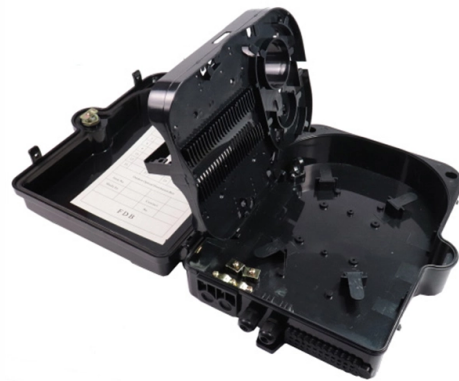


Requirements for Data Center PDUs



Article Overview

Data center PDUs must be selected based on power capacity, redundancy, monitoring capabilities, and compatibility with IT equipment to ensure reliable, efficient, and scalable power distribution.

Key Requirements

1. **Power Capacity and Sizing** PDUs must handle the total power draw of all connected IT equipment, including servers, storage, and networking devices. Calculate the baseline power requirement by summing the wattage or kilowatt ratings of each device, and plan for future growth to accommodate higher-density racks or additional equipment . Consider both single-phase and three-phase power systems depending on the data center's electrical infrastructure. 2. **Redundancy and Reliability** To maintain uptime, PDUs should support redundancy. Dual-corded servers often require connection to separate PDUs fed from independent UPS or utility sources. Tiered PDU deployment ensures that a single failure does not disrupt critical operations . 3.

Types of PDUs

- **Basic PDUs:** Simple power distribution without monitoring, suitable for low-density or non-critical setups .
- **Metered PDUs:** Include power meters to monitor real-time consumption, aiding energy efficiency and capacity planning .
- **Switched PDUs:** Allow remote control of individual outlets for rebooting or shutting down equipment .
- **Intelligent/Monitored PDUs:** Provide real-time monitoring, alerts, and integration with DCIM or BMS systems for proactive management . 4. **Monitoring and Managem...**

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