

5kW Wind Turbine Generator

This 5kW wind turbine generator is designed for residential or light commercial use. It utilizes a three-blade rotor and tail fin for efficient energy capture and wind tracking.



Overview

High-Efficiency 5kW Wind Turbine

This 5kW wind turbine generator is engineered for reliable energy production in residential or light commercial applications. Featuring a robust three-blade design constructed from enhanced fiber glass, it ensures efficient energy capture across a wide range of wind speeds. The unit utilizes a three-phase permanent synchronous generator and includes advanced safety mechanisms such as mechanical yaw, electromagnetic braking, and unloading systems to ensure longevity and operational stability.

Performance Metrics

Rated Power

5000 W

Rated Power

240 V DC

Rated Voltage

Wind Speed Specifications

Wind Speed Ranges

Wind Condition	Speed
Start Wind Speed	3 m/s
Rated Wind Speed	10 m/s
Operational Range	4 - 25 m/s
Safety Wind Speed	40 m/s

Technical Construction

Rotor Specifications

- Rotor Diameter: 6 meters
- Blade Quantity: 3
- Blade Material: Enhanced fiber glass
- Rated Speed: 260 r/min

Generator Type

Three-phase permanent synchronous generator

Safety & Environment

Safety Mechanisms

Mechanical yaw, Electromagnetic brake, Mechanical braking, Unloading system

Operating Temperature Range

-25°C to +45°C

Installation

Installation Requirements

- Recommended Battery Capacity: 12V 150Ah x 20 pieces
- Wiring Specification: 4mm² (RVV)
- Wiring Length: 15 meters
- Tower Type: Independent tower

Certifications

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CE • RoHS • SGS