

Vertiv™ PowerIT HM-Series rPDUs



Safety and Quick Installation Guide

Safety Symbols

One or more of the following symbols may be included in your product.

-  High Temperature: This symbol is intended to alert user where the enclosure temperature may exceed 158°F (70°C) while operating under high ambient temperature and at maximally rated load.
-  Protective Grounding Terminal: This symbol indicates a terminal which must be connected to earth ground prior to making any other connections to the equipment.
-  See Installation Instructions.
-  Caution, risk of electrical shock.
-  Disconnect all power plugs.

Save These Instructions

Read and follow all safety, installation, and operating instructions for installing the Vertiv rack equipment. Adhere to all warnings on the unit and in this safety sheet.

- The Vertiv rack equipment is suitable to be installed in information technology rooms in accordance with Article 645 of the National Electric Code (NFPA 70) and NFPA 75.
- The Vertiv rack equipment is designed for information technology equipment in a restricted access location. A restricted access location requires the use of a tool, lock and key or other means of security, and is controlled by the authority responsible for the location. Only service personnel should install and access the equipment. The Vertiv rack equipment is not intended for use with life support or other designated critical devices. If uncertain about its intended application, consult your local dealer or Vertiv representative.
- HM-Series rPDUs can weigh more than 50 lbs. follow appropriate lifting procedures and always wear appropriate PPE.
- Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised and ventilation holes are not blocked.
- Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading. If the mounting brackets are moved or removed, the mounting screws must be re-inserted into open screw holes.
- Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than the room ambient. Therefore, consideration should be given to installing and operating the equipment in an environment compatible with the maximum ambient temperature specified by the manufacturer as shown in product environmental specifications and denoted in regulatory part number.
- For cord-connected equipment, overcurrent protection must be incorporated in the building installation wiring. The overcurrent protection should be sized based on the nameplate rating marked on the Vertiv rack equipment in consideration to all local and national electrical code requirements.
- For permanently connected (hard-wired) Vertiv rack equipment, a readily accessible disconnect device and overcurrent protection must be incorporated in the building installation wiring. The overcurrent protection should be sized based on the nameplate rating marked on the Vertiv rack equipment in consideration to all local and national electrical code requirements.
- For Vertiv rack equipment with integral plugs or an appliance coupler, the earthed socket/outlet must be installed near the equipment and must be easily accessible to disconnect for service.
- Reliable earthing of rack mount equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit.
- Follow nameplate ratings when connecting equipment to the branch circuit. Maximum load must not exceed ratings shown on the equipment nameplate. Take into consideration the effect that overloading circuits might have on overcurrent protection and wiring.

- The Vertiv rack equipment is not for use with corner grounded delta power systems.
- The Vertiv rack equipment is not intended in areas with increased risk of corrosion, risk of seismic activity, and potentially explosive atmosphere.
- Outlet ratings are provided on the equipment nameplate.

Safety Precautions

WARNING: Observe all cautions and warnings. Failure to do so may result in serious injury or death. Vertiv rack equipment units contain no user-serviceable parts, other than the field replaceable field replaceable IMD carrier and fuses (not installed on all models) that is designed to be field replaceable by qualified service personnel only. For service or technical support, contact your local Vertiv representative. Do not attempt to service this product yourself. Do not gain internal access due to the risk of electric shock or burn.

CAUTION: Connecting a Vertiv rack equipment to a power supply with an incorrect rating in voltage or amperes may damage the connected equipment and your Vertiv rack equipment. For questions about the power supply connections, contact your Vertiv representative.

CAUTION: Ensure the ratings of the electric circuit of each connected device meet the specified rating at each branch and receptacle.

CAUTION: For HM-Series rPDUs that utilize Molded Case Circuit Breakers (MCCBs) or a combination of MCCBs and Fuses for output circuit overcurrent protection, ensure the maximum available fault current at the Vertiv™ PowerIT rPDU input terminals does not exceed 10,000 Amps.

CAUTION: For HM-Series rPDUs that utilize Fuses for output circuit overcurrent protection, ensure the maximum available fault current at the rPDU input terminals does not exceed 100,000 Amps.

NOTE: This rack equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Installing the rPDU

- Using appropriate hardware, mount the unit to the rack. Side-by-side installation of rPDUs requires a minimum 25 mm gap for proper airflow.
- For cord-connected rPDUs, plug the PDU into an appropriately rated and protected branch circuit receptacle.
- For permanently connected (Hard-wired) rPDUs, installation must be performed by skilled service personnel. Installation shall be completed according to local and national electrical codes using appropriately sized input wiring based on the rPDU's input current and maximum ambient temperature rating. Recommended minimum wire sizes are provided in the table below, required torque for input wiring is marked on the cover of the terminal blocks within the rPDU.

CAUTION: Use care when accessing the wiring compartment of the HM-Series rPDU during installation to ensure no foreign object debris is dropped into the body of the rPDU. If foreign objects are dropped into the rPDU during installation and cannot be recovered, DO NOT ENERGIZE the rPDU. Return the rPDU to Vertiv for repair.

CAUTION: For three phase WYE units, always verify a proper neutral connection is present at either the building installation branch circuit receptacle for cord-connected units or at the input wiring terminal of hardwired units. An open neutral condition can produce incorrect higher voltages internally and at the outlets, resulting in damage to both the rPDU and any connected equipment.

Minimum Input Wire Size

Input Current Rating	60°C Ambient Temperature Rating Wire Size (90 °C THHN, or equivalent)	50°C Ambient Temperature Rating Wire Size (90 °C THHN, or equivalent)
90	1/0 AWG	1 AWG
100	2/0 AWG	1/0 AWG
120	3/0 AWG	2/0 AWG
150	250 kcmil	4/0 AWG
180	300 kcmil	250 kcmil
192	350 kcmil	300 kcmil

- 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.

Environmental

NOTE: High Ampacity PowerIT rPDU Ambient Temperature rating is shown in the regulatory part number in the character before the fourth dash mark as underlined in the following example: HMUU5MUZ1-24L193-8PS56B7B10-S4-A.

Model Number Character	Operating Temperature	Storage Temperature	Operating Humidity	Storage Humidity	Operating Elevation	Storage Elevation
4	0 °C to 45 °C (32 °F to 113 °F)	-40 °C to 70 °C (-40 °F to 158 °F)	5 % to 95 % (non-condensing)		0 m to 3,050 m (0 ft to 10,000 ft)	0 m to 12,200 m (0 ft to 40,000 ft)
5	0 °C to 50 °C (32 °F to 122 °F)	-40 °C to 70 °C (-40 °F to 158 °F)	5 % to 95 % (non-condensing)		0 m to 3,050 m (0 ft to 10,000 ft)	0 m to 12,200 m (0 ft to 40,000 ft)
6	0 °C to 60 °C (32 °F to 140 °F)	-40 °C to 70 °C (-40 °F to 158 °F)	5 % to 95 % (non-condensing)		0 m to 3,050 m (0 ft to 10,000 ft)	0 m to 12,200 m (0 ft to 40,000 ft)

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 2-253, except 123)
- Subnet Mask: 255.255.255.0
- Gateway: <leave blank>

To Replace the IMD Module:

IMPORTANT: Photos for these steps are shown on page 5.

NOTE: Be sure to have the new IMD module ready for installation immediately after removal of the old IMD.

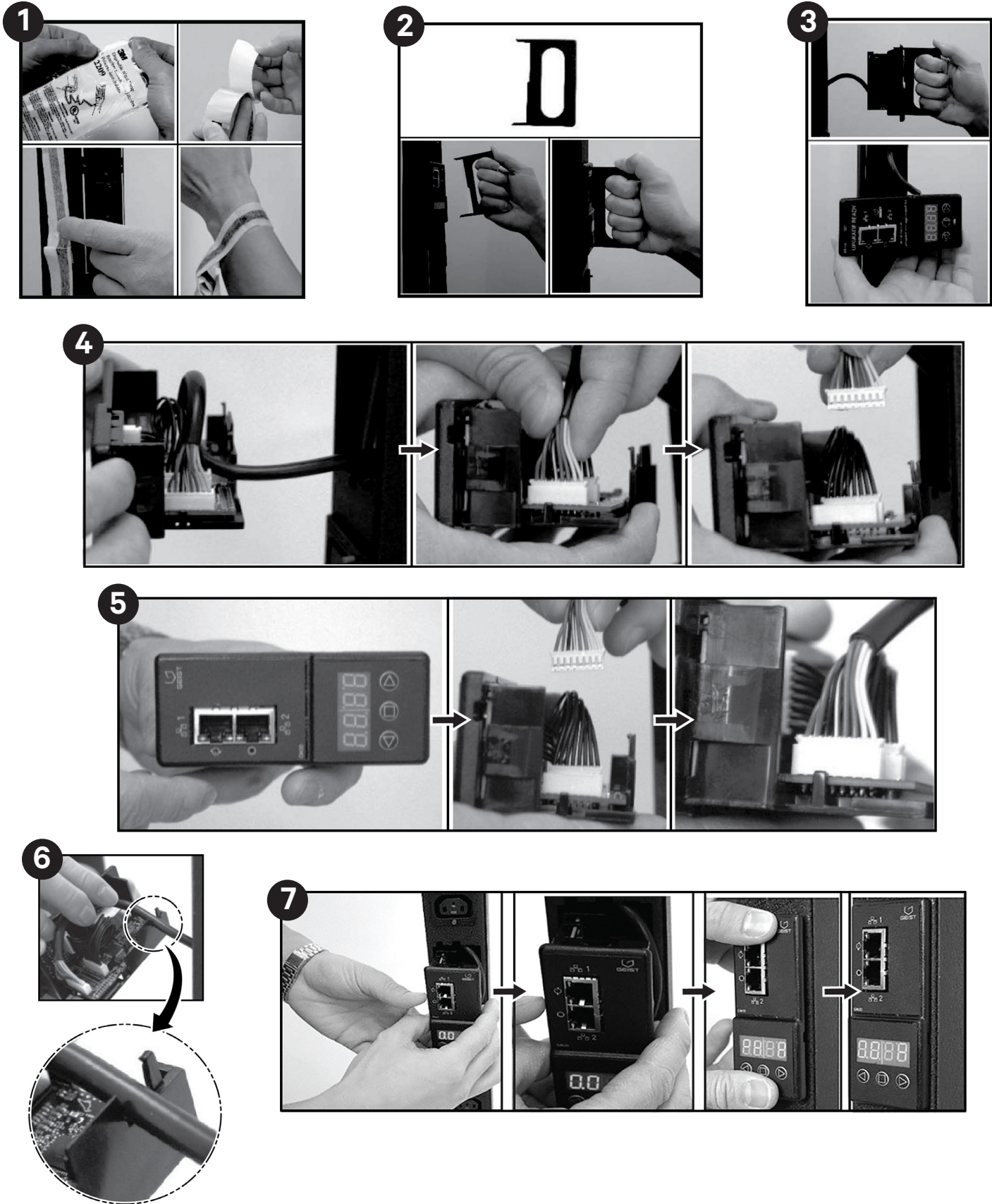
1. Remove the disposable ESD wrist strap from the package, remove the adhesive backing and attach the strap to the PDU. Put the wrist strap on your arm so that it has contact with bare skin.
2. Insert the Vertiv IMD Removal Tool as shown. Be sure to press the tool in level, pressing in until the tool is flush with the face of the IMD. Some older versions may require overlays to be removed prior to inserting the tool.
3. Carefully pull the tool and the IMD straight out about 2 inches. Remove the tool from the IMD.

CAUTION: The IMD is still connected internally. Do not pull it more than 2 inches from the chassis.

4. Gently unplug the connector from the IMD.

IMPORTANT: . Ensure that you have the wrist strap on before proceeding. See Step 1 for more information.

5. Connect the cable to the replacement IMD module.
6. Place the cable into the strain-relief slot in the IMD's housing as shown.
7. Tuck the excess cable back into the PDU, and slide the IMD straight in. Press with both thumbs until the IMD snaps into place.



THIS PAGE INTENTIONALLY
LEFT BLANK

THIS PAGE INTENTIONALLY
LEFT BLANK



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

© 2025 Vertiv Group Corp. All rights reserved. Vertiv™ and the Vertiv logo are trademarks or registered trademarks of Vertiv Group Corp. All other names and logos referred to are trade names, trademarks or registered trademarks of their respective owners. While every precaution has been taken to ensure accuracy and completeness here, Vertiv Group Corp. assumes no responsibility, and disclaims all liability, for damages resulting from use of this information or for any errors or omissions.

