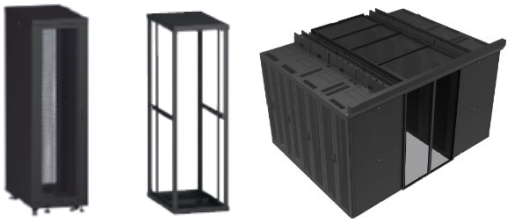
Linkeo Data Center / Server Cabinets & Corridor Solutions

Part Numbers: 4 468 0X / 4 468 2X
4 468 4X / 4 468 5X / 4 468 6X
4 468 7X / 4 468 8X / 4 468 9X
4 469 0X / 4 469 1X / 4 469 2X
4 469 3X / 4 469 4X / 4 469 5X



CONTENTS **Page**

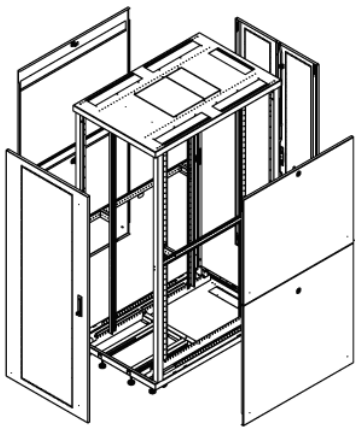
1.General Characteristics.....1
2.Range.....2
3.Technical Characteristics.....3
4.Dimensions.....4
5.Cabinet Accessories.....8
6.Corridor Solutions.....13

1. GENERAL CHARACTERISTICS

19'' free-standing server cabinet series for mission critical operations such as data storage, server housing infrastructural cabling and has also solution for hot/cold corridor data center architecture. Color is RAL 9005 black.

1.1 Presentation

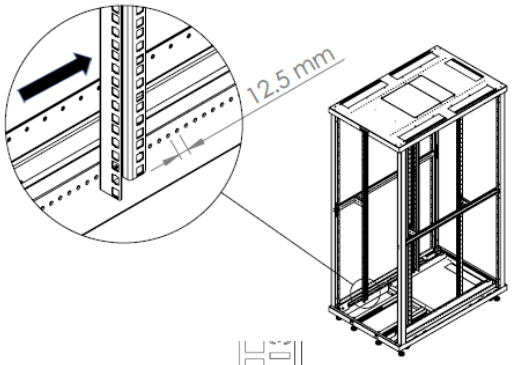
The 19'' Linkeo DC server racks are mainly consist of:
- Monoblock bended, welded and profile-interlocking top and bottom frame design
- Multiple brushed cable entries on top and bottom of the cabinet (see paragraph 4.2.3)
- Cut-out at the top for fan kit (see paragraph 4.2.1/4.2.2/5.9)
- Main profile (framework) has consisting of 4 bends for each profile. Additionally there are 2 pieces horizontal profile for increase the stability of the cabinet in the middle area
- Side panels are lockable & removable in 1 part (depth 1000 mm) or in 2 parts (depth 1200 mm) for easiest handling
- 80% perforated front/rear doors include three point locking system
- Equipped with 4x19'' uprights with U marking and adjustable depth
- Anti-tilt bar for provide a high level of stability for the products. This is an option (4 468 86)
- Rotational type castors and levelling feet. Castor are in option (4 468 80)

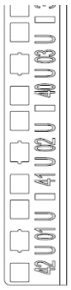


1. GENERAL CHARACTERISTICS (CONTINUED)

1.1 Presentation (Continued)

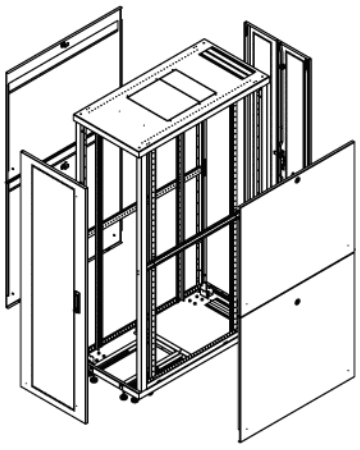
The 19'' uprights have a double U marking and are adjustable in depth in 12,5 mm steps.





Double U marking makes it easy to find your way from above and below

The 19''uprights are perforated with 9,5x9,5 squares



1. GENARAL CHARACTERISTICS (CONTINUED)

1.2 Standards

19'' Linkeo DC comply with the following standarts.

ISO 9001:2015	Quality Management System
ISO 14001:2015	Environmental Management System
ISO 27001:2013	Information Security Management System
ISO 45001:2018	Occupational Health and Safety Management System
IEC 297-1	19" device mounting uprights
EN 61587-1	Mechanical structures for electronic equipment
IEC 297-2	All cabinet sizes comply

Resistance to environmental conditions and corrosion:

- Stability, mechanical safety, resistance to static, dynamic and mechanical loads
- Resistance to vibration, mechanical shock and impact
- Degrees of mechanical protection provided by the enclosure (IP20), electrical grounding continuity
- Fire and flame resistance

Have been tested according to the standard - EN 61587-1 with the normative standards: IEC 60917, IEC 60297, IEC 60068-1, IEC 60068-2, IEC 60695-11-10, IEC 60950-1, contained and certified by the notified organizations

TSE certificate number:
003788-TSE-08/02
Corrosion:
ISO 9227 Standard complied by the test report METALTEK AB-0547-T / 0157-1
Transport:
ETS 300 019-1-2 Class 2-3 Comply with internal testing
Storage:
ETS 300 019-1-1 Class 1-2 Comply with internal testing
Surface finish:
Electrostatic powder coated c/with surface treatment, 80 +/-5 micron paint thickness

2. RANGE

2.1 Complete server cabinets (ready assembled)

Equipped with:

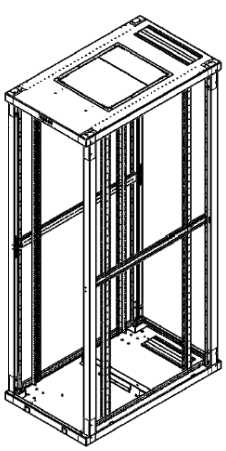
- Single front and rear 80% perforated door
- 2 side panels
- Levelling feet
- Grounding kit

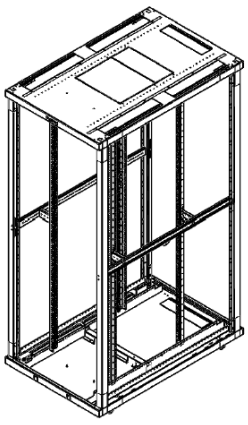
Cat Nos	Capacity	Height	Overall Width	Depth
4 468 00	42U	2052	600	1000
4 468 01	42U	2052	600	1200
4 468 02	42U	2052	800	1000
4 468 03	42U	2052	800	1200
4 468 04	47U	2274	600	1000
4 468 05	47U	2274	600	1200
4 468 06	47U	2274	800	1000
4 468 07	47U	2274	800	1200

2.2 Server Cabinet Frame

Cabinet frame without doors, side panels, levelling feet

Cat Nos	Capacity	Height	Overall Width	Depth
4 468 20	42U	1967	600	1000
4 468 21	42U	1967	600	1200
4 468 22	42U	1967	800	1000
4 468 23	42U	1967	800	1200
4 468 24	47U	2189	600	1000
4 468 25	47U	2189	600	1200
4 468 26	47U	2189	800	1000
4 468 27	47U	2189	800	1200



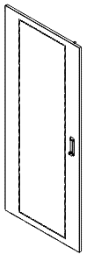


2.RANGE (CONTINUED)

2.3 Front or Rear Cabinets Door

- 80% perforated door
- Can open 220˚
- 3 points locking mechanism and hinge system
- Include 1 piece of door with key
- Reversible door

Reversible single opening



4 468 40	**For cabinets 42U 600**
4 468 41	**For cabinets 42U 800**
4 468 42	**For cabinets 47U 600**
4 468 43	**For cabinets 47U 800**

Double opening (2 parts)



4 468 50	**For cabinets 42U 600**
4 468 51	**For cabinets 42U 800**
4 468 52	**For cabinets 47U 600**
4 468 53	**For cabinets 47U 800**

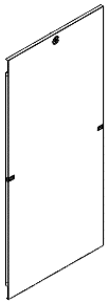
2.4 Cabinet Side Panel

- Fixed to cabinet by cylindrical key lock
- Set of 2 side panels

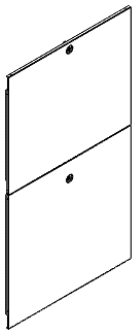
  Side panel in 1 piece for 1000 mm deep cabinets

  Side panel in 2 pieces (half cabinet height) for 1200 mm deep cabinets

4 468 60	**For cabinets 42U 1000**
4 468 61	**For cabinets 42U 1200**
4 468 62	**For cabinets 47U 1000**
4 468 63	**For cabinets 47U 1200**



For 1000 mm depth



For 1200 mm depth

3. TECHNICAL CHARACTERISTICS

3.1 Protection

- IP20 according to IEC 60529

Protected against solid objects larger than 12,5 mm in diameter

- IK08

3.2 Load Capacity

- Max. permissible load in the cabinet 1500 kg

For individual static load (NL5)
For combined static load (SL5)

Classification	Nominal Load (NL) cabinet kg
NL1	200
NL2	400
NL3	800
NL4	1000
NL5	1500

3.3 Design

Top Frame

- Produced from sheet steel (DC01)
- Painted RAL 9005
- Thickness is 1,5 mm / include 3 mm corner parts
- Welding structure
- Suitable for fan module fixing (see paragraph 4.2.1/4.2.2)
- Plenty of cable entry possibility
- Brush type cable entries (see paragraph 4.2.3)

Bottom Frame

- Produced from sheet steel (DC01)
- Thickness is 1,5 mm / include 3 mm corner parts
- Welding structure
- Painted RAL 9005

Main Profile (Framework)

- Produced from sheet steel (DC01)
- Painted RAL 9005
- Thickness is 1,5 mm

19'' Uprights

- Produced from galvanized steel (DX51D+Z)
- Thickness is 1,5 mm
- Double U marking (see paragraph 1.1)
- Perforated 9,5x9,5 mm square (see paragraph 1.1)

Side Panel

- Produced from sheet steel (DC01)
- Painted RAL 9005
- Thickness is 1 mm
- Fixed cabinet by cylindrical lock
- For 1000 mm depth 1 piece in one side

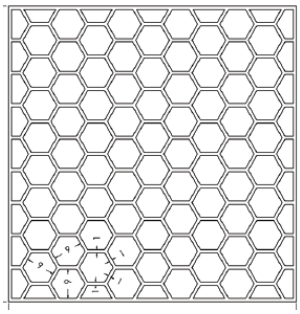
  For 1200 mm depth 2 pieces (see paragraph 2.4)

3. TECHNICAL CHARACTERISTICS (CONTINUED)

3.3 Design (Continued)

Front & Rear Door

- Produced from sheet steel (DC01)
- Thickness is 1,2 mm
- Painted RAL 9005
- The door has 80% perforations to have a efficient air flow
- Can open 220˚ (see paragraph 4.1)



80% perforations

Locking Mechanism

- For front&rear doors
  3 points lock handle with semi cylindrical barrel
  Swing handle zing die black powder coated
  Key code: 9473
- For side panel
  Barrel type lock unit, single point
  Key code: 9473

Hinge System

- Zinc alloy steel to fix the door

Levelling feet

- Zinc-plated steel levelling feet with fixed polypropylene base

3.4 Paint Coating Properties

- Electrostatic powder coated
- RAL 9005 Black
- 80 +/-5 micron painting thickness
- Corrosion according to ASTM B-117 method four 504 hours, there is no rusting
  Rusting degree (ISO 4628-8: 2013): 1

3.5 Electrical Continuity

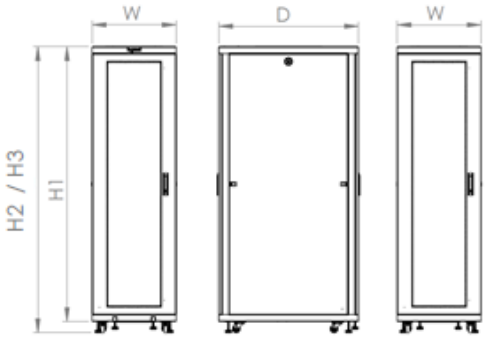
Continuity of the cabinet metal conductive parts of frame is achieved by design. For door and each panel, the continuity is achieved by earth cables delivered with the cabinets.

4.DIMENSIONS

All dimensions are expressed in mm

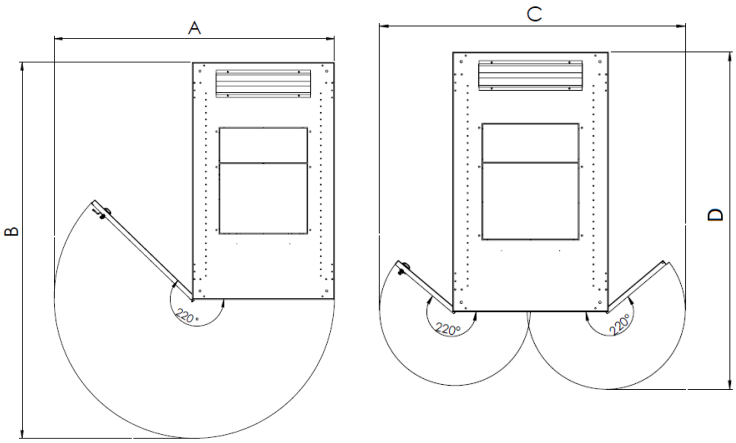
4.1 Overall dimensions

Model Shown: 600x600 mm / 800x800 mm



Ref.	Capacity	W	D	H1	H2	H3
4 468 00	42U	600	1000	1965	2045	1990
4 468 01	42U	600	1200	1965	2045	1990
4 468 02	42U	800	1000	1965	2045	1990
4 468 03	42U	800	1200	1965	2045	1990
4 468 04	47U	600	1000	2190	2270	2215
4 468 05	47U	600	1200	2190	2270	2215
4 468 06	47U	800	1000	2190	2270	2215
4 468 07	47U	800	1200	2190	2270	2215

Note: H3 size minimum height with leveling feet
Anti-tilting bar is not used if the product is brought to this size



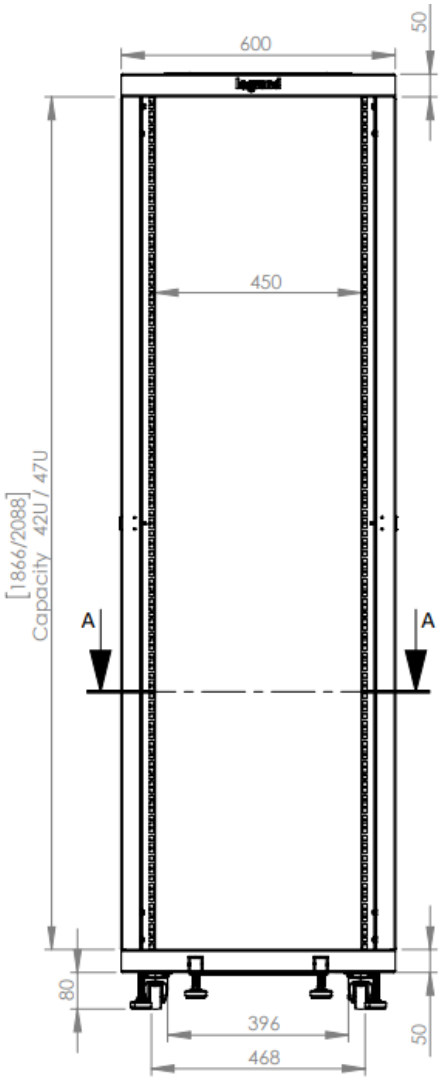
Ref.	Capacity	A	B	C	D
4 468 00	42U	1183	1585	1178	1300
4 468 01	42U	1183	1785	1178	1500
4 468 02	42U	1541	1585	1537	1300
4 468 03	42U	1541	1785	1537	1500
4 468 04	47U	1183	1585	1178	1300
4 468 05	47U	1183	1785	1178	1500
4 468 06	47U	1541	1585	1537	1300
4 468 07	47U	1541	1785	1537	1500

4.DIMENSIONS (CONTINUED)

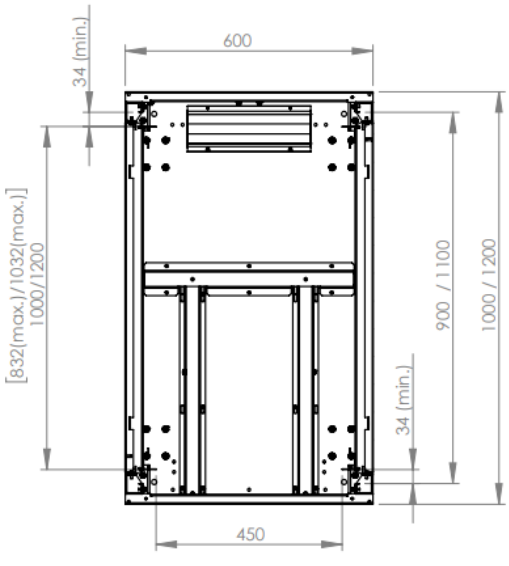
4.2 Useful dimensions

(Equipped with casters and anti-tilt kit that are options)

4.2.1 For 600 mm Wide



Front View



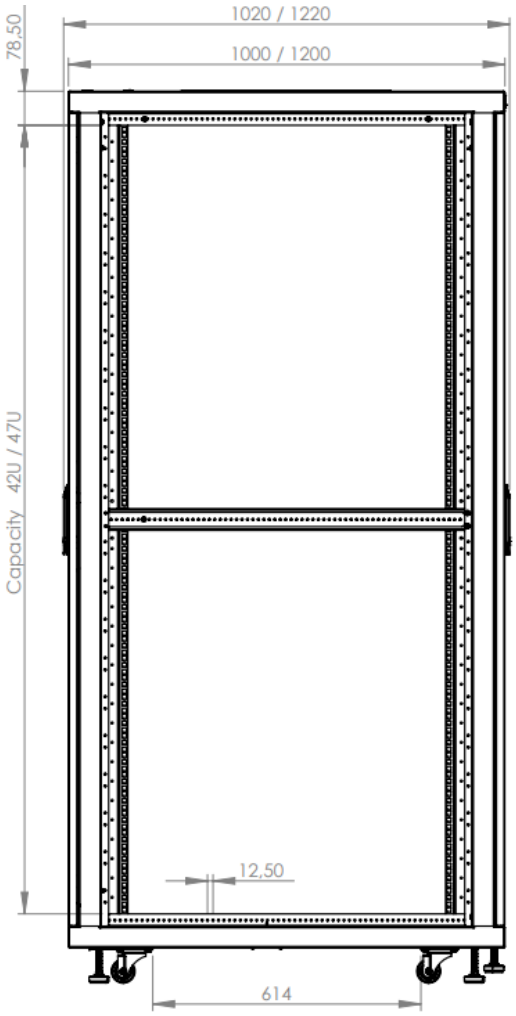
SECTION A-A

4.DIMENSIONS (CONTINUED)

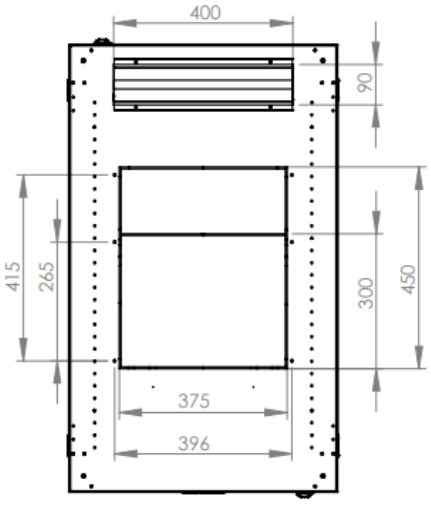
4.2 Useful dimensions (Continued)

(Equipped with casters and anti-tilt kit that are option)

4.2.1 For 600 mm Wide (Continued)



Side View



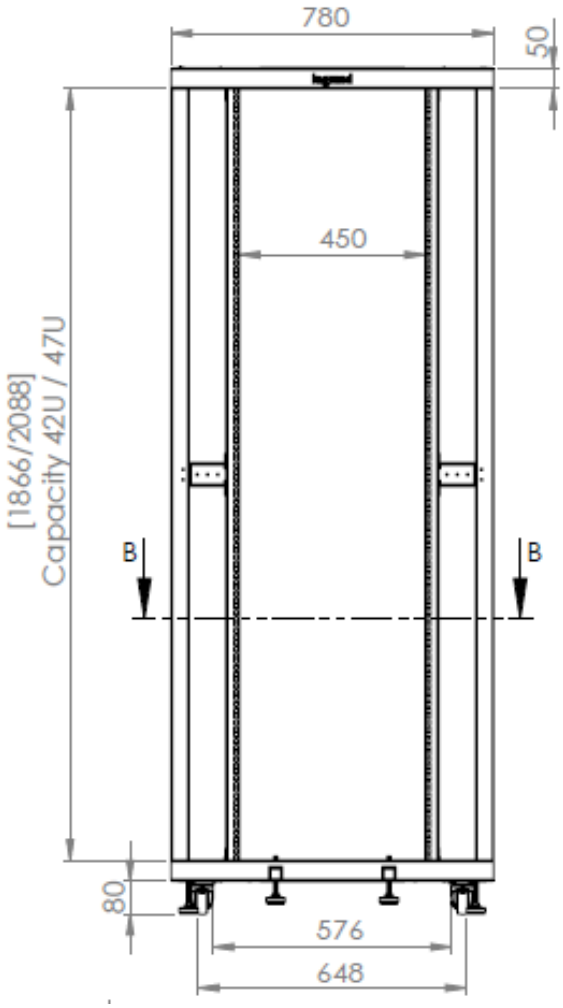
Top View

4.DIMENSIONS (CONTINUED)

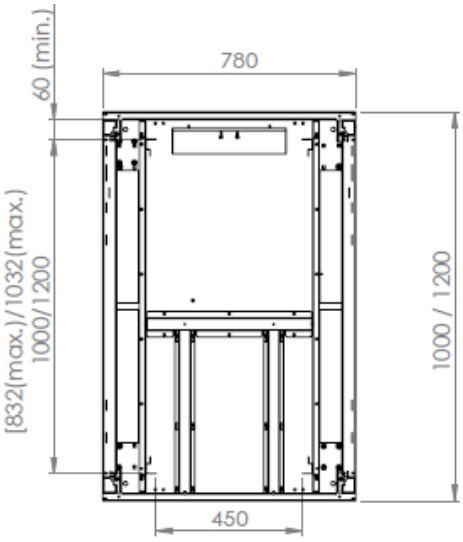
4.2 Useful dimensions (Continued)

(Equipped with casters and anti-tilt kit that are options)

4.2.2 For 800 mm Wide (Continued)



Front View



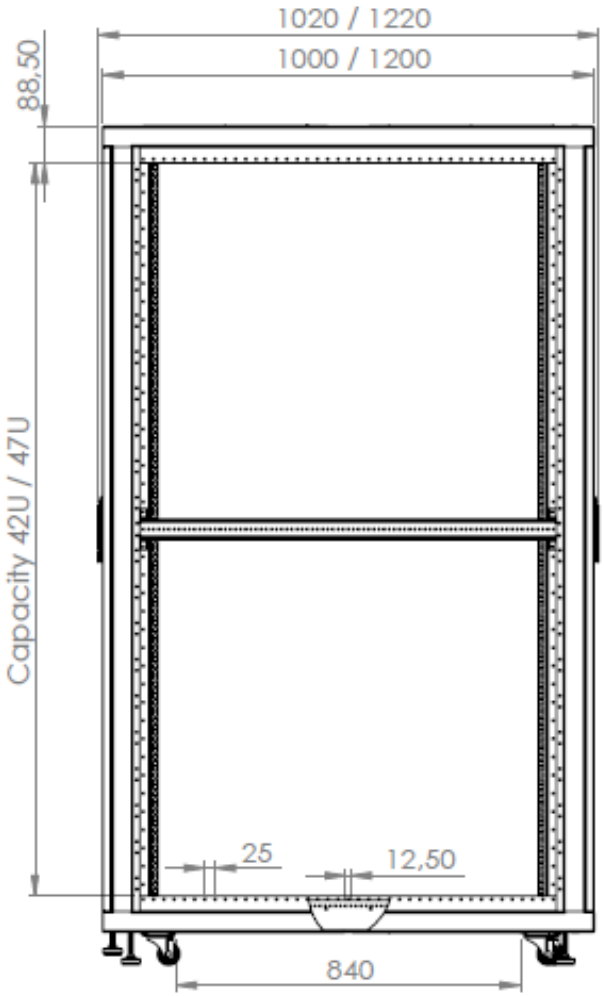
SECTION B-B

4.DIMENSIONS (CONTINUED)

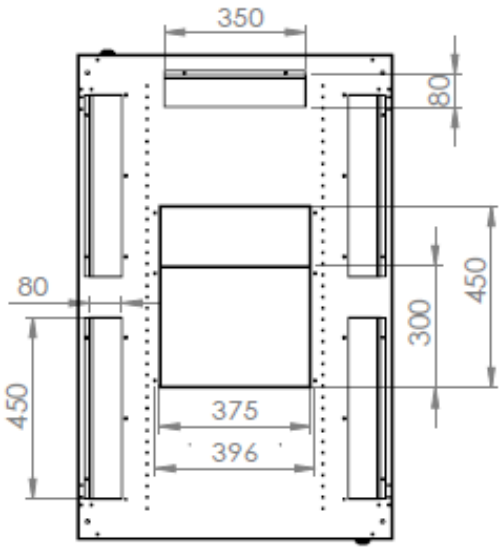
4.2 Useful dimensions (Continued)

(Equipped with casters and anti-tilt kit that are options)

4.2.2 For 800 mm Wide (Continued



Side View



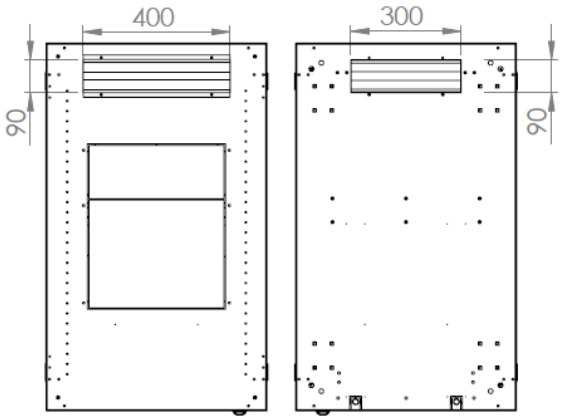
Top View

4.DIMENSIONS (CONTINUED)

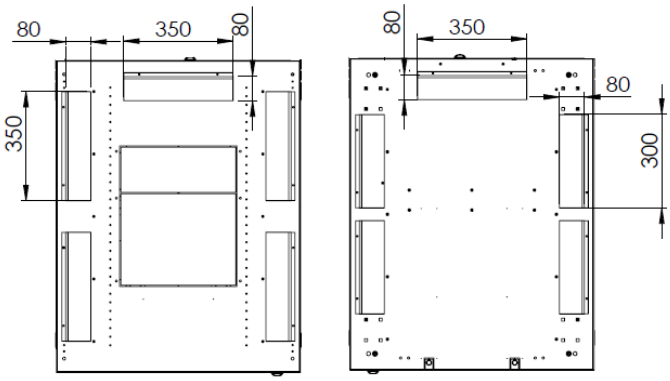
4.2 Useful dimensions (Continued)

(Equipped with casters and anti-tilt kit that are options)

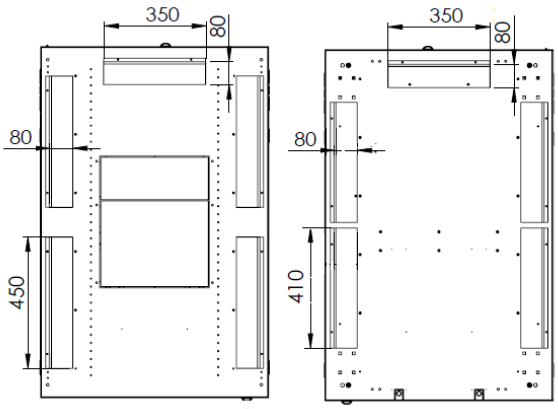
4.2.3 Cable entry dimensions



600x1000 & 600x1200 mm TOP and BOTTOM



800x1000 mm TOP and BOTTOM



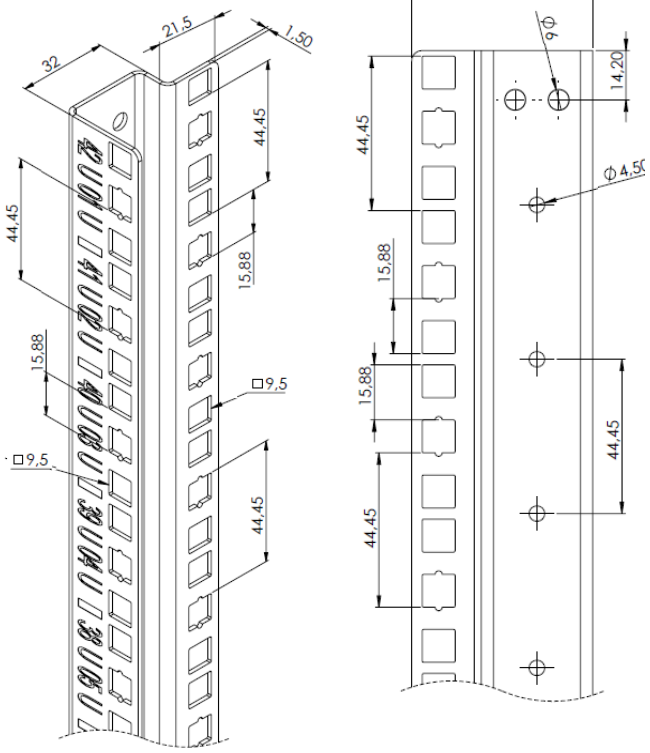
800x1200 mm TOP and BOTTOM

4.DIMENSIONS (CONTINUED)

4.2 Useful dimensions (Continued)

(Equipped with casters and anti-tilt kit that are options)

4.2.4 Upright 19''

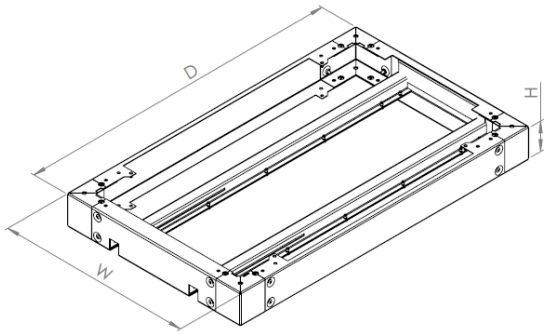


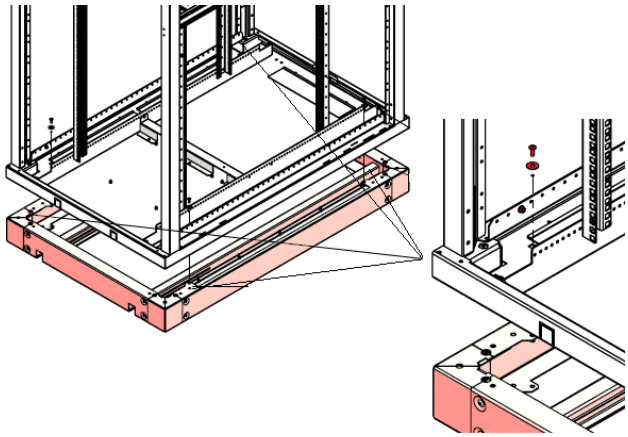
5. CABINET ACCESSORIES

5.1 PLINTH

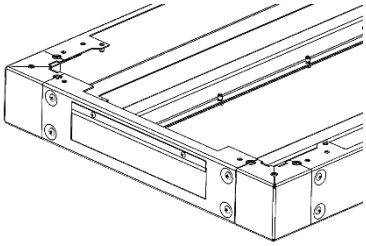
Metal plinths consisting of 4 corner blocks

Ref.	W	D	H
4 468 70	600	1000	100
4 468 71	600	1200	100
4 468 72	780	1000	100
4 468 73	780	1200	100





- The base is fixed with M5 screws and washer
- Main chassis steel 1,5 mm with painting
- Corner part steel 1,5+1,5 mm include welding parts
- Brushed cable entry on the back



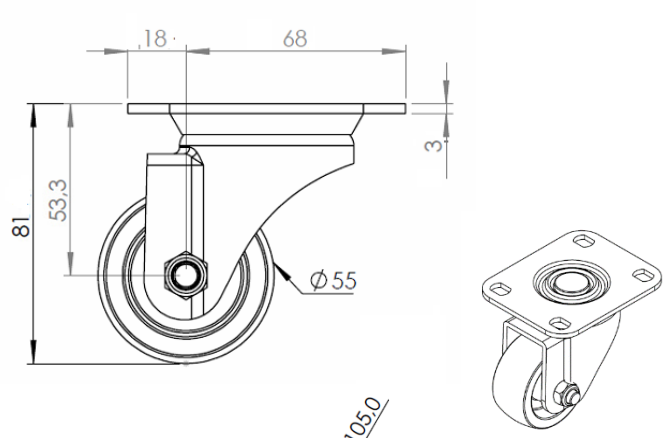
- Can be fixed to the ground (screws not supplied)
- Supplied with the cabinet fixing screws and washers
- Anti -tilt bar (4 468 86) can be assembled

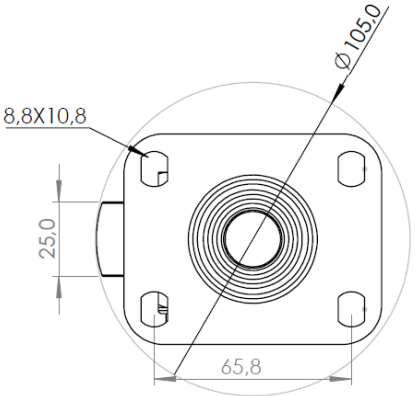
5. CABINET ACCESSORIES (CONTINUED)

5.2 CASTERS AND LEVELLING FEET

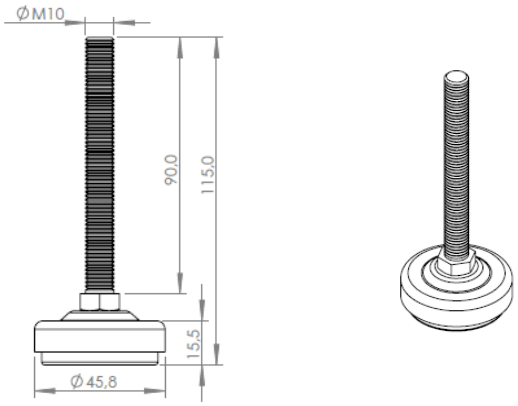
Ref.	Description
4 468 80	CASTERS (1 SET 4 PIECES)
4 468 81	LEVELLING FEET M10X90 - 1 SET 4 PIECES

- Set of 4 casters
- Total height 81 mm
- Supplied with fixing screws
- Black plastic wheel
- Load capacity per caster: fixed (150 kg), moving (112 kg)





- Set of 4 pcs levelling feet
  Possible to adjust height of the feet from the floor
  Load capacity per levelling feet: 375 kg

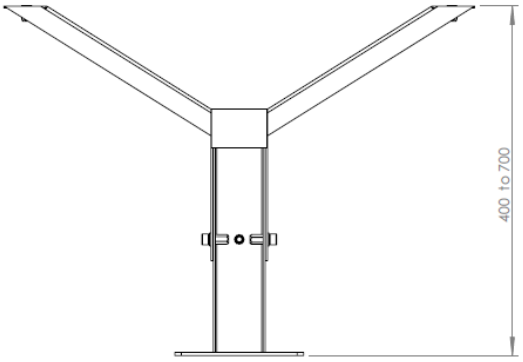


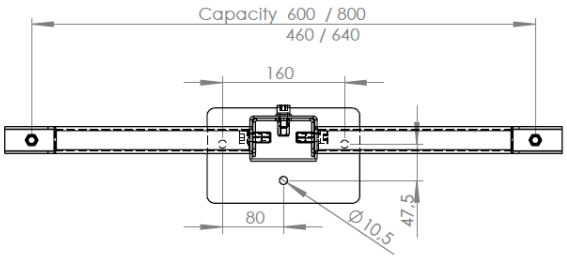
5. CABINET ACCESSORIES (CONTINUED)

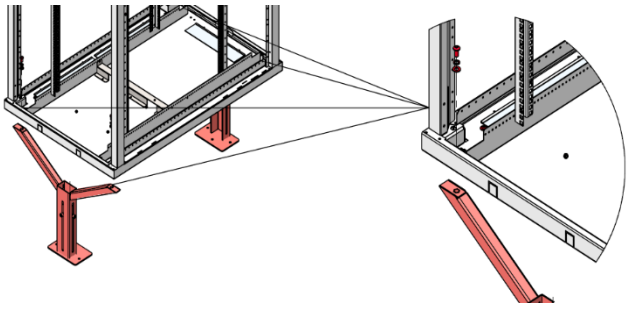
5.3 RAISED FLOOR SUPPORT KIT

Ref.	Description
4 468 82	FOR W 600 MM CABINETS, HEIGHT 400-700 MM 1 SET 2 PCS
4 468 83	FOR W 800 MM CABINETS, HEIGHT 400-700 MM 1 SET 2 PCS

- To fix the cabinet to floor for more stability
- Adjustable height from 400 to 700 mm
- Base fixing M10 screws with washer
- Can be fixed to the ground (include fixing parts, M8 anchor)
- Main parts 3 mm steel, bottom part 5 mm steel
- All parts are included coating



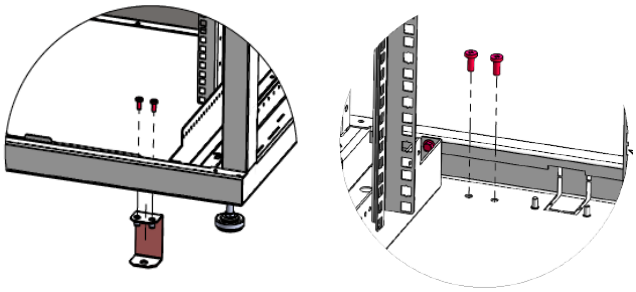




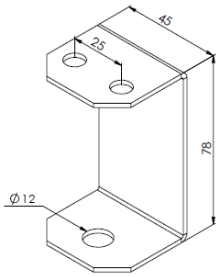
5. CABINET ACCESSORIES (CONTINUED)

5.4 FLOOR FIXING KIT

Ref.	Description
4 468 87	CABINETS FLOOR FIXING KIT 1 SET 4 PCS



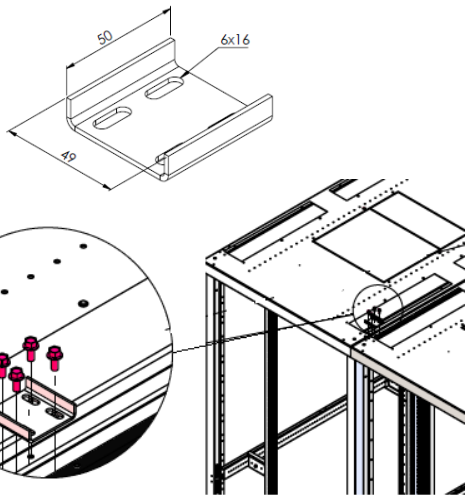
- 2 mm galvanized sheet metal
- 4-points fixing between the cabinet and the floor front/rear, right/left
- Must be used with casters and levelling feet
- Base fixing M6 screws with washer
- Can be fixed to the ground (screws not supplied)



5.5 BAYING KIT

Ref.	Description
4 469 47	BAYING KIT, 1 SET 2 PCS.

- 2 mm galvanized sheet metal
- 2 points fixing between the cabinet front/rear
- Includes cabinets fixing screws



5. CABINET ACCESSORIES (CONTINUED)

5.6 VERTICAL PATCHCORD MANAGER

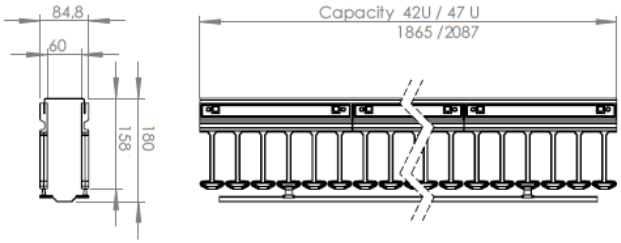
- Compatible only with 800 mm wide cabinets
- Set of 2 pcs
- To guide and manage the cords vertically

5.6.1 Finger type

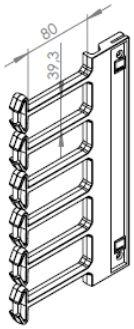
- Particularly suitable for optical cables and copper patchcords

Ref.	Description
4 468 91	FINGER TYPE, 42U, 1 SET 2 PCS.
4 468 92	FINGER TYPE, 47U, 1 SET 2 PCS.

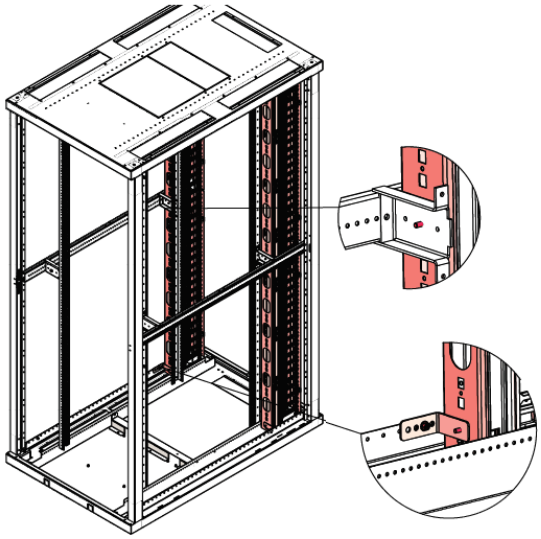
- Main part 1 mm galvanized sheet metal
- Front panels 1 mm sheet metal with painting
- Includes plastic cable managers
- For assembly to cabinet includes 2 pcs assembly bracket



and screws



Plastic cable manager



5. CABINET ACCESSORIES (CONTINUED)

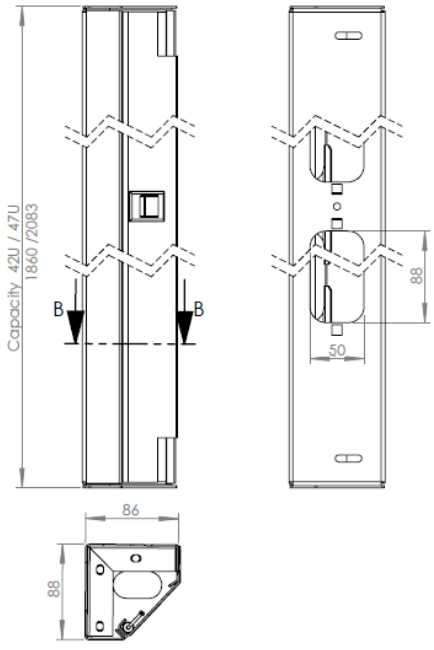
5.6 VERTICAL PATCHCORD MANAGER (CONTINUED)

5.6.2 Metal type

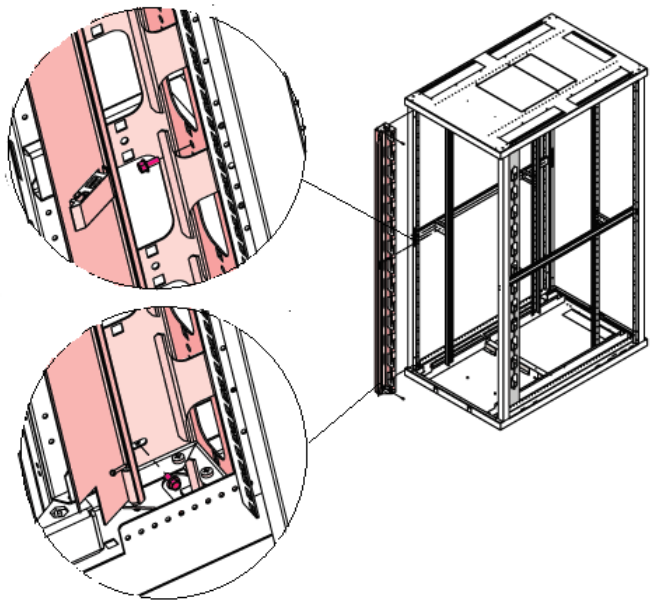
- Particularly suitable for heavier cables

Ref.	Description
4 468 93	METAL TYPE, 42U, 1 SET 2 PCS.
4 468 94	METAL TYPE, 47U, 1 SET 2 PCS.

- Main part 1,5 mm sheet metal with painting
- Front panel 1,5 mm sheet metal with painting
- Includes cabinets fixing screws



SECTION B-B



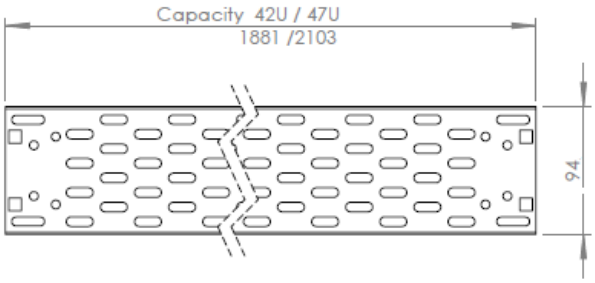
5. CABINET ACCESSORIES (CONTINUED)

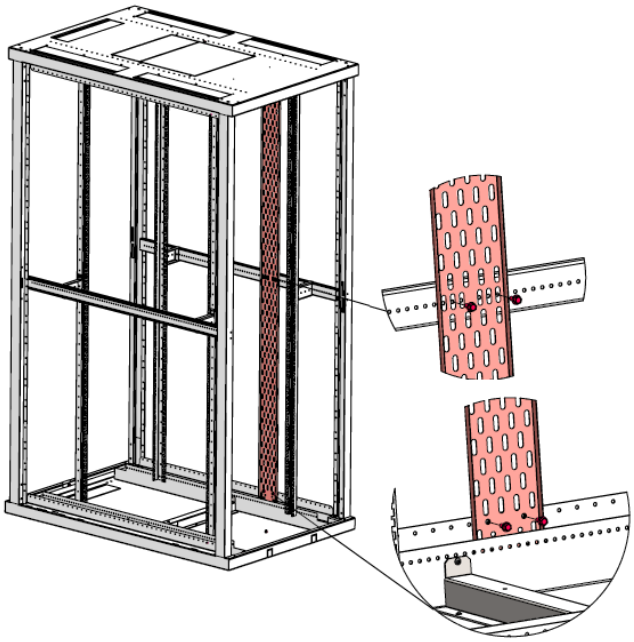
5.7 CABLE TRAY

- Perforated metal tray to fix cables on cabinet sides

Ref.	Description
4 468 95	CABLE TRAY, 42U, W 100 MM
4 468 96	CABLE TRAY, 47U, W 100 MM

- 1 mm galvanized sheet metal
- Includes cabinets fixing screws





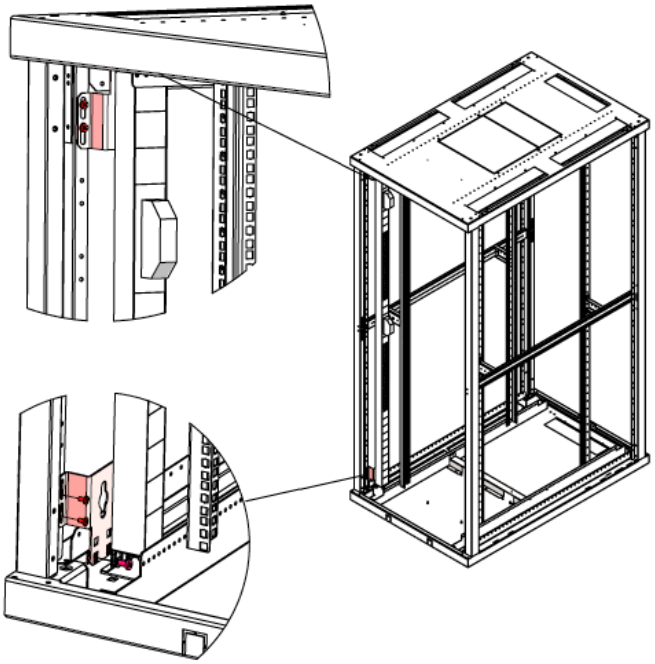
5. CABINET ACCESSORIES (CONTINUED)

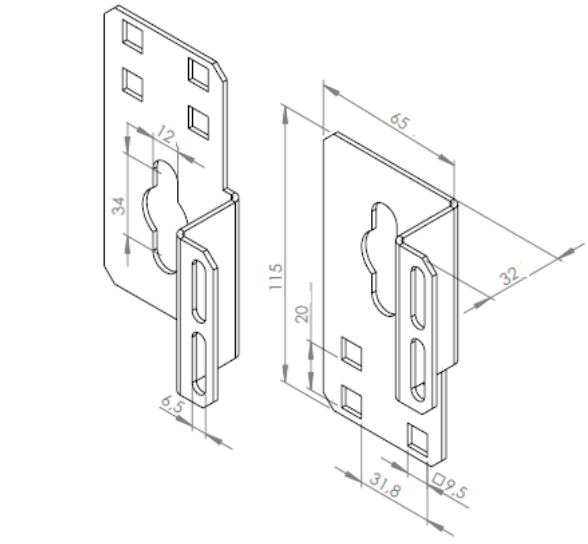
5.8 PDU HOLDER

- To mount PDUs vertically
- To be fixed in the corner of the cabinet

Ref.	Description
4 468 97	PDU HOLDER, 1 SET 2 PCS, FOR 1 PDU

- 2 mm sheet metal with painting
- Includes cabinets fixing screws





5. CABINET ACCESSORIES (CONTINUED)
5.9 FAN MODULE

Ref.	Description
4 469 01	FAN MODULE, 4 FAN + ANALOGUE THERMOSTAT, 2P+E PLUG, GERMAN STD.
4 469 02	FAN MODULE, 4 FAN + ANALOGUE THERMOSTAT, 2P+E PLUG, BRITISH STD.
4 469 03	FAN MODULE, 6 FAN + ANALOGUE THERMOSTAT, 2P+E PLUG, GERMAN STD.
4 469 04	FAN MODULE, 6 FAN + ANALOGUE THERMOSTAT, 2P+E PLUG, BRITISH STD..

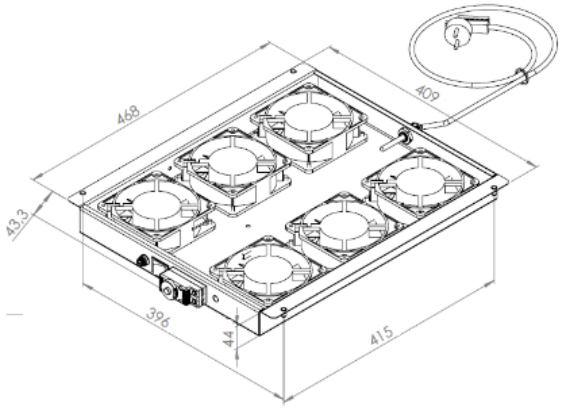
- Specification
Rated Voltage....220VAC
Frequency.....50/60 Hz
Input Power.....8/7 W
Max Air Flow.....53 CFM (For only one piece fan)
- On/Off switch, analog thermostat functions
- Thermostat adjustable from -10°C to + 80°C
- Complete inner wiring
- Power supply cord is flexible 3 x 0.75 mm^2, length 3m with standard British / German 2P+E plug
- Includes cabinets fixing screws



BRITISH (UK) PLUG

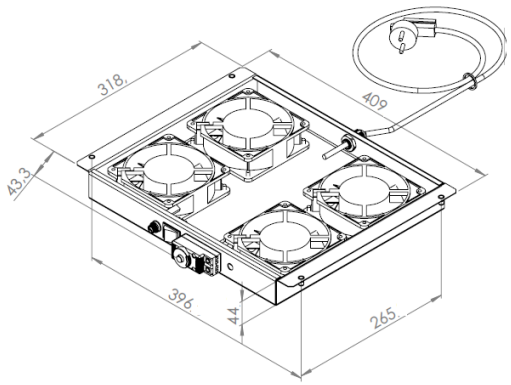


GERMAN 2P+E PLUG

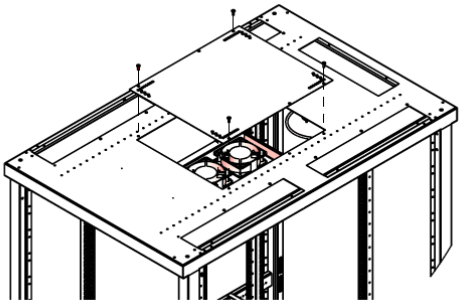


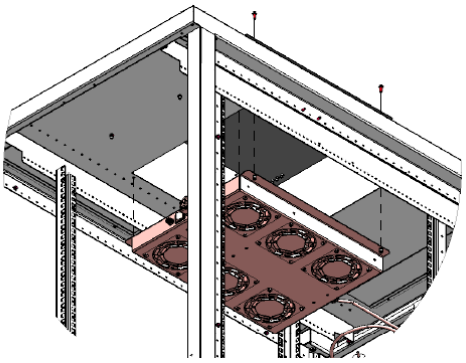
Fan Module 6 Fan

5. CABINET ACCESSORIES (CONTINUED)
5.9 FAN MODULE (CONTINUED)



Fan Module 4 Fan

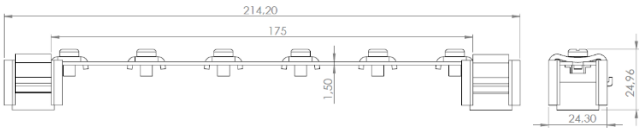




5. CABINET ACCESSORIES (CONTINUED)

5.10 GROUNDING BUSBAR KIT

Ref.	Description
4 468 98	GROUNDING BUSBAR KIT



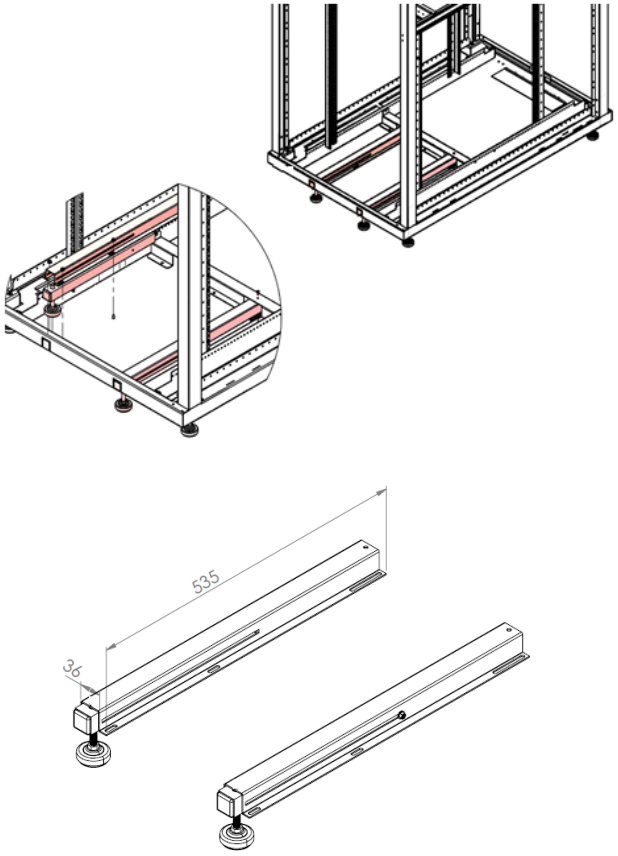
- 6 pieces earthing leads + copper busbar
- 4 pieces earth cables

5.11 ANTI-TILT BAR

Bars provide a high level of stability for the products

Ref.	Description
4 468 86	ANTI-TILT BAR

- 2 mm sheet metal with painting
- Includes cabinets fixing screws and leveling feet



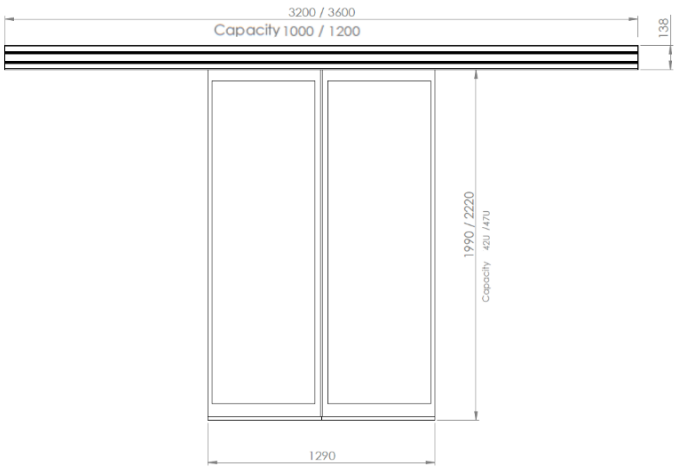
6. CORRIDOR SOLUTIONS

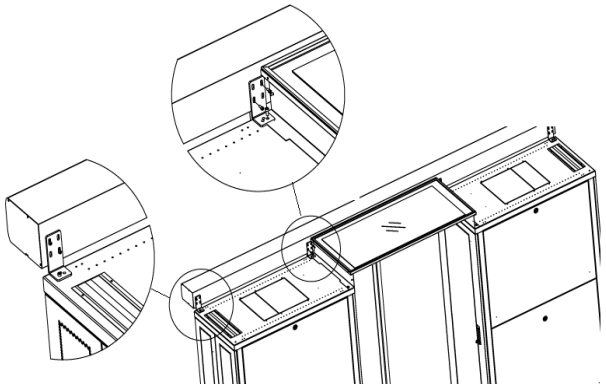
6.1 CORRIDOR DOORS

Ref.	Description
4 469 20	42U FOR CABINET DEPTH 1000 MM
4 469 21	42U FOR CABINET DEPTH 1200 MM
4 469 22	47U FOR CABINET DEPTH 1000 MM
4 469 23	47U FOR CABINET DEPTH 1200 MM

- Working principle of the sliding mechanism;
  A driver; at first calculates the position in between opening point (A) and closing point (B) and locates itself in that gap by tour/time.
  Receives the signals from activators as radar, hand sensor (proximity sensor) or button etc, and runs the 24V 100W motor from A point to B point by through a belt.
  And receives the signals security mesaures(photocell eyes, or some obstacles which chances movement time, to stop and send the door into open position. And chances the electricty signal volume to speed up or slow down the door.
  The other parts are mechanical particion parts to fix the door or leafs
- 220-230V DC , power supply cord is flexible 3 x 1,5 mm^2, German 2P + E plug
- Sliding doors providing an airtight enclosure for the aisle containment system
- Double opening and exit with hand sensor
- 4+4 mm transparent laminated security glass
  Standarts for glass:
  TS EN 1863-2, TS EN 12150-2, TS EN ISO 12543, TS EN 14449, TS EN 12600

- Aluminium frame material
- Corridor door fixing module included



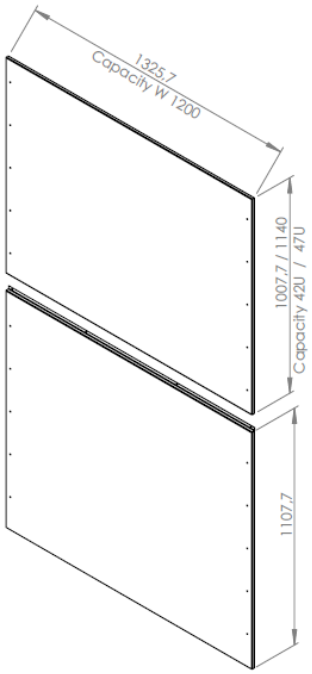


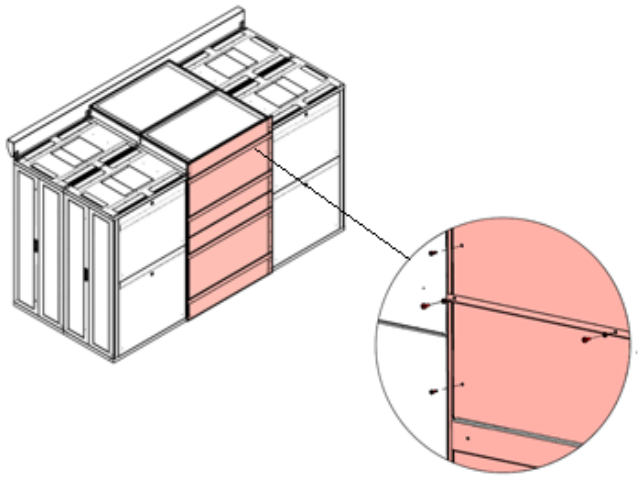
6.2 CORRIDOR REAR PANEL MODULES

To close the back of the aisle containment system
When you don't need a second door

Ref.	Description
4 469 30	CORRIDOR REAR PANELS MODULE, 42U CABINET HEIGHT-1200 mm CORRIDOR WIDTH
4 469 31	CORRIDOR REAR PANELS MODULE, 47U CABINET HEIGHT-1200 mm CORRIDOR WIDTH

- 1 mm sheet metal with painting and inculude welding parts
- Includes cabinets fixing screws



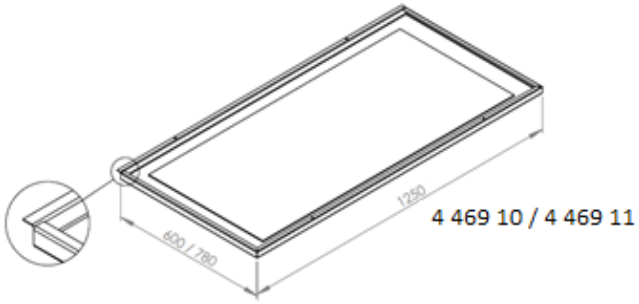


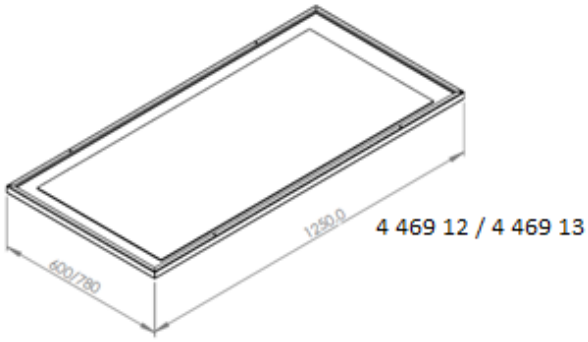
6.3 TOP PANEL MODULE

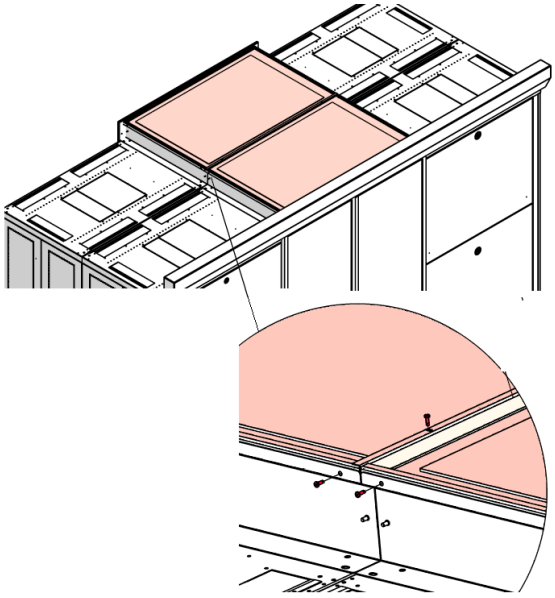
To close the top of hot/cold aisle
To form a roof provide 1 top panel edge module
and others top panel module

Ref.	Description
4 469 10	TOP PANEL MODULE, 600X1200 MM
4 469 11	TOP PANEL MODULE, 780X1200 MM
4 469 12	TOP PANEL EDGE MODULE, 600X1200 MM
4 469 13	TOP PANEL EDGE MODULE, 780X1200 MM

- Polycarbonate (4 mm thickness) with reinforced 1 mm metal frame with painting
- Transparent roof panels providing hightranslucency / light transmission
- Includes cabinets fixing screws

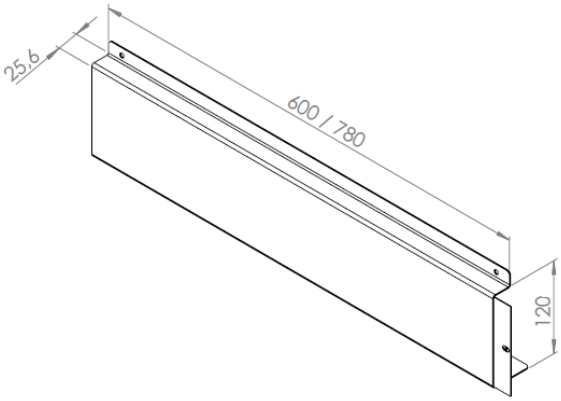


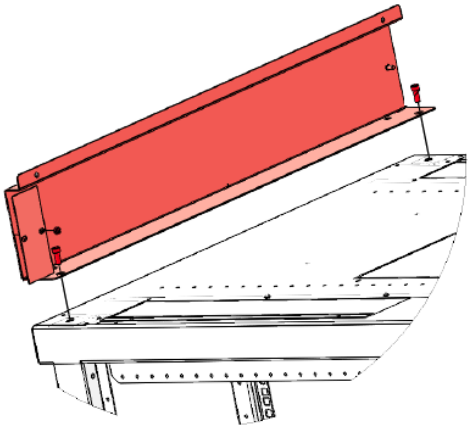




Ref.	Description
4 469 41	TOP COVER PANEL, W 600 MM, H 120 MM
4 469 42	TOP COVER PANEL, W 780 MM, H 120 MM

- 1,5 mm sheet metal with painting
- Includes cabinets fixing screws





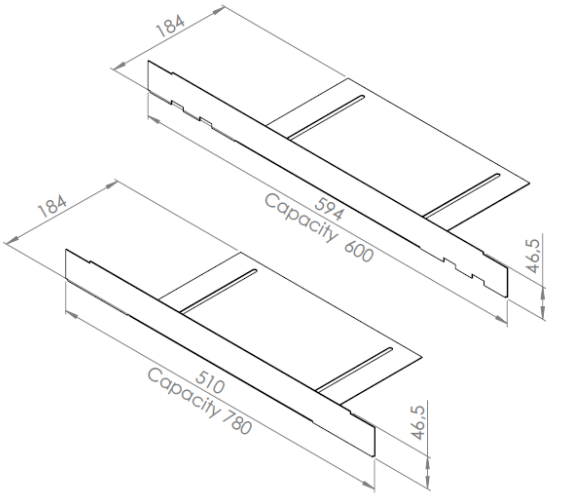
6.5 AIR FLOW MANAGEMENT TOP&BOTTOM AND SIDE PANELS

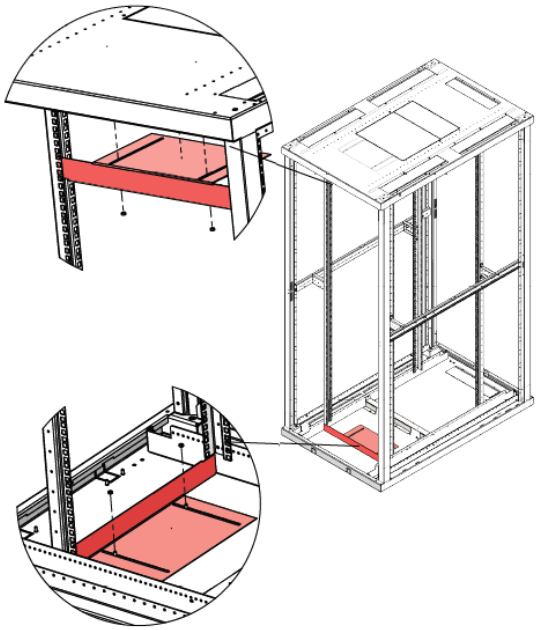
To create an airtight enclosure

6.5.1 TOP&BOTTOM PANELS

Ref.	Description
4 469 50	W 600 MM, TOP AND BOTTOM
4 469 51	W 780 MM, TOP AND BOTTOM

- 1 mm sheet metal with painting
- Includes cabinets fixing nuts



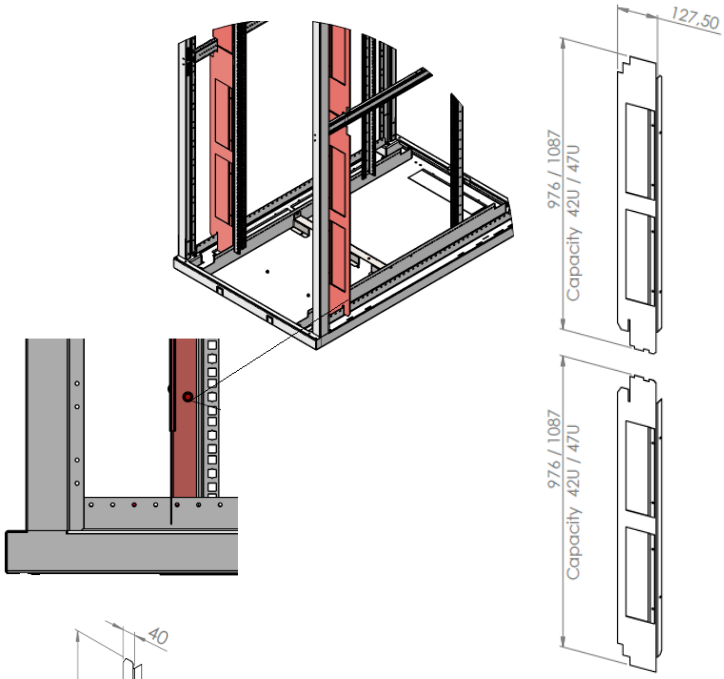


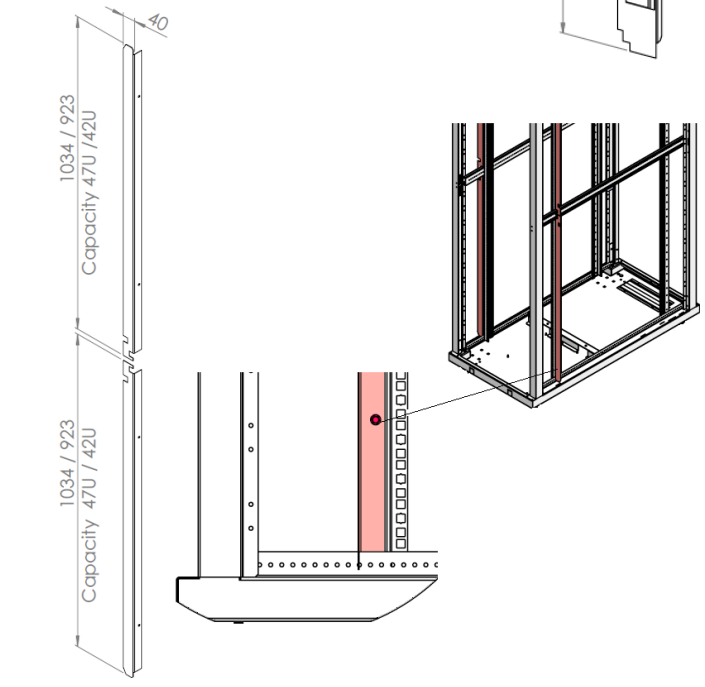
6.5 AIR FLOW MANAGEMENT TOP&BOTTOM AND SIDE PANELS (CONTINUED)

6.5.2 SIDE PANELS

Ref.	Description
4 469 52	42U, W 600 MM, SIDE
4 469 53	42U, W 780 MM, SIDE
4 469 54	47U, W 600 MM, SIDE
4 469 55	47U, W 780 MM, SIDE

- 1 mm sheet metal with painting
- Includes cabinets fixing screws
- Includes brush (for W=780 mm cabinet)



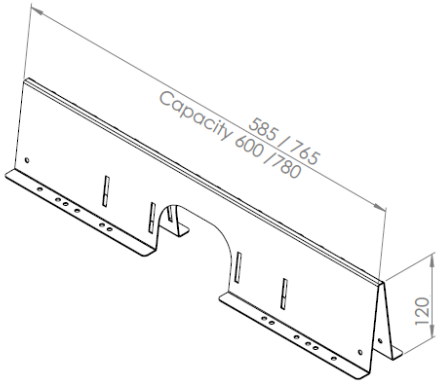


6.6 TOP COVER CABLE SEPERATOR

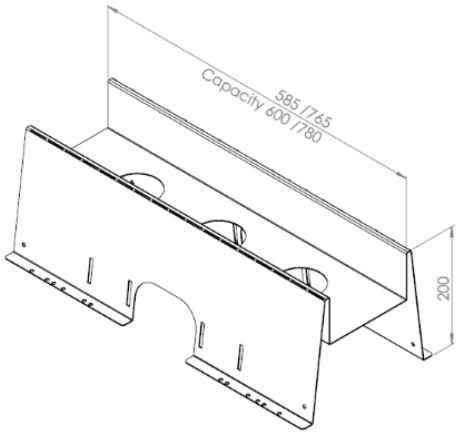
Separate cable inlet for data and energy cables, and separate overhead cable trays and dividers minimize the electromagnetic and physical interference.

Ref.	Description
4 469 43	A TYPE, HEIGHT 120 MM, WIDTH 600 MM
4 469 44	A TYPE, HEIGHT 120 MM, WIDTH 780 MM
4 469 45	M TYPE, HEIGHT 200 MM, WIDTH 600 MM
4 469 46	M TYPE, HEIGHT 200 MM, WIDTH 780 MM

- 1,5 mm sheet metal with painting
- Includes cabinets fixing screws



4 469 43 / 4 469 44



4 469 45 / 4 469 46

6. CORRIDOR SOLUTIONS (CONTINUED)

6.6 TOP COVER CABLE SEPERATOR (CONTINUED)

