity [kg]
Cabinet in a flat pack for self assembly	600	600	871	18 U	30
			737	15U	25
			604	12 U	20
			515	10 U	16
			337	6 U	10
			248	4 U	7
	600	400	871	18 U	45
			737	15 U	37
			604	12 U	30
			515	10 U	25
			337	6 U	15
			248	4 U	10

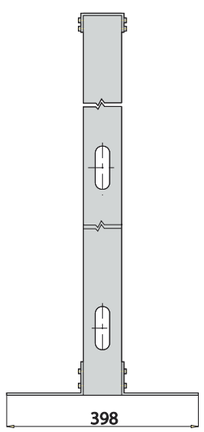
SINGLE-FRAME OPEN RACK

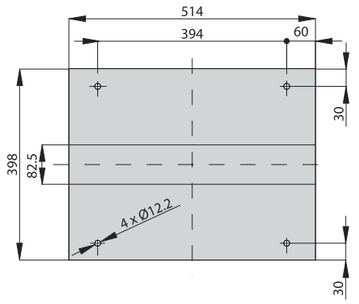
The design is based on a single assembled 19" frame fixed by screws to two steel mounting angles forming the base.
Chassis has openings to brace the rack to the floor.
Optionally the rack can be equipped with wall-fastening brackets.
Possibility to use some supplementary accessories as for data telecom cabinets: shelves, drawers, power strips etc.

REFERENCE CHART

HU [U = 44.45 mm]	H [mm]	Maximum load capacity [kg]
31 U	1496	100
45 U	2119	100
54 U	2519	100







TECHNICAL DATA

Material:
Sheet steel

Surface finishing:
Powder paint, light grey (RAL 7035).
All other colour options on request.

DESIGN

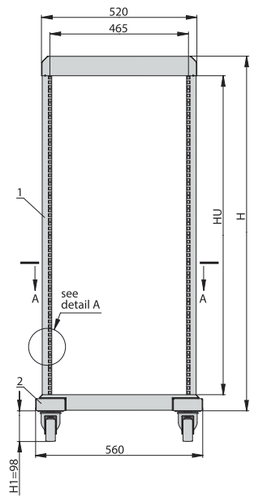
1. Vertical post
2. Chassis
3. Cross profile

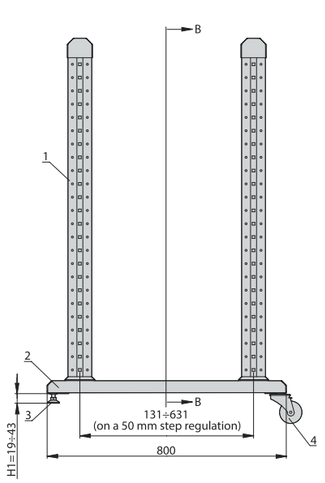
OPEN RACK WITH STEP ADJUSTABLE 19" R ACK FRAMES

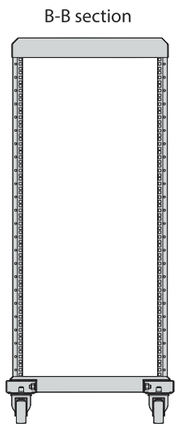
Made of two 19" welded frames that are fastened to the doublepart chasis with screws.
Positioning of the frames is based on a 50 mm pitch pattern.
Standard rack is placed on levelling feet.
Possibility for using some elements of supplementary equipment for data telecom cabinets – castors, shelves, drawers, power strips etc.

REFERENCE CHART

HU [U = 44.45 mm]	H [mm]	Maximum load capacity [kg]
24 U	1185	250
36 U	1719	250
42 U	1985	250
45 U	2119	250



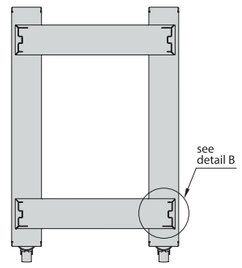


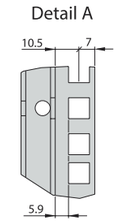


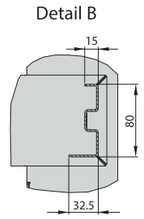
TECHNICAL DATA

Material:
Sheet steel

Surface finishing:
Powder paint, light grey (RAL 7035).
All other colour options on request.







DESIGN

1. 19" welded frame
2. Rack base
3. Levelling feet

Supplementary accessories:
4. Castors

ACCESSORIESFOR CABINETS AND OPEN RACKS

DATA COMMUNICATION COMPONENTS AND SOLUTIONS

WS - XONNECT

ACCESSORIESFOR CABINETS AND OPEN RACKS

BASE

Simple plinth 200 mm high with solid covers

Simple plinth

- For cabinets:
- Possibility of fixing into the room's floor.
- Possibility of adding rubber vibro-shock absorbers.
- It consists of the following elements ordered separately:
  - Plinth 100 mm high:
    4 simple corners 100 mm high, 4 side panels (each may be solid, perforated or with brush opening), 4 vibro-shock absorbers (option).
  - Plinth 200 mm high:
    4 simple corners 200 mm high, 8 side panels (each may be solid, perforated or with brush opening), 4 vibro-shock absorbers (option)

100 mm plinth with perforated cover at the front and cover with brush opening at the rear

Plinth with levelling option

- For cabinets:
- Levelling by means of feet.
- It consists of the following elements ordered separately:

- Plinth 100 mm high:
4 corners 100 mm high with levelling option (with feet), 4 side panels (each may be solid, perforated or with brush opening).
- Plinth 200 mm high:
4 corners 200 mm high with levelling option (with feet), 8 side panels (each may be solid, perforated or with brush opening).

Plinth with pull out stabiliser, 100 mm high

Plinth with pull out stabiliser

- Equipped with a stabiliser that protects the cabinet from tipping during the ejection of servers or other heavy devices installed on moving guides.
- Used where the cabinet cannot be attached to the floor.
- It consists of the following elements ordered separately:

- Plinth 100 mm high:
4 simple corners 100 mm high, 3 side panels (each may be solid, perforated or with brush opening), 1 assembly consisting of pull out stabiliser.
- Plinth 200 mm high:
4 simple corners 200 mm high, 7 side panels (each may be solid, perforated or with brush opening), 1 assembly consisting of pull out stabiliser.

Assembly consisting of pull out stabiliser

It consists of a stabiliser with two guides.
The assembly height is 100 mm.
It can also be used for 200 mm plinths.

Material:
Stabiliser - sheet steel, powder painted in light grey (RAL 7035) or black (RAL 9005).
Guides - sheet steel Al-Zn coated

Scope of delivery:
Assembly consisting of pull out stabiliser with fixing accessories.

For plinth	
width [mm]	height [mm]
800	1000
600	1000

ACCESSORIES FOR CABINETS AND OPEN RACKS

BASE

Plinth side panels

There are three types of plinth side panels available - see the picture. Each type has the standard height of 99 mm. Side panels can be removed even when the cabinet is loaded with equipment.

Material:
Sheet steel, powder painted in light grey (RAL 7035) or black (RAL 9005).

Scope of delivery:
Panel with fixing accessories.

Solid side panel

Perforated side panel

Side panel with brush opening

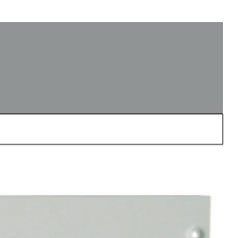
Product name	Length of side panel [mm]	Length of plinth's side [mm]
Solid side panel	800	1000
	600	800
	400	600
Perforated side panel	800	1000
	600	800
	400	600
Side panel with brush opening	800	1000
	600	800
	400	600

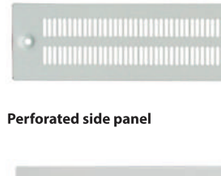
Plinth corners

They are available in two types:
- Simple corners – they can be fixed to the room's floor and provided with rubber vibro shock absorbers.
- Corners with levelling option – with feet.

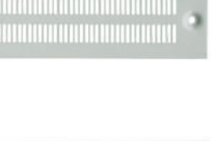
Material:
Corners: sheet steel powder painted in light grey (RAL 7035). Levelling feet.

Scope of delivery:
Set of 4 corners include fixing accessories for plinth side panels and assembling a plinth to the cabinet. Corners with levelling option are delivered with adjustable feet.





Simple corners



Corners with levelling option

Product name	Height [mm]	Pack-age
Set of 4 simple corners	200	1 set
	100	1 set
Set of 4 corners with levelling option	200	1 set
	100	1 set

DATA COMMUNICATION COMPONENTS AND SOLUTIONS
WS - XONNECT

ACCESSORIES FOR CABINETS AND OPEN RACKS

BASE

Vibro-shock absorber

Vibro-shock absorbers

The simple plinths can be optionally equipped with vibroshock absorbers.
Plinth with vibro-shock absorbers should be fixed into the room's floor. Four vibro-shock absorbers are needed for one plinth.

Material:
10 mm thick rubber

Scope of delivery:
Vibro-shock absorber (1 pc.) without fixing accessories.

Corner with vibro-shock absorber

Locking castor 150

Castors 150

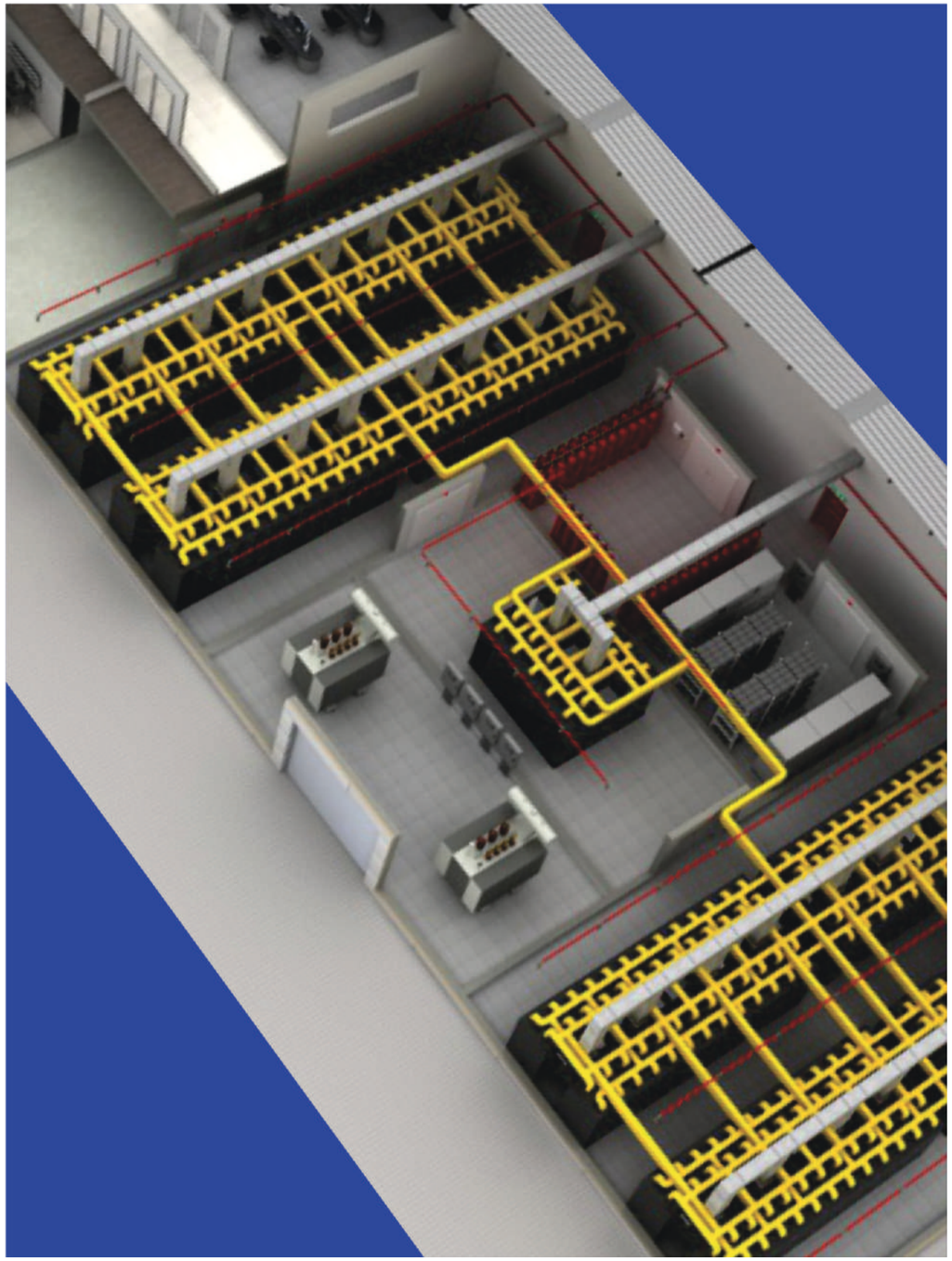
For cabinets:
One cabinet or open rack requires 2 locking and 2 nonlocking castors.
Maximum load capacity of 4 castors: 400 kg*

Scope of delivery:
Single castor with screws and washers for fixing into the cabinet or rack.

Non-locking castor 150

SERVER ROOM CABINET INSTALLATION CONCEPTS

SERVER ROOM CABINET INSTALLATION CONCEPTS



DATA COMMUNICATION COMPONENTS AND SOLUTIONS

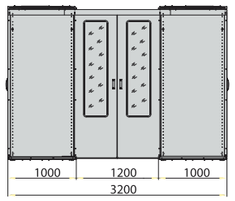
WS - XONNECT

SERVER ROOMS CABINETS

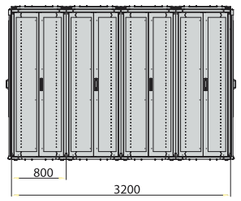
DATA BOX - COLD/HOT AISLE

Due to greater capacity densities of data centers, increased heat generation is observed, resulting in a higher demand for more energy-efficient cooling systems. The majority of data centers provides sufficient cooling capacity but does not have the infrastructure to effectively deliver the cooling medium to high density areas. WORKSPACE offers cabinet systems with slide doors and roof, making it possible to deliver a data center in the “cold aisle” or “hot aisle” technology. Such solutions physically separate hot air from cold air, thus ensuring efficient cooling for IT equipment. In “cold aisle” systems, cold air is flown through the access floor into a 120-cm-wide established between rows of cabinets. In the hot aisle system the heat generated by active devices is dissipation to the aisle’s space and cold air is provided from the outside of Bata Box. Data Box solution creating space where cold air is completely separated from hot air generated by active devices. Front and rear part of cabinet should have 80 % perforation to provide the best air flow through cabinet. In the Box designed by WORKSPACE company is possibility to install row heat exchanger. This solution allows for cooling devices with very high power density. Using Data Box solution we raise the safety factor. Your server environment can be protected with electronic access control system, with all the events registered by master PC

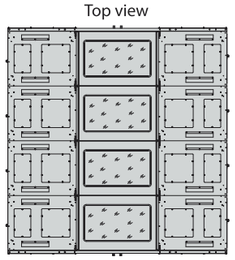
Front view



Side view



Top view



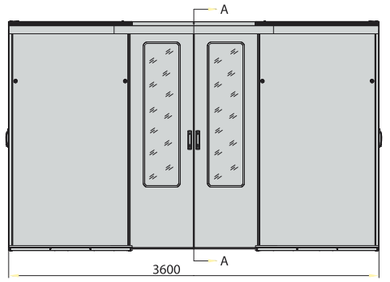
Sample server box consisting of eight DC 47 U cabinets, 800x1000 mm

DATA COMMUNICATION COMPONENTS AND SOLUTIONS

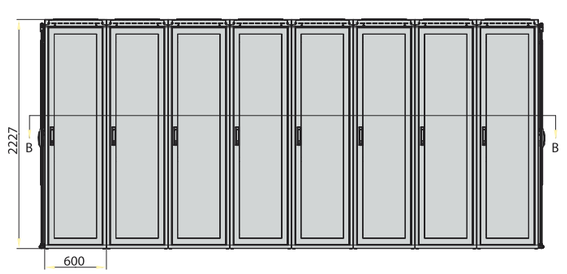
WS - XONNECT

DATA BOX - COLD/HOT AISLE

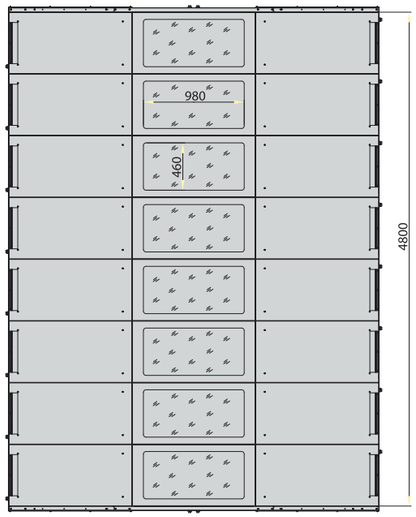
Front view



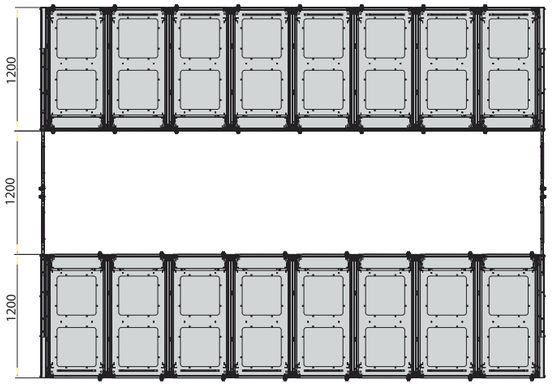
A-A section



Top view



B-B section



Sample server box consisting of sixteen DC 47 U cabinets, 600x1200 mm

Slide door system for Data Box aisle

A Data Box can be accessed through a double-wing sliding door. Mounted on one or both sides of the Data Box aisle, they ensure safety and physical separation of cold/hot air flows. Slide door is available in three versions: without lock, with machanical lock, and with machanical lock + electronic access control. The door is fitted with glass panes for improved control over Data Box interior events..

Material:
Sheet steel powder painted, mineral safety glass

Scope of delivery:
Two-wing sliding door, top guide, two bottom guides, two side panels of the cabinet, fixing accessories.

REFERENCE CHART OF DC CABINETS

Width [mm]	Depth [mm]	Reference number		
800	1000	1	3	5
	1200	21	23	25
600	1000	2	4	6
	1200	22	24	26
Usable height [U = 44.45 mm]		47 U	45 U	42 U
Frame height [mm]		2186	2096	1963

Data Box aisle panel

Aisle panel can be mounted on the end of Data Box aisle instead sliding door.

Material:
Sheet steel powder painted, mineral safety glass

Scope of delivery:
Aisle panel with fixing accessories.

Data Box aisle roof

Available in modular design. Roof modules are available in four widths, matching the width of server cabinets and row heat exchangers or management cabinets. The roof modules are fixed directly to the top plate of the cabinet.

Material:
Sheet steel powder painted, mineral safety glass

Scope of delivery:
Roof module with fixing accessories.
The selected number of roof modules (N) will be automatically provided with the following mounting accessories:
- (N-1) middle mounting profiles for interconnecting the roof modules
- 2 side mounting profiles for aisle roof

DATA COMMUNICATION COMPONENTS AND SOLUTIONS

WS - XONNECT

DATA BOX - COLD/HOT AISLE

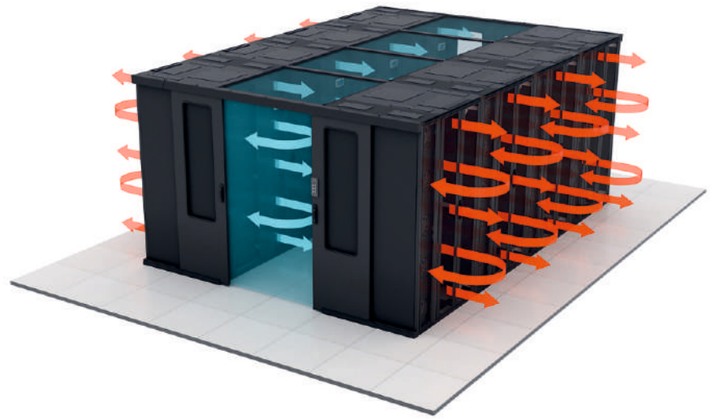
1360 kg

Recommended server cabinet configurations for Data Box

In order to ensure proper air circulation inside the cabinet, the front and rear doors should be
provided with perforation with clearance of 80%, as well as with additional accessories that
prevent air from being dissipated within the cabinet i.e.: blanking plates, vertical masking
panels, horizontal brush strips

Cabinet configuration:
- front and rear doors with perforation featuring 80%,
- bottom plate and top plate of the cabinet with openings for routing cables and feeding
cooling air,
- cabinet dimensions, door handle type and colour to be specified according to the following table and coding system.

SERVER ROOM COOLING IN THE "COLD AISLE" TECHNOLOGY IN A BOX OF CABINETS WITH ROW HEAT EXCHANGERS

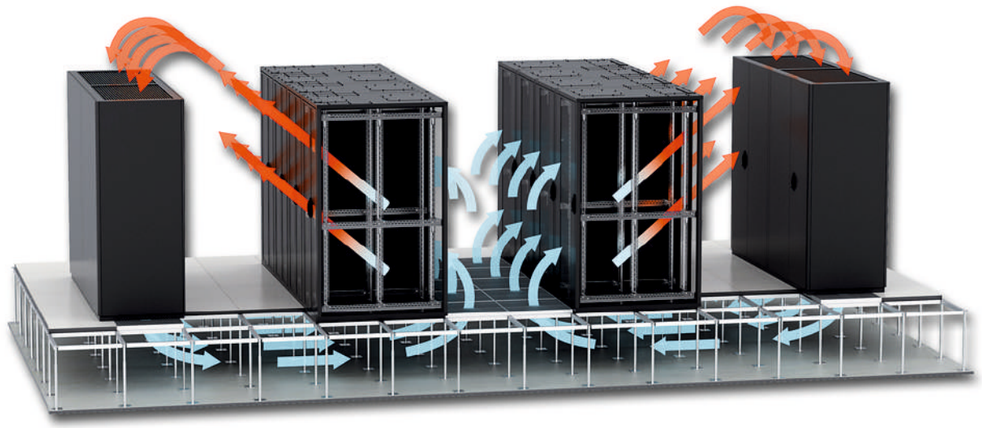


SERVER ROOM COOLING IN THE "HOT AISLE" TECHNOLOGY IN A BOX OF CABINETS WITH ROW HEAT EXCHANGERS

SERVER CABINETS IN ROWS

Server cabinet configuration with cold/hot air separation

Increasing capacities of data centers generate demand for efficient energy performance in HVAC systems. The greatest challenge in designing data centers is to ensure an optimum operating temperature of IT equipment located in server cabinets along with protection against thermal damage.
The correct temperature in a server room can be achieved by preventing cooling air from mixing with hot air generated by the active equipment running in server cabinets. An easy and efficient remedy to such problems is placing cabinet rows parallel to one another. Opposite cabinets should face one another. Cold air is delivered via the access floor and blown directly in front of server cabinets to create the so-called "cold air zone".



In order to ensure proper air circulation inside the cabinet, the front and rear door should be provided with perforation with clearance of 80%, as well as with additional accessories that prevent air from being dissipated within the cabinet i.e.: blanking plates, vertical masking panels, horizontal brush strips

CLOSED-CIRCUIT COOLING

Server cabinet configuration for closed-circuit cooling

Evolving data center technologies lead to a wider use of blade servers and other high power density systems. High energy demand is in almost direct relation to the volume of heat produced by server rooms, and results in the formation of the so-called "hot-spots". With varied level of generated heat, uniform cooling distribution systems are incapable of providing sufficient performance. As an alternative, cold air distribution systems are used and their cooling capacity adjusted to the load of a given server cabinet. Side heat exchangers are perfect for such applications. Installed to the side of a server cabinet, they ensure air circulation and deliver cold air directly in front of the active device

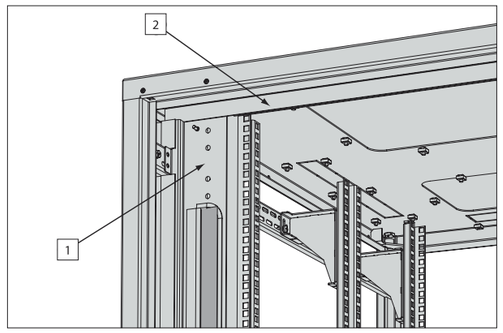
Recommended server cabinet configurations for applications with the use of side heat exchangers:
In order to ensure proper air circulation inside the cabinet, the front and rear door should be provided without perfora- tion and with all the accessories that prevent air from being directed to certain areas within the cabinet i.e.: blanking plates, vertical masking panels, horizontal brush strips

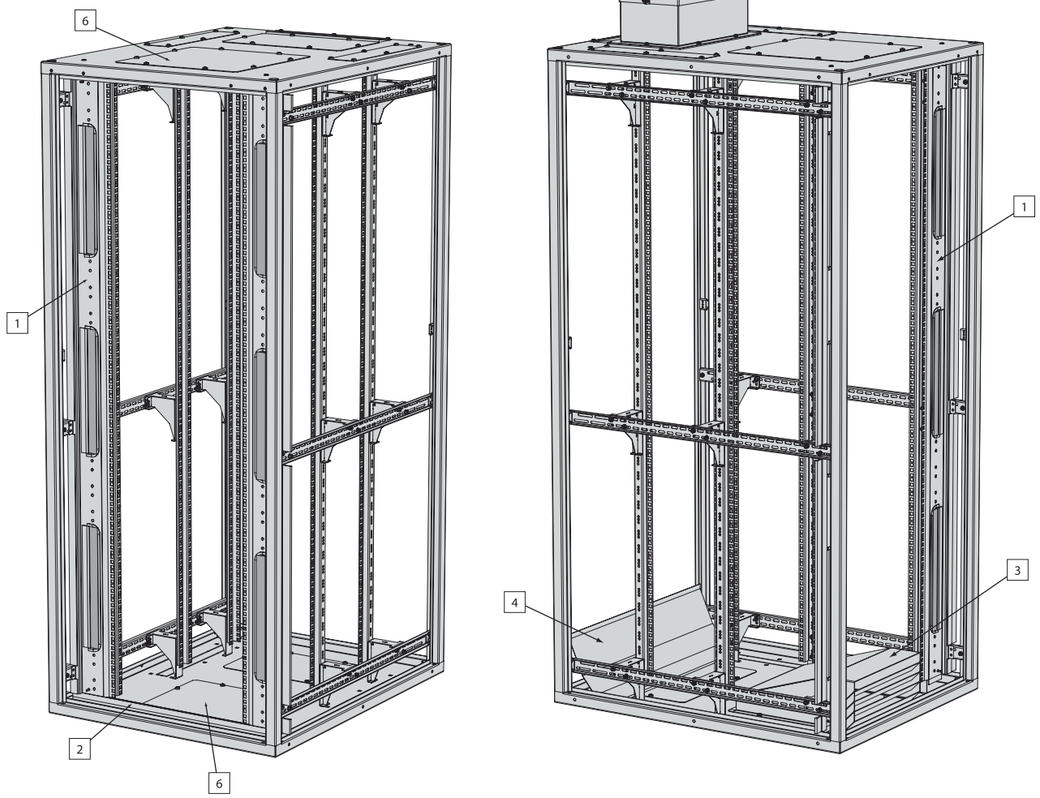
Server cabinet with a side heat exchanger. Cabinet width: 800 mm, heat exchanger width: 300 mm. Cabinet door with mineral safety glass

AIR FLOW MANAGEMENT IN SERVER CABINETS

With increasing power densities of data centers, air flow management in server cabinets is gaining importance.
Cooling IT equipment consists in feeding cold air into a cabinet, supplying it to active devices and discharging it out of the cabinet. If hot air being discharged is drawnin and mixed with cold air at device inlets, the cooling air becomes warmer. As a result, overheatingrelated damage in computer devices may potentially occur. To prevent such issues, it is recommended to use proper blanking plates, masking panels, brush strips and air flow facilitation items.

List of elements
1. Vertical masking panel with cable entries
2. Horizontal brush strip
3. Cold air deflector
4. Air flow guide vane
5. Vertical hot air duct
6. Blanking plate





DATA COMMUNICATION COMPONENTS AND SOLUTIONS

WS - XONNECT

AIR FLOW MANAGEMENT IN SERVER CABINETS

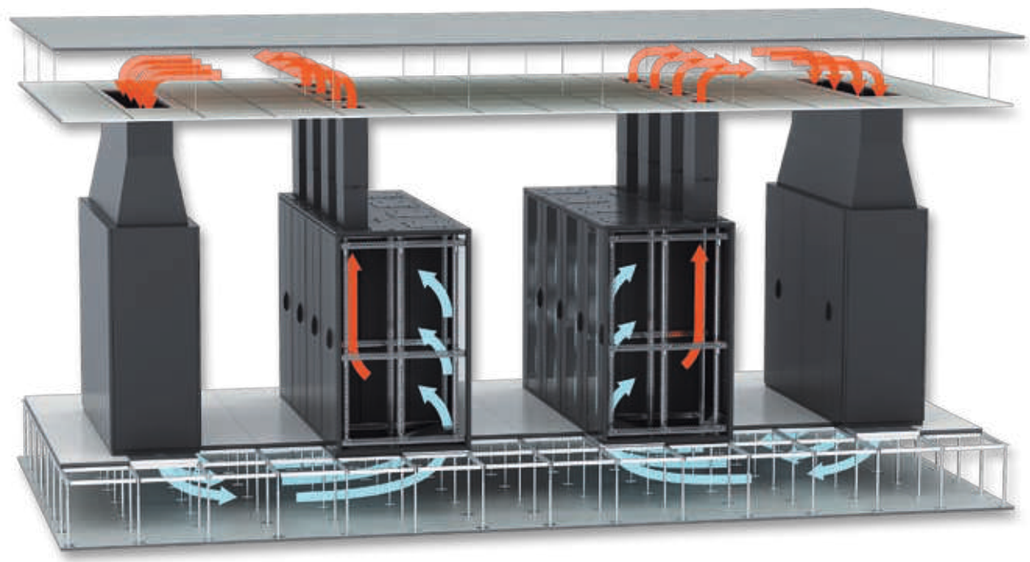
Air flow guide vane

Located at the back of a cabinet, it facilitates the natural flow of hot air generated by an active device towards the top of the cabinet. The vane should be used with “a vertical hot air duct” located on the top plate of the cabinet in order to feed hot air out of the cabinet (via a separate duct) to the air conditioning unit.

Material:
Sheet steel powder painted

Scope of delivery
Vane with fixing accessories.

For cabinet width [mm]
600
800

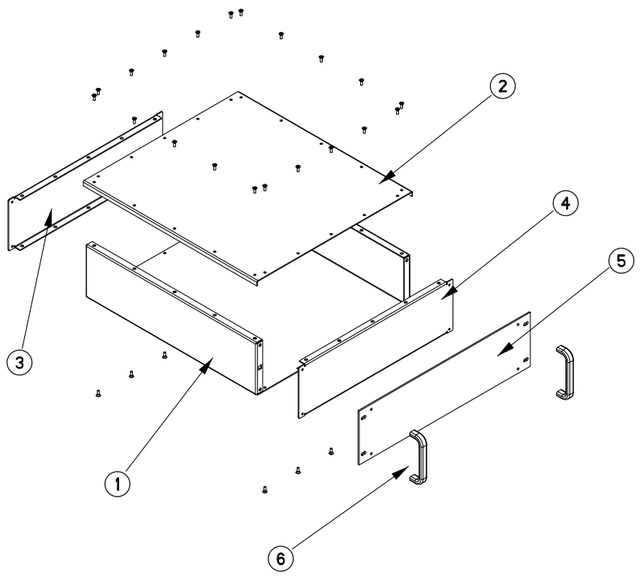


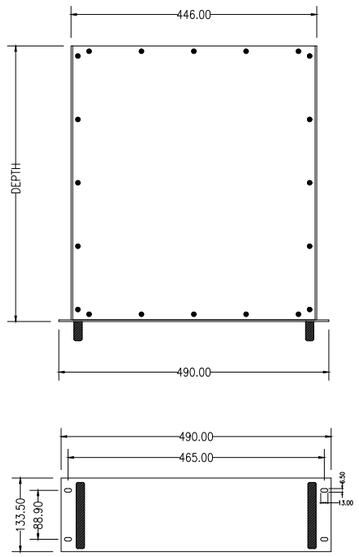
EMC/EMI RACK

3U SUBRACK

EMC/EMI Basic Rack
Simple design.
Extensive modular design allowing multiple configurations.
Robustness (end shields 2.0 mm thick Aluminum Sheet).
Planned for mounting with full EMC removable shielding, partial or set back.
An assembly for mounting bus and/or DIN 41612 connectors must be added to mount a bus.
An assembly for plugging in boards at the rear must be added for front and rear plug-in mounting.

Dimensions:





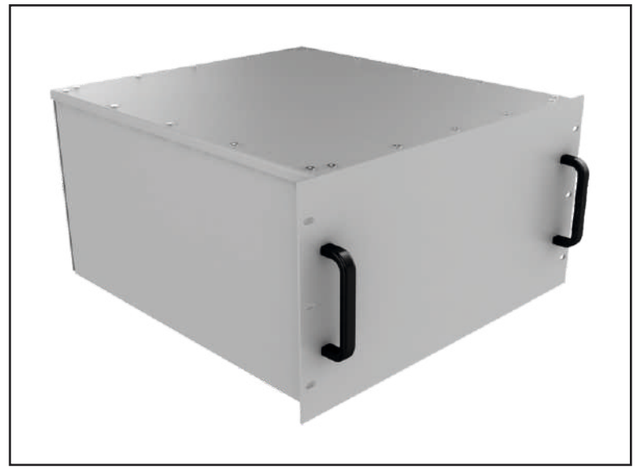
Composition:

Rep.	Qty.	Description	Material	Treatment
1	1	Base Panel	Alu. 2.0 mm thick	Conductive passivation/ Anodization*
2	1	Top Cover	Alu. 2.0 mm thick	Conductive passivation/ Anodization*
3	1	Back Panel	Alu. 2.0 mm thick	Conductive passivation/ Anodization*
4	1	Front Inner Panel	Alu. 2.0 mm thick	Conductive passivation/ Anodization*
5	1	Front Outer Panel	Alu. 3.0 mm thick	Conductive passivation/ Anodization*
6	2	Handle	Alu./Black ABS	

* Colourless conductive passivation.

Normal: ask your salesperson for lead times. Italics: consult us.
Remember: 1 TE = 5.08 mm. 1 U = 44.45 mm.

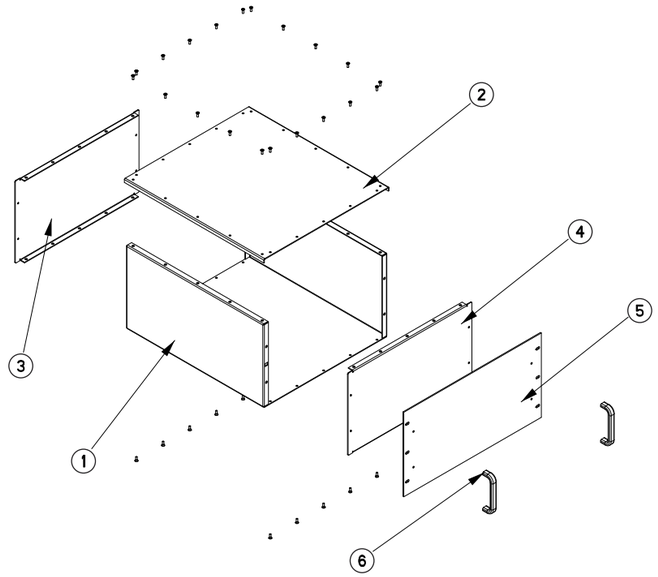
EMC/EMI RACK

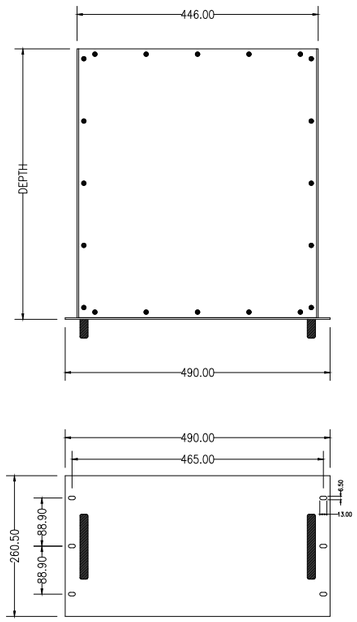


6U SUBRACK

EMC/EMI Basic Rack
Simple design.
Extensive modular design allowing multiple configurations.
Robustness (end shields 2.0 mm thick Aluminum Sheet).
Planned for mounting with full EMC removable shielding, partial or set back.
An assembly for mounting bus and/or DIN 41612 connectors must be added to mount a bus.
An assembly for plugging in boards at the rear must be added for front and rear plug-in mounting.

Dimensions:





Composition:

Rep.	Qty.	Description	Material	Treatment
1	1	Base Panel	Alu. 2.0 mm thick	Conductive passivation/ Anodization*
2	1	Top Cover	Alu. 2.0 mm thick	Conductive passivation/ Anodization*
3	1	Back Panel	Alu. 2.0 mm thick	Conductive passivation/ Anodization*
4	1	Front Inner Panel	Alu. 2.0 mm thick	Conductive passivation/ Anodization*
5	1	Front Outer Panel	Alu. 3.0 mm thick	Conductive passivation/ Anodization*
6	2	Handle	Alu./Black ABS	

* Colourless conductive passivation.

Normal: ask your salesperson for lead times. Italics: consult us.
Remember: 1 TE = 5.08 mm. 1 U = 44.45 mm.

XONNECT™

CONNECT TECHNOLOGY

Data Rack System

Certification

Marketed by :

Temflo System Pvt. Ltd.

12/19, Site-IV, Sahibabad Industrial Area,
Sahibabad-201010, Delhi-NCR.
Ph. 0120-4217441,
Website: www.temflo.co.in
E-mail: info@temflo.co.in

Designed & Manufactured by :

Workspace Metal Solutions Pvt. Ltd.

Plot No. B - 437, 438, Road No. 18A, Bhamashah
Industrial area, Kaladwas, Udaipur - 313002,
(Rajasthan)