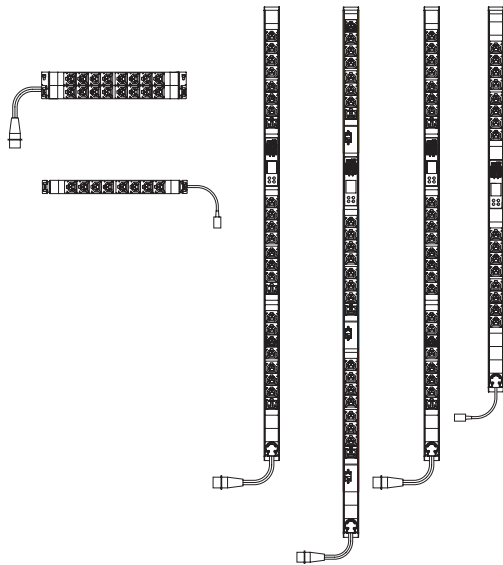


Switched 19" PDU Switched Zero-U PDU

Part No(s) : 6 460 20/21/22/23/24/25



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1. GENERAL CHARACTERISTICS

1.1 Overview

Legrand PDUs are designed for supplying power to active products in 19" enclosures.

They comprise:

- an aluminium casing
- socket modules
- additional functions
- a connection solution
- a mounting solution
- an energy consumption metering and switching solution

Single-phase 230 V – 50/60 Hz or three-phase 400 V – 50/60 Hz power supply

The range features three main product families:

- PDUs designed for horizontal installation (19" PDUs)
- PDUs designed for vertical installation (Zero-U PDUs)
- Accessories

PDUs designed for horizontal installation (19" PDUs)

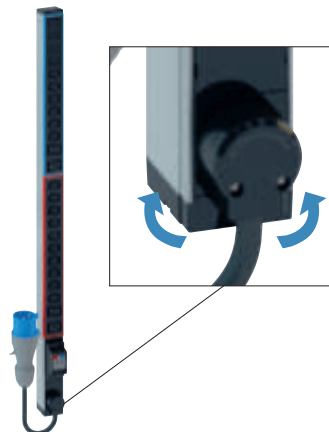
For installation on uprights with fixing centre. Casing height: 1U (6 460 20) or 2U (6 460 21) for compactness. Integrated cable guide. Screwless snap-on fixing. End pieces with 180° reversible metal brackets for vertical mounting capability and adjustable depth.

PDUs designed for vertical installation (Zero-U PDUs)

For vertical installation on the rear of 19" enclosures to save space within the enclosure.

Supplied with 2 sets of metal fixings: buttonhole slots for screwless snap-on fixing, or standard screw-type lugs.

Cable outlet can be rotated 330° to ensure perfect alignment of the power cable.



1.2 Mechanical characteristics

- Casings: Natural anodised aluminium 6060 T5-R19

- Socket modules:

PC/ABS

CW507L (CuZn 36) brass

- Fixing lugs:

DC01-A-m galvanised steel

■ **1.3 Physical characteristics**

Metering module

Built-in display	Colour LCD screen: voltage, current, or real power (per phase or per circuit breaker) alarms; configuration data (name, position, IP/network data)
Energy metering	Voltage (V), Amps (A), Power (kW), Real power (kVA), Energy (kWh), Power factor
Measurement accuracy	ISO/IEC 62053-21 1%
Metering via input phase	Yes
Metering via protected circuit	Yes
Metering via socket outlet	No
Remote socket switching	Yes
Possibility of using environmental sensors	Yes
Replaceable controller	No
Compatible sensors	Temperature, Humidity, contact closure (a maximum of 16 sensors can be connected)
Networking	10/100 BaseT Ethernet port, secondary, redundant 10/100 BaseT Ethernet port
Remote control	HTTP(s), SSH, Telnet, RS-232 (serial), Power IQ, SNMP version v2/v3, SMTP, JSON-RPC, Modbus over TCP
Cascade mounting	Yes, a maximum of 16 PDUs can be connected in series by means of a simple Ethernet or USB connection

■ **1.4 Standards, regulations and tests**

Depending on what equipment they comprise, the PDUs comply with the current applicable standards below:

Application	Standard
C13 and C19 connectors for electrical equipment	IEC 60320-2-2
Magnetic-hydraulic circuit breaker	IEC 60730-2-9
Industrial plug	IEC 60309-1
Data processing equipment	IEC 60950-1

IP: IP20 for connectors for electrical appliances (C13, C19)
IK07

Glow wire test: The sockets of various different standards and other functions that equip the PDUs meet the requirements of their respective standards relating to abnormal heat and fire resistance and comply with the following thresholds:

- Plastic parts in contact with live parts: 750°C.
- Other plastic parts: 650°C.

Temperature rise: The PDUs comply with the standard temperature rise limit of 45°C for connectors for electrical appliances (C13, C19).

Final inspection: In accordance with standard requirements and Legrand's own manufacturing requirements, all products undergo production tests, including:

- Electrical continuity to ensure the product is wired correctly
- Dielectric strength at 2000 V to ensure there is no leakage current
- Operating test

Compliance with RoHS and REACH: The PDUs comply with European standards and therefore meet the requirements of the RoHS directive (Restriction of Hazardous Substances) and REACH regulations (Registration, Evaluation, Authorisation & restriction of Chemicals).

2. EQUIPMENT AND PERFORMANCE

■ **2.1 Composition of each catalogue number**

19" PDUs

	6 460 20	6 460 21
Number of phases	1	1
Input voltage	230V	230V
Input current	16A	32A
Maximum power	3.7kW	7.4kW
Connection type	Cable	Cable
Cable length	3m	3m
Cable material	PVC H05VVf	Rubber H07RNF
Cable cross-section	3G 1.5	3G 4
Plug type	IEC 60320 C20	IEC 60309 32A 2P+E
Cable retention method	C20 socket	Cable clamp + guide
Number and type of sockets*	8C13 with locking	16C13 with locking
Socket outlet colour	black	Black
Socket orientation	90°	90°
Number of circuits per phase	1	2
Additional functions	Metering module	Metering module + circuit breakers
Casing type	1U alu	2U alu
Fixings (included)	19" reversible bracket + snap-on fixing	

* Sockets are equally distributed on each circuit

PDU Zero-U

	6 460 22	6 460 23	6 460 24	6 460 25
Number of phases	1	1	3	1
Input voltage	230V	230V	400V	230V
Input current	16A	32A	16A	10A
Maximum power	3.7kW	7.4kW	11.1kW	2.3kW
Connection type	Cable	Cable	Cable	Cable
Cable length	3m	3m	3m	3m
Cable material	Rubber HO7RNF	Rubber HO7RNF	Rubber HO7RNF	Rubber HO7RNF
Cable cross-section	3G 2.5	3G 4	5G 2.5	3G 1.5
Plug type	IEC 60309 16A 2P+E	IEC 60309 32A 2P+E	IEC 60309 16A 3P+N+E	IEC 60320 C20 2P+E
Cable retention method	Cable clamp + rotatable system	Cable clamp + rotatable system	Cable clamp + rotatable system	Cable clamp + rotatable system
Number and type of sockets*	21C13 + 3C19 with locking	21C13 + 3C19 with locking	21C13 + 3C19 with locking	16C13 with locking
Socket outlet colour	Black	Black	Black	Black
Socket orientation	90°	90°	90°	90°
Number of circuits per phase	1	3	1	1
Circuit identification (colour coding)		Blue/Red/Yellow		
Additional functions	Metering module	Metering module + circuit breakers	Metering module	Metering module
Casing type	Zéro U alu	Zéro U alu	Zéro U alu	Zéro U alu
Fixings (included)	2 button + 2 standard brackets, 2 LCS3 brackets + 2 screws			

* Sockets are equally distributed on each circuit

3. DETAIL DES FONCTIONS

■ 3.1 Sockets

Legrand PDUs can be equipped with sockets of different standards.

C13 with or without cable locking system and indicator light

2P+E 10 A

Socket recess at 90° angle

Conforms to standard IEC 60320-2-2

C19 with or without cable locking system and indicator light

2P+E 16A

Socket recess at 90° angle

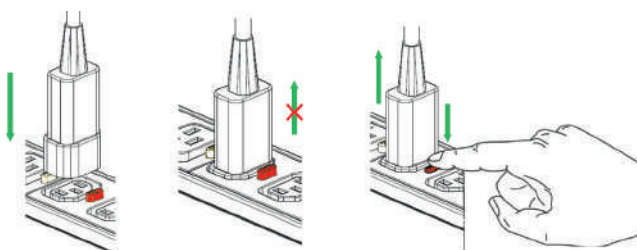
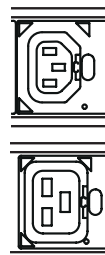
Conforms to standard IEC 60320-2-2

Cable locking system on C13/C19 sockets

The cable is locked mechanically into the socket to prevent any unintended disconnection (caused by maintenance, vibrations, etc.).

Pull-out force > 100 N

This universal solution is compatible with all cable types available on the market.



■ **3.2 Protection devices**

Some PDUs incorporate protection devices

- **Circuit breakers**


For protecting equipment against short-circuits and overloads

16 A magnetic-hydraulic circuit breaker

■ **3.3 Colour coding**

The PDUs are colour-coded using coloured edge strips

These strips clip onto the edge of the aluminium casing

 This solution is only compatible with Zero-U PDUs

Extruded PVC plastic

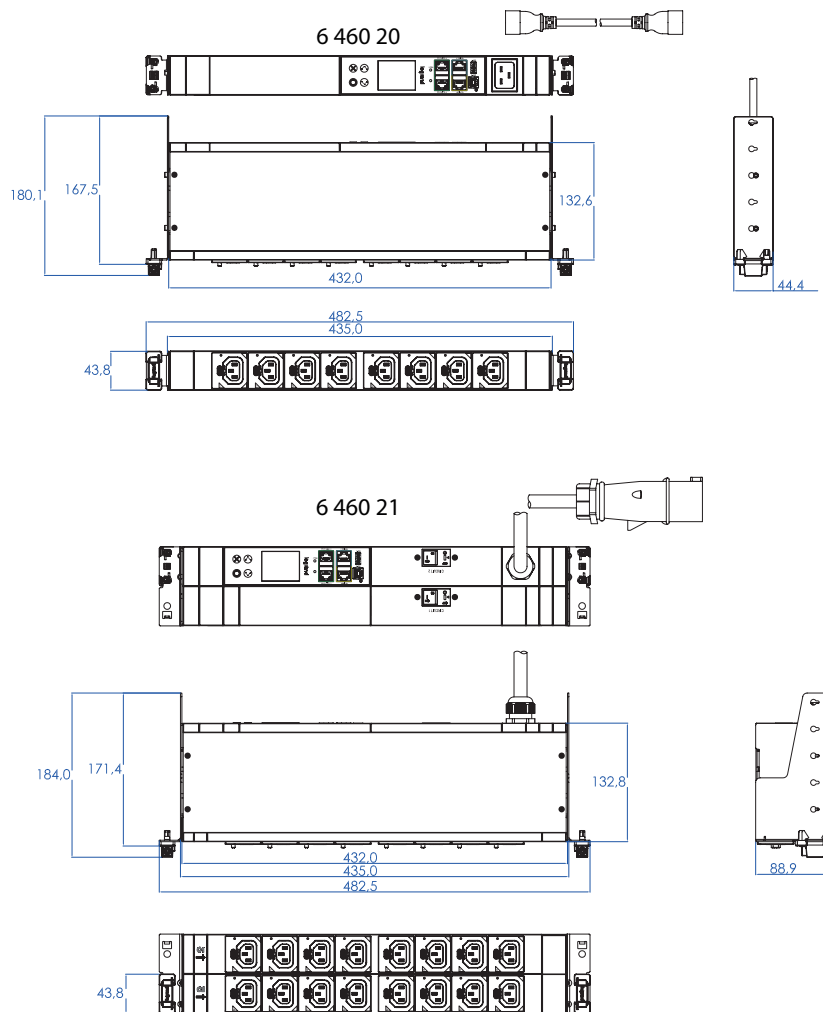
Blue and red available as standard

- For identifying circuits: one colour per circuit, to match the same colour used on the circuit breaker

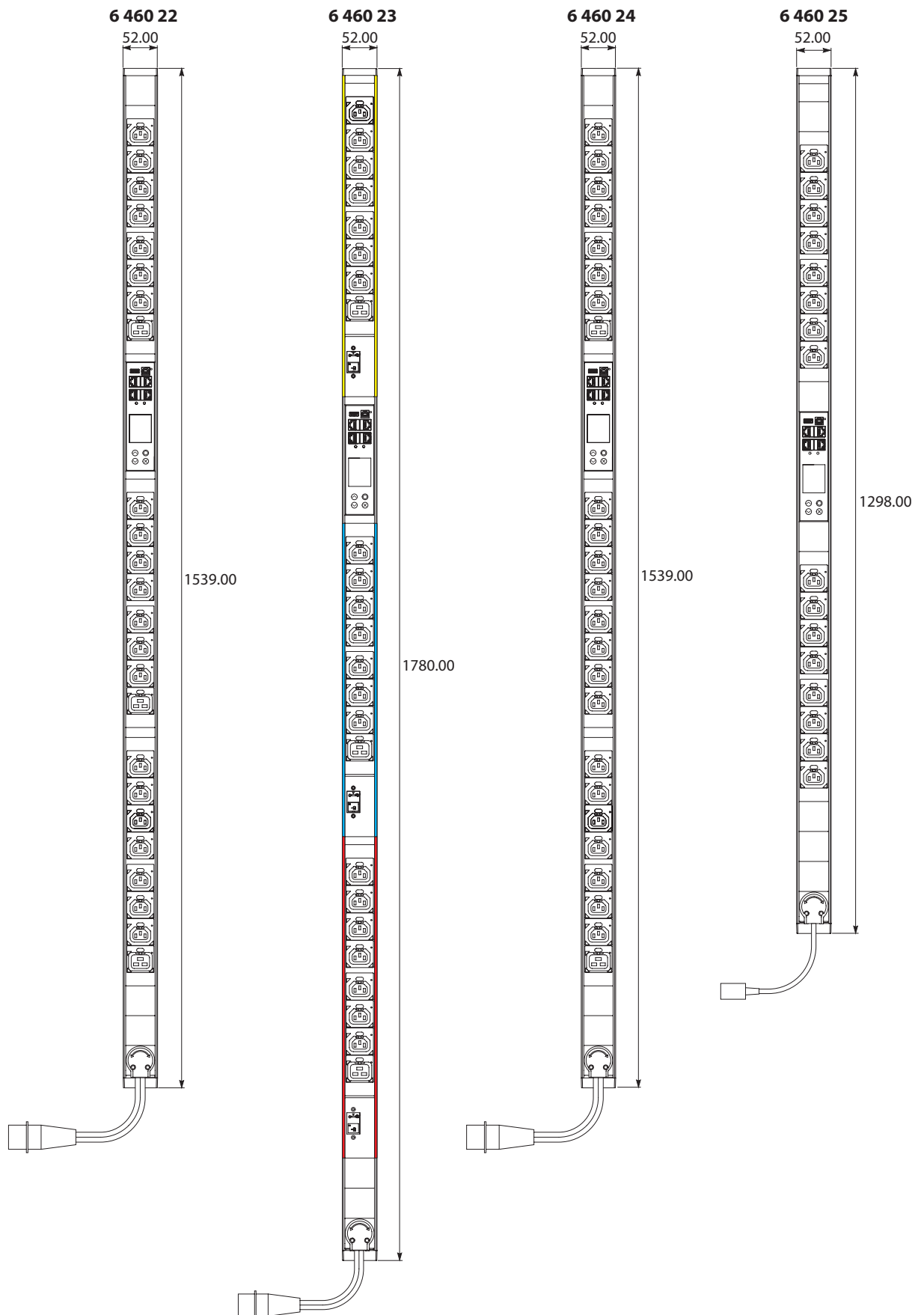


4. DIMENSIONS

4.1 19" PDUS



4.2 ZERO-U PDUS



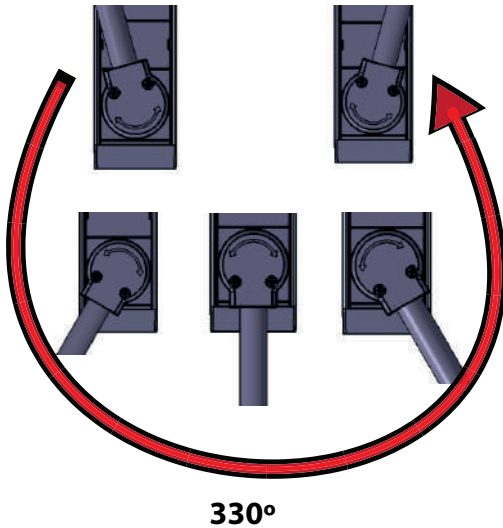
5. INSTALLATION

5.1 CONNECTION

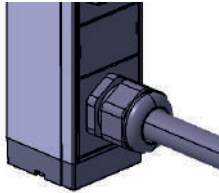
The PDUs are supplied with a power supply cable, see section 2 «Equipment and performance» to see which products have an integrated cable.

6. EXPLANATION OF ROTATABLE CABLE OUTLET, OUTLET WITH CABLE GLAND

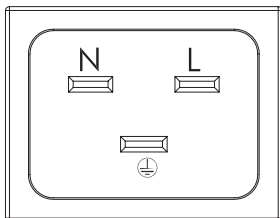
The Zero-U PDU 646 012 incorporates a rotatable cable outlet (330°)



6 460 21 PDU is supplied with a cable outlet via cable gland



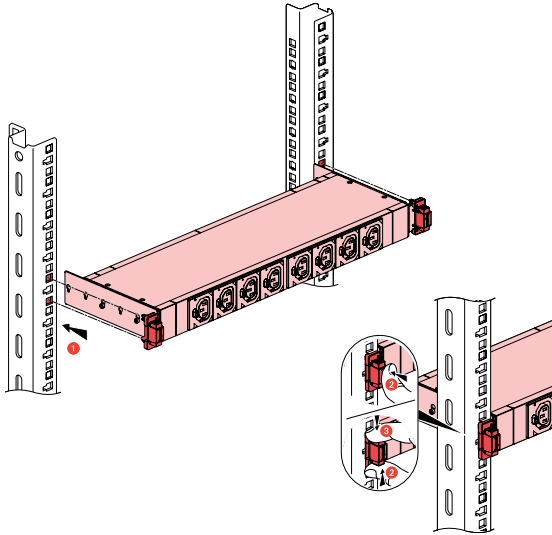
6 460 20 PDU 19" 6 460 20 is supplied with a fixed outlet (EC60320 C20 socket) and a cable



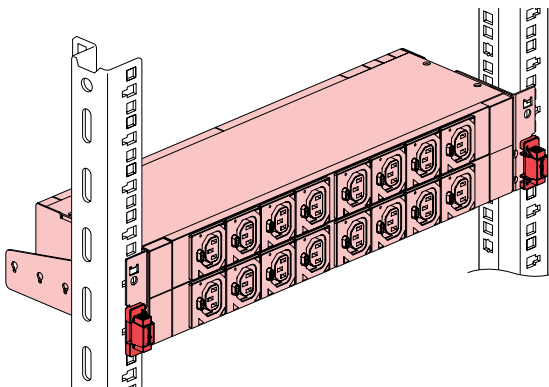
7. MOUNTING SOLUTIONS

1) 19"

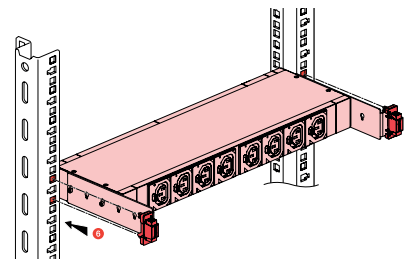
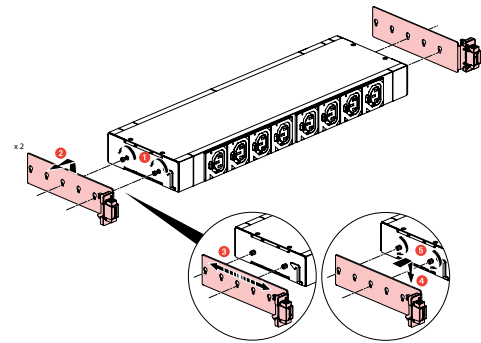
Horizontal mounting with snap-on fixing (for square holes 9.5 x 9.5)
Snap-on fixing system included (6 460 20 mounting)



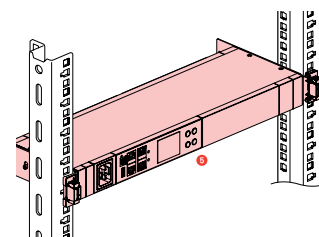
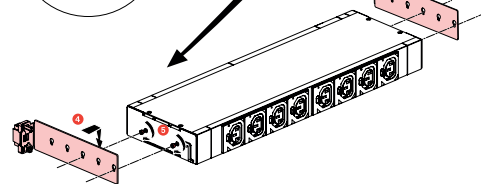
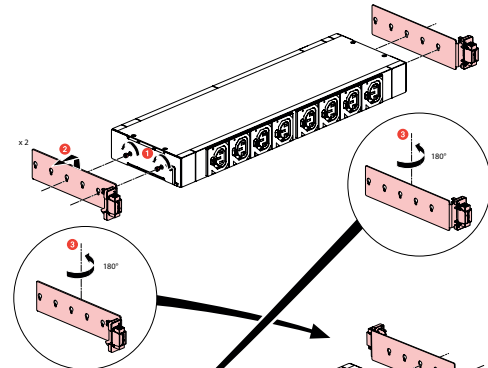
Horizontal mounting with snap-on fixing (for square holes 9.5 x 9.5)
Snap-on fixing system included (6 460 21 mounting)



Depth can be adjusted



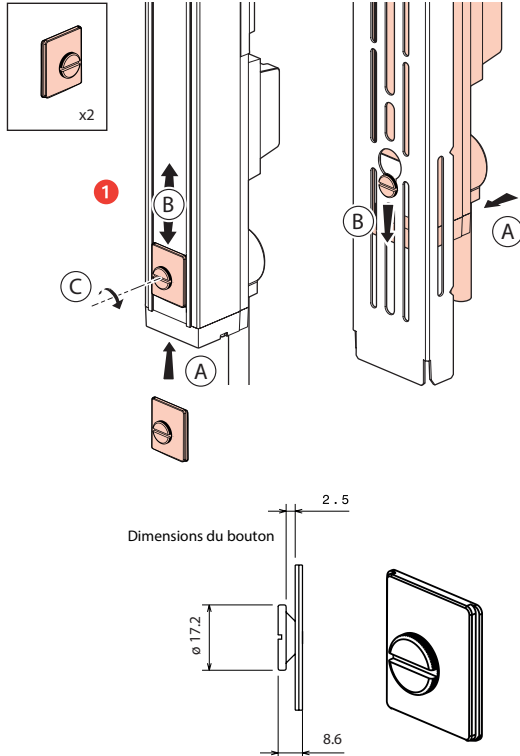
PDU can be turned the other way round



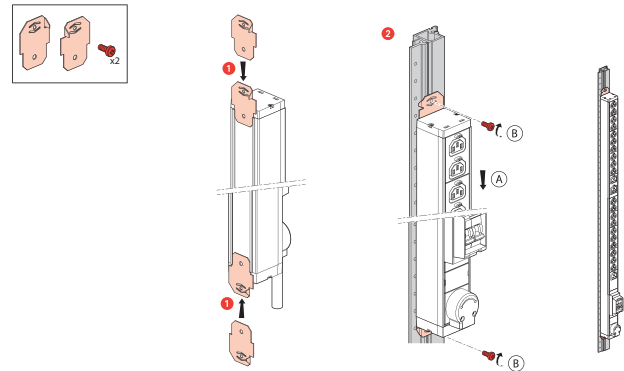
2) Zero-U

Zero-U PDUs are designed for vertical installation and supplied with 2 sets of fixing accessories:

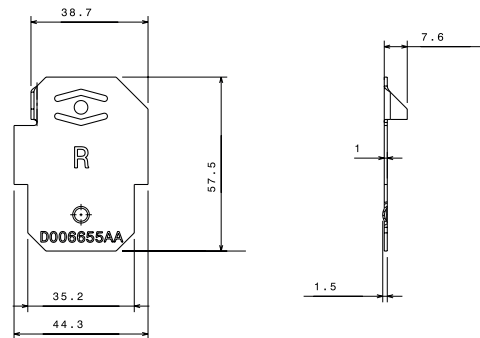
- 2 buttonhole slots: For screwless snap-on fixing. The height of the fixing centre can be set at any point along the full height of the PDU by sliding the buttonhole slots into the groove on the rear of the PDU. Tightened with a screwdriver.



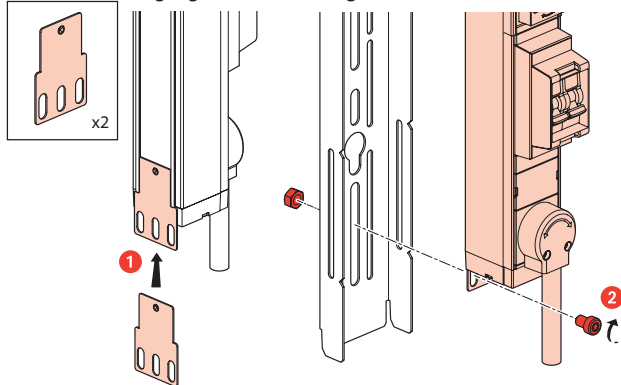
- 2 LCS3 fixing lugs + 2 screws



Dimensions de la patte de fixation LCS3



- 2 standard fixing lugs: For screw-fixing (screws not included)



Cotes de la patte de fixation standard

