Data Center PDU Types

Overview

PDU in Data Centers: Types, Features & How to ChooseData center PDUs distribute power from UPS or utility-backed systems to rack equipment. This guide expl.

Key Takeaways

Power Distribution Units (PDUs) in data centers come in various types, including Basic, Metered, Switched, and Managed PDUs, each designed to meet specific power distribution needs. Types of PDUsBasic PDUs: Description: These are simple power distribution devices that provide reliable electricity to multiple outlets within a rack, similar to a power strip. Use Case: Ideal for small setups where advanced features are not necessary.

They are cost-effective and suitable for predictable power loads.

Metered PD

Us: Description: Equipped with built-in energy meters, these PDUs allow for real-time monitoring of power consumption at the unit level. Use Case: Useful for mid-sized to large data centers that require better visibility into power usage for energy efficiency planning.

Switched PD

Us: Description: These PDUs combine metering capabilities with remote switching functionalities, allowing users to control power at the outlet level. Use Case: Perfect for dynamic workloads where IT professionals need to reboot servers or shut down unused equipment remotely, helping with troubleshooting and energy conservation.

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Managed PD

Us: Description: The most advanced type, managed PDUs offer comprehensive monitoring, alerting, and automation tools alongside metering and switching capabilities. Use Case: Ideal for high-density, mission-critical data centers that require precise control and insights into power usage, ensuring optimal performance and reliability.

Importance of PD

Us in Data CentersPDUs play a crucial role in ensuring reliable power delivery to critical IT equipment, helping to minimize downtime and optimize energy use. They are essential for managing the complex power needs of modern data centers, contributing to operational efficiency and cost reduction. By understanding the different types of PDUs and their functionalities, data center managers can make informed decisions about which power distribution solutions best fit their specific needs and configurations.

Article Content

PDU in Data Centers: Types, Features & How to Choose

Data center PDUs distribute power from UPS or utility-backed systems to rack equipment. This guide explains PDU types, key features,

PDU Types in Data Centers: Basic, Metered, Switched & Intelligent

Explore different PDU types used in data centers, including basic, metered, monitored, switched, and intelligent PDUs. Learn features, benefits, and top suppliers.

4 Types of PDU in Data Centers: Overview and Features

Main Types of PDUs Used in Data Centers Different PDU types provide varying levels of visibility, control, and operational efficiency. The comparison below outlines the key differences

Understanding the Different Types of PDUs in Data Centers

We''ll look at four types of power distribution units (PDUs): basic, metered, monitored, and switched, and how their features and benefits differ.

Types of PDUs in Data Centers: Overview and Features

Explore all types of PDUs in data centers—basic, metered, monitored, and smart. Learn features, differences, and how to choose the right PDU for your needs.

What Are the Different Types of PDU?

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Explore the differences between basic, metered, switched, managed, and smart PDUs—and discover which power solution best fits your data center''s needs.

What Is a PDU in Data Centers and Why Is It Important?

Learn about PDUs in data centers: types, functions, benefits, and why they''re crucial for reliable, efficient power distribution. Optimize your setup!

White Paper Power Distribution Units (PDUs) in Data Centers

The evolution of PDUs reflects broader Data Center trends: from low-density setups (0-4 kW per rack) to extreme high-density environments (16+ kW per rack), driven by technologies like blade servers and

Best PDUs for Data Centers 2026

Explore the best PDUs for data centers in 2026. Compare rack, switched & intelligent PDU options, key features, and top brands like APC, Raritan & Vertiv to find the right fit for your

Complete Guide for Power Distribution in Servers, Racks, and Data

Understanding the fundamental differences between single-phase and three-phase power systems is crucial for selecting appropriate PDUs and planning data center power infrastructure.

Latest Research on Data Center Type in the Data Center PDU Market

"Data Center PDU Market" The Data Center PDU Market is projected to reach USD 14.23 billion by 2032 from USD 4.89 billion in 2026, at a CAGR of 19.5% from 2026 to 2032. The report " by

What is an Intelligent PDU?

What is an Intelligent PDU? There are two types of Power Distribution Units (PDUs), the basic type and the intelligent type. While both can provide reliable power distribution to critical IT equipment within a

Discover our Legrand Data Center solutions

Reliable, efficient and sustainable data center solutions Legrand delivers highly customizable, modular infrastructure for power, cooling, containment, and data networks—engineered for performance,

The Basics of Electrical Data Center Design in 2025

What is data center electrical design? Data center electrical design encompasses the complete system of components and infrastructure that

NVIDIA HGX Platform: Data Center Physical

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Detailed specifications – such as rack dimensions, sensor placement, PDU circuit ratings, weight/load limits, environmental setpoints (ASHRAE guidelines), and

Types of Rack PDUs: Finding the Best Fit for Your Data Center

At first glance, choosing a Rack Power Distribution Unit (rPDU) might seem like it has little bearing on data center performance. However, the enormity of this decision becomes apparent upon

Powering AI: The Semiconductor Ecosystem at the Foundation of Data Centers

These advancements have catalyzed the rise of AI data centers. While traditional data centers have existed for decades to manage enterprise IT operations, web hosting, and storage, modern AI data

Server Technology PRO4X Rack Power Distribution Unit (PDU)

PRO4X PDUs Data Centers run many different applications, often multiple in the same room, with varying power needs and server connection types. The more varied the data center is, the more

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