

PDU HD METERED BASE 0U, 3 PHASE 32A, 24 C13 + 12 C19 LOCKING OUTLETS, IEC 60309

Cat. No: 6 461 12



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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.

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 | No |
| 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 32A 3P+N+E |
| Cord Length | 3m - 9.84 ft |
| Cord Entry | Rotating (330°), bottom front |
| Cable Type | HO7RNF 5G 6 LSZH |
| Maximum Input Current | 32A |
| Nominal Input Voltage | 400V, 3-phases |
| Rated Input Voltage | 346-415V |
| Input Frequency | 50/60Hz |
| Power Capacity | 22.2kW at 400V |

4. OUTPUT

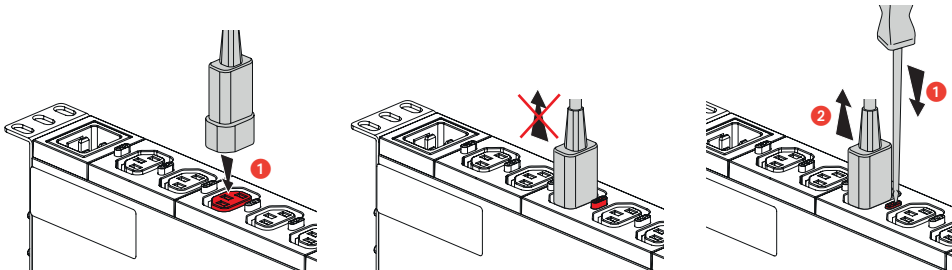
| | |
|------------------------|------------------------------|
| Nominal Output Voltage | 230V |
| Outlet type | 24 C13 + 12 C19 |
| Cord locking system | Yes |
| Cord Retention | 100 N |
| Circuit breakers | Yes |
| Circuit breakers type | Magnetic Hydraulic (curve D) |

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.).

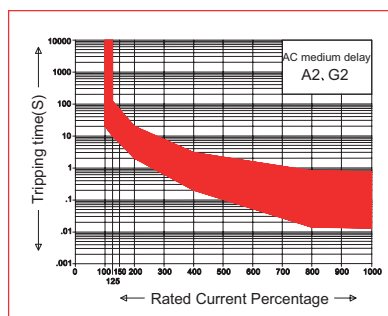
Pull-out force 100 N

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



Magnetic hydraulic MCB

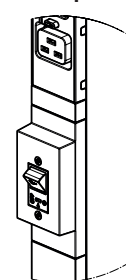
Benefits of magnetic hydraulic technology :
As opposed to magnetic-thermal that needs to be de-rated, this technology is not affected by ambient temperature increase. The tripping of an MCB with this technology is always accurate at the rated current.



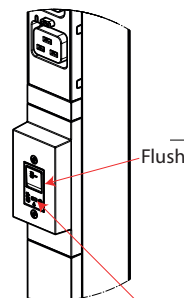
Rated current : 16A
Rated voltage : 250V
Frequency : 50/60 Hz
Number of poles : 1 pole as standard (cat. ref) , 2 poles as CTO option
Breaking capacity (Icn) : 3000

Approvals : UL/CSA, VDE, CCC

"OFF" position



"ON" position

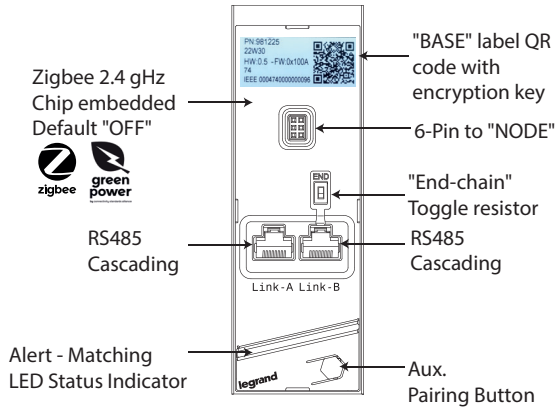


No risk for accidental tripping

Switching to OFF position is possible only with a flathead screwdriver

5. CONTROLLER

Base

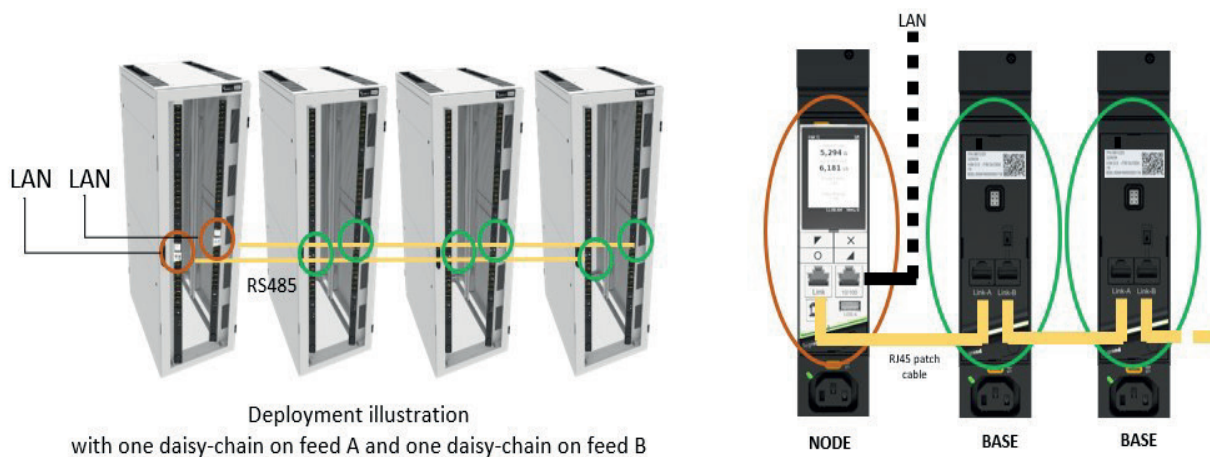


| | |
|------------------------------------|--|
| Networking | Via the NODE controller only |
| Wireless control (radio frequency) | Button for pairing wireless sensors |
| LED indicator | RGB LED for visual indication and replicating configured alerts ● Normal operation ● Warning threshold exceeded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

6. CASCADING MODES

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.



7. MECHANICAL FEATURES

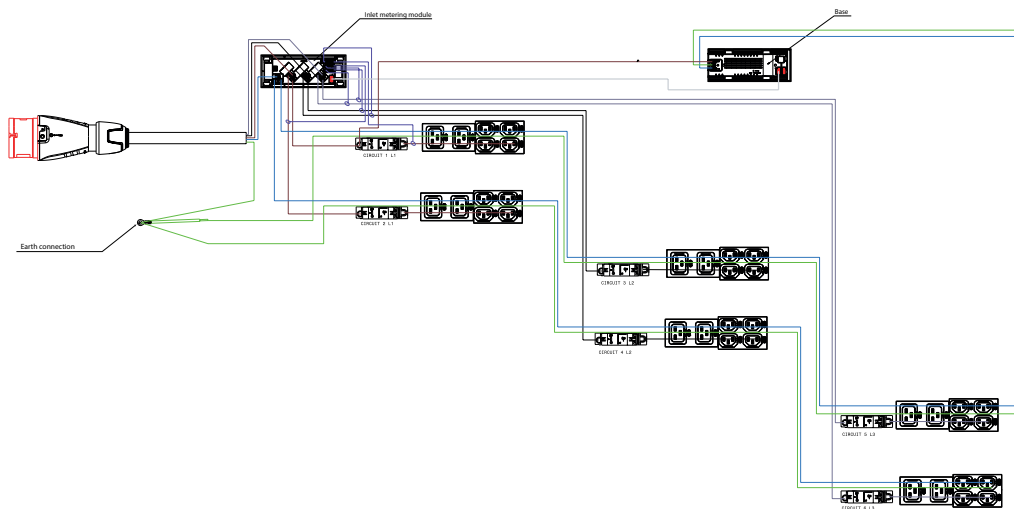
- Casings: 6060 T5-R19 natural anodised aluminium.
- Outlet modules:
PC/ABS
CW507L (CuZn 36) brass
- Fixing brackets:
DC01-A-m galvanised steel

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

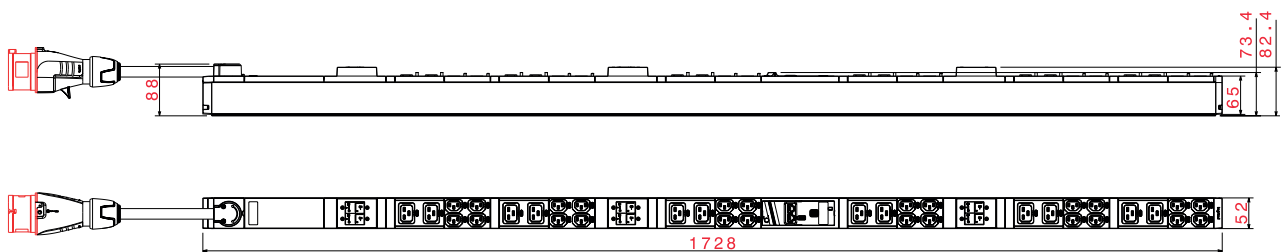
8. ENVIRONMENTAL CHARACTERISTICS

| | |
|-----------------------------------|---------------|
| 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



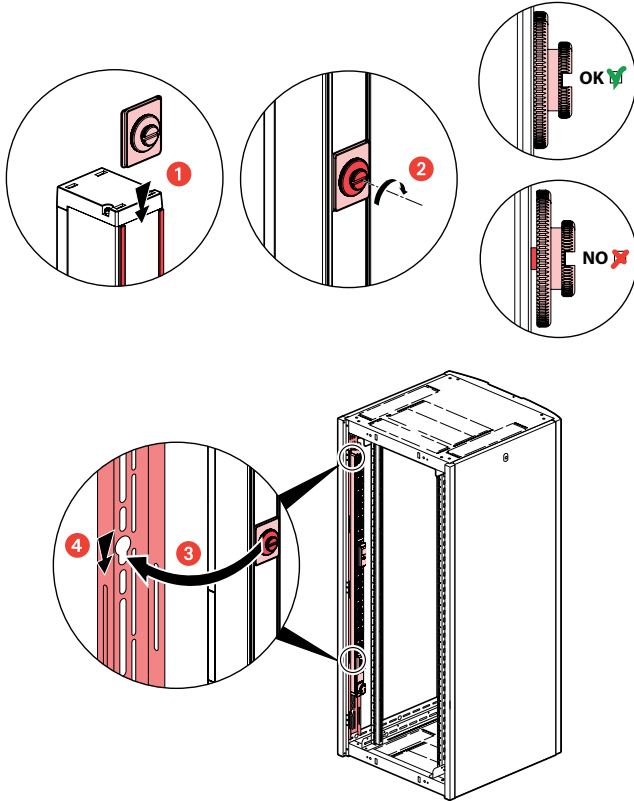
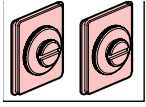
11. MOUNTING SOLUTIONS

11.1 INCLUDED

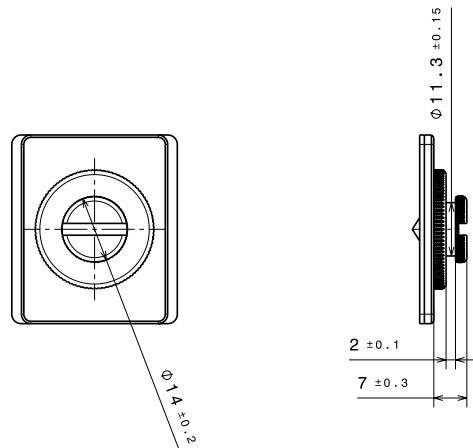
Delivered with 2 different sets for mounting in a rack.

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.

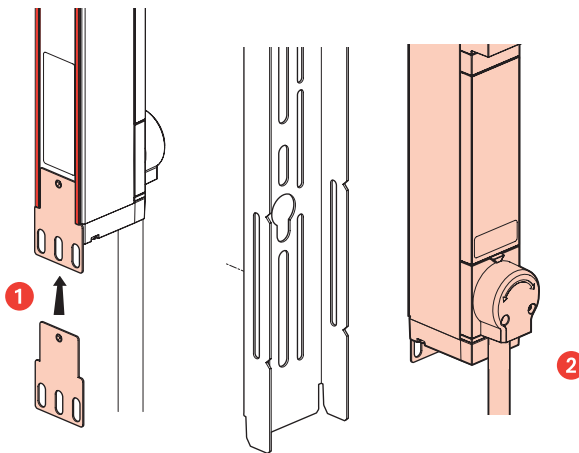
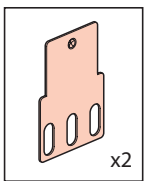


Button dimensions

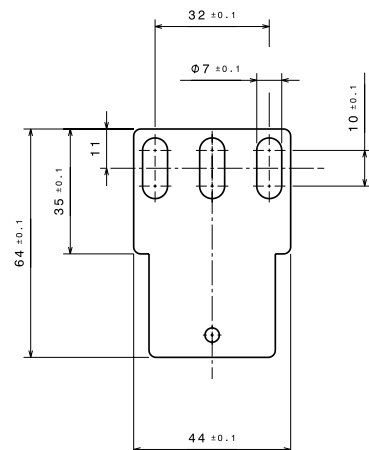


Set of 2 standard fixing brackets

Screw-fixing (screws not included).



Dimensions of standard fixing bracket



Fixing centres (min.-max.) with standard brackets : 1740mm -1760mm

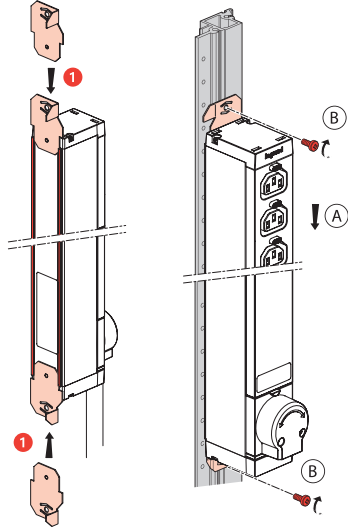
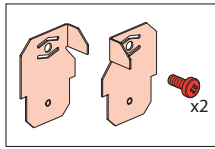
11.2 OPTION

Brackets for Nexpan racks

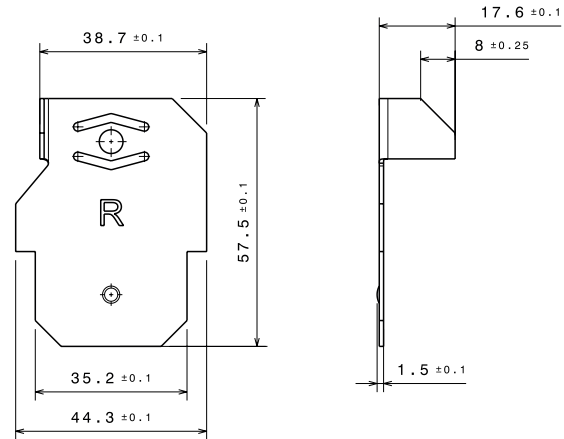
Screw-fixing (2 screws included).

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

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



Dimensions of NEXPAND fixing bracket



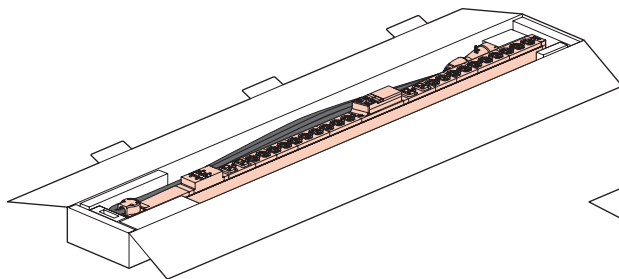
12. PACKAGING

| | Individual packaging | Bulk packaging* |
|----------|----------------------|-----------------|
| Cat. Ref | 6 461 12 | CTO |

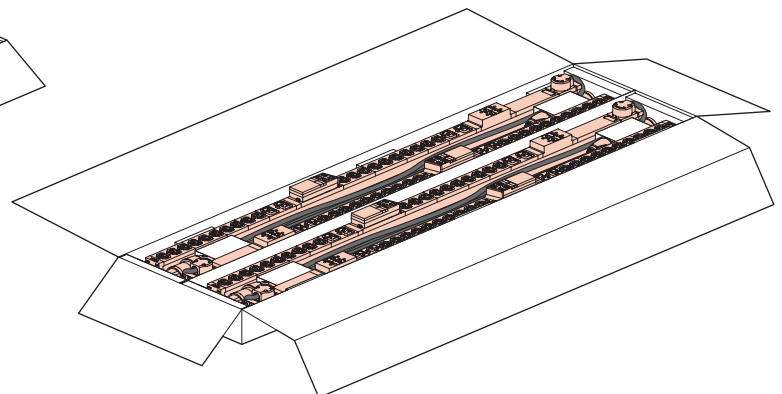
Linkeo Data Center PDUs can be delivered in two different types of packaging

- 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.

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 | 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 |

13.2 REGULATORY APPROVALS

CE, UKCA, CMIM

RoHS directive (Restriction of Hazardous Substances).

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