

Vertiv IMD-5M

Vertiv PowerIT IMD-5M Rack PDU Interchangeable Monitoring Device User Manual

Model: IMD-5M

1. INTRODUCTION

The Vertiv PowerIT rPDU IMD-5M is an innovative, hot-swappable Interchangeable Monitoring Device (IMD) designed to enhance power monitoring in data centers. It features a vibrant LCD touchscreen for real-time insights into critical metrics such as power, amperage, and voltage, supporting both local and remote monitoring. The IMD includes ports for serial communication and environmental monitoring, enabling comprehensive management of your power distribution system. Dual Gigabit Ethernet ports facilitate PDU management with fault-tolerant daisy chaining or IP aggregation, providing a reliable and scalable solution for modern IT environments.

This manual provides essential information for the proper installation, operation, and maintenance of your IMD-5M device.

2. KEY FEATURES

- **Enhanced Data Visualization:** Vibrant, pixel-addressable color touchscreen displays key power metrics (amperage, voltage) for efficient monitoring.
- **Advanced Security Features:** Secure boot and hardware trust anchor provide enhanced security against unauthorized access.
- **Effortless Installation and Features:** Tool-less installation and removal, redundant power capability, RGB status LED for alerts, and an internal sensor for automatic display orientation adjustment.
- **Tested and Certified for Reliability:** 100% tested for quality and functionality, meeting RoHS, China RoHS, UL, and CE compliance standards.
- **Connectivity:** Serial communication and environmental monitoring ports, dual Gigabit Ethernet for daisy chaining or IP aggregation.

3. PRODUCT OVERVIEW

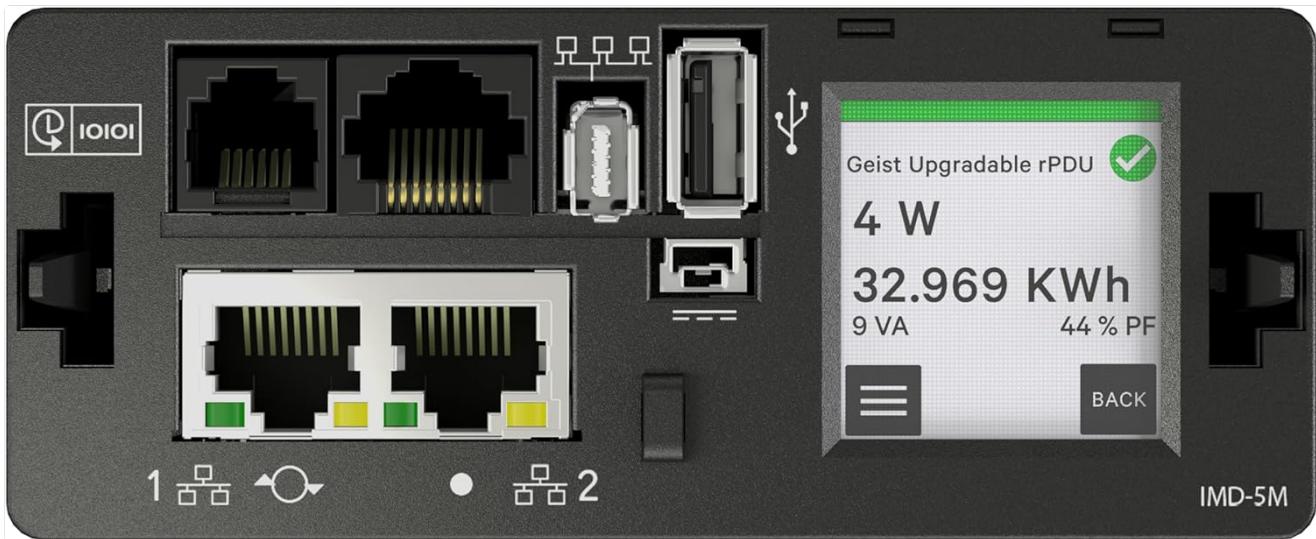


Figure 3.1: Front view of the Vertiv PowerIT IMD-5M, showing the touchscreen interface and various ports. The screen displays power consumption metrics like wattage and kilowatt-hours.



Figure 3.2: Angled view of the IMD-5M, partially revealing the internal circuit board, highlighting its modular and hot-swappable design. The front panel with ports and touchscreen is clearly visible.



Figure 3.3: Side view of the IMD-5M, providing a clearer look at the entire internal circuitry and its compact form factor, designed for integration into a Rack PDU.

4. SETUP AND INSTALLATION

The IMD-5M is designed for tool-less installation and removal into compatible Vertiv PowerIT Rack PDUs. Ensure the PDU is powered off or in a safe state before installation or removal.

- 1. Preparation:** Verify that the Rack PDU is compatible with the IMD-5M.
- 2. Insertion:** Align the IMD-5M with the designated slot on the Rack PDU. Gently push the device into the slot until it clicks securely into place.
- 3. Connection:** Connect necessary network cables to the Gigabit Ethernet ports (1 and 2) for network connectivity and daisy chaining. Connect serial communication or environmental monitoring sensors to their respective ports if required.
- 4. Power On:** Once securely installed and connected, power on the Rack PDU. The IMD-5M will initiate its boot sequence.
- 5. Initial Configuration:** Follow the on-screen prompts on the touchscreen for initial network configuration and device settings.

Note: The IMD-5M supports hot-swapping. However, always refer to your specific Rack PDU documentation for best practices regarding module replacement while the PDU is operational.

5. OPERATION

5.1. Touchscreen Interface

The IMD-5M features a vibrant LCD touchscreen for local monitoring and configuration. The internal orientation sensor automatically adjusts the display for optimal viewing, whether the PDU is mounted vertically or horizontally.

- **Main Display:** Shows real-time power metrics such as wattage (W), kilowatt-hours (KWh), volt-amperes (VA), and power factor (PF).
- **Navigation:** Use the on-screen buttons (e.g., "MENU", "BACK") to navigate through different screens and settings.
- **Status LED:** The RGB status LED provides visual cues for device status and alerts. Refer to the device's online documentation for specific LED color codes.

5.2. Remote Monitoring

The IMD-5M supports remote monitoring and management through its network interfaces. Access the device's web interface or integrate it with your existing data center infrastructure management (DCIM) system.

- **Web Interface:** Enter the IMD-5M's IP address into a web browser to access its full suite of monitoring and configuration options.
- **SNMP:** The device supports SNMP for integration with network management systems.
- **Daisy Chaining/IP Aggregation:** Utilize the dual Gigabit Ethernet ports for redundant network connections or to aggregate multiple PDUs under a single IP address, simplifying management.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your IMD-5M.

- **Cleaning:** Periodically clean the touchscreen and exterior with a soft, dry, anti-static cloth. Do not use abrasive cleaners or solvents.
- **Firmware Updates:** Check the Vertiv support website regularly for firmware updates. Keeping the firmware current ensures access to the latest features, security enhancements, and bug fixes.
- **Environmental Conditions:** Ensure the operating environment adheres to the recommended temperature and humidity ranges specified in the product's technical documentation to prevent overheating or moisture damage.

7. TROUBLESHOOTING

This section provides basic troubleshooting steps for common issues. For more complex problems, refer to the Vertiv support website or contact technical support.

Problem	Possible Cause	Solution
Device not powering on.	IMD not fully seated; PDU not powered.	Ensure IMD is securely installed. Verify PDU power supply.
No network connectivity.	Incorrect cable connection; network configuration error.	Check Ethernet cable connections. Verify IP settings on the touchscreen or via serial console.
Touchscreen unresponsive.	Temporary software glitch.	Perform a soft reset (if available) or power cycle the PDU.

8. SPECIFICATIONS

Attribute	Value
Model	IMD-5M
Product Dimensions	4 x 1.25 x 2 inches
Item Weight	1 pounds
Manufacturer	Vertiv
Compliance	RoHS, China RoHS, UL, CE
Connectivity	Dual Gigabit Ethernet, Serial, Environmental Monitoring Ports
Display	Vibrant LCD Touchscreen with Internal Orientation Sensor

9. WARRANTY AND SUPPORT

The Vertiv PowerIT IMD-5M comes with a standard **3-year limited warranty**. This warranty can be extended to **5 years** by registering your unit within 120 days of purchase.

For technical support, warranty claims, or to register your product, please visit the official Vertiv support website or contact your local Vertiv representative. Keep your purchase receipt and product serial number readily available.

Vertiv Support Website: www.vertiv.com/support