

19" LCS² freestanding cabinets

Catalogue number(s): 0 463 00/06/12/18/19/21/22
0 463 23/28/29/30/33/34/35



CONTENTS

Page

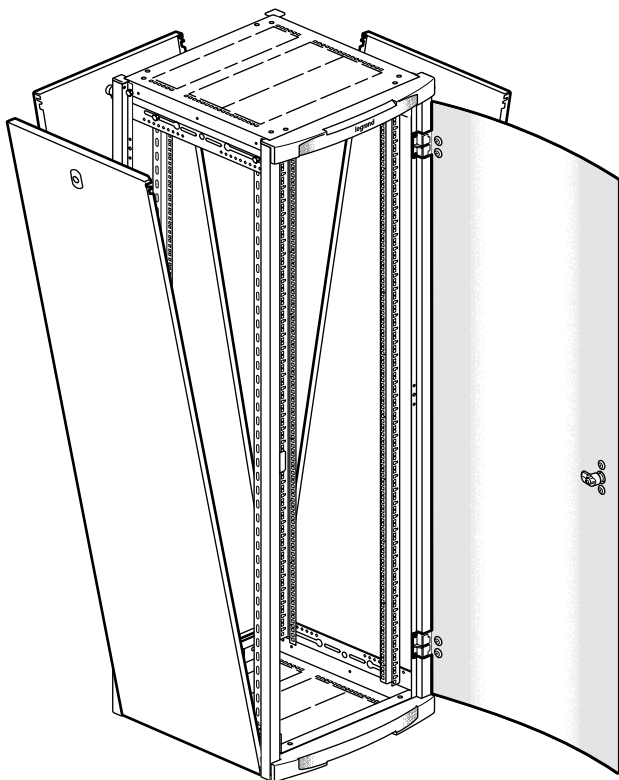
1. General features	1
2. Range	3
3. Technical features	4
4. Dimensions	5
5. Baying	9
6. Plinths	12
7. Cable management	15
8. Vertical extension	19
9. Thermal management	19
10. Accessories	21
11. 19" equipment	22
12. Power distribution	25

1. GENERAL FEATURES

19" LCS² freestanding cabinets are intended for digital infrastructures. 19" LCS² cabinets are metal and provide IP20 - IK08 protection. They have a screen-printed curved glass door and are finished throughout in charcoal grey RAL 7016. 19" LCS² cabinets can be joined together, either directly or via a cabling unit, and can be equipped with a modular plinth. Equipment and accessories for cable management, vertical extension, thermal management, etc. complete the range.

1.1 Presentation

- The main parts of 19" LCS² freestanding cabinets are:
- A framework consisting of 4 uprights and 2 end plates
 - A screen-printed curved glass front door
 - 2 side panels (excluding extension cabinets)
 - A rear panel
 - 4 x 19" uprights



1. GENERAL FEATURES (continued)

1.1 Presentation (continued)

The 4 structural uprights and the 2 end plates form a metal framework that is screwed together. The cabinet can be dismantled completely if access is difficult.

The end plates contain the cabinet's cable entries. Their configuration, which is identical for the top and the bottom, is dependent on the dimensions of the cabinet:

(mm)	Width 600	Width 800
Depth 600		
Depth 800		
Depth 1000		

Each cable entry is pre-cut in 19" format in order to be equipped with a cable entry plate (see section 7.1).

The whole structure stands on 4 levelling feet that can be adjusted from the inside and the outside of the cabinet.

1. GENERAL FEATURES (continued)

1.1 Presentation (continued)

The front door comprises:

- Curved colourless transparent glass with "pixel" screen-printing on the vertical edges
- A handle equipped with a 2433A key lock
- 2 metal hinges (3 for 47U height)

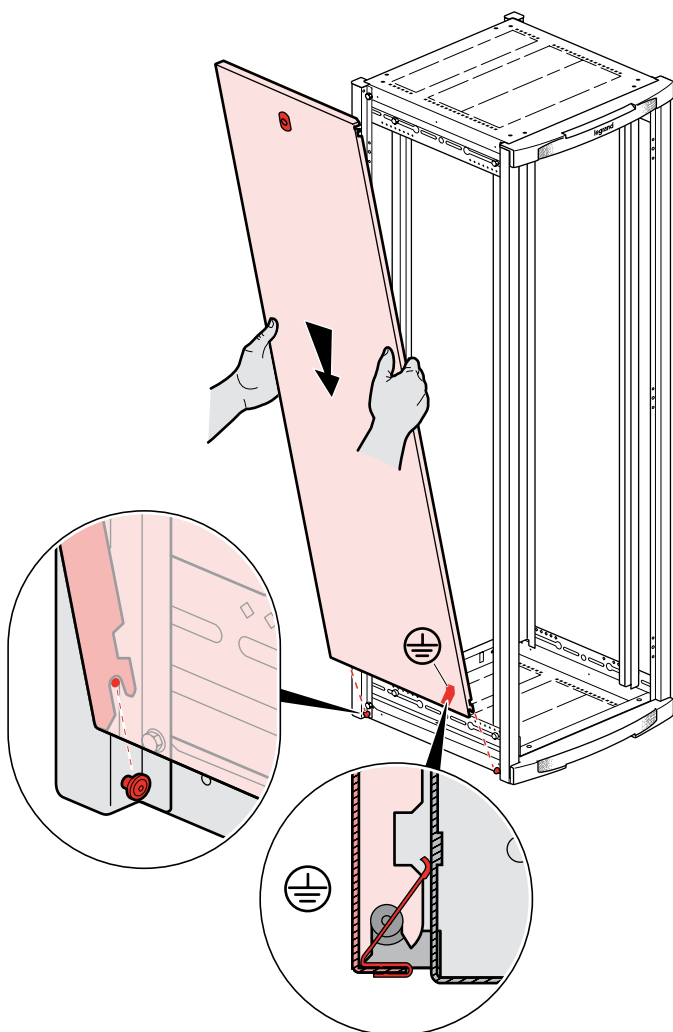
The door is removable and reversible. The lock is compatible with key barrels (other key codes) and inserts Cat. Nos. 0 368 13/16/17/18/19/20/22/23/24/25/26/27.

For a perfect finish, 2 fascia trims, clipped onto the end plates, continue the "pixel" design from the door. The upper trim carries the Legrand name.

The side and rear metal panels are equipped with:

- A 2433A locking bolt
- A stainless steel equipotential link clip

Each panel is removable for total accessibility:



The clip automatically provides continuity of the metal conductive parts between the panels and the rest of the cabinet (no risk of this being forgotten).

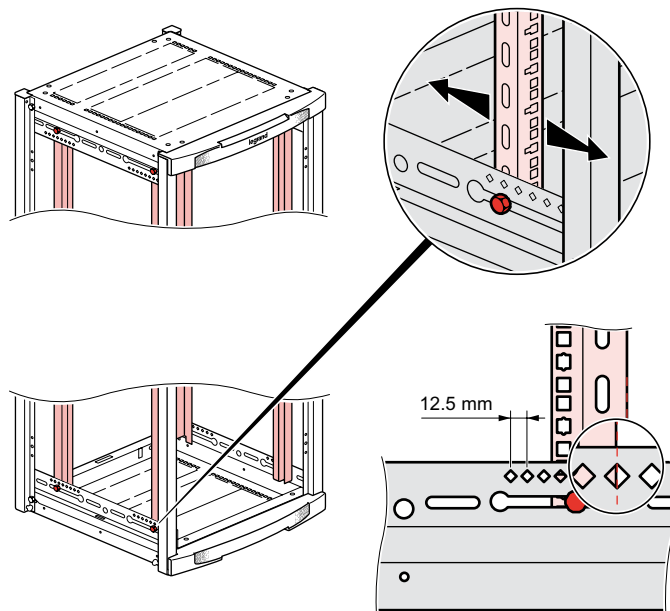
The lock is compatible with key barrels (other key codes) and inserts Cat. Nos. 0 368 13/16/17/18/19/20/22/23/24/25/26/27.

1. GENERAL FEATURES (continued)

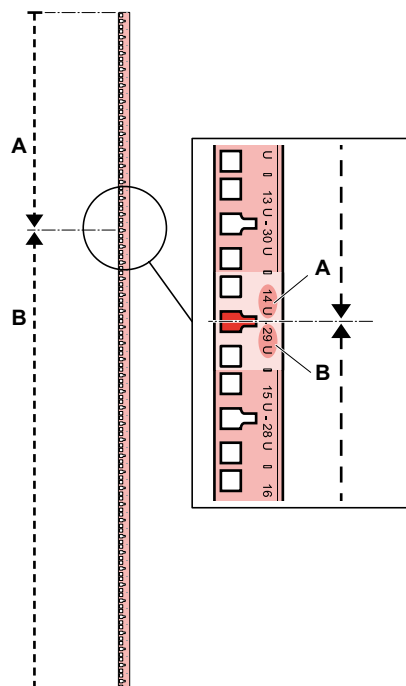
1.1 Presentation (continued)

The four 19" uprights have dual marking of the Us and assistance with depth adjustment for easy installation.

The adjustment is continuous with markings at 12.5 mm intervals:



The dual marking of the Us enables location in relation to the top or the bottom of the cabinet:



In the above example, the marking indicates that this is U no. 14 from the top and U no. 29 from the bottom of the cabinet.

The 19" uprights are perforated with 9.5 x 9.5 mm square holes.

19" LCS² freestanding cabinets

Catalogue number(s): 0 463 00/06/12/18/19/21/22
0 463 23/28/29/30/33/34/35

1. GENERAL FEATURES *(continued)*

1.2 Standards

19" LCS² freestanding cabinets comply with the following standards:

IEC 60529 EN 60529	(NF C 20-010) Degrees of protection provided by enclosures (IP code)
IEC 62262 EN 62262	(NF EN 50102, NF C 20-015) Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)
IEC 60950-1 EN 60950-1 C 77-210-1	Safety of information technology equipment
EIA-310-D	Cabinets, racks, panels and associated equipment (ANSI/EIA/310-D-1992)
IEC 60297-3-100 DIN 41414-7	(NF C 20-150, NF C 20-151) Dimensions of mechanical structures of the 482.6 mm series (19 in)
IEC 60917-1 EN 60917-1	Modular order for the development of mechanical structures for electronic equipment practices
IEC 60917-2-1 EN 60917-2-1	Modular order for the development of mechanical structures for electronic equipment practices. Interface co-ordination dimensions for the 25 mm equipment practice (dimensions for cabinets and racks)

19" LCS² freestanding cabinets can be integrated in installations complying with the following standards:

EN 50173-1	Information technology - Generic cabling systems
EN 50174-1 & 2 C 90-480-1 & 2	Information technology - Cabling installation
ISO IEC 11801	Information technology - Generic cabling for customer premises
NF C 15-100 Part 4-41	Low voltage electrical installations - recommendations
IEC 60364-4-41	Low voltage electrical installations - Protection for safety - Protection against electric shock

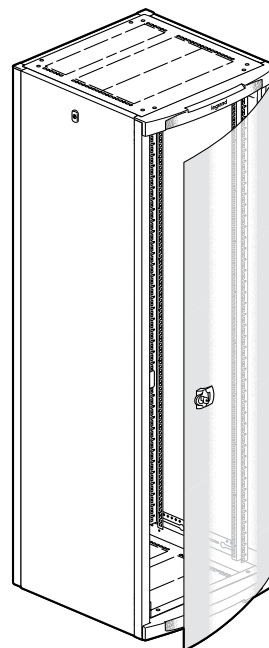
2. RANGE

Catalogue Number	Capacity	Width ⁽¹⁾ (mm)	Depth ⁽¹⁾ (mm)
0 463 00	24U	600	600
0 463 06	29U	600	600
0 463 12	33U	600	600
0 463 18	42U	600	600
0 463 19	42U	600	800
0 463 21	42U	800	600
0 463 22	42U	800	800
0 463 23	42U	800	1000
0 463 28	47U	800	800
0 463 29	47U	800	1000

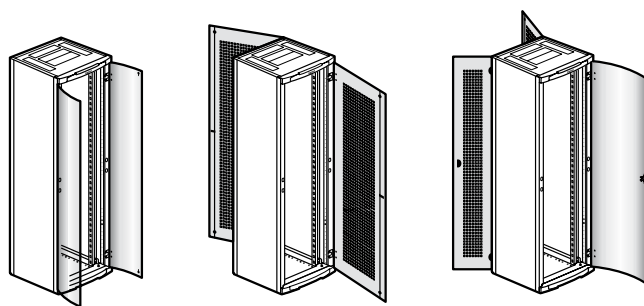
Two extension freestanding cabinets complete the range. These are supplied without side panels and with a baying kit:

19" LCS² extension cabinets

Catalogue Number	Capacity	Width ⁽¹⁾ (mm)	Depth ⁽¹⁾ (mm)
0 463 30	42U	600	600
0 463 33	42U	800	800



To meet specific requirements, the made-to-measure department offers 30 sizes and various configurations: front and rear door, double door, mounting of equipment, other colours, etc.



⁽¹⁾ Designated dimensions. See section 4 for overall dimensions.

3. TECHNICAL FEATURES

3.1 Index of protection

- IP20 in accordance with IEC EN 60529
Protected against solid objects greater than 12.5 mm
- IK08 in accordance with IEC EN 62262
Protected against mechanical impact with an energy of 5 joules

3.2 Mechanical performance

- Permissible load: 10 kg/U (or 420 kg for a 42 U cabinet)
- Resistance to shock acceleration and vibration in accordance with IEC 61587-1: level DL2

3.3 Design

- Structural uprights and upper end plate 1.5 mm thick galvanised steel + paint finish
- Lower end plate 1.5 mm thick Z140 MB-C galvanised steel
- Curved front door made of 5 mm thick colourless transparent safety glass.
Charcoal grey RAL 7016 internal screen-printing on the vertical edges: 2 x 143 mm in 600 mm width, 2 x 243 mm in 800 mm width.
- Door handle charcoal grey RAL 7016 polyamide
- Door hinges zamak + paint finish
- Fascia trims charcoal grey RAL 7016 ABS.
Legrand marked in relief + pad printed in aluminium grey RAL 9006.
- Panels 1.2 mm thick sheet steel + paint finish
- Panel bolt charcoal grey RAL 7016 polyamide
- 19" uprights 1.5 mm thick galvanised steel.
Number of U marked using black inkjet marking.
- Levelling feet zinc-plated steel with black polypropylene fixed base

3.4 Corrosion resistance

- Corrosion class of the environment:
C2 according to EN ISO 12944-2,
3K3 according to IEC EN 60721-3-3
- Salt spray test according to ISO 9227 (NSS test) and IEC EN 60068-2-11 (test Ka) for 168 hours:
degree of rusting Ri1 according to ISO 4628-3,
propagation ≤ 1 mm according to ISO 4628-8
- Sulphur dioxide (SO₂) test according to EN ISO 6988 for 48 hours:
degree of rusting Ri1 according to ISO 4628-3,
ISO 10289 annex A class 8 type image

3.5 Properties of the paint coating

- Thermosetting polyester paint applied by electrostatic dusting
- Charcoal grey RAL 7016
- Textured satin appearance
- 60 to 80 mm thick
- Excellent impact and scratch resistance
- Excellent resistance to cleaning agents (excluding strong chlorinated, fluorinated and ketone solvents).
Some products may change the appearance. It is therefore advisable to carry out a test first.
- Light exposure test (xenon-arc lamp) according to ISO 4892-2 method B for 500 hours: no visible fading

3. TECHNICAL FEATURES (continued)

3.6 Electrical continuity of the conductive parts

Continuity of the metal conductive parts of the cabinet is achieved by construction. For the panels, a stainless steel clip automatically provides the equipotential link by pressing against the lower end plate with galvanised steel finish.

3.7 Weight

Net weight excluding packaging.

Cabinet catalogue number	Weight (kg)
0 463 00	69
0 463 06	77
0 463 12	84
0 463 18 (extension 0 463 30)	99 (72)
0 463 19	110
0 463 21	114
0 463 22 (extension 0 463 33)	127 (90)
0 463 23	151
0 463 28	138
0 463 29	163

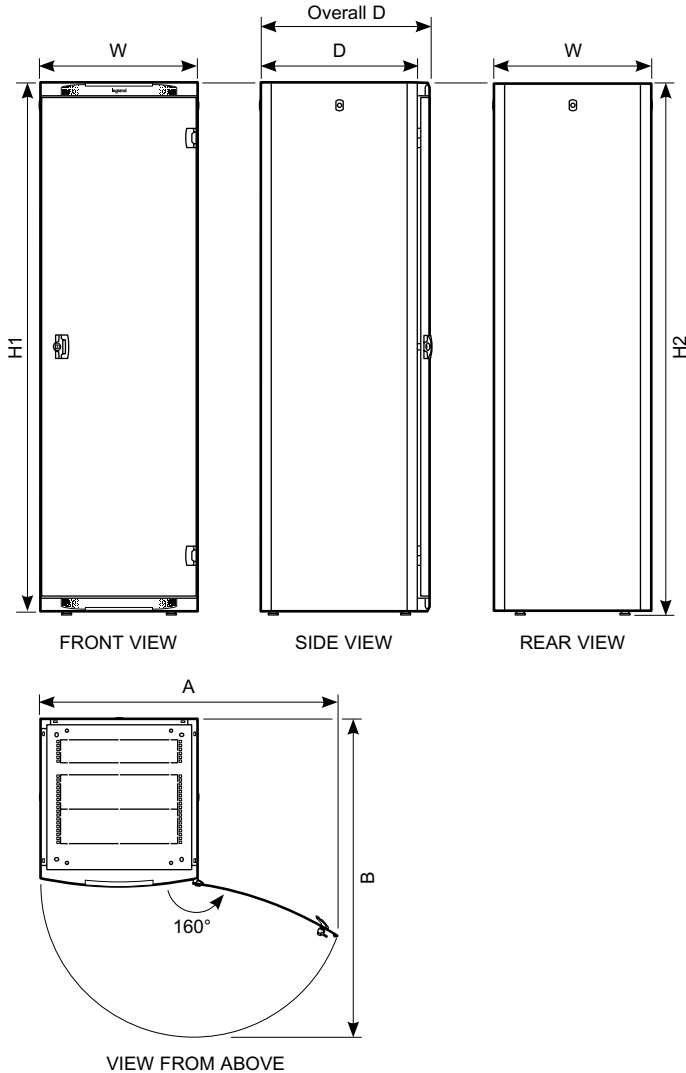
Note: 19" LCS² cabinets are delivered on a 125 mm high pallet.

4. DIMENSIONS

All dimensions are in mm.

4.1 Dimensions

Model shown: 600 x 600 mm cabinet



Cat. No.	Capacity	W	D	Overall dimensions					
				H1 ⁽¹⁾	H2 min./max. ⁽²⁾	W	D	A	B
0 463 00	24U	600	600	1226	1241/1271	610	659	1138	1208
0 463 06	29U	600	600	1448	1463/1493	610	659	1138	1208
0 463 12	33U	600	600	1626	1641/1671	610	659	1138	1208
0 463 18	42U	600	600	2026	2041/2071	610	659	1138	1208
0 463 19	42U	600	800	2026	2041/2071	610	859	1138	1408
0 463 21	42U	800	600	2026	2041/2071	810	657	1525	1408
0 463 22	42U	800	800	2026	2041/2071	810	857	1525	1608
0 463 23	42U	800	1000	2026	2041/2071	810	1057	1525	1808
0 463 28	47U	800	800	2248	2263/2293	810	857	1525	1608
0 463 29	47U	800	1000	2248	2263/2293	810	1057	1525	1808
Extension cabinets									
0 463 30	42U	600	600	2026	2041/2071	600	659	1138	1208
0 463 33	42U	800	800	2026	2041/2071	800	857	1525	1608

⁽¹⁾ Without level adjustment feet

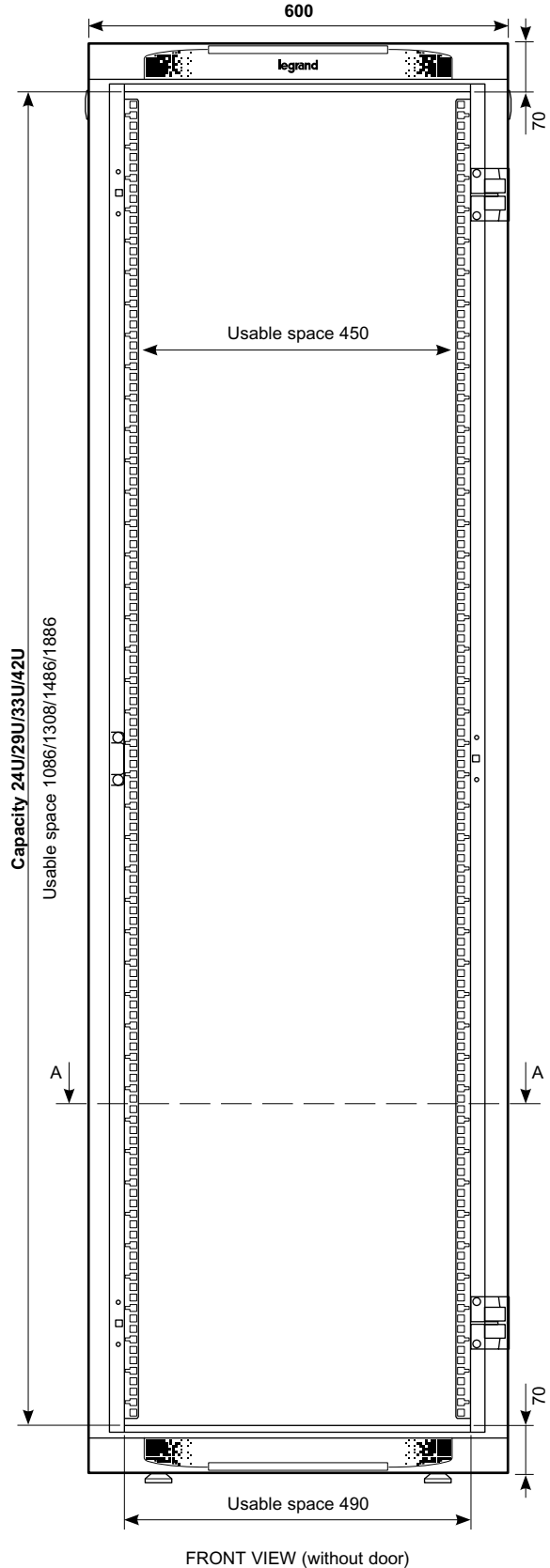
⁽²⁾ With level adjustment feet (+15 to 45 mm)

4. DIMENSIONS (continued)

4.2 Usable dimensions

4.2.1 600 mm wide freestanding cabinets

600 mm wide cabinets are available in 4 heights:
24U, 29U, 33U and 42U



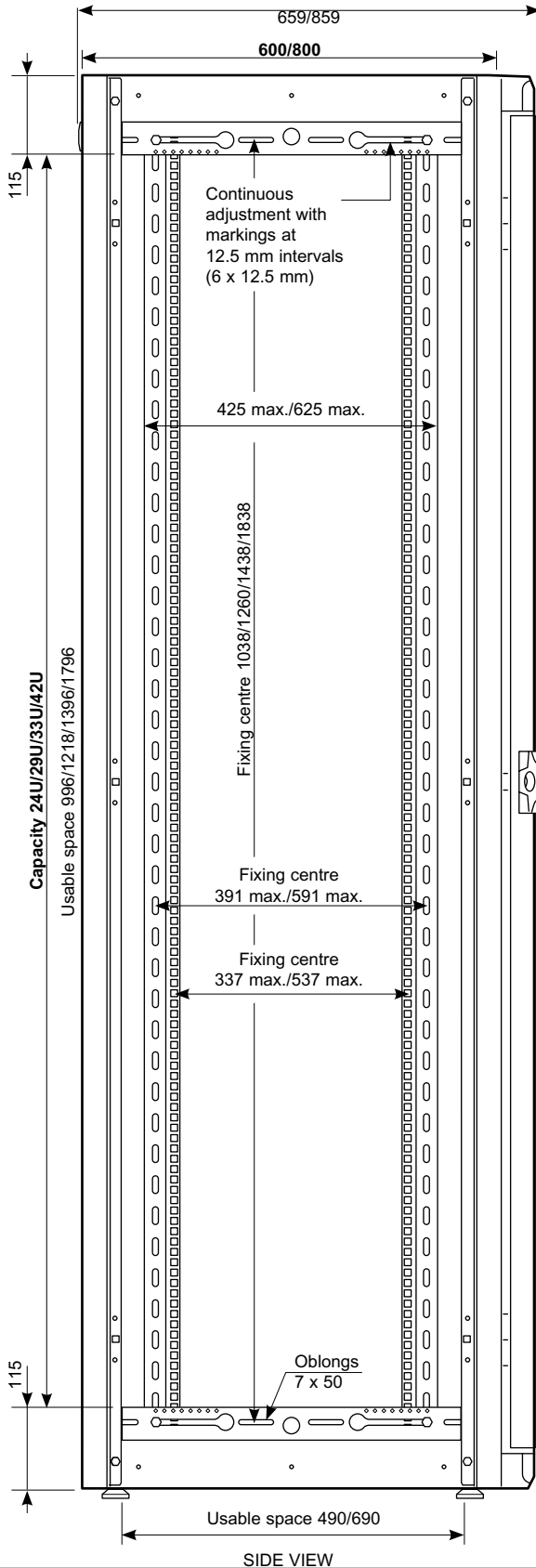
4. DIMENSIONS (continued)

4.2 Usable dimensions (continued)

4.2.1 600 mm wide freestanding cabinets (continued)

600 mm wide cabinets are available in 2 depths:
600 and 800 mm

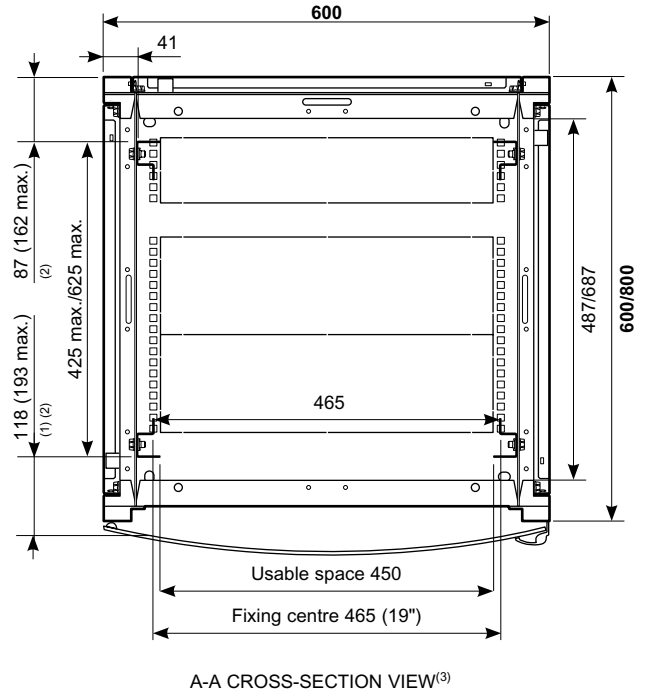
Model shown: 600 x 600 mm cabinet



4. DIMENSIONS (continued)

4.2 Usable dimensions (continued)

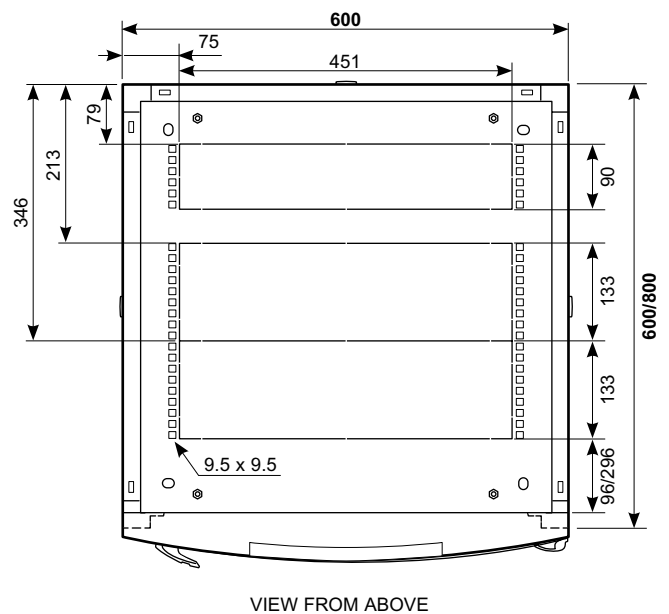
4.2.1 600 mm wide freestanding cabinets (continued)



(1) Dimension below door at 19" uprights

(2) Continuous adjustment with markings at 12.5 mm intervals

(3) See front view on page 5



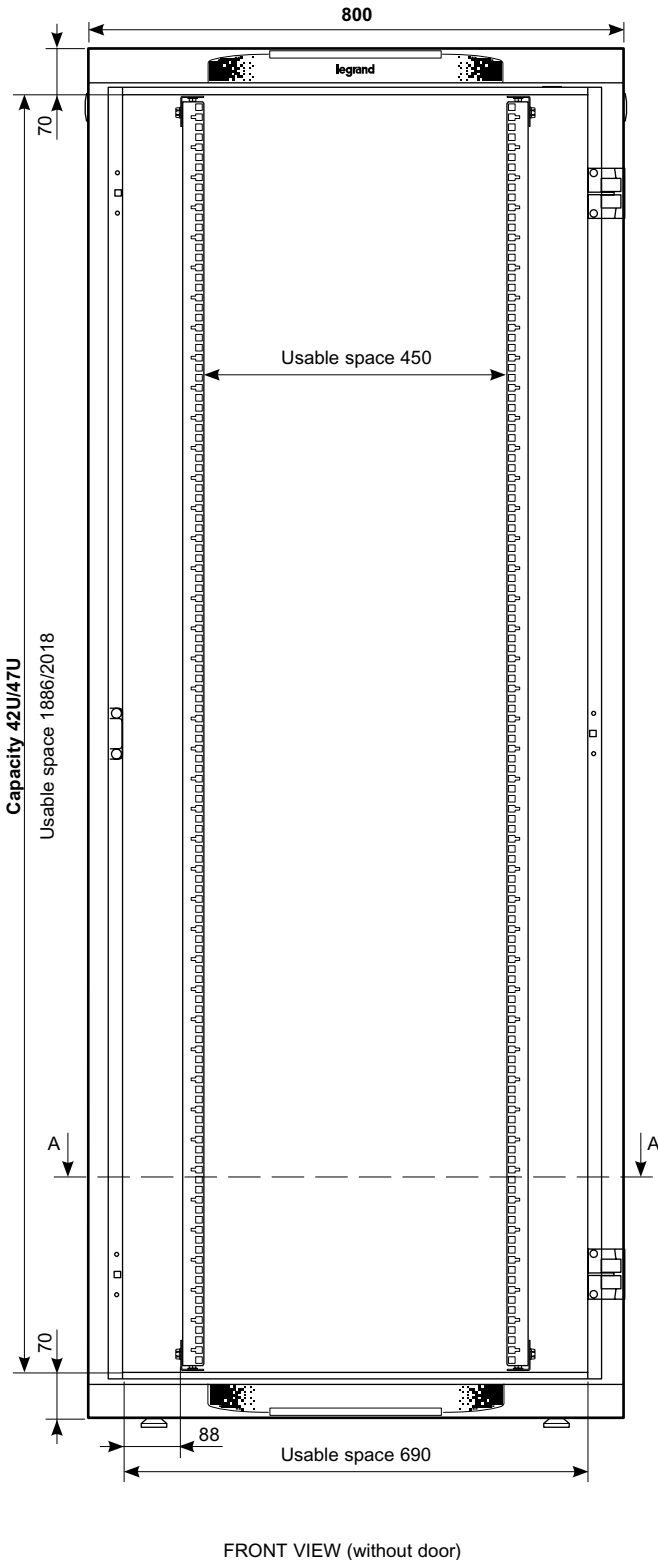
Note: The dimensions of the upper and lower end plates are identical.

4. DIMENSIONS (continued)

4.2 Usable dimensions (continued)

4.2.2 800 mm wide freestanding cabinets

800 mm wide cabinets are available in 2 heights:
42U and 47U

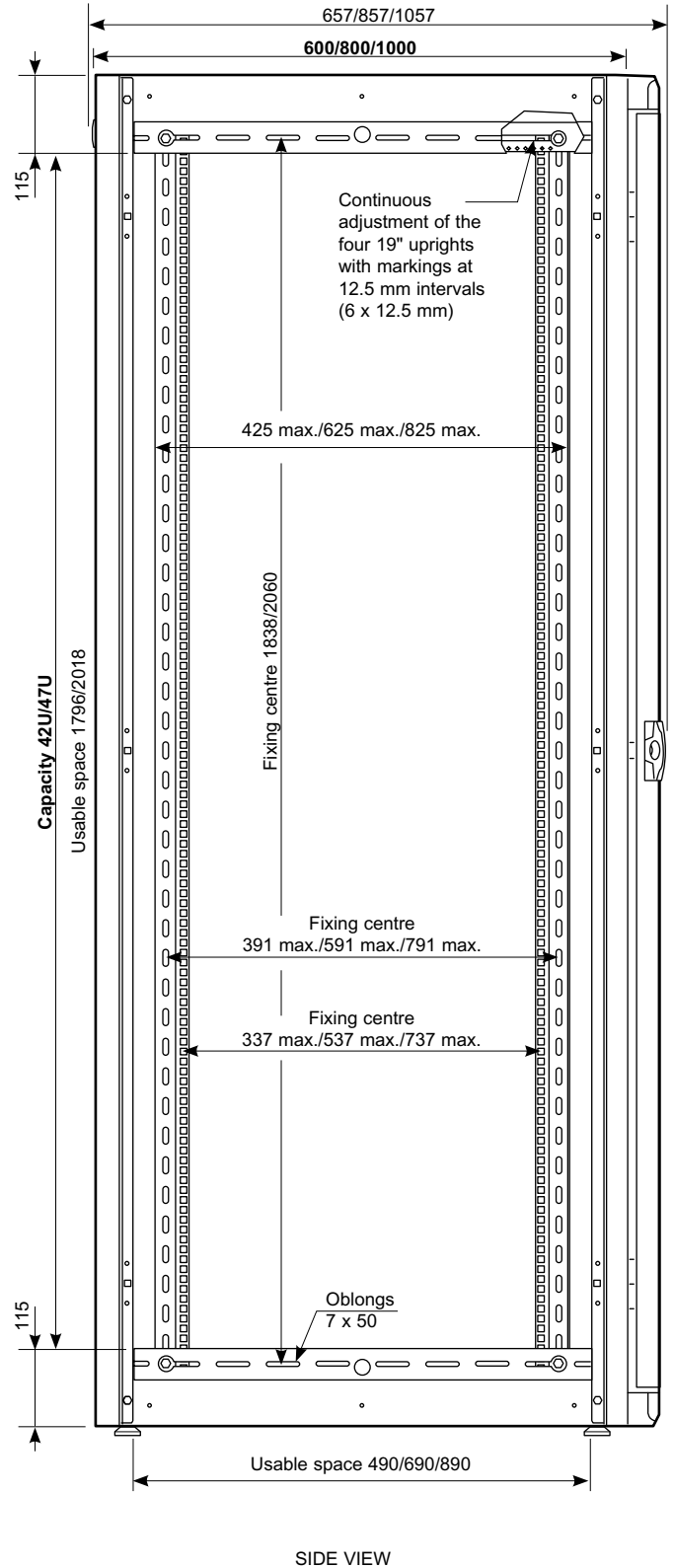


4. DIMENSIONS (continued)

4.2 Usable dimensions (continued)

4.2.2 800 mm wide freestanding cabinets (continued)

800 mm wide cabinets are available in 3 depths:
600, 800 and 1000 mm
Model shown: 800 x 800 mm cabinet

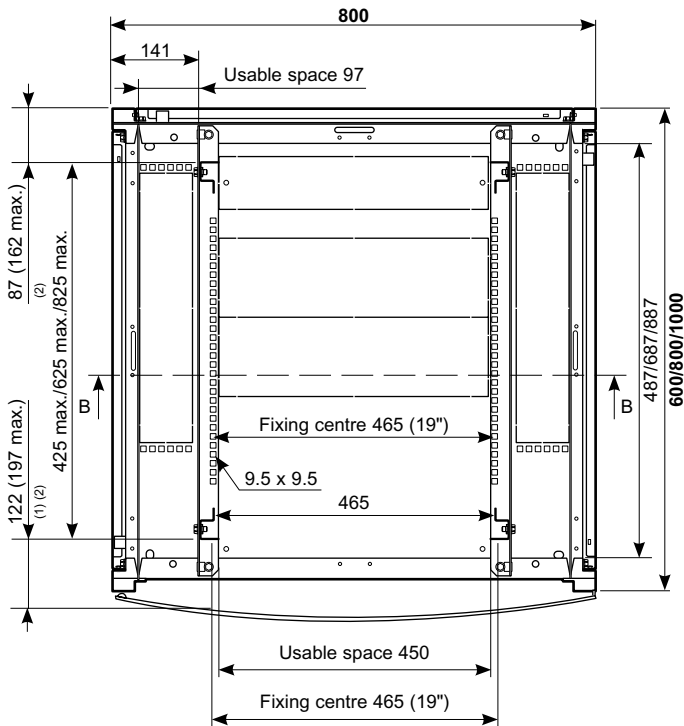


4. DIMENSIONS (continued)

4.2 Usable dimensions (continued)

4.2.2 800 mm wide freestanding cabinets (continued)

Model shown: 800 x 800 mm cabinet

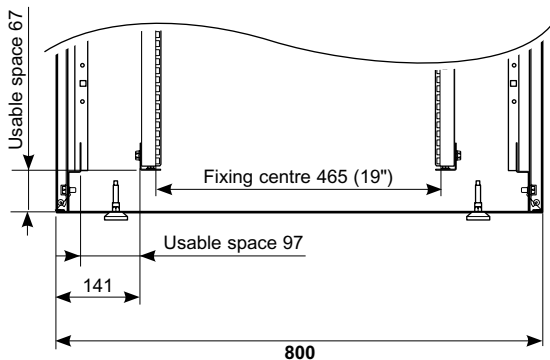


A-A CROSS-SECTION VIEW ⁽³⁾

⁽¹⁾ Dimension below door at 19" uprights

⁽²⁾ Continuous adjustment with markings at 12.5 mm intervals

⁽³⁾ See front view page 7



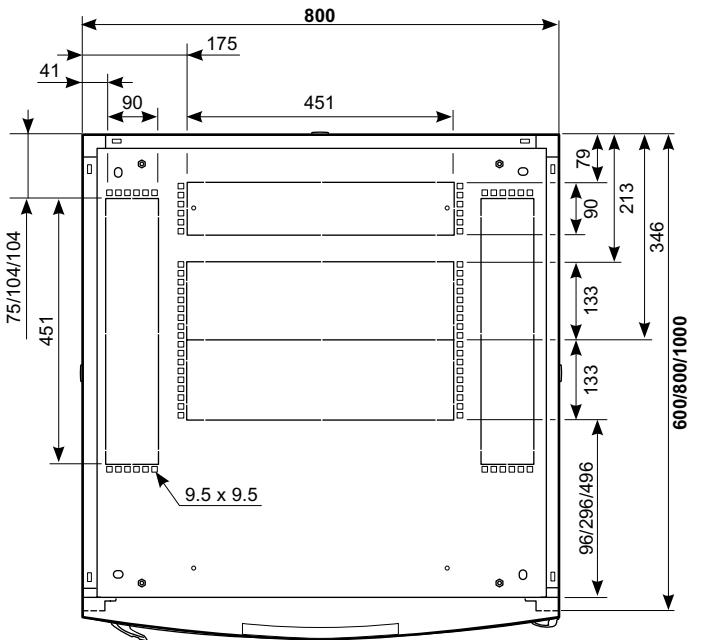
B-B CROSS-SECTION

19" LCS² cabinets enable 19" equipment to be fixed horizontally in the upper and lower parts.

4. DIMENSIONS (continued)

4.2 Usable dimensions (continued)

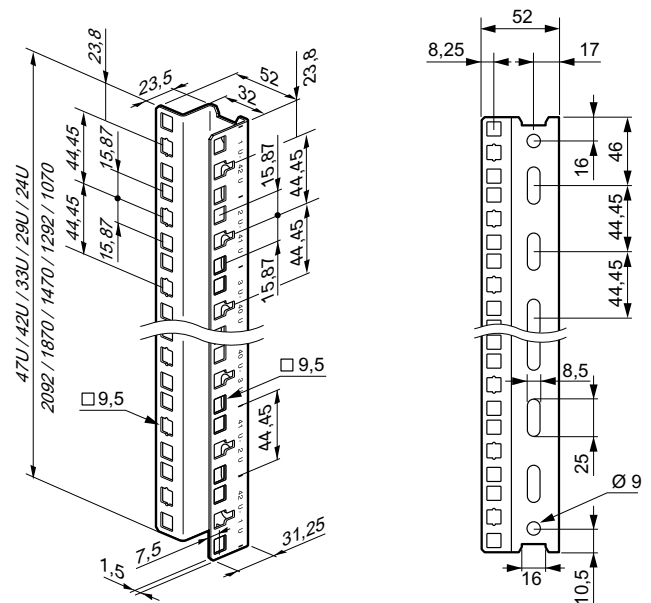
4.2.2 800 mm wide freestanding cabinets (continued)



VIEW FROM ABOVE

Note: The dimensions of the upper and lower end plates are identical.

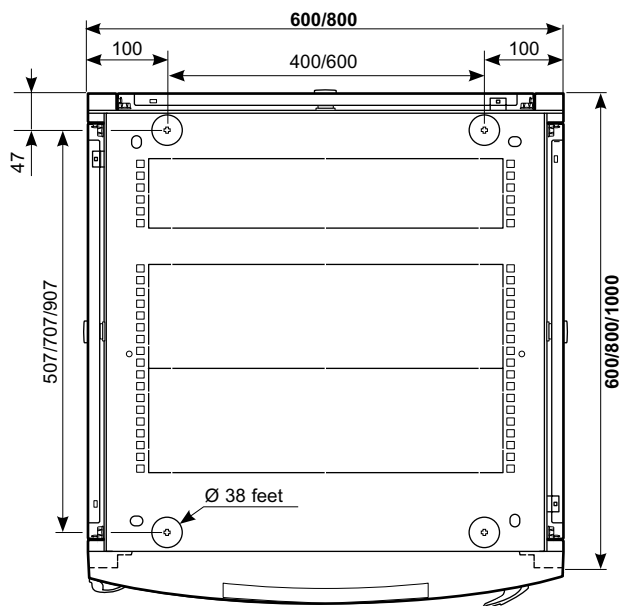
4.2.3 19" uprights



4. DIMENSIONS (continued)

4.3 Positioning of supports on the floor

The cabinets are equipped with 4 levelling feet. Accessories can be used to modify the link with the floor (see sections 10.1 to 10.3).



VIEW FROM BELOW

5. BAYING

5.1 Direct baying

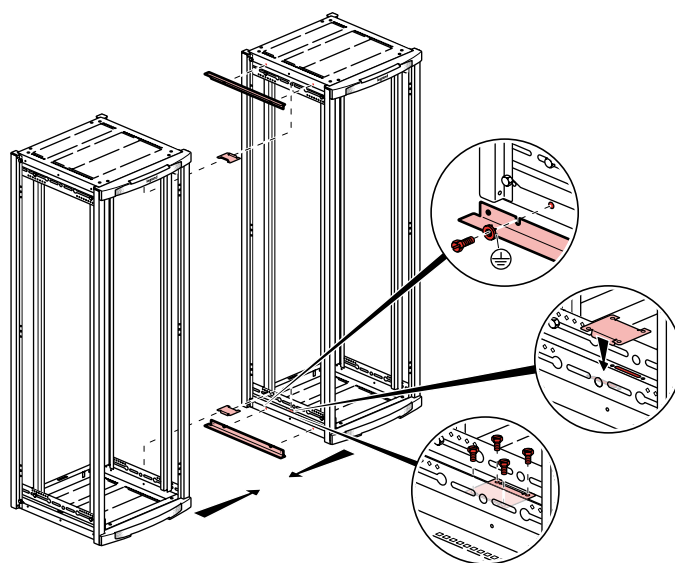
19" LCS² freestanding cabinets can be joined together using a baying kit:

Cat. No.	For cabinets depth (mm)
0 463 37	600
0 463 38	800
0 463 39	1000

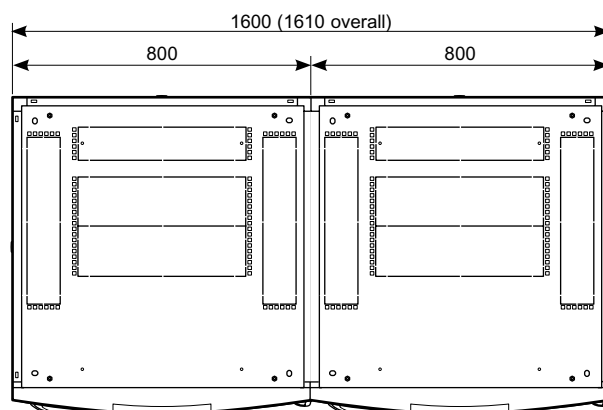
Note: The LCS² range includes extension cabinets for the 42U x 600 x 600 and 42U x 800 x 800 sizes. These special cabinets are supplied with the baying kit and without side panels.

A baying kit comprises:

- 2 galvanised steel lugs
- 2 steel crosspieces + paint finish (same as cabinets)
- Fixing screws



The crosspieces provide protection against dust and maintain the IP20 protection of the cabinets.



VIEW OF A COMBINATION FROM ABOVE

5. BAYING (continued)

5.2 Baying via cabling unit

5.2.1 Presentation

The LCS² cabling unit is used to join two 42U 19" LCS² freestanding cabinets together, and provides easier management of cables and patch cords.

Joined to 2 x 600 mm wide cabinets, the cabling unit is an alternative solution to an assembly of 2 x 800 mm wide cabinets and has smaller dimensions.

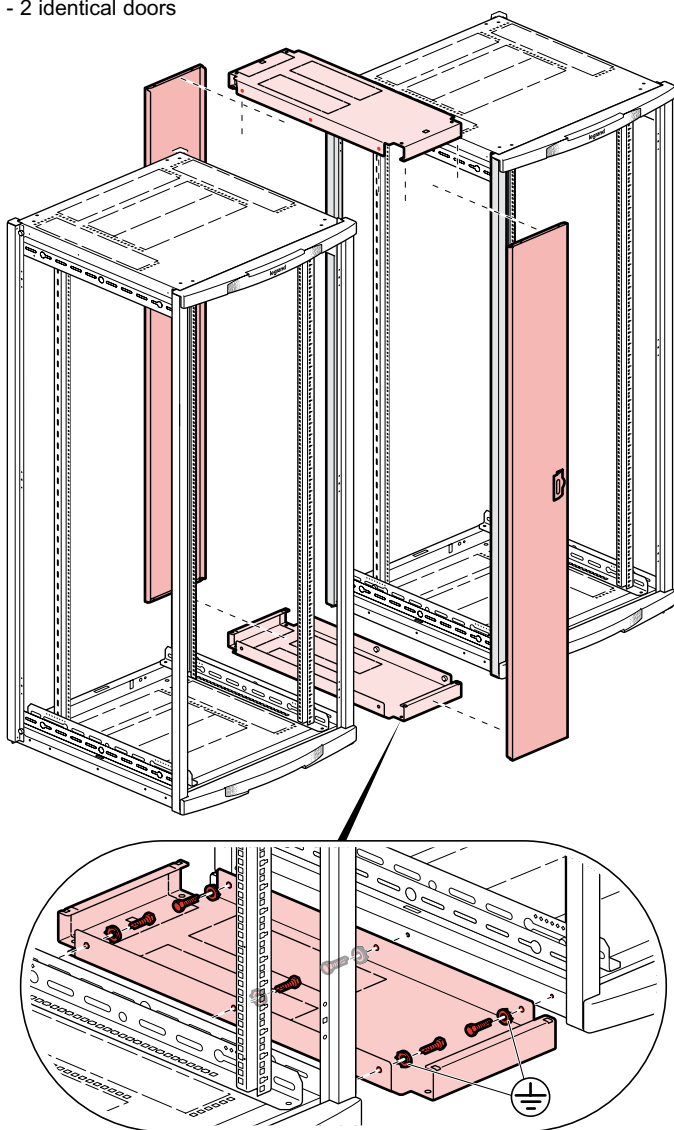
The cabling unit is available in 2 depths:

Cat. No.	For 42U cabinets depth (mm)
0 463 34	600
0 463 35	800

Note: The LCS² range includes extension cabinets for the 42U x 600 x 600 and 42U x 800 x 800 sizes. These special cabinets are supplied without side panels.

A cabling unit principally comprises:

- 2 identical end plates
- 2 identical doors



The cabling unit can only be installed between 2 cabinets. It cannot be mounted at the end.

5. BAYING (continued)

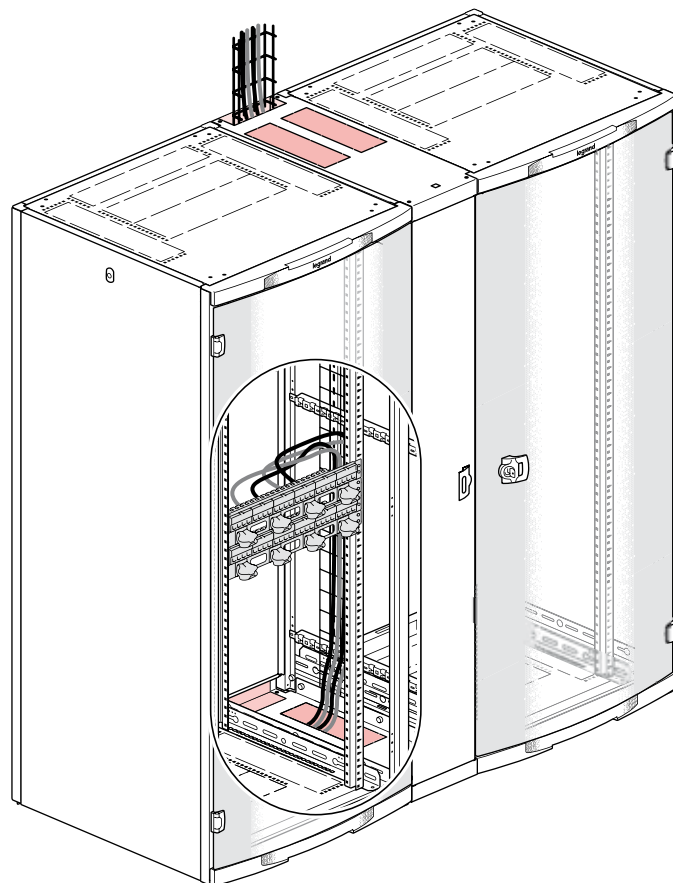
5.2 Baying via cabling unit (continued)

5.2.1 Presentation (continued)

Each door is reversible and easy to remove.

The end plates have cut-outs for cable entries.

The installation of a side cable tray optimises cable management (see section 7.2).



The cabling units are the same colour and have the same lock as 19" LCS² cabinets, enabling attractive assemblies to be created.

5.2.2 Features

- IK08
- IP20 maintained when joined
- Doors with handle equipped with a 2433A key lock
- End plates 1.5 mm thick galvanised steel + paint finish (same as cabinets)
- Doors 1.2 mm thick sheet steel + paint finish (same as cabinets)
- Supplied with earthing kit and complete set of screws
- Feet zinc-plated steel with black polypropylene fixed base

19" LCS² freestanding cabinets

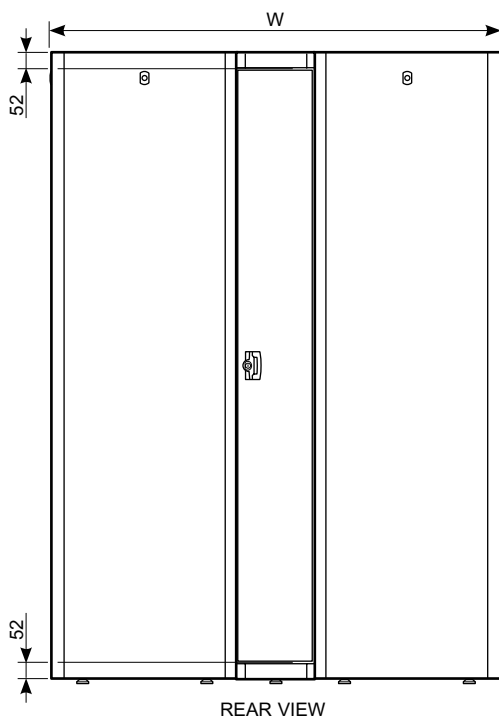
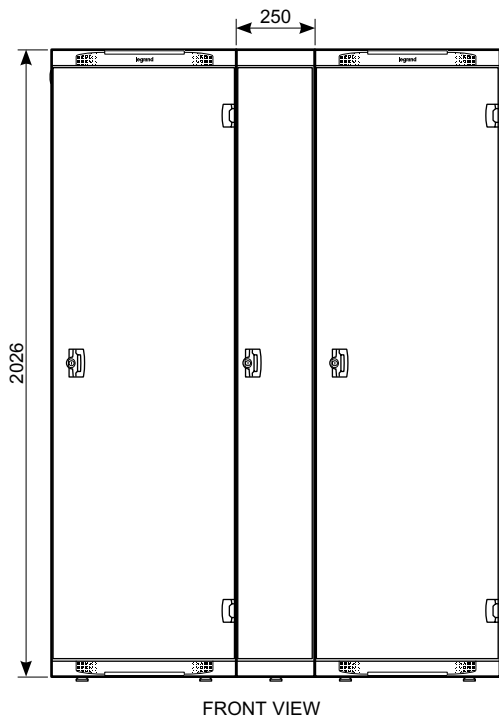
Catalogue number(s): 0 463 00/06/12/18/19/21/22
0 463 23/28/29/30/33/34/35

5. BAYING (continued)

5.2 Baying via cabling unit (continued)

5.2.2 Features (continued)

Combination shown with two 600 x 600 mm cabinets.

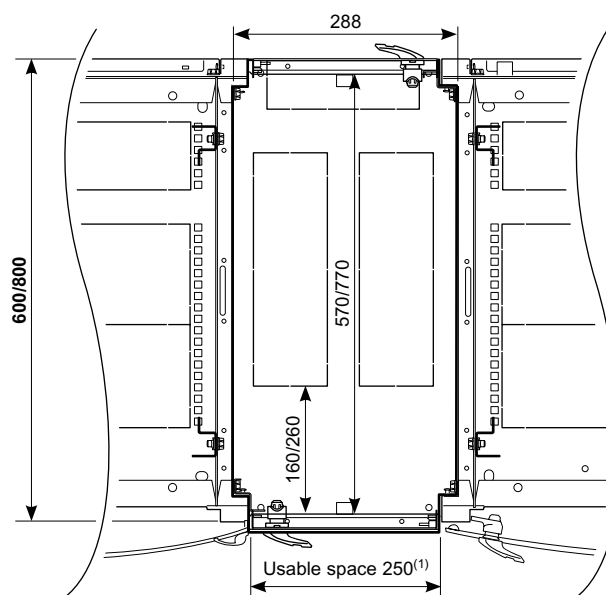
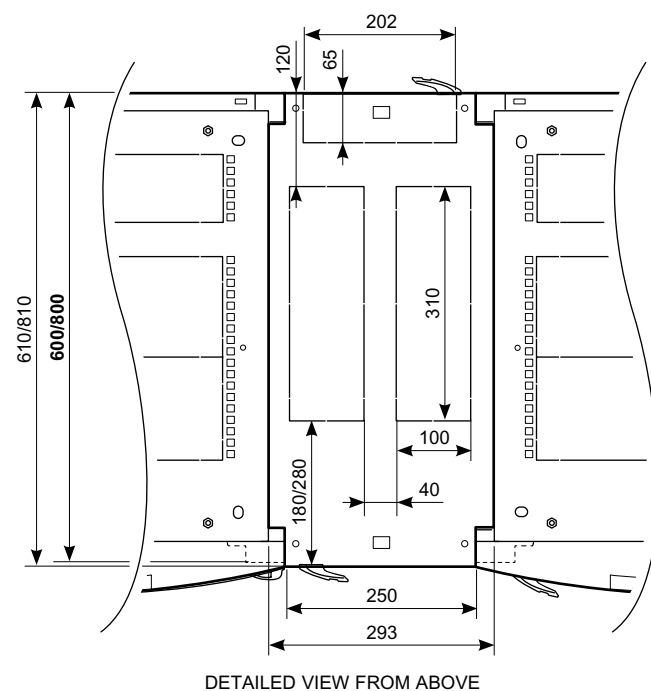
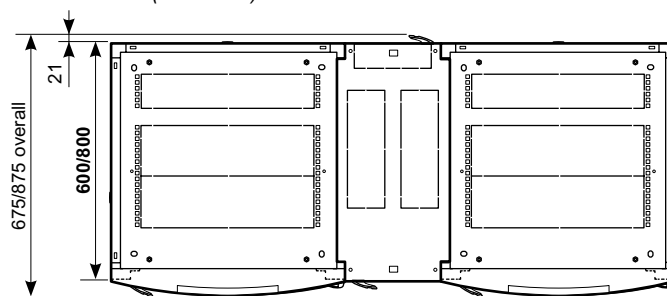


Type of baying	W	Overall W
With 2 cab. width 600	1450	1460
With 1 cab. width 600 & 1 cab. width 800	1650	1660
With 2 cab. width 800	1850	1860

5. BAYING (continued)

5.2 Baying via cabling unit (continued)

5.2.2 Features (continued)



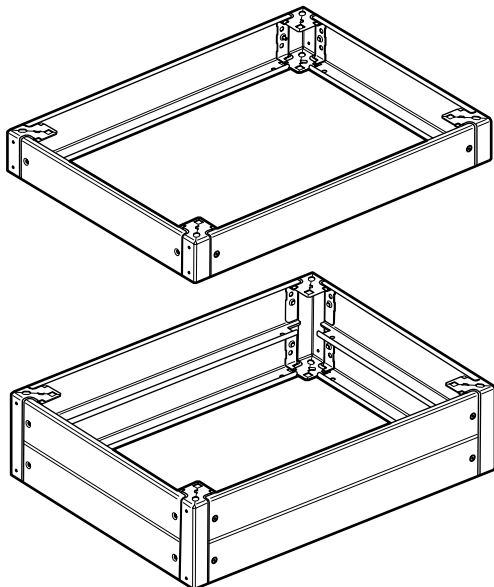
(1) Usable height: 1922 mm

6. PLINTHS

6.1 Freestanding cabinet plinths

6.1.1 Presentation

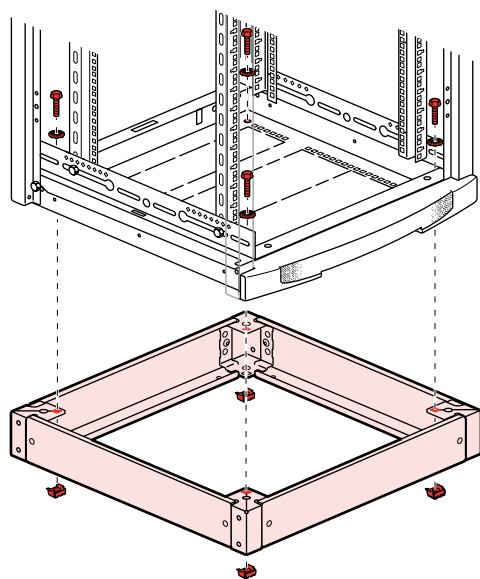
19" LCS² cabinets can be equipped with a 100 or 200 mm high metal plinth.



LCS² plinths comprise 4 one-piece corner blocks and 4 traps, height 100 mm, providing total accessibility on all 4 sides.

The plinths are the same colour as the cabinets so that they match perfectly.

A plinth is fixed directly to the end plate of the cabinet:



Note: It is also possible to place 2 x 100 mm high plinths one on top of the other.

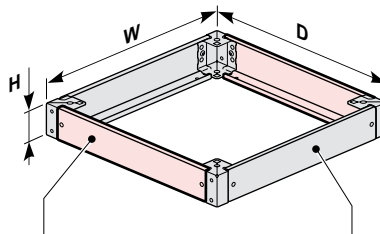
6. PLINTHS (continued)

6.1 Freestanding cabinet plinths (continued)

6.1.1 Presentation (continued)

The following is required to create a plinth:

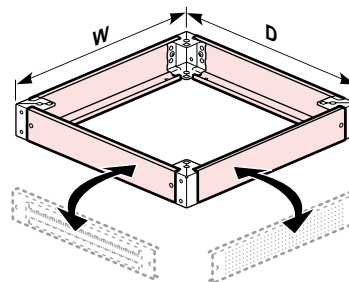
- The correct plinth kit for the width of the cabinet (corner blocks + solid front and rear traps)
- The correct set of 2 solid side traps for the depth of the cabinet (2 sets for a 200 mm high plinth)

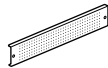
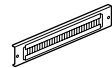


Set of 2 solid side traps (mm)			Plinth kit (mm)		
H = 100	D = 600	Cat. No. 0 464 54	H = 100	W = 600	Cat. No. 0 464 50
	D = 800	Cat. No. 0 464 56		W = 800	Cat. No. 0 464 51
	D = 1000	Cat. No. 0 464 58			
H = 200	D = 600	2 x Cat. No. 0 464 54	H = 200	W = 600	Cat. No. 0 464 52
	D = 800	2 x Cat. No. 0 464 56		W = 800	Cat. No. 0 464 53
	D = 1000	2 x Cat. No. 0 464 58			

The solid traps can be replaced by:

- Either a ventilated trap for natural ventilation
 - Or a trap with brushes for cable entry on one side of the plinth
- These special traps, also 100 mm high, are supplied singly.



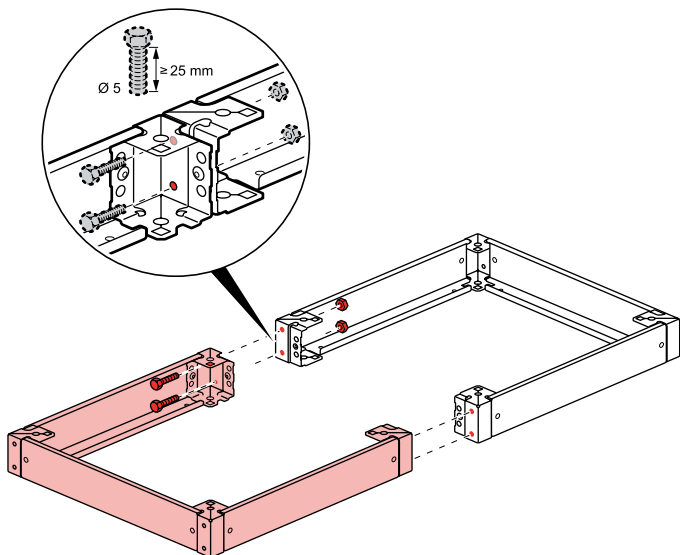
Ventilated trap		Trap with brushes	
			
W/D = 600	Cat. No. 0 464 60		Cat. No. 0 464 62
W/D = 800	Cat. No. 0 464 61		Cat. No. 0 464 63

6. PLINTHS (continued)

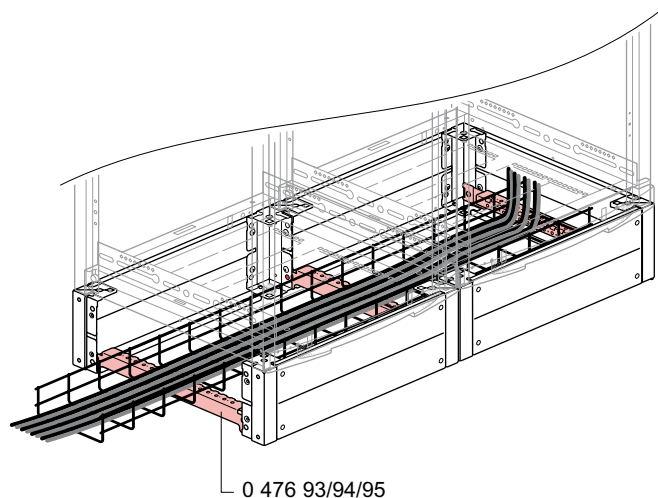
6.1 Freestanding cabinet plinths (continued)

6.1.1 Presentation (continued)

If cabinets are joined together directly, their plinths can be joined together mechanically (screws not supplied).



The plinths can be equipped with cross bars. Fixed between 2 corner blocks, they can be used for clamping cables and, in a 200 mm high plinth, for fixing a U-shaped cable tray.



Cross bars	
Cat. No.	For depth (mm)
0 476 93	600
0 476 94	800
0 476 95	1000

U-shaped cable trays	
Cat. No.	Internal width x height (mm)
0 464 69	200 x 54
0 464 70	400 x 54

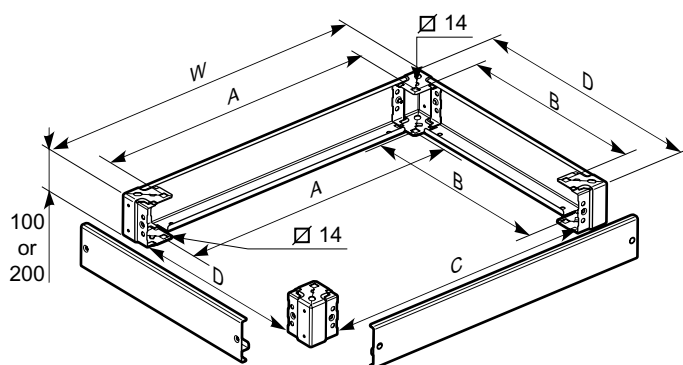
6. PLINTHS (continued)

6.1 Freestanding cabinet plinths (continued)

6.1.2 Features

6.1.2.1 Cabinet plinths (plinth kit + side traps)

- Plinth fixed using M12 screws
- Traps fixed using black zinc-plated M6 screws
- Corner blocks 2 mm thick steel + paint finish (same as cabinets)
- Traps 1.5 mm thick steel + paint finish (same as cabinets) with double fold reinforcement on floor side
- Supplied with complete set of screws for the equipotential link with the cabinet
- Can be fixed to the floor (screws not supplied)

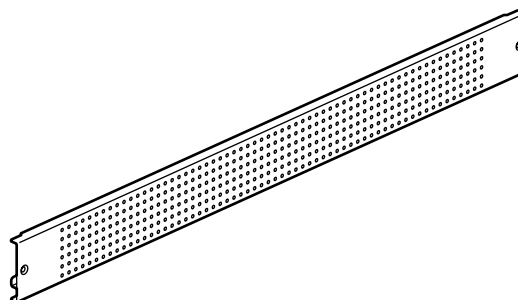


W x D	Dimensions (mm)					
	Overall		Fixings		Usable area	
	W	D	A	B	C	D
600 x 600	599	599	478	478	449	449
600 x 800	599	799	478	678	449	649
800 x 600	799	599	678	478	649	449
800 x 800	799	799	678	678	649	649
800 x 1000	799	999	678	878	649	849

6.1.2.2 Ventilated traps/with brushes

- Height 100 mm
- Steel thick 1.5 mm + paint finish (same as cabinets) with double fold reinforcement on floor side
- Supplied with black zinc-plated M6 fixing screws

The ventilated traps have $\varnothing 5$ mm perforations:



The traps with brushes are supplied with a black stiff brush and a black flexible brush (polyamide fibres).

The usable feedthrough area of the cable entry with brushes is:

- 424 x 45 mm for width/depth 600 mm
- 624 x 45 mm for width/depth 800 mm

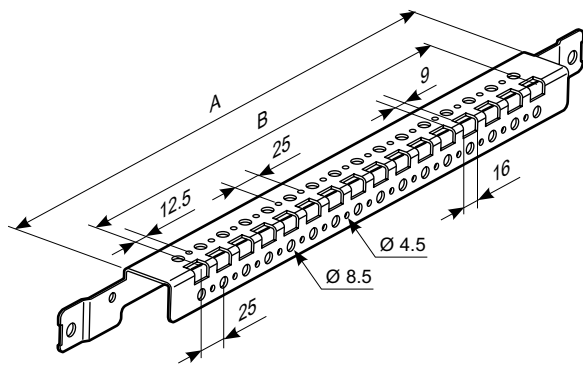
6. PLINTHS (continued)

6.1 Freestanding cabinet plinths (continued)

6.1.2 Features (continued)

6.1.2.3 Cross bars

- 2 mm thick galvanised steel
- Supplied singly with fixing screws



Cat. No.	A	B
0 476 93	444	375
0 476 94	644	575
0 476 95	844	775

6.1.2.4 U-shaped cable trays

- Length 3 m
- Frame 100 x 50 mm
- Zinc-plated steel
- Supplied with screws for fixing on the cross bars

Cat. No.	Overall dimensions (mm)	Wire diameter (mm)
0 464 69	218 x 64	4.4
0 464 70	424 x 64	3.9 and 5.9

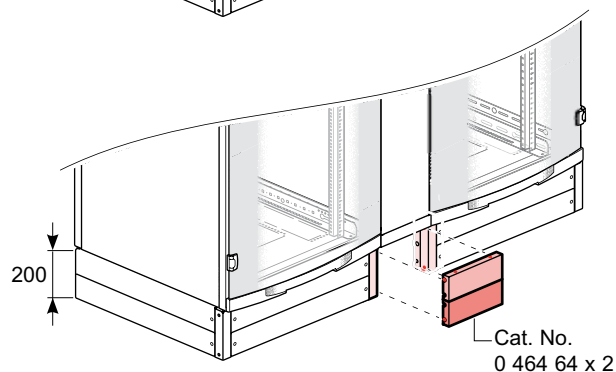
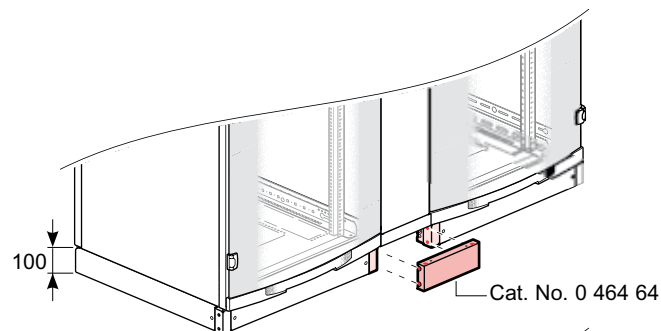
6. PLINTHS (continued)

6.2 Plinth for cabling unit

When joining 19" LCS² freestanding cabinets via a cabling unit, Cat. No. 0 464 64 is used to link the plinths of the joined cabinets (at the front and/or rear).

Cat. No. 0 464 64 comprises a 100 mm high trap.

For a height of 200 mm, the number of traps must be doubled.



The trap is made of 1.5 mm thick steel with paint finish (same as cabinets) and supplied with its fixing screws.

6.3 Linking interface

6.3.1 Presentation

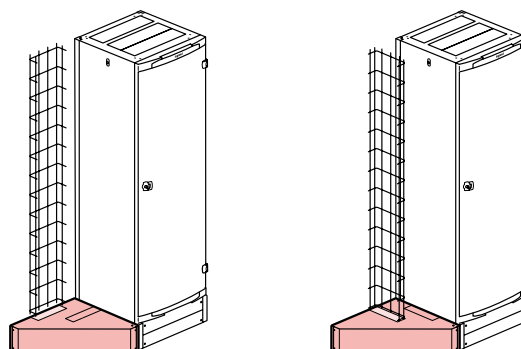
The linking interface Cat. No. 0 464 66 provides protection and a finish for the link between freestanding cabinets and cable ducts. It is positioned to the right or left of a 600 mm deep cabinet equipped with a 200 mm high plinth.

It is mechanically joined to the cabinet plinth.

The interface comprises:

- 3 corner blocks
- A front panel trap
- A cover

Its reversible cover with cut-outs allows for different cable entry configurations.

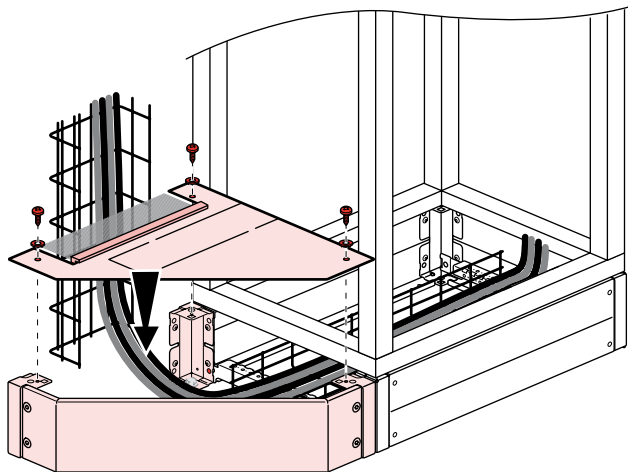


6. PLINTHS (continued)

6.3 Linking interface (continued)

6.3.1 Presentation (continued)

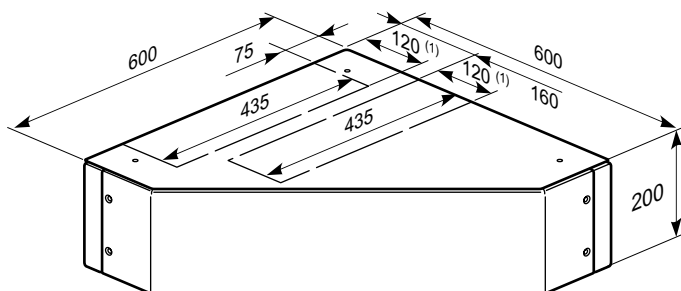
The linking interface helps to maintain the bending radius of the cables:



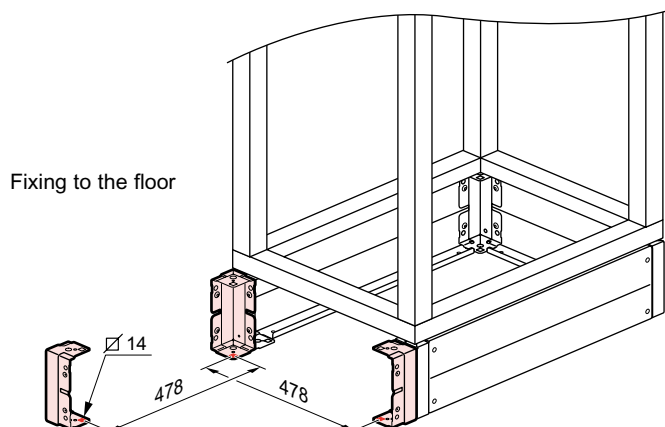
U-shaped cable tray, see section 6.1.

6.3.2 Features

- Corner blocks and cover 2 mm thick steel + paint finish (same as cabinets)
- Trap 1.5 mm thick steel + paint finish (same as cabinets)
- Supplied with black cable entry brushes (polyamide fibres) and complete set of screws (apart from those for fixing to the floor)



⁽¹⁾ Usable feedthrough area with brush: 110 x 435 mm



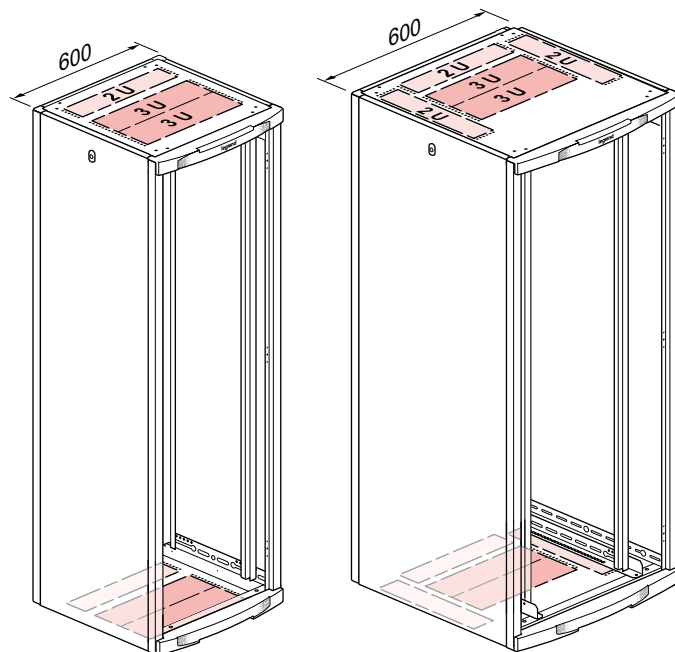
Fixing to the floor

7. CABLE MANAGEMENT

7.1 Cable entry plates

7.1.1 Presentation

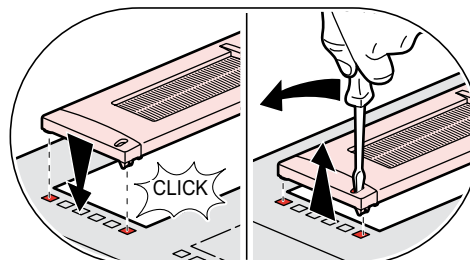
19" LCS² freestanding cabinets have pre-cut 19" format top and bottom cable entries.



After cutting out the cable entries, they can be equipped with feedthroughs with brushes using the following 19" equipment:

Cat. No.	Plate with brushes
0 465 28	Plastic 1U
0 465 29	Plastic 2U
0 465 30	Metal 1U
0 465 31	Metal 2U

The plastic plates Cat. Nos. 0 465 28/29 clip directly onto the cable entries. They require a flat screwdriver for removal.




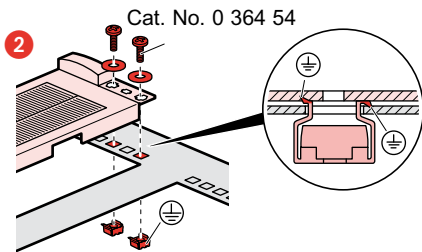
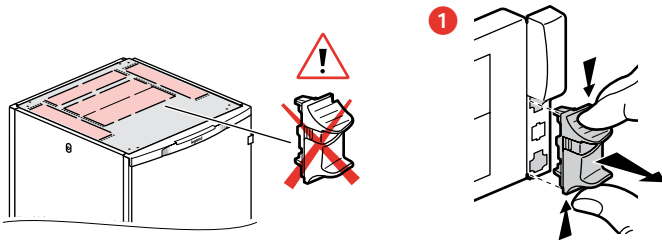
7. CABLE MANAGEMENT (continued)

7.1 Cable entry plates (continued)

7.1.1 Presentation (continued)

The metal plates are equipped with 2 quick fixings that do not require any screws or tools.

 At the top of LCS² cabinets, the metal plates must be fixed using screws and cage nuts with pins in order to provide the equipotential link between the plate and the painted end plate of the cabinet.

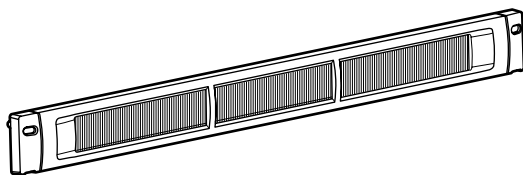


The 3U cable entries also enable the installation of plates with fans Cat. Nos. 0 464 87/88 for thermal management of the cabinet (see section 9.1).

7.1.2 Features

7.1.2.1 Plastic plates

ABS plates equipped with a flexible brush (2 brushes for 2U height).
Black RAL 9005



1U plate Cat. No. 0 465 28 (above):
- 2 feedthroughs 125 x 25 mm
- 1 central feedthrough 113 x 25 mm

2U plate Cat. No. 0 465 29:
- 2 feedthroughs 125 x 45 mm
- 1 central feedthrough 113 x 45 mm

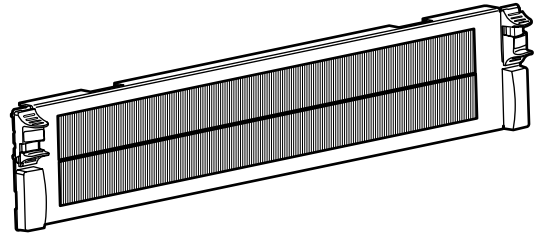
7. CABLE MANAGEMENT (continued)

7.1 Cable entry plates (continued)

7.1.2 Features (continued)

7.1.2.2 Metal plates

Plates 1.5 mm thick zinc-plated steel equipped with a flexible brush (2 brushes for 2U height).
Black RAL 9005.



1U plate Cat. No. 0 465 30:
- 1 feedthrough 400 x 23 mm

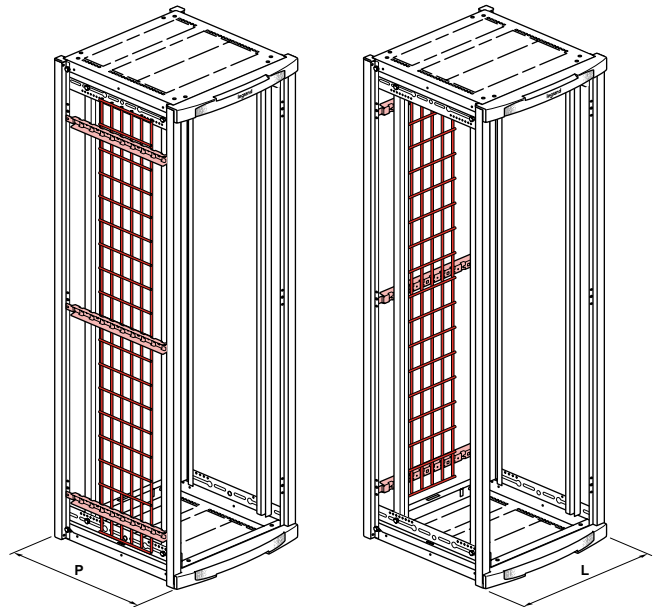
2U plate Cat. No. 0 465 31 (above):
- 1 feedthrough 400 x 66 mm

7.2 Cable trays

7.2.1 Presentation

With the cable management supports, a side or rear cable tray can be installed in 19" LCS² freestanding cabinets.

The advantage of the flat cable tray over the U-shaped tray is that the cables flow more easily (no edges).



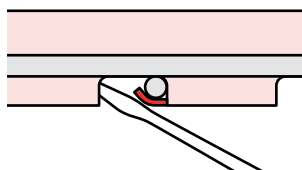
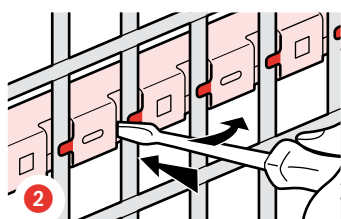
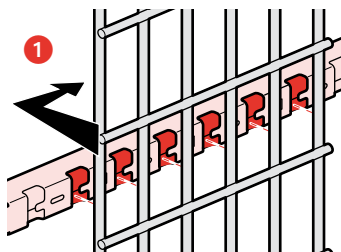
Cat. No.	Set of 3 supports
0 464 72	For cabinet width/depth 600 mm
0 464 73	For cabinet width/depth 800 mm
0 464 74	For cabinet depth 1000 mm
Cat. No.	Flat cable trays
0 464 76	For 33U cabinet
0 464 77	For 42U cabinet

7. CABLE MANAGEMENT (continued)

7.2 Cable trays (continued)

7.2.1 Presentation (continued)

The supports are fixed onto the structural uprights of the cabinet, and the tray is mounted without screws:

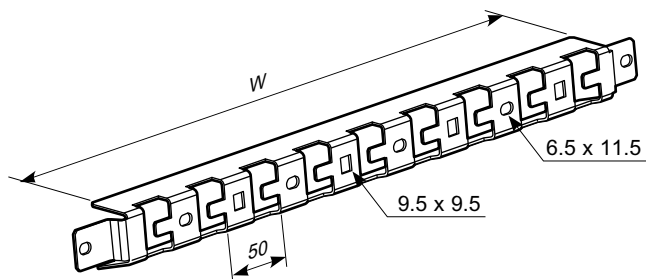


42U 19" LCS² cabinets can also be joined via a cabling unit, providing a solution for easy management of cables and cords (see section 5.2).

7.2.2 Features

7.2.2.1 Cable management supports

- Supplied in sets of 3
- For fixing using self-tapping screws
- Max. diameter of grid wire: 6 mm
- 1.5 mm thick galvanised steel



Cat. No.	W (mm)	No. of tray fixing points
0 464 72	450	9
0 464 73	650	13
0 464 74	850	17

7. CABLE MANAGEMENT (continued)

7.2 Cable trays (continued)

7.2.2 Features (continued)

7.2.2.2 Flat cable trays

- Frame: 100 x 50 mm
- Zinc-plated steel

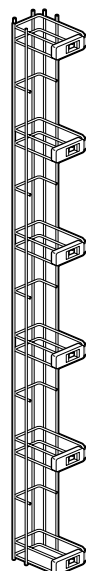
Cat. No.	Overall dimensions (mm)	Wire diameter (mm)
0 464 76	1405 x 255	4.4
0 464 77	1805 x 255	4.4

7.3 Vertical cable management grid

7.3.1 Presentation

800 mm wide 42U 19" LCS² freestanding cabinets can take the vertical cable management grid Cat. No. 0 331 35, fixed onto the outside of the 19" uprights.

The guide has articulated latches. As the latches are clipped on, their direction of opening can be reversed.



42U 19" LCS² cabinets can also be joined via a cabling unit, providing a solution for easy management of cables and cords (see section 5.2).

7.3.2 Features

- Supplied singly
- Overall dimensions: H 1562 x W 100 X D 155 mm
- Wire diameter: 5 mm
- Steel wire + paint, ABS-PC latches
- Supplied with screws
- Black RAL 9005

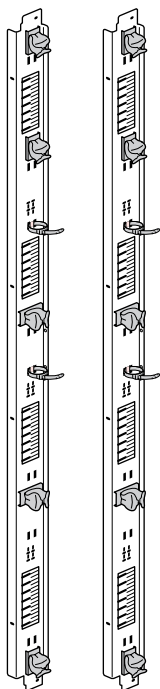
7. CABLE MANAGEMENT (continued)

7.4 Vertical cable manager

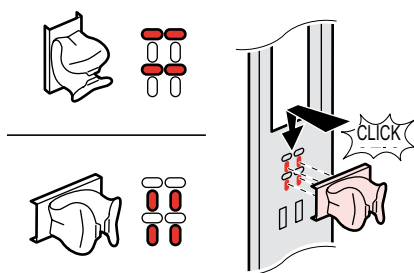
7.4.1 Presentation

800 mm wide 42U 19" LCS² 42U freestanding cabinets can be fitted with the set of 2 vertical cable manager panels Cat. No. 0 464 80.

The panels are mounted on the outside of the 19" uprights. The wiring is organised using feedthroughs with brushes, cable management rings and slots for cable ties.



The management rings are plastic and radiate out to provide optimum protection for cords (maintain the bending radius). Each ring clips on horizontally or vertically:



42U 19" LCS² cabinets can also be joined via a cabling unit, providing a solution for easy management of cables and cords (see section 5.2).

7. CABLE MANAGEMENT (continued)

7.4 Vertical cable manager (continued)

7.4.2 Features

- Set of 2 panels
- For fixing on 19" uprights and structural uprights
- Ability to adjust the depth of the 19" uprights retained
- Feedthroughs: 174 x 50 mm usable
- Supplied with 8 flexible brushes and 8 stiff brushes (black polyamide fibres)
- Supplied with 10 cable management rings, usable cross-section 4070 mm² (Cat. No. 0 465 42)
- Supplied with 9 cable ties with tightening indicator:
 - 3 x Cat. No. 0 331 94,
 - 3 x Cat. No. 0 331 95 and 3 x Cat. No. 0 331 96
- Supplied with screws
- Overall panel dimensions: 1878 x 108 mm
- Panels 1.5 mm thick steel painted
- Polyamide rings
- Black RAL 9005

7.5 Cable ties

7.5.1 Cable ties with tightening indicator

Cable ties with tightening indicator are wide ties with a smooth inner surface for optimum protection of cables. They incorporate a warning system to prevent over-tightening: fusible crescent-shaped pins snap one after the other and act as visual and audible indicators.



Hooks hold the excess strap in place.

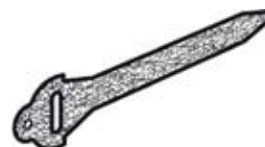
The ties are released by pinching the head of the tie and can be re-used.

Cat. No.	Width (mm)	Length (mm)	Tightening Ø (mm)	
			Max.	Min.
0 331 94	15	180	35	15
0 331 95	15	225	50	35
0 331 96	15	320	80	50

- Tensile strength: > 100 N
- Fire resistance: UL 94 HB
- Black high impact PBT

7.5.2 Self-locking cable ties

Self-locking cable ties are repositionable textile ties that do not damage cables.

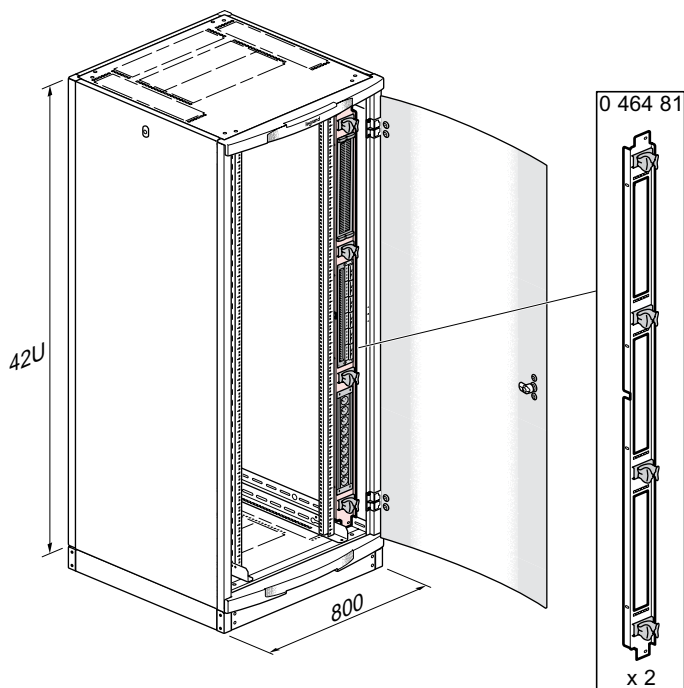


Cat. No.	Colour	Width (mm)	Length (mm)	Max. tightening Ø (mm)
0 331 84	Black	16	150	35
0 331 85	Red	16	150	35
0 331 86	Green	16	150	35
0 331 87	Black	16	300	80
0 331 88	Red	16	300	80
0 331 89	Green	16	300	80

- Tensile strength: > 220 N
- Fire resistance: UL 94 V2
- Double-sided textile with "loops" on one side and "hooks" on the other

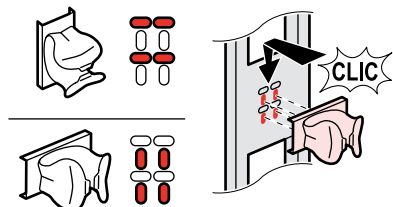
8. VERTICAL EXTENSION

The set of 2 vertical extension uprights Cat. No. 0 464 81 increases the capacity of 42U 800 mm wide 19" LCS² freestanding cabinets by 12 U, giving a total capacity of 54U.



The extension, mounted on either side of 19" uprights, has 6 x 2U positions for mounting 19" equipment vertically (panels, 19" PDUs, DIN rail kit, etc.).

The cable management rings are plastic and radiate out to provide optimum protection for cords (maintain the bending radius). Each ring clips on horizontally or vertically:



Features

- Set of 2 uprights
- For fixing on 19" uprights and structural uprights (top, bottom and central)
- Ability to adjust the depth of the 19" uprights retained
- Positions for 19" equipment: usable area 450 x 90 mm, perforations 9.5 x 9.5 mm
- Supplied with 8 cable management rings, usable cross-section 4070 mm² (Cat. No. 0 465 42)
- Supplied with screws
- Overall dimensions of upright: 1878 x 108 mm
- Uprights 1.5 mm thick zinc-plated steel
- Polyamide rings
- Black RAL 9005

9. THERMAL MANAGEMENT

9.1 Plates with fans

19" LCS² freestanding cabinets can take plates with fans at the 3U cable entries. Installed in the top of the cabinet, the plates provide a high extraction rate.

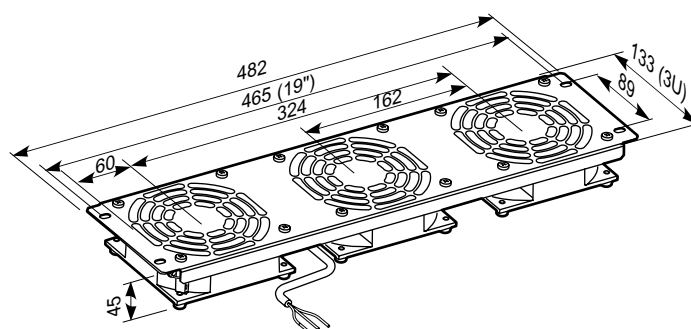
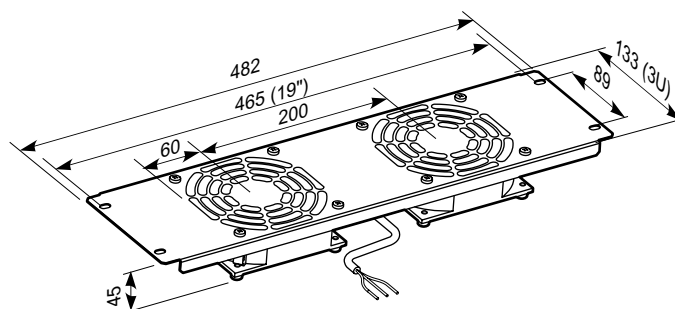
Cat. No.	No. of fans	Output (m ³ /h)
0 464 87	2	180
0 464 88	3	270

Features

- IP XXB - IK08
- 230 V~ - 50/60 Hz power supply

Cat. No.	Current (A)	Power (W)
0 464 87	0.25	36
0 464 88	0.37	54

- Equipped with 3 x 0.75 mm² flexible power supply cable, length 2.5 m
- Fixed using M6 screws and cage nuts with pins (supplied)
- Plate steel + paint finish (same as cabinets)
- Charcoal grey RAL 7016



9. THERMAL MANAGEMENT (continued)

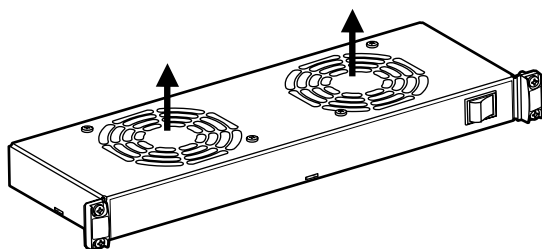
9.2 1U ventilation drawers

The ventilation drawers are 19" equipment which provide circulation of the internal air. They provide targeted heat removal and ensure uniformity of the temperature in the cabinet.

Cat. No.	No. of fans	Depth (mm)
0 464 89	2	150
0 464 90	4	300

Each fan provides an output of 90 m³/h.

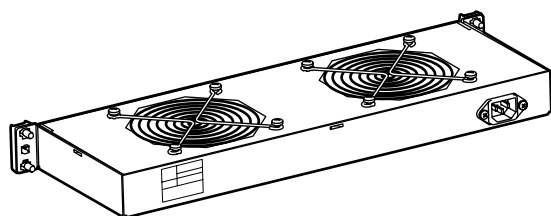
The arrows below indicate the ventilation direction in the operating position:



Features

- IP XXB - IK08
- 230 V~ - 50/60 Hz power supply per C14 socket

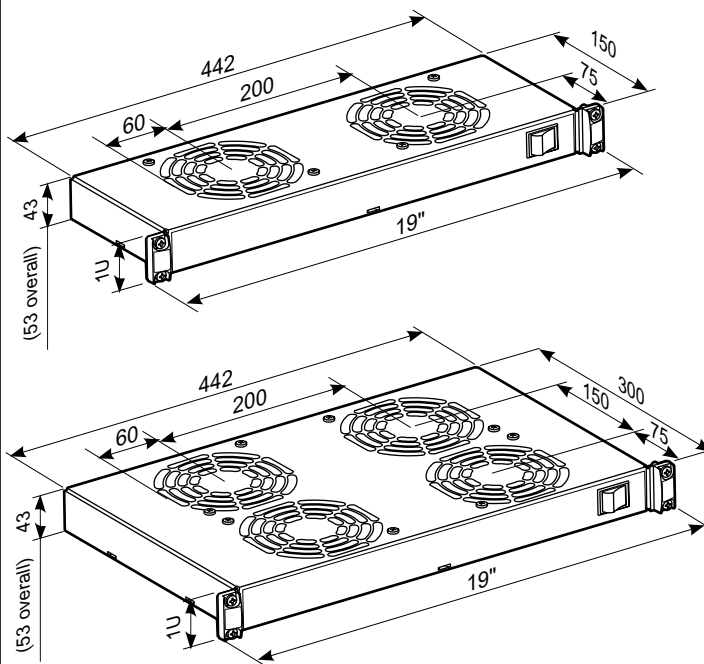
Cat. No.	Current (A)	Power (W)
0 464 89	0.25	36
0 464 90	0.5	72



- Supplied with C13 cord - French/German standard plug, length 1.2 m
- Illuminated ON/OFF switch
- For fixing on 2 x 19" uprights using M6 captive screws and 9.5 mm cage nuts with pins (supplied)
- Weight: 3 kg (Cat. No. 0 464 89)
5.3 kg (Cat. No. 0 464 90)
- Drawer painted steel
- Black RAL 9005

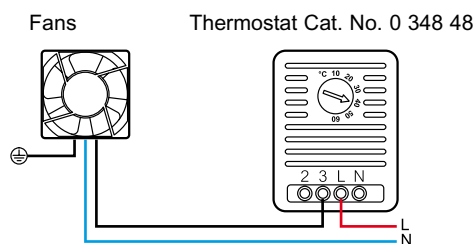
9. THERMAL MANAGEMENT (continued)

9.2 1U ventilation drawers (continued)



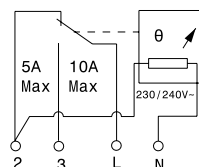
9.3 Thermostat

The mechanical thermostat Cat. No. 0 348 48 is used to control the switching on/off of the fans in order to control the temperature inside the cabinets.

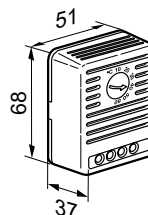


Features

- IP20
- 230 V~ - 50/60 Hz
- Adjustment range +5°C to +60°C
- Switching range: 2°C
- NC contact: 10 A, 250 V~
- NO contact: 5 A, 250 V~



- Connection via 2.5 mm² terminal block
- Class N interfercab. suppression according to VDE 0875
- Magnetic mounting
- Black

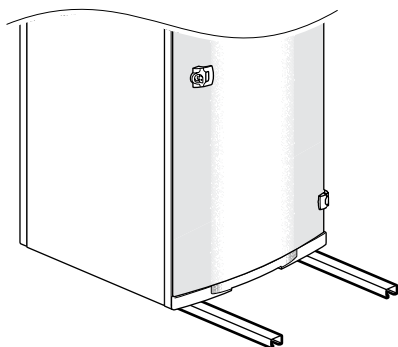


10. ACCESSORIES

10.1 Anti-tilt kit

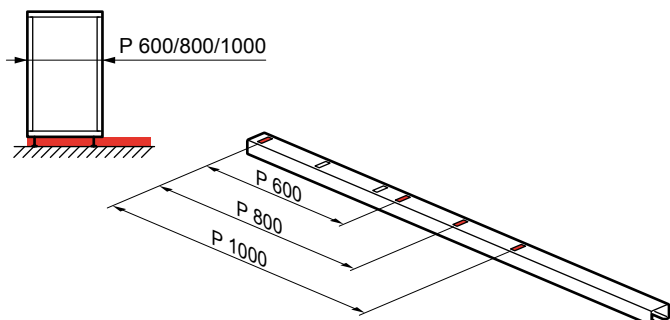
The anti-tilt kit Cat. No. 0 464 84 stabilises a 19" LCS² freestanding cabinet (which is not fixed to the floor) when heavy products installed on telescopic equipment are removed.

The kit, which consists of 2 rails fixed under the lower end plate, prevents the cabinet tilting forwards.

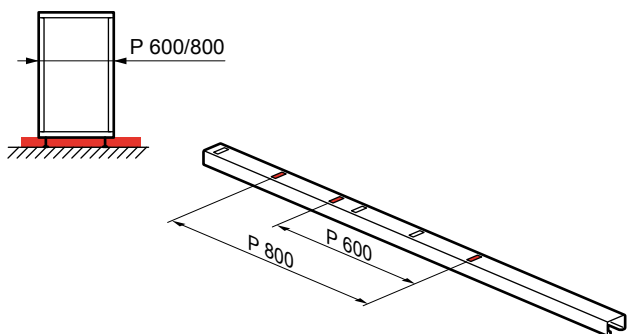


The kit can be mounted before or after installation of the cabinet.

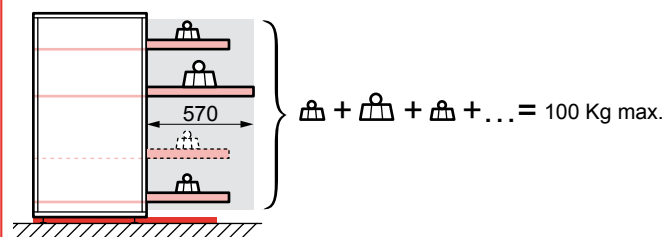
The kit is suitable for all three cabinet depths:



To limit the projection of the rails at the front of the cabinet, another type of mounting is possible for cabinets depth 600/800 mm:



It is essential not to exceed the following dual limit:
- 100 kg total weight installed on runners
- 570 mm projection

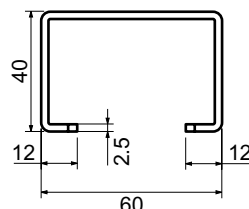


10. ACCESSORIES (continued)

10.1 Anti-tilt kit (continued)

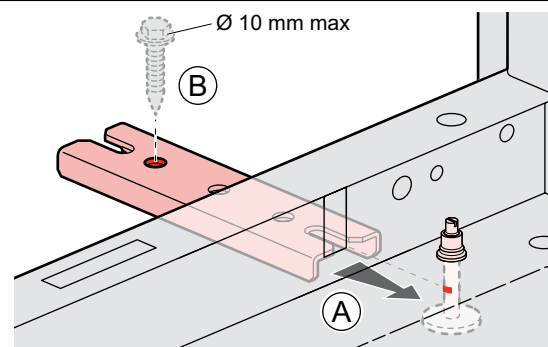
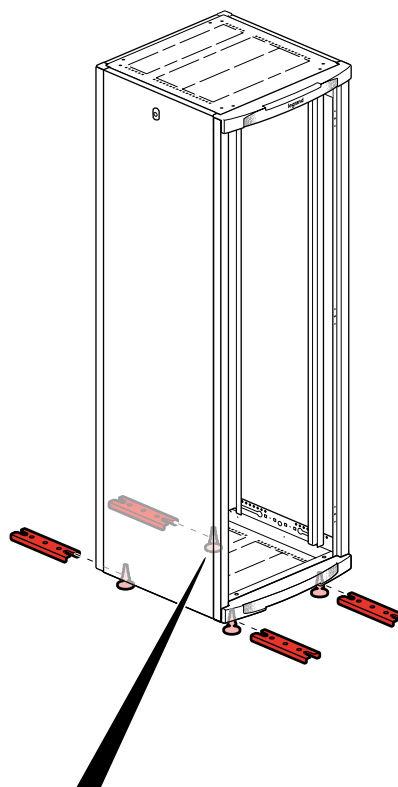
Features

C-section, length 1400 mm.
Steel + paint finish (same as cabinets)
Supplied with fixing screws
Charcoal grey RAL 7016



10.2 Floor fixing kit

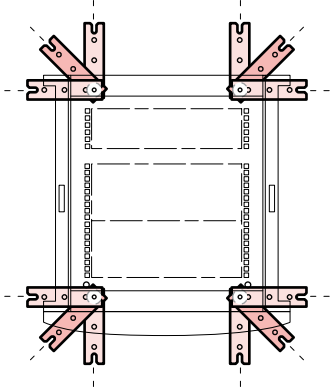
Fixing kit Cat. No. 0 464 86 is used to fix a 19" LCS² freestanding cabinet to the floor permanently. The 4 lugs in the kit, when screwed to the floor, lock the levelling feet of the cabinet.



10. ACCESSORIES (continued)

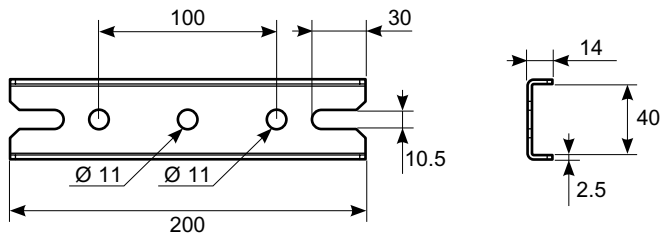
10.2 Floor fixing kit (continued)

The kit is used for remote fixing outside the cabinet.



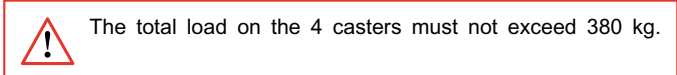
Features

Set of 4 galvanized steel lugs (without screws).



10.3 Casters

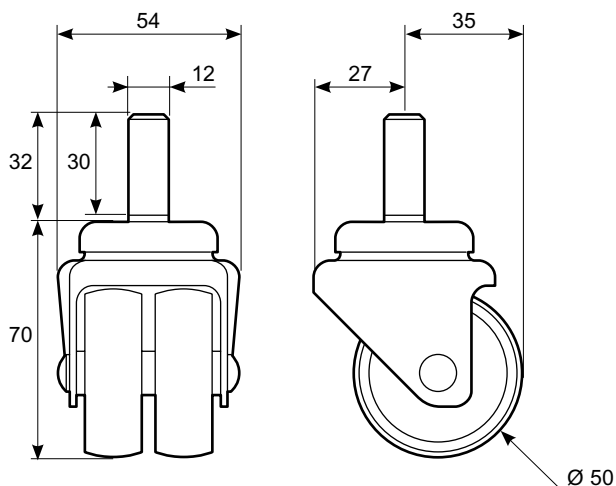
19" LCS² freestanding cabinets can be equipped with a set of 4 pivoting casters Cat. No. 0 464 83.



The total load on the 4 casters must not exceed 380 kg.

Features

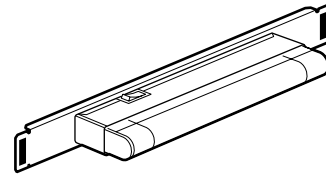
- Set of 4 casters with fixing screws
- Raise cabinet by 70 mm
- Wheels black polyamide



10. ACCESSORIES (continued)

10.4 19" lighting kit

The kit Cat. No. 0 464 85 consists of a 1U 19" panel equipped with a fluorescent light.



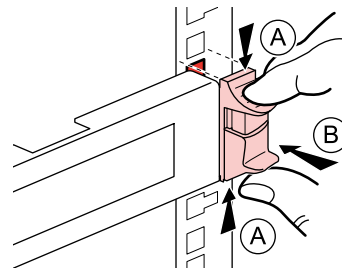
Features

- Fixing on 2 x 19" uprights
- Class I
- IP20
- ON/OFF switch
- 230 V~ - 50Hz power supply
- Ferromagnetic ballast
- Rear connection on terminal block
- For Ø 16 mm fluorescent tube, length 288 mm, G13 cap
- Supplied with 8 W white tube
- Panel 1.5 mm thick steel, black RAL 9005

11. 19" EQUIPMENT

11.1 19" management panels

For ease of mounting, the 19" LCS² panels incorporate a quick fixing:
- The plastic panels clip on directly. The only tool required is a flat screwdriver for their removal (see section 7.1).
- The metal panels are equipped with 2 ergonomic fixings that do not require any screws or tools.



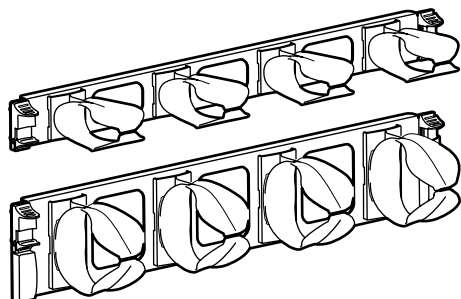
The quick fixing for metal panels is compatible with 1.4 to 2.75 mm thick 19" uprights with 8.25 to 9.5 mm square perforations. An automatic equipotential link is ensured with 19" LCS² uprights. Direct clipping on of plastic panels is compatible with 1.5 to 2 mm thick 19" uprights with 9.5 mm square perforations.

11. 19" EQUIPMENT (continued)

11.1 19" management panels (continued)

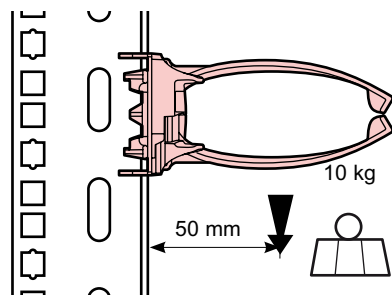
11.1.1 Management panels with 2 axes

- Metal panels with quick fixing
- Horizontal and front to back feedthrough
- Plastic cable management rings radiating out (to protect cords and maintain the bending radius)



Cat. No.	Panels with 2 axes	Depth (mm)	Dimensions of feedthroughs (mm)	Ring usable cross-section (mm ²)
0 465 22	Metal 1U	90	30 x 60	1890
0 465 23	Metal 2U	90	65 x 60	4070

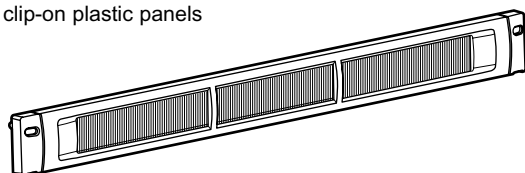
- Excellent resistance to unclipping under the weight of cables and cords



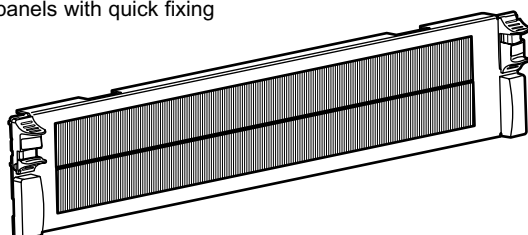
- Panels 1.5 mm thick zinc-plated steel
- Polyamide rings
- Zinc-plated zamak quick fixing
- Black RAL 9005

11.1.2 Management panels with brushes

- Direct clip-on plastic panels



- Metal panels with quick fixing



11. 19" EQUIPMENT (continued)

11.1 19" management panels (continued)

11.1.2 Management panels with brushes (continued)

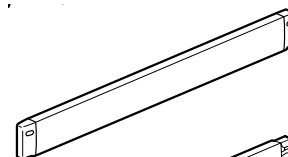
Cat. No.	Panels with brushes	Dimensions of brush feedthrough (mm)
0 465 28	Plastic 1U	Side: 125 x 25 Central: 113 x 25
0 465 29	Plastic 2U	Side: 125 x 45 Central: 113 x 45
0 465 30	Metal 1U	400 x 23
0 465 31	Metal 2U	400 x 66

- Panels ABS or 1.5 mm thick zinc-plated steel
- Flexible brush (2 brushes for 2U height)
- Zinc-plated zamak quick fixing
- Black RAL 9005

These panels are also used to equip cabinet cable entries with brush feedthroughs (see paragraph 7.1).

11.1.3 Blanking plates

- Direct clip-on plastic plates



- Metal plates with quick fixing



Cat. No.	Blanking plates
0 465 32	Plastic 1U
0 465 33	Plastic 2U
0 465 38	Metal 1U
0 465 39	Metal 2U
0 465 40	Metal 3U

- Plates ABS or 1.5 mm thick zinc-plated steel
- Zinc-plated zamak quick fixing
- Black RAL 9005

19" LCS² freestanding cabinets

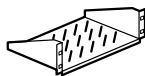
Catalogue number(s): 0 463 00/06/12/18/19/21/22
0 463 23/28/29/30/33/34/35

11. 19" EQUIPMENT (continued)

11.2 Fixed shelves

11.2.1 Projecting mounting fixed shelf

- For direct screw-free fixing on 2 x 19" uprights



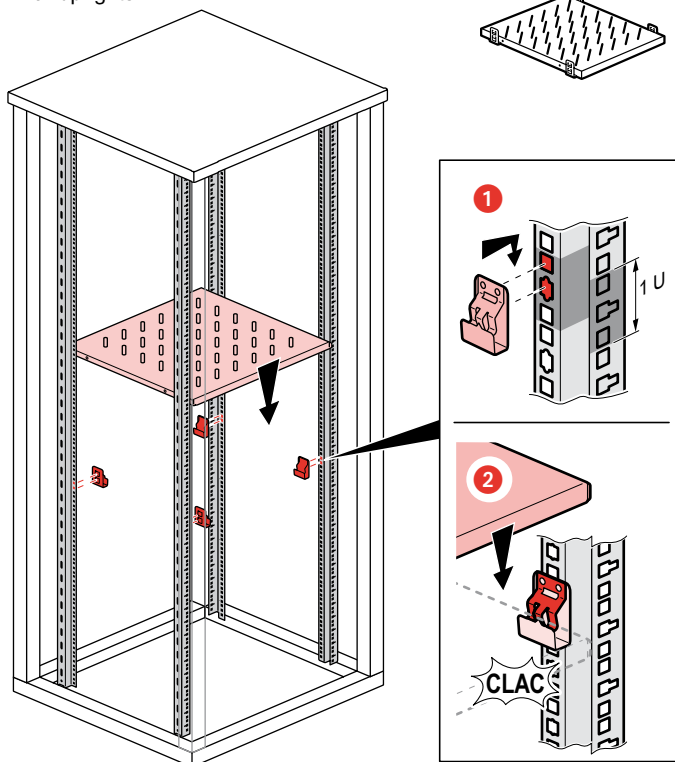
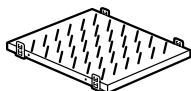
Cat. No.	Depth (mm)	Usable width (mm)
0 465 00	115	435
0 465 01	200	435
0 465 02	360	435

- Height 2U
- Max. load: 15 kg
- Automatic earthing on 19" LCS² uprights
- 50 x 7 mm oblong perforations (possibility of clamping using cable ties)
- 1.5 mm thick zinc-plated steel, black RAL 9005

Note: When mounted towards the front, projecting shelves can be used as temporary work surfaces.

11.2.2 Fixed shelf for fixing on 4 x 19" uprights

- Quick fixing system exclusive to 19" LCS² freestanding cabinets
- For mounting on 4 x 19" uprights
- Screw-free fixing independent of the depth position of the 19" uprights



Cat. No.	For cab. depth (mm)	Depth (mm)	Width (mm)
0 465 05	600	470	440
0 465 06	800	645	440
0 465 07	1000	850	440

- Height 1U
- Max. load: 50 kg
- Automatic earthing
- 50 x 7 mm oblong perforations (possibility of clamping using cable ties)
- Shelf 1.5 mm thick zinc-plated steel, black RAL 9005

Technical data sheet: F01424EN/00

Updated on:

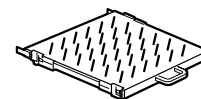
Created on: 21/02/2012



11. 19" EQUIPMENT (continued)

11.3 Telescopic shelves

- Quick fixing system exclusive to 19" LCS² freestanding cabinets
- For mounting on 4 x 19" uprights
- Easy adjustment to the depth position of the 19" uprights
- Locking in open position



Cat. No.	For cab. depth (mm)	Depth (mm)	Width (mm)	Travel (mm)
0 465 08	600	450	425	320
0 465 09	800	650	425	420
0 465 10	1000	650	425	420

- Height 1U
- Max. load: 50 kg
- Automatic earthing
- 50 x 7 mm oblong perforations (possibility of clamping using cable ties)
- Shelf 1.5 mm thick zinc-plated steel, black RAL 9005
- Ball-bearing runners



In case of the risk of tilting when heavy items are removed, the cabinet must be fixed to the floor or stabilised using an anti-tilt kit (see sections 10.1 and 10.2).

11.4 Fixed shelf for heavy items

- For mounting on 4 x 19" uprights
- Front fixing via screws
- Adjustment in 12.5 mm intervals to the depth position of the 19" uprights

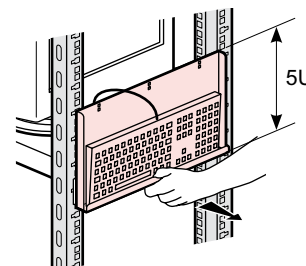
Cat. No.	For cab. depth (mm)	Depth (mm)	Width (mm)
0 465 17	1000	820	425

- Height 1U
- Max. load: 100 kg
- Supplied with screws and cage nuts with pins
- 50 x 7 mm oblong perforations (possibility of clamping using cable ties)
- 2 mm thick steel, painted black RAL 9005

11.5 Keyboard shelf

Shelf for computer screen.

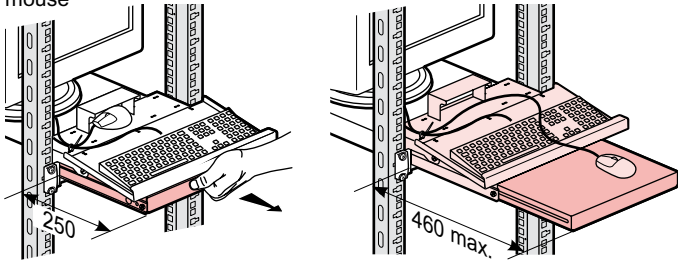
With retractable keyboard support



11. 19" EQUIPMENT (continued)

11.5 Keyboard shelf (continued)

With sliding shelf for mouse with integrated mat and position for mouse



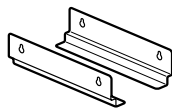
- For mounting on 4 x 19" uprights
- Front fixing via screws
- Min. fixing centre: 625 mm

Cat. No.	For cab. depth (mm)	Shelf for screen		
		Depth (mm)	Width (mm)	Usable depth (mm)
0 465 19	800	625	420	500
	1000			

- Height 1U (5U with vertical keyboard support)
- Max. load: 50 kg
- Supplied with screws and cage nuts with pins
- 1.5 mm thick steel, painted black RAL 9005

11.6 Set of 2 fixed sliders

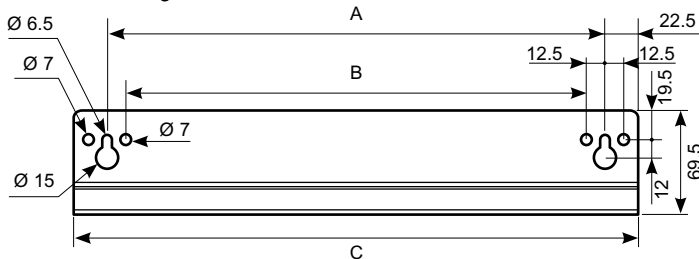
- For fixing on 4 x 19" uprights



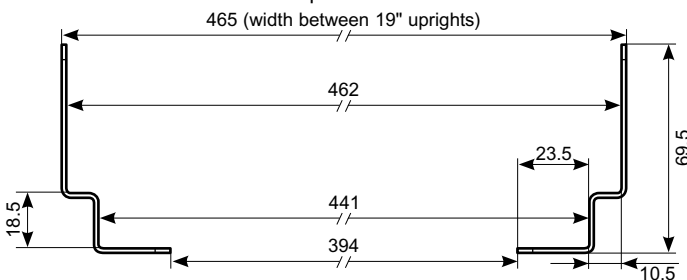
Cat. No.	For cab. depth (mm)	A (mm)	B ⁽¹⁾ (mm)	C (mm)
0 465 11	600	337	312	382
0 465 12	800	537	512	582
0 465 13	1000	737	712	782

⁽¹⁾ Min. fixing centre

- Max. load: 50 kg
- Supplied with screws
- 1.5 mm thick galvanised steel



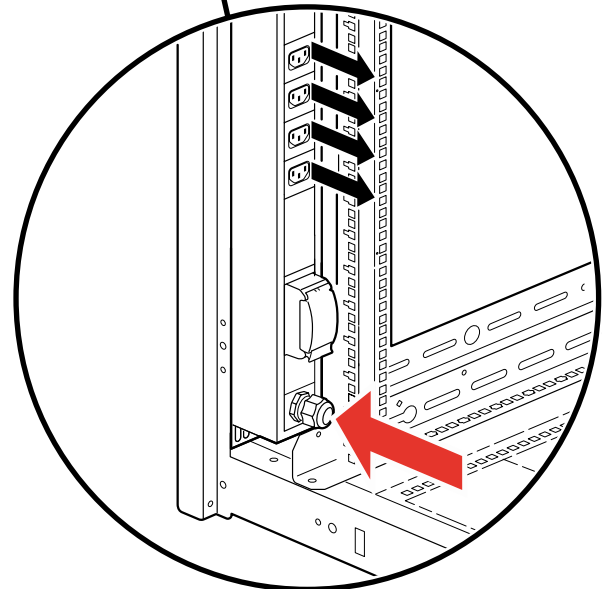
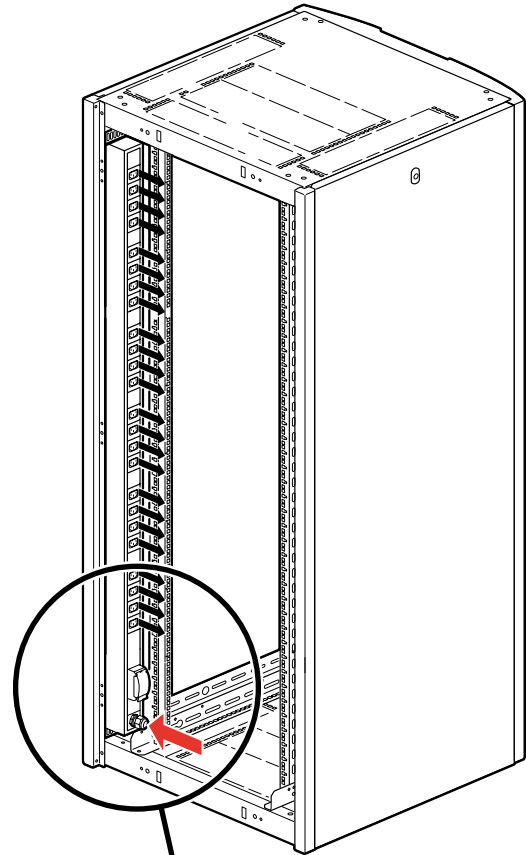
Profile and dimensions when in position:



12. POWER DISTRIBUTION

12.1 Vertical PDUs

- Designed to provide 230 V~ power supply for active products
- For direct mounting in 42U LCS² freestanding cabinets
- Fixing centre: 1838 mm



- 2P+E sockets
- Connection via 6 mm² terminal block
- Protection of each circuit by 16 A circuit breaker
- Circuit breakers equipped with cover for protection against accidental breaks
- Overall dimensions: H 1855 x W 55 x D 52 mm (circuit breakers surface mounted projecting 36 mm in front)
- Supplied with screws
- Black aluminium body, plastic end pieces for fixing

12. POWER DISTRIBUTION (continued)

12.1 Vertical PDUs (continued)

12.1.1 Single phase PDU

PDUs comprising 2 circuits with 12 sockets or 2 circuits with 12 IEC 60320 C13 sockets + 3 IEC 60320 C19 sockets.

Each circuit is identified by colour coding (white sockets and black sockets).

Cat. No.	2P+E sockets		Power supply
	Number	Standard	
0 465 81	24	C13 IEC 60320	Via cable gland ⁽¹⁾
0 465 84	24	C13 IEC 60320	Equipped with a 3 m cord with IEC 60309 2P+E plug
	6	C19 IEC 60320	
0 465 80	24	French - Belgian	Via cable gland ⁽¹⁾
0 465 88	24	German	Via cable gland ⁽¹⁾
0 465 89	24	British	Via cable gland ⁽¹⁾

⁽¹⁾ Clamping capacity: Ø12 to Ø18 mm

12.1.2 Three-phase PDU

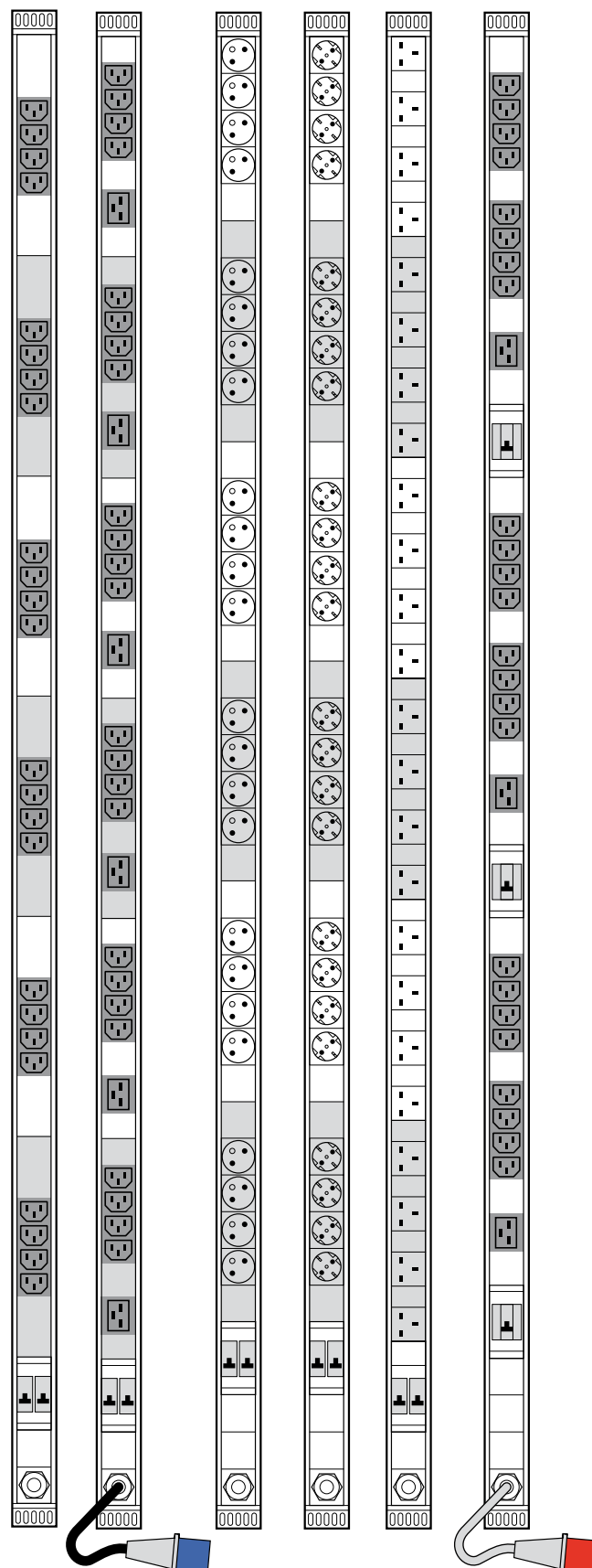
PDUs comprising 3 circuits with 8 IEC 60320 C13 sockets + 1 IEC 60320 C19 socket.

Cat. No.	2P+E sockets		Power supply
	Number	Standard	
0 465 85	24	C13 IEC 60320	Equipped with a cord with IEC 60309 3P+N+E plug
	3	C19 IEC 60320	

12. POWER DISTRIBUTION (continued)

12.1 Vertical PDUs (continued)

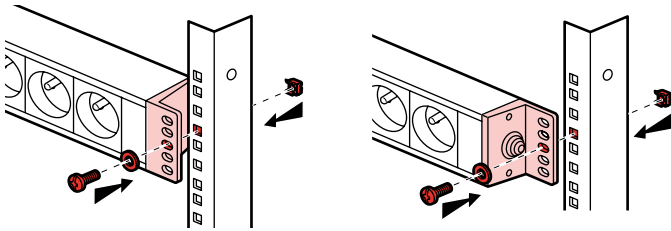
0 465 81 0 465 84 0 465 80 0 465 88 0 465 89 0 465 85



12. POWER DISTRIBUTION (continued)

12.2 19" PDUs

- Designed to provide 230 V~ power supply for active products
- For mounting on 19" fixing centre
- 180° reversible end pieces for 2 fixing options:



- 2P+E sockets
- Connection via 2.5 mm² terminal block
- Overall dimensions: H 55 x W 483 x D 52 mm (Cat. No. 0 332 37, circuit breaker surface mounted projecting 36 mm in front)
- Provide a 2U space
- Supplied with screws
- Black aluminium body, plastic end pieces for fixing

12.2.1 Socket PDU

Cat. No.	2P+E sockets		Additional function	Colour
	Number	Standard		
0 465 51	12	C13 IEC 60320	—	Black
0 465 52	9	C19 IEC 60320	—	
0 465 50	9	French - Belgian	—	Black
0 465 54	6		—	
0 332 88	6		Switch with indicator	Alumin. grey White sockets
0 332 37	6		16 A circuit breaker	
0 332 87	6		Tamperproof for uninterruptible power supply (UPS)	Alumin. grey Red sockets
0 465 60	9	German	—	Black
0 465 62	6		—	
0 332 38	6		16 A circuit breaker	Alumin. grey White sockets
0 465 65	6	British	—	Black
6 339 00	5		—	

12.2.2 PDU with surge protector

- Provides protection against mains overvoltages while keeping sockets energised
- Replacement of protection with surge protector module Cat. No. 0 775 41 (indication by red LED)

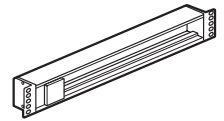
Cat. No.	2P+E sockets		Additional function	Colour
	Number	Standard		
0 332 78	6	French - Belgian	Surge protector Switch with indicator	Alumin. grey White sockets

12. POWER DISTRIBUTION (continued)

12.2 19" PDUs (continued)

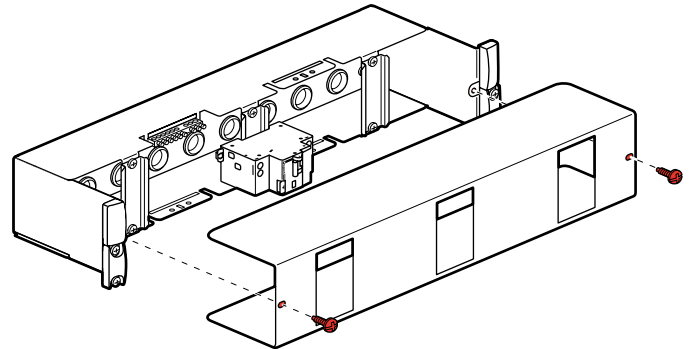
12.2.3 PDU to be equipped

Cat. No.	Capacity	Colour
0 332 79	16 Mosaic modules	Alumin. grey

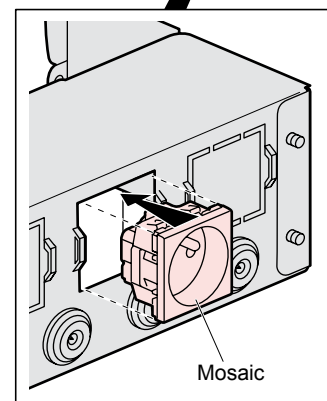
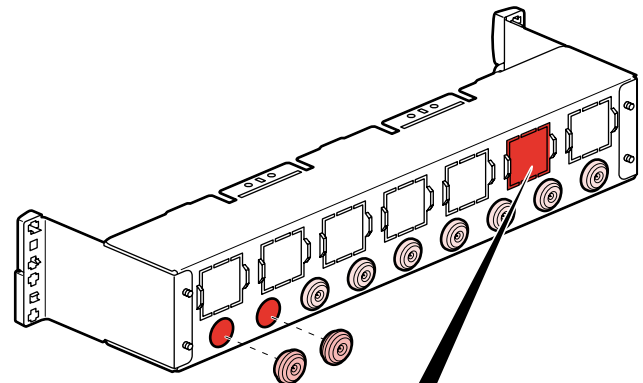


12.3 DIN rail kit

- Cat. No. 0 465 45
- For mounting modular devices on 19" fixing centre
- Comprises a box and a faceplate



- Capacity 3 x 4 modules
- Terminal block for protective conductors
- Can take up to 7 Mosaic 2P+E sockets at the rear



- Height 2U
- IP2XC
- Compatible with EMC requirements
- Delivered ready for assembly with screws, 3 x 4 module blanking plates and 9 cable entry glands
- Rear box 1.5 mm thick galvanised steel
- Faceplate 1.5 mm thick steel, painted black RAL 9005