

500kW Three-Phase Grid-Connected Solar Inverter

This 500kW three-phase inverter is designed for grid-connected photovoltaic systems. It converts DC power from solar panels into AC power suitable for grid injection.



Overview

High-Efficiency Solar Power Conversion

This 500kW three-phase grid-connected solar inverter is designed for large-scale commercial and industrial applications. It efficiently converts DC power from solar PV modules into synchronized AC power for grid injection or local load supply. The system features advanced control algorithms and robust protection mechanisms to ensure reliable energy conversion even during periods of low solar radiation.

Key Performance Metrics

Performance Highlights

500 kW

Rated Power

3

Phase

Technical Specifications

System Type	Three-Phase Grid-Connected
Energy Source	Solar Photovoltaic (PV) Modules

Operation & Control

Functional Capabilities

- DC to AC conversion
- Frequency and phase synchronization
- Voltage matching
- Advanced control algorithms
- Comprehensive monitoring

Protection Features

Robust Protection • Grid-Connected Safety • Load Management

Application Details

Grid & Load Integration

The inverter output parallels with the low-side of substation transformers within distribution cabinets. Excess power is fed directly into the grid, while the system can draw from the mains supply to support loads during rainy days or low sunlight conditions.

Ideal Installations	Large-scale Commercial, Industrial Solar, Substation Integration, Renewable Energy Systems
---------------------	--