

AC Function PoE Switch



Summary of Content

PoE switches typically operate on AC power input but deliver DC power to connected devices over Ethernet cables.

Overview of PoE Switch Functionality

A PoE (Power over Ethernet) switch is a network switch that provides both data connectivity and electrical power to devices such as IP cameras, VoIP phones, wireless access points, and IoT devices through a single Ethernet cable . This eliminates the need for separate power adapters, simplifies installation, and allows devices to be deployed in locations without nearby power outlets .

AC Input and DC Output

PoE switches are generally powered by AC (Alternating Current) from the mains supply. Internally, the switch converts this AC input into DC (Direct Current), which is required to power connected devices . DC is used because it is compatible with Ethernet transformers, avoids interference with data transmission, and is more energy-efficient for powering electronic devices . While the switch itself uses AC from the wall outlet, the PoE output delivered to devices is DC, typically following IEEE standards such as 802.3af, 802.3at, or 802.3bt .

PoE Standards and Power Delivery

PoE switches support different power levels depending on the standard:

- PoE (IEEE 802.3af): Up to 15.4 W per port
- PoE+ (IEEE 802.3at): Up to 30 W per port

Article Content

Understanding the PoE Function of APs

PoE works with the uninterruptible power supply (UPS) to provide redundant power supply for devices such as IP

What is Power over Ethernet (PoE)?

Power over Ethernet (PoE) is a technology for delivering DC power to devices over copper Ethernet cabling, without separate power

What is a PoE Switch? Learn PoE Switch Benefits & Applications 2025

Learn everything about PoE switches-how they work, their key benefits, common applications, limitations, and how to

Do All Ethernet Switches Need Power? Understanding PoE

Explore whether Ethernet switches need power, how PoE works, and why businesses rely on switches for speed,

Power over Ethernet

4PPoE provides power using all four pairs of the connectors used for twisted-pair Ethernet. This enables higher power for

Configuring Power over Ethernet

The switch detects a Cisco prestandard or an IEEE-compliant powered device when the PoE-capable port is in the no-shutdown

A Comprehensive guide to PoE Switches and their Uses

What Are the Functions of a PoE Switch? A PoE (Power over Ethernet) switch performs multiple essential functions in modern

PoE Switch Tutorial: Simplifying Network Power Management

What is a PoE Switch? A PoE switch is a network switch that utilizes PoE technology to transmit power and data over

Is PoE AC or DC Voltage?

PoE switches use DC voltage over AC voltage because the alternating current is not favorable for the electronic

UniFi Pro PoE Switch Datasheet

Near-Silent Cooling The UniFi Pro PoE Switch can be located in any workspace. Its integrated fans have built-in PWM (Power

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://benniedesignstudio.co.za>

Email: sales@benniedesignstudio.co.za

Phone: +27 82 391 4765

Address: The Towers, 1 St Georges Mall, Cape Town, 8001, South Africa

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