

Intelligent PDU Remote Management Device



Overview

Smart PDU — remote power control with short-circuit Smartest PDU in the world — combines per outlet remote power management, configurable automatic transfe.

Key Takeaways

Intelligent PDUs (iPDUs) enable remote monitoring, control, and management of power distribution for data centers, telecom, and industrial environments, offering per-outlet control, energy metering, and automated power sequences.

Overview

Intelligent Power Distribution Units (iPDUs) are advanced PDUs designed to provide remote management, monitoring, and control of power infrastructure. They allow administrators to reboot, power cycle, or monitor individual outlets without physically visiting the equipment, ensuring uptime and operational efficiency across distributed environments. iPDUs are widely used in data centers, server rooms, industrial sites, and telecom facilities.

Key Features

Remote Power Control: Turn devices on/off or reboot unresponsive equipment remotely, reducing downtime and eliminating costly site visits.



Per-

Outlet Monitoring: Track current, voltage, power factor, and energy consumption for each outlet, enabling precise billing, capacity planning, and anomaly detection.

Automated Power Sequences: Configure ping-based auto-reboot, scheduled power-on/off sequences, and startup delays to protect sensitive equipment and optimize UPS usage.

Redundancy and Safety: Many iPDUs include Automatic Transfer Switch (ATS) functionality, short-circuit isolation per outlet, over-voltage protection, and current limiting to prevent overloads and fire hazards.

Integration: Support for SNMP v1/v2c/v3, Modbus TCP/RTU, RESTful APIs, and web interfaces allows seamless integration with DCIM, monitoring, and network management systems.

Environmental Monitoring: Some models include temperature, humidity, and other environmental sensors to ensure optimal operating conditions.

Applications

Data Centers: Optimize energy usage, monitor high-density racks, and remotely manage servers and networking equipment.

Industrial and Manufacturing: Ensure reliable power to control systems, automation cabinets, and plant-wide infrastructure.

Telecom and Networking: Maintain uptime for critical network devices, prevent unauthorized power usage, and manage distributed sites efficiently.

Healthcare and Financial Institutions: Support critical systems like medical networks, ATMs, and trading platforms with secure, monitored power distribution.

Benefits

Operational Efficiency: Reduce manual intervention and truck rolls by remotely managing power.

Energy Optimization: Real-time metering and per-outlet monitoring help identify inefficiencies and reduce electricity costs.

Enhanced Safety: Automatic protection against overloads, short circuits, and improper grounding improves electrical safety.

Scalability: Many iPDUs support daisy-chaining multiple units, firmware updates, and centralized management for large deployments.

Intelligent PD

Us are essential for modern IT and industrial environments, providing visibility, control, and automation to maintain uptime, optimize energy usage, and enhance safety across critical infrastructure.

Article Content

Smart PDU — remote power control with short-circuit

Smartest PDU in the world — combines per outlet remote power management, configurable automatic transfer switch (ATS), per outlet short circuit isolation, per

Intelligent PDUs for Remote Power Management

Would you like to improve uptime, save energy, and manage the power in your data center cabinets remotely? Raritan's PX intelligent rack PDUs are exactly what you need. They're built to reliably and

Smart PDU Solutions | Intelligent Power Distribution Units

Switched, metered and monitored Smart PDU solutions for data centers, telecom and industrial applications. Remote outlet control, energy metering, SNMP/Modbus integration and OEM/ODM

What is an Intelligent PDU?

Types of Intelligent PDUs The intelligent PDUs can be further classified into monitored and switched. At the core, the PDU offers reliable power distribution while smarter PDUs add remote monitoring

Remote Power Distribution Unit Management Intelligent

The ENVIROMUX® Secure Remote Power Control Unit allows you to remotely reboot and control power (on/off) to two servers or other powered devices from

Intelligent PDUs | WTI

Intelligent PDUs Remote reboot, meter and monitor power on mission-critical devices. Manage and control power on your network, without leaving the NOC!

IPDU Intelligent Power Distribution Unit

One of the key advantages of an iPDU is its ability to provide remote access to critical power-related data. Through integrated network interfaces, data center administrators can remotely monitor power

Intelligent PDU Remote Monitoring Power Distribution Unit

The Soetec K series PDU is a remote-monitoring power distributor. Its software uses an embedded multi-threaded RTOS kernel solution, supporting multitasking and multi-user access. The software is

Smart PDU's - Intelligent Power Management | nVent

Optimise power management with our Smart PDUs. Remote monitoring, control, and energy efficiency for seamless operations up to 100amp per unit.

HMS Networks

HMS creates products that enable industrial equipment to communicate and share information with software and systems. In short: Hardware Meets Software™.

4 Types of PDU in Data Centers: Overview and Features

Are intelligent PDUs necessary for all data centers? Not all environments require intelligent PDUs, but they are increasingly common in modern facilities where remote management,

Intelligent PDUs: Types, Benefits, and Metering Levels

Compare intelligent PDU types—basic, metered, monitored, and switched—and learn how outlet-level metering and remote access improve power management and data center uptime.

Data Center PDU Market Size, Share & Trends

The high initial cost associated with intelligent and advanced PDU systems remains a major restraint for the data center PDU market share. Intelligent PDUs equipped with remote monitoring, outlet-level

PX3® INTELLIGENT RACK PDUS

SMARTER RACK POWER DISTRIBUTION The Raritan PX3 intelligent rack power distribution unit (PDU) is a launch pad for real-time remote power monitoring, environmental sensors, and data

Intelligent PDUs□Types and Benefits

Common Characteristics of Intelligent PDUs Despite differences in design and functionality among manufacturers, most intelligent PDUs (Power Distribution Units) share several

Download software | Power management | Eaton

Download the latest Eaton software solutions for power management of your UPS (uninterruptible power supply), rackmount PDU (power distribution units) and network connectivity devices.

Rack PDU & Distribution Units | Schneider Electric UK

Metered-by-outlet Rack Power Distribution Units (Rack PDU) provide real-time remote monitoring at the outlet level to provide advanced data center energy management.

12 Best Remote Monitoring & Management (RMM) Tools for 2026

The Network RMM category addresses this gap directly. Built for agentless, infrastructure-first monitoring, a Network RMM provides automated device discovery, real-time topology mapping, deep

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