

PDU SWITCHED BASE 0U, 1 PHASE 32A, 21 C13 + 3 C19 LOCKING OUTLETS, IEC 60309

Cat. No: 6 461 24/62



CONTENTS	Page
1. KEY FEATURES.....	1
2. GENERAL SPECIFICATIONS.....	1
3. INPUT	2
4. OUTPUT	2
5. CONTROLLER.....	3
6. WIRELESS MANAGEMENT WITH A POD MASTER ..	3
7. MANAGEMENT VIA A RS485 WIRED CASCADE.	4
8. MECHANICAL FEATURES.....	4
9. ENVIRONMENTAL CHARACTERISTICS	5
10. ELECTRICAL DIAGRAM	5
11. DIMENSIONS	5
12. MOUNTING SOLUTIONS	6
13. PACKAGING	7
14. STANDARDS AND REGULATIONS	8

1. KEY FEATURES

Lincoo Data Center intelligent PDUs provide electric power for IT equipment in 19" enclosures. They are connected devices enabling remote access to all measurements and alerts.

- Modular concept, available in 2 versions:
 - BASE version, enabling the deployment of intelligent PDUs without the need for a controller with a display on each unit.
 - NODE version, with a controller that includes an LCD display and a LAN connection.
- The BASE version, to be monitored and controlled, is designed to be combined with either:
 - A Pod Master. Up to 60 Base PDUs can be connected to a Pod Master in wireless mode, or up to 32 PDUs can be daisy-chained in wired mode downstream to a Pod Master.
 - A Node PDU. Up to 31 Base PDUs can be daisy-chained in wired mode downstream to a Node PDU.

Note: Both modes limit the number of switch ports required for PDU management.
- Hot swappable controller. Allow the replacement on a Node PDU or the adding on a Base PDU without powering down connected equipment.
- Metering at inlet and circuit level with +/- 1% accuracy.
- 2 levels of alerts physically visible on the PDU thanks to LED bar and remotely in Web User interface.
- User-friendly and responsive Web User Interface. Data aggregation capabilities in DCIM.
- Each C13 and C19 outlets are numbered and equipped with a cord locking system.
- The circuits of the 32A PDUs are protected with hydraulic magnetic circuit breakers. Hydraulic magnetic circuit breakers are not affected by ambient temperature.
- Easy installation thanks to 330° rotating cable input and button-type brackets.

2. GENERAL SPECIFICATIONS

Energy Metering	Voltage (V), Current (A), Active Power (kW), Apparent Power (kVA), Energy (kWh), Power Factor
Metering Accuracy	±1%
Metering per Input Phase	Yes
Metering per Branch Circuit Breaker	Yes
Metering per Outlet	No
Remote Outlet Switching	Yes - Remotely on/off control of each outlet via the Web User Interface. - Outlet's state is also visible on the product itself thanks to a small LED adjacent to each outlet. LED lits green when the outlet is ON
With display	No
Networking	Via the Ethernet port of the upstream Pod Master or Node PDU

2. GENERAL SPECIFICATIONS (CONTINUED)

Wireless connectivity	Yes, Zigbee 2.4 GHz chip embedded Enables wireless connection to the Pod Master and allows up to 60 Base PDUs to be connected to it Enables communication with wireless sensors (Green Power)
RS485 Cascading	Yes, by RS485 bus (Ethernet RJ45 patchcord) Daisy-chain up to 32 Base PDUs downstream to a Pod Master or 31 Base PDUs downstream to a Node PDU Max length: 250m in total and 30m between each PDU
USB Cascading	No
Remote management	HTTP(s), SSH, Telnet, SNMP version v2/v3, SMTP, JSON-RPC, Modbus over TCP
Built-in processor	No
Compatible Sensors	Wireless sensors (Green Power) - Temperature/Humidity (cat number 6 460 03) - Contact closure (cat number 6 460 04) A maximum of 8 sensors can be paired to 1 PDU
Replaceable controller	Yes, hotswappable for Node and for any Base with "Hot Swap" marking

3. INPUT

Input Plug	IEC 60309 32A 2P+E
Cord Length	3m - 9.84 ft
Cord Entry	Rotating (330°), bottom front
Cable Type	HO7RNF 3G6 LSZH
Maximum Input Current	32A
Nominal Input Voltage	230V, Single-phase
Rated Input Voltage	200 - 240V
Input Frequency	50/60Hz
Power Capacity	7.4kW at 230V

4. OUTPUT

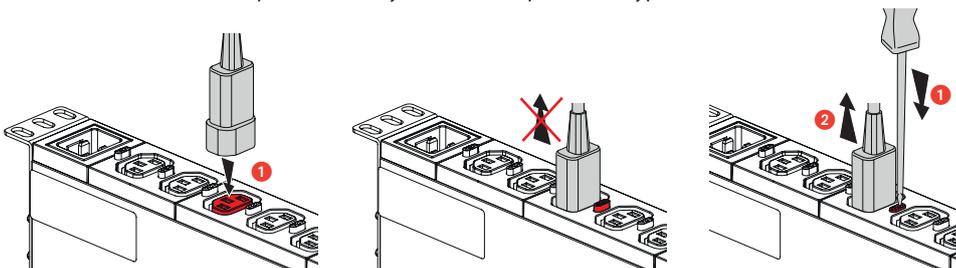
Nominal Output Voltage	230V
Outlet type	21 C13 + 3 C19
Cord locking system	Yes
Cord Retention	100 N
Circuit breakers	Yes
Circuit breakers type	Magnetic Hydraulic (curve D)

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.).

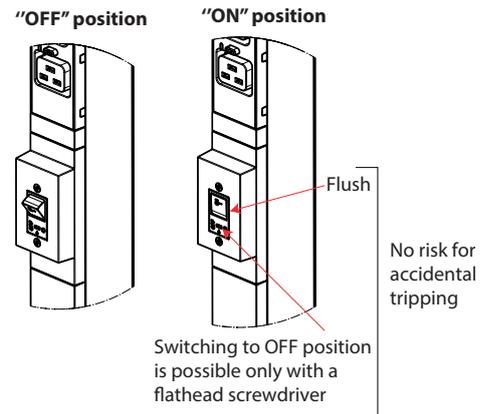
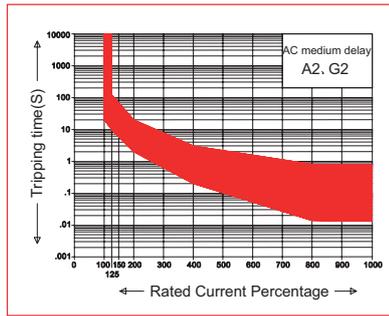
Pull-out force 100 N

This universal solution is compatible with any standard compliant cord type on the market.



Magnetic hydraulic MCB

Benefits of magnetic hydraulic technology :
As opposed to magnetic-thermal that needs to be de-rated, this technology is not affected by ambient temperature increase. The tripping of an MCB with this technology is always accurate at the rated current.

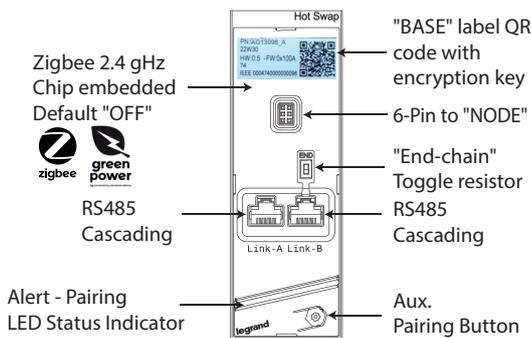


Rated current : 16A
Rated voltage : 250 V
Frequency : 50/60 Hz
Number of poles : 1 pole as standard (cat. ref.) , 2 poles as CTO option
Breaking capacity (Icn) : 3000

Approvals : UL/CSA, VDE, CCC

5. CONTROLLER

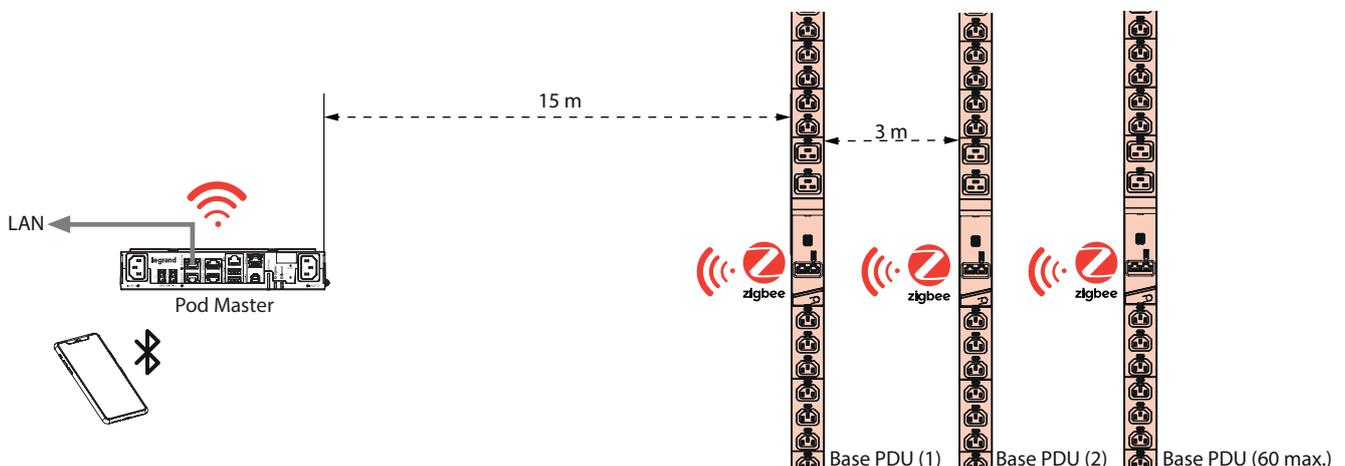
Base



Networking	Via a Pod Master or the controller of a Node PDU
Wireless control (radio frequency)	Button for pairing
LED indicator	RGB LED for visual indication and replicating configured alerts ● Normal operation ● Warning threshold exceeded ● Critical threshold exceeded and factory return ● Pairing in progress ○ Firmware update in progress ● Identification function (available only with a Pod Master)

6. WIRELESS MANAGEMENT WITH A POD MASTER

- Connect up to 60 Base PDUs to a Pod Master using Zigbee 3.0 radio technology.
- Only the Pod Master is connected to your network.
- The Pod Master aggregates all Base PDUs data into its user interface.
- Thresholds and alerts are configured directly in the Pod Master.



7. MANAGEMENT VIA A RS485 WIRED CASCADE

- **Daisy-chain up to 32 Base PDUs downstream to a Pod Master (diagram 1) or 31 Base PDUs downstream to a Node PDU (diagram 2) with Cat5e or higher RJ 45 patch cables (RS485 link).**
- Only the Pod Master or the Node PDU is connected to your network.
- The PDU or Node controller aggregates all Base PDUs data into its user interface.
- Thresholds and alerts are configured directly in the Pod Master or the Node PDU.

Diagram 1

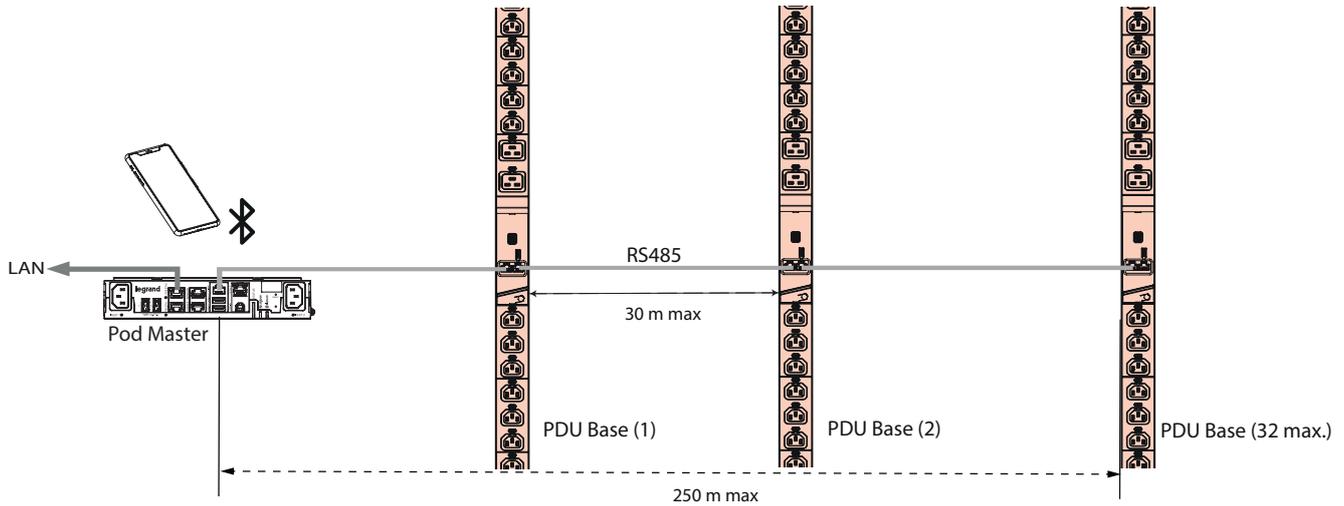


Diagram 2



8. MECHANICAL FEATURES

- Casings: 6060 T5-R19 natural anodised aluminium.

- Outlet modules:

PC/ABS

CW507L (CuZn 36) brass

- Fixing brackets:

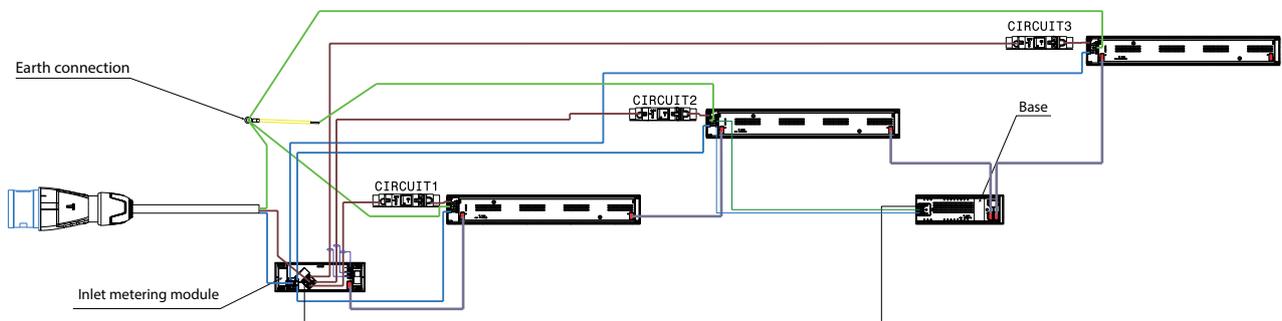
DC01-A-m galvanised steel

Color	Aluminium grey (casing) / black (outlet modules)
Casing	Zero-U, aluminium
IP	20
IK	04

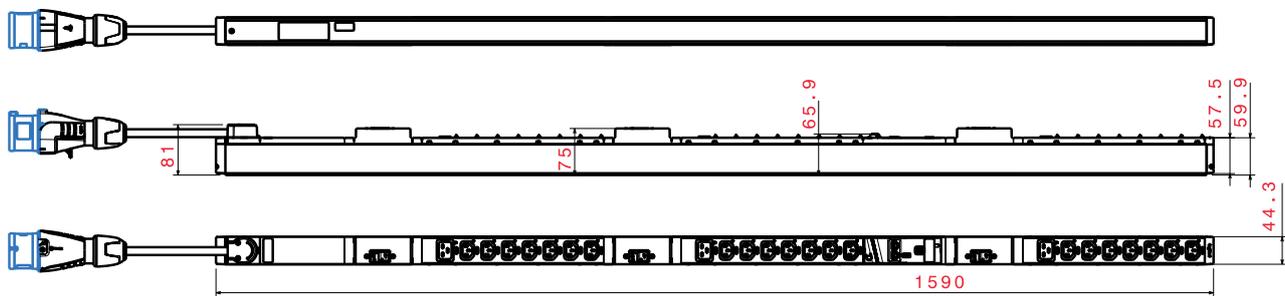
9. ENVIRONMENTAL CHARACTERISTICS

Storage and transport temperature	-20 to +70°C
Operating temperature	+5°C to +60°C
Operating Relative Humidity	5% to 95%
Operating Elevation	0 - 2000 m

10. ELECTRICAL DIAGRAM



11. DIMENSIONS



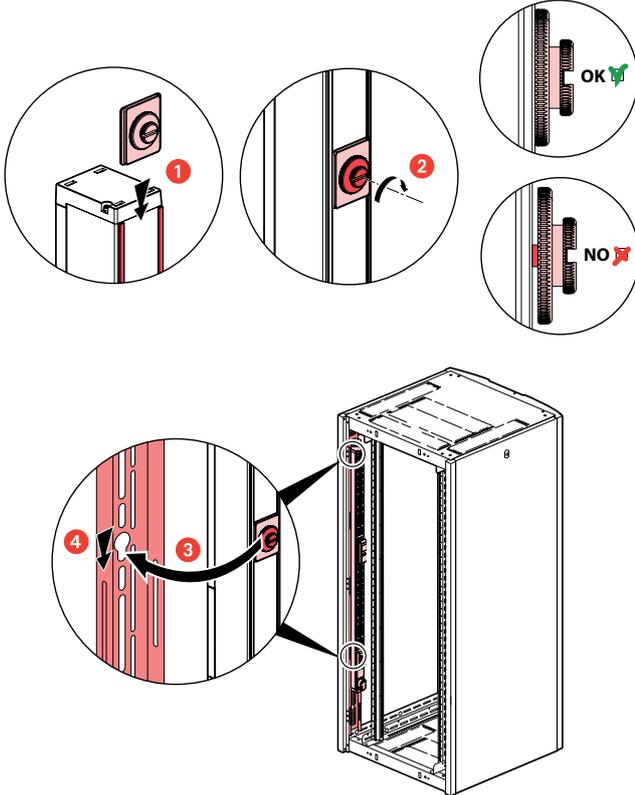
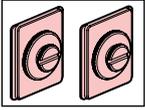
12. MOUNTING SOLUTIONS

12.1 Included

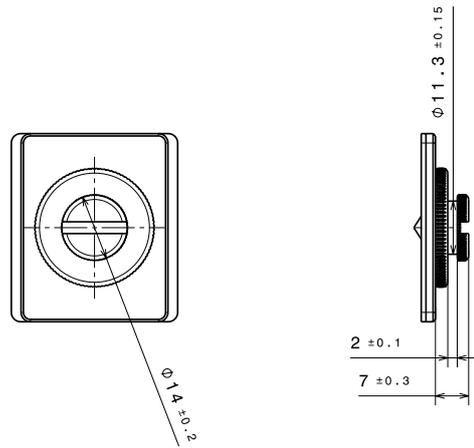
Delivered with 2 different sets for mounting in a rack.

Set of 2 buttons

Screwless fixing. The height of the fixing centre can be set at any point along the full height of the PDU by sliding the button slots into the groove on the rear of the PDU. Tightened using a screwdriver.

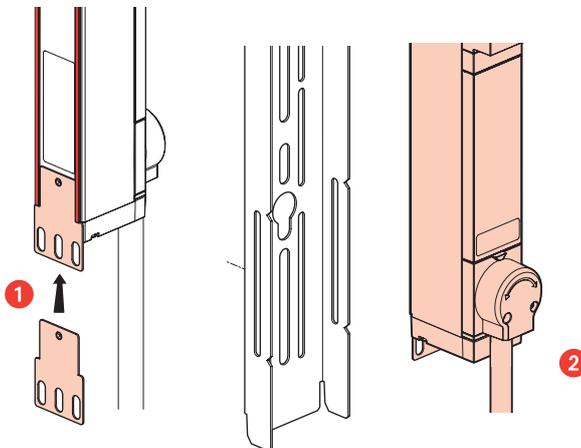
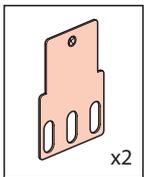


Button dimensions

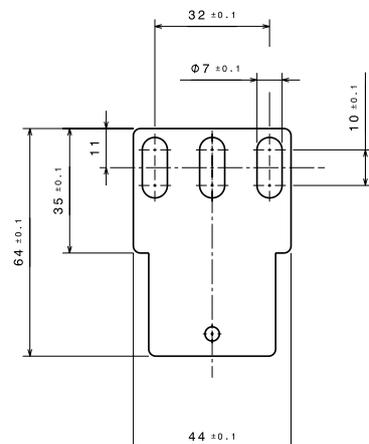


Set of 2 standard fixing brackets

Screw-fixing (screws not included).



Dimensions of standard fixing bracket



Fixing centres (min.-max.) with standard brackets: 1602mm -1622mm

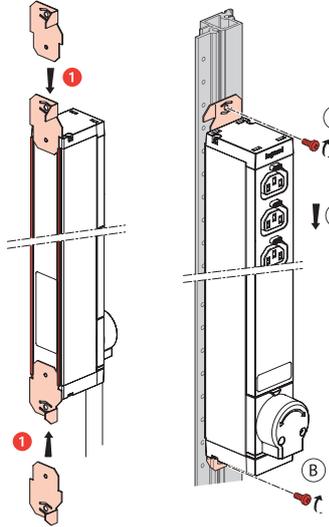
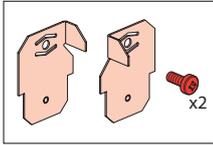
12.2 Option

Brackets for Nexpan racks

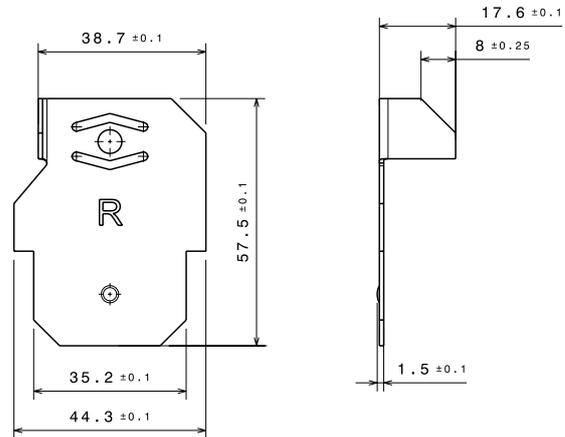
Screw-fixing (2 screws included).

Ref. 981227 Set of 2 brackets (for 1 PDU).

Ref. 981228 Set of 20 brackets (for 10 PDUs).



Dimensions of NEXPAND fixing bracket



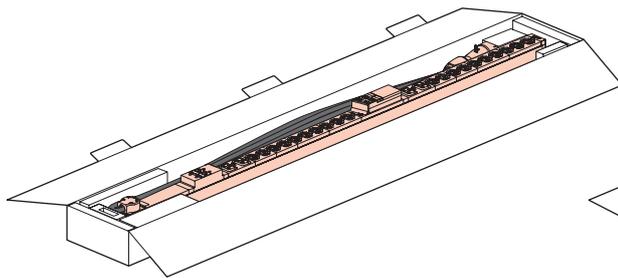
13. PACKAGING

	Individual packaging	Bulk packaging*
Cat. Ref	6 461 24	6 461 62

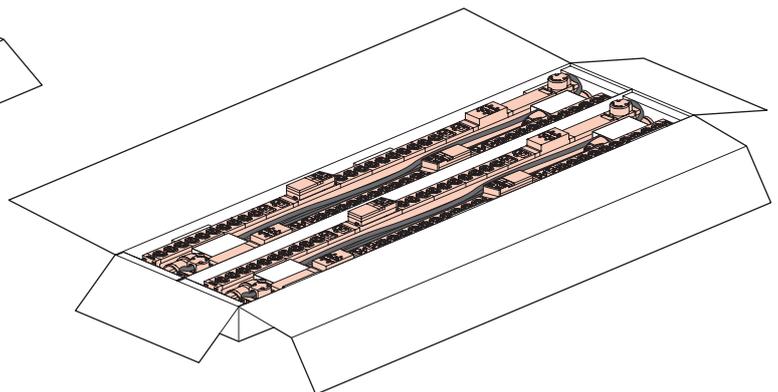
Linkeo Data Center PDUs can be delivered in two different types of packaging

- Individual packaging : 1 PDU in 1 pack
- Bulk packaging : a set of 4 PDUs in 1 pack

Individual packaging



Bulk packaging



Bulk packaging aims to facilitate and lighten the management of products, but also to reduce the environmental impact.

- Unpack and deploy PDUs faster
- Save time and money for waste treatment: bulk packaging saves more than 50% cardboard per PDU compared to individual packaging.
- Contribute to reducing carbon emission : bulk packaging makes it possible to ship up to 86% more units on a single pallet compared to individual packaging (56 PDUs versus 30)

* The bulk packaging option is open to PDUs between 1126mm and 1765mm in length.

Single-use plastic is eliminated in both individual and bulk packaging.

14. STANDARDS AND REGULATIONS

14.1 Standards

Application	Standards
Safety	IEC 62368-1
C13 and C19 connectors for electrical equipment	IEC 60320-2-2 IEC 62368-1
Circuit breakers	IEC 60934 IEC 60947-2
Industrial plugs	IEC 60309-1
Information and communication technology equipment	IEC 62368-1
Electromagnetic compatibility for radio equipment and services	EN 301489 (ETSI EN 301 489-1 V2.2.3, ETSI EN 301 489-17 V3.2.4)
Radio transmission equipment	ETSI EN 300 328-1 (V2.2.2 2020-02-08)
Electromagnetic compatibility	EN 62311 (2008) EMF EN 50491-5-2 EN 50491-5-3 EN 55035 EN 55032 EN 61000-4-11 EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-3-2

14.2 Regulatory approvals

CE, UKCA, CMIM

RoHS directive (Restriction of Hazardous Substances).

REACH regulations (Registration, Evaluation, Authorisation & restriction of CHemicals).