380V High-Frequency Switching Power Supply for Industrial Ethernet

Overview

SW21 switching power supplies are direct current converters made for industrial applications with high frequency PWM control and use of IGBTs. Designed and built for ...

Key Takeaways

380V high-frequency switching power supplies provide efficient, compact, and reliable power for industrial Ethernet devices, supporting high performance and protection standards. OverviewHigh-frequency switching power supplies designed for industrial Ethernet applications convert 380V AC or DC input into stable DC output suitable for switches, routers, and industrial computing devices. These power supplies are optimized for high efficiency, low ripple, and precise voltage/current regulation, making them ideal for automation and industrial networking environments.

Key Features

Input Voltage: Typically 380V AC or DC, with some models supporting a range of 380–500V AC or ±10% tolerance for DC. Output Voltage and Current: Common outputs include 24V DC at 40A (960W) for industrial devices, with adjustable voltage/current options in high-frequency models.

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High-

Frequency Switching: Uses PWM control and IGBT technology for high efficiency (up to 90%), compact size, and low power loss. Protection Features: Overload, short-circuit, and over-temperature protection with automatic or manual restart. Mounting: DIN-rail mountable for easy integration into industrial panels.

Environmental Tolerance: Operating temperatures from -40°C to +85°C in some models, with derating at higher altitudes. Compliance: Meets CE, UL, cULus, IEC, and other industrial safety standards.

Applications

Industrial Ethernet Switches and Routers: Provides stable power for PoE-enabled switches and industrial gateways. Automation Systems: Powers PLCs, sensors, and actuators in factory automation.

High-

Precision Industrial Equipment: Supports devices requiring low ripple and high stability, such as measurement and control systems.

Product Examples

Schneider Electric Regulated Switch Mode Supply: 380–500V AC input, 24V DC output at 40A, 960W, DIN-rail mountable, with full protection and compliance certifications.

High-

Frequency PW

M Switching Units (HFT Series): Adjustable voltage/current, low ripple, high stability, suitable for industrial DC conversion and automation control. Cisco Industrial DIN-Rail Power Supplies: Rugged AC/DC options for industrial Ethernet switches and routers, supporting PoE and extreme temperature ranges.

Considerations for Selection

Power Requirements: Match output voltage and current to your industrial Ethernet devices. Environmental Conditions: Ensure the supply can operate within your temperature and altitude range. Efficiency and Ripple: High-frequency switching units offer better efficiency and lower ripple, critical for sensitive electronics.

Compliance and Safety: Verify certifications for industrial standards and protection features. Mounting and Integration: DIN-rail compatibility simplifies installation in control panels. These 380V high-frequency switching power supplies provide reliable, efficient, and compact solutions for powering industrial Ethernet networks and automation systems, ensuring stable operation under demanding industrial conditions.

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Article Content

High-frequency power supply

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High-power power supply

Electronics PFHI 1K-FXW series of high input voltage, wide input range AC-DC switched-mode power supplies with active power factor correction (PFC) are designed for 1kW industrial applications.

Power Supplies

EtherWAN''s Industrial Power Supplies are designed to be mounted on the DIN-Rail easily and used with EtherWAN''s Hardened or Industrial Ethernet Switch, Media Converter, and Ethernet Extender series

380v switching power supply

The 380V switching power supply is a cornerstone of modern industrial electrical systems, offering high efficiency, stable output, and compact design. Its ability to convert AC mains power into reliable DC

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Switching Power Supplies

Find the perfect switching power supply for high-efficiency power testing. Get compact, lightweight, and energy-efficient solutions for industrial, R&D, and automated applications.

S8VK-WB Switch Mode Power Supply (240/480/960-W Models

Switch Mode Power Supply (240/480/960-W Models) Even more compact three-phase 380 to 480 V input power supplies. Reduces wiring work with the Push-In Plus terminals. With a line-up

Power supplies | PULS

PULS designs and manufactures efficient and compact DIN rail power supplies, for industrial 1-phase and 3-phase systems as well as DC/DC converters. For more

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IEC homepage

IEC everywhere for a safer and more efficient world. The IEC is a global, not-for-profit membership organization that brings together more than 170 countries and

Mixed-signal and digital signal processing ICs | Analog

RF, digitizer, and signal processing solutions enable the design of high performance, low power radar systems with a wide variety of architectures and frequency bands.

ATH630D45N4

Schneider Electric Thailand. ATH630D45N4 - variable speed drive, Altivar HVAC ATH600, ATH630, 45kW, 60hp, 380 to 480V, 3 phase, IP21, UL type 1.

Switch mode power supplies

Switch Mode Power Supply (240/480/960-W Models) S8VK-WB Even more compact three-phase 380 to 480 V input power supplies. Reduces wiring work with the Push-In Plus terminals. With a line-up that

380v switching power supply

Discover high-quality 380V switching power supplies, from $12 to $2175, ideal for stage lighting, UV curing, and more. Suitable for distributors, with pricing starting at just 1 unit.

High-frequency power supply

Find your high-frequency power supply easily amongst the 52 products from the leading brands (Wisman High Voltage Power Supply, Voita, Kikusui, ...) on

MEAN WELL High Voltage DC (HVDC)Output: 115/230/380V Power Supply

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Industrial Ethernet Switches

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Provides an overview of deploying PoE in an industrial environment, exploring how this sector can benefit from PoE technology and describing the PoE capabilities offered by Cisco

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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