Price quote for 48V off-grid power supply system for telecommunications sites



Overview

'-48VDC Rectifier System up to 3kW Telecom Applications » Helios Smart HelSys system is a compact and intelligent power system, it can house up to 3 rectif.

Key Takeaways

48V off-grid telecom power systems typically range from 1kW to 100A+ capacity, with pricing dependent on system configuration, battery type, and site requirements.

System Overview

A 48V off-grid power supply system for telecommunications generally includes: Rectifiers and DC power modules: Convert AC input to regulated -48V DC for telecom equipment. Modern rectifiers use high-frequency switching technology with efficiencies up to 95% and active power factor correction for stable output (Helios, EverExceed, Alibaba). Battery backup: Supports uninterrupted operation during AC outages.

Systems can integrate $LiFePO_4$ lithium batteries or sealed lead-acid batteries, offering long life, reduced maintenance, and high reliability for remote sites (Nuranu, KDS Electrical). Monitoring and control: Advanced systems include controllers with LLVD/BLVD, temperature compensation, auto voltage regulation, current limitation, battery capacity calculation, and online battery testing. Remote monitoring is supported via RS232, Ethernet, or dry contacts.

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Modular and scalable design: Systems can be customized for indoor or outdoor deployment, with modular construction allowing easy replacement or expansion of rectifiers, inverters, or battery modules. Protection features: Over-voltage, over-current, short-circuit, and over-temperature protection ensure safe operation and prevent equipment damage. Typical ConfigurationsSmall-scale systems: 1kW rectifier with 48V battery bank, suitable for micro base stations or small telecom shelters (Helios HelSys).

Medium-scale systems: 48V 30A to 100A DC systems with integrated battery backup, ideal for standard BTS or edge data centers (Alibaba, KDS Electrical). Hybrid or renewable systems: Incorporate solar MPPT converters or hybrid energy sources for off-grid or remote sites, ensuring continuous operation in harsh environments (EverExceed ERP Series).

Pricing Considerations

Exact pricing depends on: System capacity: Higher wattage or amperage increases cost. Battery type and capacity: $LiFePO_4$ batteries are more expensive upfront but reduce long-term OPEX due to longer life and lower maintenance. Customization: Outdoor enclosures, hybrid energy integration, and advanced monitoring features add to the cost.

Quantity and supplier: Bulk orders or partnerships with manufacturers like Helios, EverExceed, or Nuranu may reduce unit cost. For a precise price quote, it is recommended to contact manufacturers directly with your site requirements, including load profile, backup duration, environmental conditions, and preferred battery technology.

Recommendation

For small to medium telecom sites, a 48V 30–100A system with $LiFePO_4$ batteries and integrated monitoring is typically sufficient. For remote or off-grid sites, consider hybrid systems with solar integration and weatherproof enclosures. Request custom quotes from multiple suppliers to compare costs, warranties, and service support.

This approach ensures a reliable, efficient, and cost-effective 48V off-grid power solution tailored to your telecommunications site needs.

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Article Content

''-48VDC Rectifier System up to 3kW Telecom Applications » Helios

Smart HelSys system is a compact and intelligent power system, it can house up to 3 rectifiers of 1kW and 1 Hel-SC501 controller. Integrated DC system capability with controller and distribution module

Telecom Power System,Rectifier System,BTS Power

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Off-grid power supply for remote sites

The EasySolar combines a 250/70 MPPT Solar Charge Controller, a MultiPlus inverter-charger 48V/3000VA/35-32, GX device in one enclosure. The product is easy to install, with a minimum of

48VDC Solar DC Power System for Telecom Base

It can provide reliable power supply in the case of a power failure completely in plant or substation. The traditional DC systems connect battery

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Building a Better –48 VDC Power Supply for 5G and Next ...

The telecom DC power system typically includes the national electricity grid system, a diesel generator, a self-acting AC automatic transfer switch (ATS), a power distribution system, solar panels or boards,

Telecom Power System,Rectifier System,BTS Power

Discover EverExceed reliable -48V DC telecom power system for indoor,outdoor hybrid telecom BTS power solutions with telecom rectifiers lifePO4 batteries.

-48VDC Power and the Backbone of the Telecommunications Industry

Throughout the history of the telecommunications industry, -48VDC has been the mainstay. In this blog, Servertech discusses -48VDC historically, and in new 5G networks.

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Why is -48 VDC the Unsung Hero of Telecom Infrastructure? Part 1 of 3

Since most telecommunications equipment at the site requires a DC voltage supply, the AC power from either the electric grid or the diesel generator is converted to -48 VDC by the

48V 36kW Hybrid Solar Rectifier System

48V DC 36kW 600A Hybrid Solar Rectifier System Hybrid Solar 48V 600A Telecom DC Power Supply Model No.: BP-DC48600H PV Solar Input Voltage: 120Vdc-420Vdc AC Input Voltage: 90-290V

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