

# 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<sub>4</sub> 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.



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 Configurations Small-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<sub>4</sub> 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<sub>4</sub> 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.

## 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.

Solar Power Solutions for Cellular Towers

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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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