

How to select the power supply for the core switch



Overview

To select the correct power supply, calculate both base consumption and PoE requirements. Base Switch Consumption: Check Cisco documentation for the switch's base power draw without PoE devices. Whether you're deploying Catalyst 9300 at the access layer, Catalyst 9400 in the distribution layer, or Catalyst 9500 at the core. This article provides a comprehensive guide on how to select the right power supply topology for processors, microcontrollers, and high power signal chains. It highlights the critical role of efficient and reliable power conversion in the signal chain and emphasizes the significance of these. Switch-mode power-supply design can be a mysterious thing because there is a great variety of topologies and controller types from which to choose. Every new electronic product, except those that are battery powered, requires converting off-line 115 Vac or 230 Vac power to some dc voltage for powering the electronics.

Article Content

Dec 17, 2025

How to Choose a Core Layer Switch?

As the core backbone layer of the entire network architecture, the core layer bears the traffic transmission of the entire

Nov 29, 2025

SMPS Design: Switching Power Supply Circuits and Schematics

Your guide to switching mode power supply (SMPS) design. A tutorial and a collection of resources: schematics, theory of operation,

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SMPSRM.rev4

Whether you are an experienced power supply designer, designing your first switching power supply or responsible for a make or

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How to Choose the Right Core Switch for Enterprise Network?

Core switches lie at the heart of the enterprise networks and take the duty for high-speed routing and switching.

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Core Switch vs. Distribution Switch vs. Access Switch

Comprehensive guide to Core, Distribution, and Access Switches. Roles in the network and important parameters explained.

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Cisco Switch Selector

Quickly identify the right Cisco switch for your needs, whether you're looking for a new switch or upgrading an old one for an

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How to Build a Switch Mode Power Supply

Learn the benefits of switch mode power supplies, how they work, and how to build them. Complete with schematics and detailed

Nov 27, 2025

Selecting the Suitable FS PoE Switch for Your Core Layer

Moreover, a PoE core layer switch supports PoE functionality, enabling it to power devices such as IP cameras, VoIP phones, and

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What is Core Switch and How to Choose

This article will explore the core switches and provide valuable insights on how to choose the ideal core switch for

Jan 12, 2026

How to Approach a Power-Supply Design – Part 1

In this blog series I will describe how to pick the most fitting power supply topology for your application and what you need to know to

May 25, 2026

SMPS Power Supply Topologies: Comparison and Selection

The right switching power supply topology for a given application should be selected based on specific requirements for the power

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Understanding Core Switch: What It Is and How to Choose the

In the realm of system networking, three key types of switches are frequently mentioned: access switches, aggregation

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Why do some SMPS power supplies require an input voltage select switch ...

I have 2 SMPS power supplies near me. One is an ATX power supply, the other is for a 3d printer. They both are rated

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Core Switch 2/64 V4.1 Installation Guide

Part Number: AA-RS2WC-TE This installation guide provides procedures for setting up, configuring, and managing the Core Switch

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Understanding Core Switch: What It Is and How to Choose the Right

A core switch is not merely a type of switch but rather denotes the switch that operates at the core layer (the network's

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Core Switch & Edge Switch: How to Choose the Right One?

While a core switch also needs to support link aggregation to ensure adequate bandwidth coming into the core from the

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Magnetic Cores for Switching Power Supplies

Magnetic Cores for Switching Power Supplies Magnetix offers one-stop shopping for magnetic cores in a multitude of materials,

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16 Ways to Design a Switch-Mode Power Supply

Building a power supply used to be relatively straightforward, but with switch-mode methods dominating these days, it

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What Is a Power Supply Voltage Switch?

The power supply voltage switch, sometimes called the voltage selector switch, is a small switch located on the back

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Core Switch

Core switches are defined as high-capacity switches located at the top of a cloud data center network, connecting aggregation

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Magnetic Cores For Switching Power Supplies

This article describes the various magnetic materials used for cores in switching power supplies, their method of manufacture, and

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How to Choose Power Supplies for Cisco Catalyst 9300/9400/9500

Learn how to select the right power supplies for Cisco Catalyst 9300, 9400, and 9500 switches. Understand power types,

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How to Select Supply Topology for Processors, Microcontrollers, and ...

This provides comprehensive guide on how to select the right power supply topology for processors, microcontrollers,

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Difference between a core switch and "normal" switch?

What's the difference between a Core Switch and a normal switch? I have 4 switches in a stack that everything connects to. This is

Aug 29, 2025

How to Approach a Power-Supply Design – Part 1

Switch-mode power-supply design can be a mysterious thing if you do not know how and where to start, because there is a great

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Enterprise Campus Network Core Switch Selection FAQ: Expert

Enterprise Campus Network Core Switch Selection FAQ: Expert Answers to Technical & Deployment Questions Overview &

Apr 02, 2026

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It describes the basic operation of the more popular topologies of switching power supplies, their relevant parameters, provides

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Fundamentals of designing with MOSFET power switches

Of course, each of these need power switching solutions with different characteristics. This article summarizes

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How the Smart Hardware Engineer Can Easily Design Power

This mini tutorial covers the basics of power supply design by giving an overview of the most common topologies and

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How to select a power supply

To select the proper power rating of your power supply, add up the current ratings of the devices you will run with the

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Choosing Your Core Switches – Majornetwork

And that is FabricPath especially with Nexus 5500 switches. How cool would it be to easily implement L2 topologies

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How to Approach a Power-Supply Design

Switch-mode power-supply design can be a mysterious thing because there is a great variety of topologies and controller types from

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Power Supply Redundancy In Core Switch

How important is redundant power supplies in core switches / single switch environments? I have a customer that has

Contact Us

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