

Vertiv™ PowerIT Upgradeable PDU and Universal PDU



Quick Installation Guide

Installing the Rack Power Distribution Unit (rPDU)

- Using appropriate hardware, mount the unit to the rack. For rPDUs with air vents, side-by-side installation requires a minimum 25 mm gap for proper airflow.
- Plug the Power Distribution Unit (PDU) into an appropriately rated and protected branch circuit receptacle.

WARNING: A disconnected neutral at the facility power service can produce incorrect higher voltages internally and at the outlets, and likely damage the unit and possibly the connected devices.

WARNING: PDUs supplied with external ground stud have high touch current. Earth connection is essential prior to connecting supply.

A #8 grounding stud, ring terminal and nut have been provided on the face of the device to facilitate attachment to earth. Reference to the conductor size in the power cord and PDU rating for appropriate sizing of the external earth conductor. Affix the provided ring terminal to this wire, following manufacturer's installation instructions. Place the ring terminal on the grounding stud and torque the nut to the appropriate torque listed in the Table 2. Attach the other end of the conductor to your facility's earthing system.

- Plug in the devices that are to be powered by the PDU.
- Power-on the devices that are to be powered by the PDU.

NOTE: Sequential power-up is recommended to avoid high inrush current.

Table 1 Environmental Parameters

Temperature	Operating	Storage
All PDUs	0 °C to 60 °C (32 °F to 140 °F)	-40 °C to 70 °C (-40 °F to 158 °F)
Humidity	Operating	Storage
All PDUs	5% to 95% (non-condensing)	5% to 95% (non-condensing)
Elevation	Operating	Storage
All PDUs	0 m to 3050 m (0 ft. to 10000 ft.)	0 m to 12200 m (0 ft. to 40000 ft.)

Table 2 Studs Specifications

Stud/Nut/Size	Wire Size	Torque in-lb (Nm)
#8	<8 AWG (10 mm ²)	16.5 (1.86)
#8	8 AWG (10 mm ²)	27 (3.05)
M5	<8 AWG (10 mm ²)	16.5 (1.86)
M5	8 AWG (10 mm ²)	27 (3.05)
1/4"-20*	>8 AWG (10 mm ²)	27 (3.05)

NOTE: *The wire retaining set screw in the associated terminal must be torqued to 16.5 in-lb (1.86 Nm).

Installing the Universal PDU:

The Universal Power Distribution Units (UPDU) are equipped with a 7 or 8-wire Panel Mount connector. These units are intended to be mated with a Facility Side Cable (FSC) available for the unit. The FSC connects to a single-phase AC Mains circuit, a 3-phase WYE or Delta AC Mains circuit. The Universal PDUs are provided with IEC C13- and/or IEC C19-type outlets for connection to external devices.

IMPORTANT: Mount the UPDU to the rack before plugging the FSC into UPDU. Ensure that the plastic guide on the FSC plug is in line with the channel of the UPDU inlet to properly plug in the FSC. See Figure 1 for reference points on the outer shells of connectors.

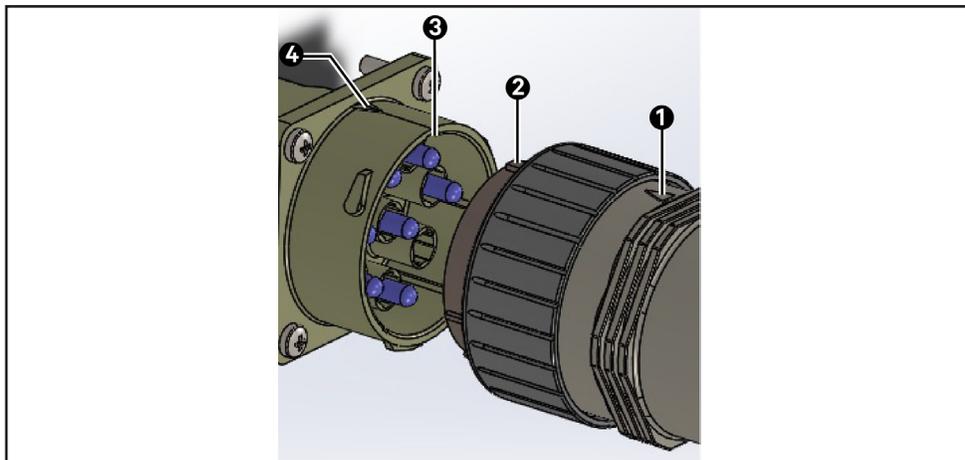
- Using appropriate hardware, mount the unit to the rack.
- Plug the FSC into the Universal PDU.

NOTE: It may be necessary to install a cable support in order to reduce strain on the Panel Mount connector.

- Plug the FSC into an appropriately rated and protected branch circuit.
- Plug in the devices to be powered by the Universal PDU.

NOTE: For devices powered by the PowerIT UPDU, sequential power up is recommended to avoid high inrush current.

Figure 1 Outer Shell of Connector



Item	Description	Item	Description
1	Plug Reference Point	3	Inlet Channel
2	Plug Plastic Guide	4	Inlet Reference Point

Table 3 Connector Rating

Input Rating			Facility Side Cable	# of Circuit Breakers	Panel Mount Connector
Current (Maximum)	Voltage	Frequency			
24A	200 to 240 VAC	50/60 Hz	Single-Phase	6	 7-Wire, 3 Inch
40 A	200 to 240 VAC, 3W+PE	50/60 Hz	4-Wire Delta	6	
24 A (UL) / 32 A (CE)	200 to 240/346-415 VAC, 3W+N+PE	50/60 Hz	5-Wire WYE	6	
48 A	100 to 240 VAC	50/60 Hz	Single-Phase	3	 8-Wire, 1.5 Inch
24 A	100 to 240 VAC 3~	50/60 Hz	4-Wire Delta	3	
16 A	100 to 240/208-415 VAC 3~	50/60 Hz	5-Wire WYE	3	
48 A (UL) / 63 A (CE)	100 to 240 VAC	50/60 Hz	Single-Phase	6	
48 A	100 to 240 VAC 3~	50/60 Hz	4-Wire Delta	6	
24 A (UL) / 32 A (CE)	100 to 240/208-415 VAC 3~	50/60 Hz	5-Wire WYE	6	

Configuring IP Addressable Units

The PDU is equipped with an RJ45 Ethernet port for connection to an existing network. The PDU is configured with the following default network settings to allow unit configuration:

- IP address: 192.168.123.123
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.123.1

The local PC network connection must be configured as follows:

- IP Address: 192.168.123.x (where x is 2 to 253, except 123)
- Subnet Mask: 255.255.255.0
- Gateway: <leave blank>

To contact Vertiv Technical Support: visit www.Vertiv.com

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