Intelligent PDU Remote Control System



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 enable remote monitoring, control, and management of power distribution at the outlet level, improving uptime, energy efficiency, and operational flexibility.

Overview

Intelligent Power Distribution Units (iPDUs) are advanced PDUs designed for remote network control, real-time monitoring, and automated management of power in data centers, telecom, and industrial environments. Unlike basic PDUs, iPDUs allow administrators to control individual outlets, monitor energy usage, and perform automated or manual power cycling without being physically present. This capability is critical for maintaining uptime, troubleshooting equipment, and optimizing energy consumption.

Key Features

Remote Outlet Control: Power cycle or shut down individual devices remotely, including servers, routers, and network switches, without affecting other equipment.



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Real-

Time Monitoring: Track voltage, current, power factor, and energy consumption per outlet or per PDU unit, enabling precise energy auditing and cost allocation. Automated Power Management: Set up scheduled power sequences, ping-based auto-reboot, or environmental triggers to automatically recover unresponsive devices. Integration with Network Systems: Support for SNMP v1/v2c/v3, Modbus TCP/RTU, RESTful APIs, and web interfaces allows seamless integration with DCIM, monitoring, and management platforms.

Advanced Safety and Redundancy: Features like automatic transfer switches, intelligent breakers, and load shedding ensure reliable power distribution and protection against overloads. Scalability and Customization: Options for modular designs, multiple outlets, programmable breakers, and environmental sensors allow PDUs to adapt to evolving infrastructure needs.

Benefits

Reduced Downtime: Quickly reboot hung or unresponsive equipment remotely, minimizing service interruptions. Operational Efficiency: Fewer on-site visits and truck rolls, saving time and reducing operational costs. Energy Savings: Program outlets to power off unused equipment, optimize load distribution, and monitor energy usage for cost-effective operations.

Enhanced Visibility: Centralized monitoring provides insights into power usage trends, capacity planning, and predictive maintenance.

Deployment Scenarios

Intelligent PD

Us are ideal for: Data Centers: High-density racks requiring precise power management and monitoring. Telecom Sites: Remote towers or network nodes where on-site access is limited. Industrial Facilities: Critical equipment requiring automated power control and environmental monitoring.

By implementing intelligent PDUs with network remote control, organizations can maximize uptime, improve energy efficiency, and gain full visibility and control over their power infrastructure, whether managing a single rack or multiple sites globally.

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Article Content

Smart PDU — remote power control with short-circuit protection

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

Smart PDU Architecture Guide (Intelligent Rack Power Distribution)

This guide explains how intelligent rack power distribution systems are designed, deployed, and integrated into broader electrical and monitoring architectures.

PDU Remote Power Control

Raritan intelligent PDUs (iPDUs) allow you to control the power of a single PDU or a group of PDUs, down to the individual outlets. Unlike basic PDUs, you don''t need to be physically present in the

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

Intelligent PDU Remote Monitoring Power Distribution Unit

The Soeteck 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

Intelligent PDU | nVent DATA-SOLUTIONS

Changing your location may affect product availability. Certain products may not be available in all international regions. Current Selected Country: United States |English . Africa . Asia . Europe . Latin

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

SMART PDU I-type

With features such as individual power monitoring, remote control, and programmable settings, the Smart PDU I-Type offers telecom operators or tower companies advanced tools to manage power

Intelligent PDUs | WTI

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

Data Center Rack Power Distribution Unit (PDU) Business Report

They come in various forms, from basic PDUs that offer simple power distribution to intelligent PDUs that provide monitoring, control, and even remote management capabilities.

Data Centre PDU Market Trends Accelerate with Growing Demand for

Data Centre PDU Market Trends driven by high-density computing, AI workloads, cloud expansion, intelligent power distribution, remote monitoring, and energy-efficient infrastructure for

What is the difference between PDU and PSU?

PDU misurata: Digital display shows real-time total load. Used for load balancing and capacity planning. PDU commutata: Remote per-outlet on/off control plus metering. Ideal for remote data center

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

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Rack PDU & Distribution Units | Schneider Electric UK

Choose Schneider Electric rack PDUs, PDU racks, or rack PDU solutions for dependable, efficient, and intelligent power distribution tailored to the needs of

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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

Data Center PDU Market Size, Share & Trends

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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

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