L1 legrand®

PDU SWITCHED BASE 0U, 3 PHASE 16A, 24 C13 + 6 C19 LOCKING OUTLETS, IEC 60309

Cat. No: 6 461 28

CONTENTS

1. KEY FEATURES

Linkeo 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, NODE version with all functions (controller with LCD screen and LAN connection) and BASE version. Deploy intelligent PDUs without the need to have a PDU controller in every unit.

- Cascading possibilities to save switch ports connections. Daisy-chain up to 31 BASE PDUs downstream to a NODE PDU.

- Hot swappable controller. Allow the replacement on a NODE PDU or the adding on a BASE PDU without powering down connected equipment.

- 2 levels of alerts physically visible on the PDU thanks to LED bar and remotely in Web User interface.

- Metering at inlet and circuit level with +/- 1% accuracy.

- 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.

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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 Node PDU
RS485 Cascading	Yes Daisy chain up to 31 BASE PDUs downstream to a NODE PDU by RS485 bus (ethernet RJ45 patchcord). 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
Wireless connectivity	Yes, Zigbee 2.4 GHz chip embedded
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 - Hot swappable for node - Cold swappable for base

3. INPUT

Input Plug	IEC 60309 16A 3P+N+E
Cord Length	3m - 9.84 ft
Cord Entry	Rotating (330°), bottom front
Cable Type	HO7RNF 5G 2.5 LSZH
Maximum Input Current	16A
Nominal Input Voltage	400V, 3-phases
Rated Input Voltage	346 - 415V
Input Frequency	50/60Hz
Power Capacity	11.1kW at 400V

4. OUTPUT

Nominal Output Voltage	230V
Outlet type	24 C13 + 6 C19
Cord locking system	Yes
Cord Retention	100 N
Circuit breakers	No
Circuit breakers type	No

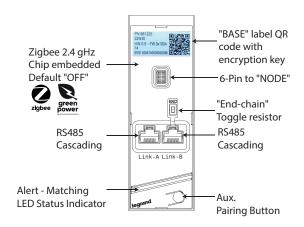**Cable locking system on C13/C19 sockets**

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.
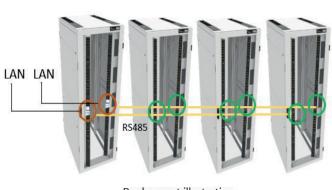

5. CONTROLLER

Base

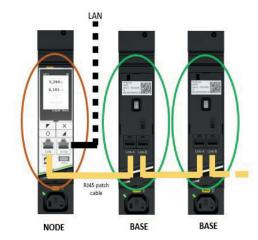| Networking	Via the NODE controller only
Wireless control (radio frequency)	Button for pairing wireless sensors
LED indicator	RGB LED for visual indication and replicating configured alerts 🟢 Normal operation 🟡 Warning threshold exceeded 🔴 Critical threshold exceeded 🔵 Wireless sensors pairing in progress

6. CASCADING MODE

6.1 RS485 - CASCADING

- **Daisy chain up to 31 BASE PDUs downstream to a NODE PDU** with Cat5e or higher RJ 45 patch cables (RS485 link).
- Only the NODE PDU is connected to your network.
- NODE controller aggregates all BASE units data into its user interface.
- Thresholds and alerts are configured directly in the NODE unit.

Deployment illustration
with one daisy-chain on feed A and one daisy-chain on feed B

7. MECHANICAL FEATURES

- Casings: 6060 T5-R19 natural anodised aluminium.

- Outlet modules:
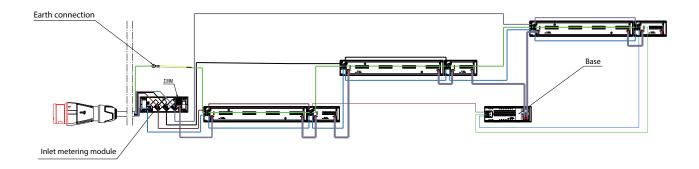
PC/ABS

CW507L (CuZn 36) brass

- Fixing brackets:

DC01-A-m galvanised steel

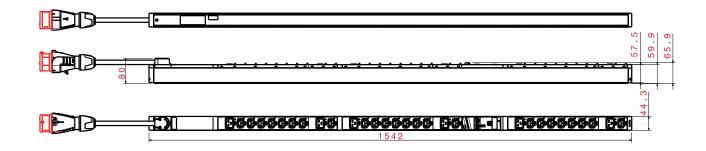| Color	Aluminium grey (casing) / black (outlet modules)
Casing	Zero-U, aluminium
IP	20
IK	04

8. 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

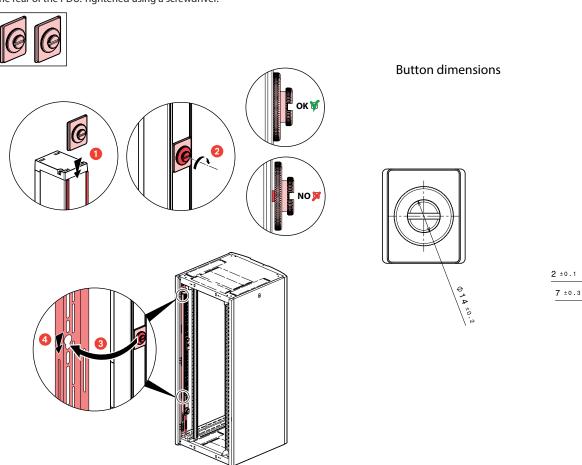## 9. ELECTRICAL DIAGRAM

10. DIMENSIONS

11. MOUNTING SOLUTIONS

11.1 INCLUDED

Delivered with 2 different sets for mounting in a rack.
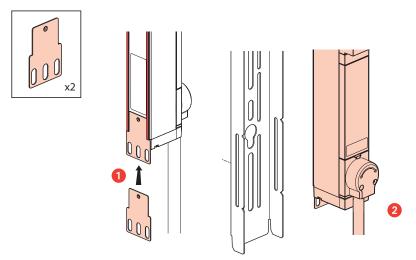
Set of 2 buttons

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.
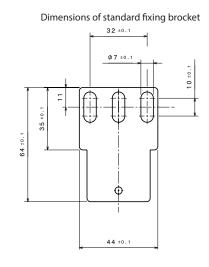
Button dimensions

Set of 2 standard fixing brackets

Screw-fixing (screws not included).

Dimensions of standard fixing brocket

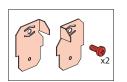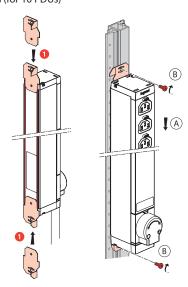Fixing centres (min.-max.) with standard brackets : 1554mm -1574mm

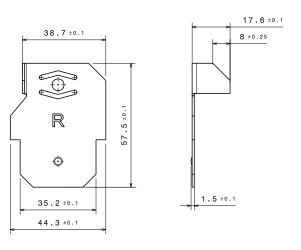**CONTENTS**

11.2 OPTION

Brackets for Nexpand racks

Screw-fixing (2 screws included).

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

Ref. 981228 Set of 20 brackets (for 10 PDUs)
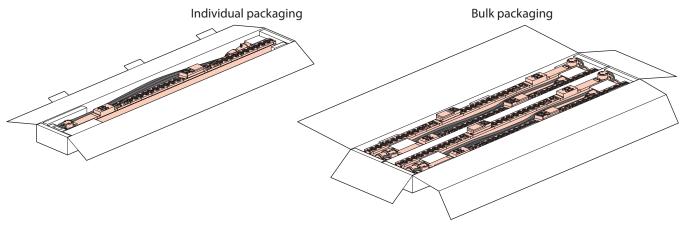
Dimensions of NEXPAND fixing bracket

12. PACKAGING

	Individual packaging	Bulk packaging*
Cat. Ref	6 461 28	CTO

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

- Individual packaging : 1 PDU in 1pack

- 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.

13. STANDARDS AND REGULATIONS

13.1 STANDARDS

Application	Standards
Safety	IEC 62368-1
C13 and C19 connectors for electrical equipment	IEC 60320-2-2
	IEC 62368-1
Circuit breakers	Not Applicable
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

13.2 REGULATORY APPROVALS

CE, UKCA, CMIM
RoHS directive (Restriction of Hazardous Substances).
REACH regulations (Registration, Evaluation, Authorisation & restriction of CHemicals).