PANDUIT

Panduit Basic Rack PDU with Local Meter

User Manual

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Basic Rack PDU with Local Meter

Panduit Basic Rack PDUs with Local Meter provide reliable power distribution to devices installed within a cabinet and have an on-unit display to allow for local monitoring of power information.

This equipment has been designed for connection to an IT power distribution system.

Contacting Panduit

For technical support on PDU hardware and associated software, please contact Panduit Technical Support using one of the following methods:

- 1-866-721-5302 (toll-free), Monday-Friday, 7:30 am - 5:00 pm CST
- systemsupport@panduit.com

Symbols Used

Symbol	Description
	Danger – Electric Shock Hazard
	Warning – Possible Safety Hazard
	Primary Earth Ground
	Secondary Earth Ground
|	ON
O	OFF

Equipment Overview

The power inlet/cord(s) connects the PDU to the electrical power source. The LCD displays the current load for each input feed or electrical phase per input feed.

For IEC C-20 inlet PDUs, a customer-supplied cord is used for connection to the power source. The connection end to the PDU has an IEC C-19 plug for connection to the PDU.

The opposite end of the cord has a plug suitable for connecting to the customer-supplied receptacle. The cord and plug shall be rated for 20A in North America and 16A outside of North America. Make the connection to the PDU before connecting to the power source

Model Numbering Format

This section describes the model numbering format used to identify equipment in the PDU series. PDU model numbers are:

- HD-YYYVZZA
- HE-YYYVZZA
- VD-YYYVZZA
- VE-YYYVZZA

The letters in the series represent values as defined in the table below.

Letter	What It Represents
H	Horizontal series
V	Vertical series
D	Basic - no monitoring or display provided
E	Metered - on board display only
YYY	May be any number, 120-415, representing rated voltage
ZZ	May be any number, 10-63, representing rated current

Part Numbering Format

This section describes the part numbering format used to identify equipment in the PDU series. PDU devices are numbered using one of the following formats:

- H1M-ABCDEFGHJKLM
- V1M-ABCDEFGHJKLM

The H1M prefix indicates that the model is intended for horizontal mounting.
The V1M prefix indicates that the model is intended for vertical mounting.

The remaining letters in the series represent values as defined in the table below.

Letter	What It Represents
A	Any numeral, 1-8, indicating the phase wiring for the output circuit breakers and receptacles
B	Any letter, A-F, indicating input cord configuration
CD*	Any numeral, 1-5, and any letter, A-Z, indicating input plug type and rated voltage
E	Any numeral, 1-7, indicating the number of output circuit breakers
F	Any letter, A-Z, indicating the type of overload protection provided for the outlets
GH	Any two numerals, 01-45, indicating the number of output receptacles provided
JK	The letter 'A' or 'B' followed by any letter, A-Z, indicating the type and quantity of output receptacles provided
L	Any numeral, 0-9, or any letter, A-Z, indicating the length of the power supply cord
M	Any numeral, 0-9, indicating the color of the enclosure

* Voltage and amperage ratings:

- 120V, single-phase, 10A, 12A, 15A, 16A, 20A, 24A or 30A
- 208V, single-phase, 10A, 12A, 13A, 15A, 16A, 20A, 24A, 30A, 48A or 60A
- 230V, single-phase, 16A, 32A, or 48A
- 208V, three-phase (delta), 16A, 20A, 24A, 30A, 40A, 48A, 50A or 60A, 3W + PE
- 208V, three-phase (wye), 16A, 20A, 24A, 30A, 48A or 60A, 3W + N + PE
- 400V, three-phase (wye), 16A, 20A, 24A, 30A, 32A, 48A or 60A, 3W + N + PE

Pre-Installation

The Rack PDU products covered by this guide are designed to be installed within EIA racks and cabinets. Use of this product in other applications is acceptable, but other precautions may be required to allow for specific installations not covered by this guideline.

Product Inspection

Inspect the product prior to installation. If the product has any visible signs of damage, please contact the supplier.

Installation

Before You Begin

Before installing your PDU, refer to the following lists to ensure that you have all the items shipped with the unit as well as all other items required for proper installation.

Hardwire PDU installation instructions

This product is intended to be hardwired by the customer must be installed by a qualified electrician AND adhere to all national & local electrical codes.

1. To install, remove the (4) securing screws on the removable user panel.

2. Unscrew strain relief grommet cap (indicated below) and feed the power cable through the grommet cap & the input gland.
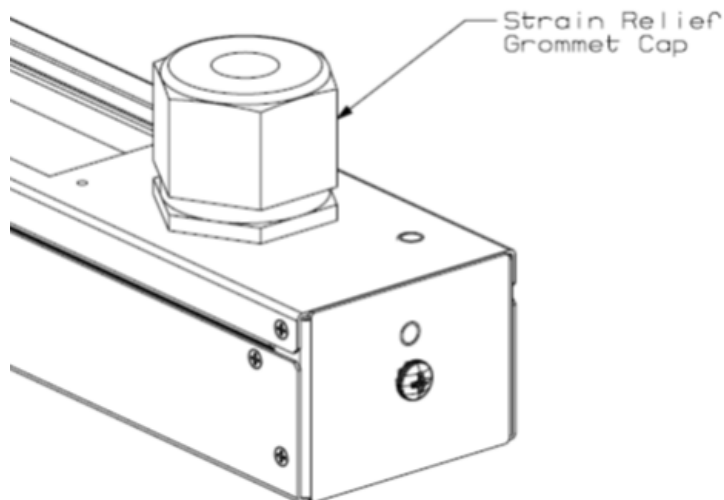
3. Ensure conductors are stripped adequately, exposing 15mm of copper.

4. Conductors shall be connected in-line with the terminal markings provided as shown below (Line 1 = X; Line 2 = Y; Line 3 – Z). Ensure screws are secure for each conductor by applying a torque of 2.3 N-m (20 in-lb.).
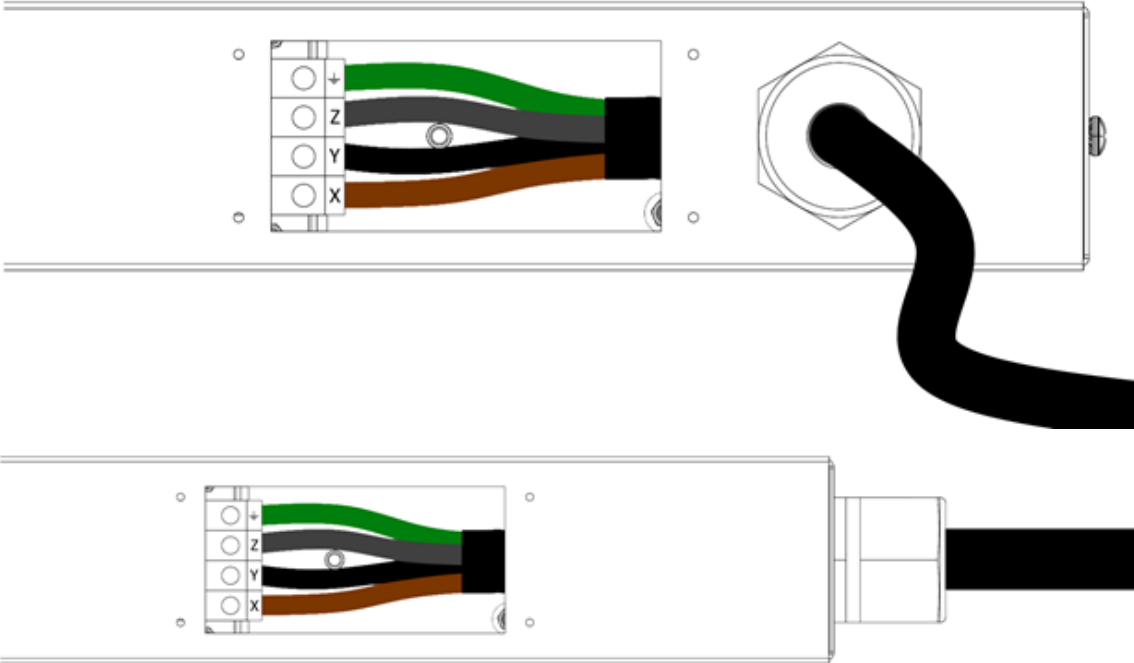
5. Ensure conductors have enough slack (none should be under tension).

6. Feed grommet cap down cord and secure to input gland. Reference the table below to ensure the grommet cap is torqued correctly.

Gland Size	Grommet Cap Torque
M16	1.5 N-m (13 in-lb.)
M20	3.0 N-m (27 in-lb.)
M25	4.0 N-m (35 in-lb.)
M32	4.0 N-m (35 in-lb.)
M40	15 N-m (132 in-lb.)
M50	20 N-m (177 in-lb.)
M63	30 N-m (266 in-lb.)

7. Re-install removable cover plate with the screws removed in step 1.

8. Connect the other end of the power cord to a suitably rated disconnect device.

9. Switch utility circuit breaker "On".

Unterminated Cord PDU installation instructions

This product is intended to be hardwired by the customer must be installed by a qualified electrician AND adhere to all national & local electrical codes.

To install, match the corresponding conductor color to the matching phase in your facility. Reference the color guide below:

Conductor Insulation Color	Line Number / Phase
Brown	Line1 / X
Black	Line 2 / Y
Grey	Line 3 / Z
Blue	Neutral
Green (may include Yellow stripe)	Ground

Standard Accessories

Mounting hardware:

- Vertical models:
  Affixed button mounts

- Horizontal models:
  Appropriate local mounting brackets and screws

Additional Required Items

- Flathead and Phillips screwdrivers
- Appropriate local AC power receptacle to power the PDU

Hardware

LCD Display

On metered PDUs, the display shows the device model number, serial number, and electrical readings. The display automatically scrolls through the readings. Below are the readings that will be displayed:

- Start up messages
- Configuration/serial/product number messages
- Error/Status messages
- Aggregate data
- Single-Phase data, 3-Phase Delta data, or 3-Phase Wye data
- Branch Current data, if the unit has breakers

Reset Button

Push the **Reset** button using a non-metallic item, similar in size to a paper clip, to reset the PDU device.

⚠ **Warning:** a metallic item, such as a paper clip, is not recommended as a reset tool.

The reset tool should be inserted perpendicular to the surface of the device and pressed until the button is reached and is actuated.

The reset tool should bump into the button within 1/8 of an inch of being inserted, and should be lightly depressed and held for at least 1 second. The reset tool should never be inserted more than 1/4 of an inch.

Resetting the PDU device starts the bootloader. Wait between 1 and 30 seconds for the Display Backlight to blink on and off at a rate of 2 blinks per second. The bootloader stays in this mode for at least 4 seconds (8 blinks) if no user operation is detected.

Mode Button Operation

Unit Startup

When the unit first starts up, the LCD backlight begins to blink. Avoid pressing the **Mode** button until the LCD finishes blinking and the display backlight turns off.

When the application is ready, a message displays on the LCD:

`Starting up…`

The display backlight blinks quickly three times and remains lit. Avoid pressing the **Mode** button until the firmware version is displayed.

Unit Operation

Once the firmware version is displayed, you can press the **Mode** button to move to the next display screen.