

EEDWG Series

## 5KW Wind Turbine Grid-tie Inverter Single Phase

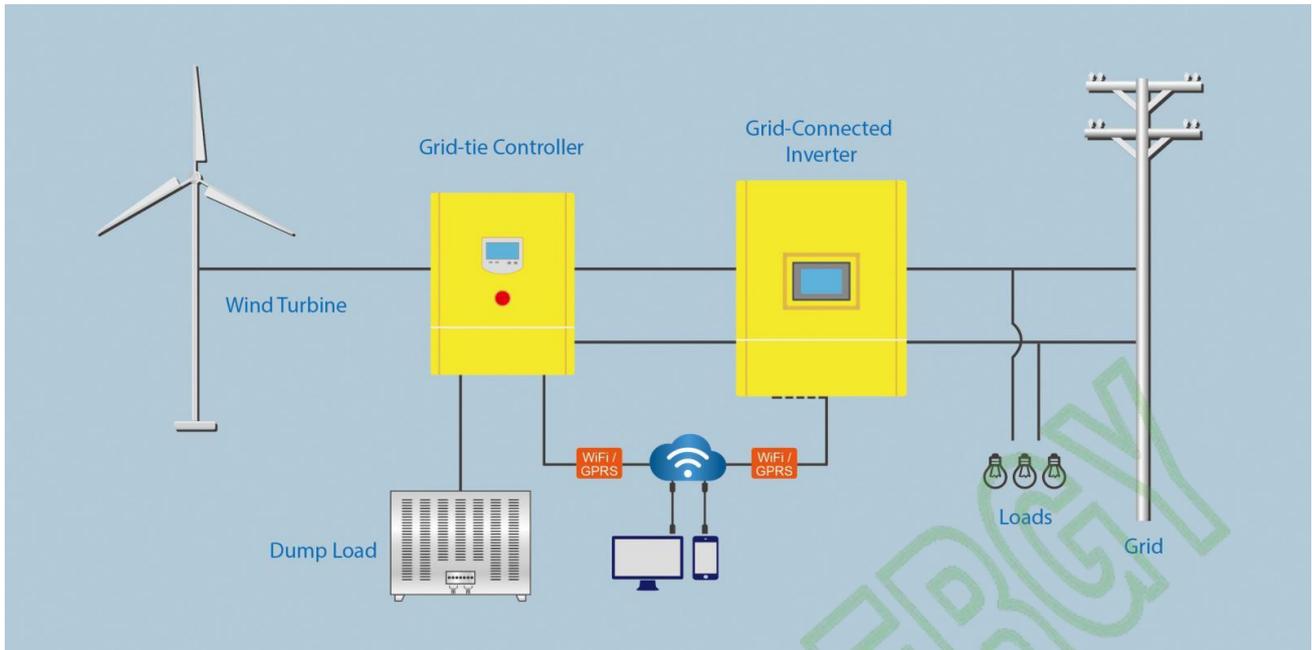


## General Introduction:

The On grid wind turbine system is composed of wind turbine, on grid controller, on grid inverter, metering device, and power distribution system. Wind energy is converted into AC electrical energy by the wind turbine, and then converted into DC electrical energy by the on grid controller, and then DC electrical energy is converted into AC electrical energy of the same frequency and phase as the grid by the on grid inverter, and part of the power is supplied to the local load. Surplus power is fed into the grid.

## Product advantages:

1. The main circuit uses the DSP chip produced by the American TI company, German Infineon IGBT module, drive protection is the Japanese Mitsubishi movement, and the on grid output part use isolation transformer, which is safe and reliable;
2. Using SPWM pulse width modulation technology, pure sine wave output, automatic synchronous tracking with the grid, power factor close to 1, low current harmonic content, no pollution to the grid, no impact;
3. Wind turbine input maximum power tracking technology (MPPT)
4. The power curve of the wind turbine can be set, the default is 20 points, and the internal expansion is 50
5. 7-inch color touch screen display, system operation data and fault information at a glance, and convenient parameter setting;
6. On grid inverter current closed-loop control, controllable and adjustable;
7. The input DC voltage range is wide, adapt to the needs of different occasions;
8. Frequency disturbance detection technology to realize anti-island control;
9. The comprehensive power protection scheme and perfect self-detection and protection functions will stop the on grid inverter when a system failure occurs.
10. Circuit structure is compact, the maximum efficiency $\geq$ 98%
11. Support RS485, WiFi, GPRS, Ethernet and other communication methods. You can monitor the working status of the on grid wind power generation system in real time through the PC or mobile phone, and you can also query the historical working status. The mobile terminal is compatible with Android and IOS. All data can be connected to the Internet of Things.



### Technical Parameters

Type	EEDWG-5KW
Rated output power (AC)	5KW
Max. Output power (AC)	5.5KW
Input voltage rang (DC)	0-450V
MPPT Voltage range (DC)	100V-400V
Max. Input current (DC)	18.7A
Rated current	17A
THD Current harmonic	<3% ( at rated power)
Power factor	> 0.99
Max. efficiency	98%
Allowable grid voltage range (AC)	110V/120V/220V (Single-phase)±20%
Allowable grid frequency range	50Hz/60Hz±10%

Automatic operation conditions	DC input and power grid meet the requirements, the inverter operates automatically
Restart time after power failure	5min(adjustable)
Automatic protection	Polarity reverse connection protection, short circuit protection, island effect protection, LVRT, overheat protection, overload protection, ground fault protection, etc
Display	Touch screen, LCD
Protection level	IP20 ( Indoor ) IP65 (Outdoors)
Telematics	RS485/USB/GPRS/WIFI/Ethernet (optional)
Environment	Operating amb. Temp. & Hum -30-60 ℃ , < 90% no condensation
Noise (1m)	< 40dB
Refrigeration mode	Forced air cooling
Inverter size / weight	450*275*770mm      44kg

\* Above parameter only for reference. Could be custom made to user specifications.

## APP

APP is intelligent terminal for hybrid wind solar power, PV power station monitoring and management person. It helps users to master power station running status at anytime and anywhere, realize remote data monitoring of hybrid wind solar power and PV power station, ensure convenient management and monitoring timeliness. System displays hybrid wind solar power station and PV power station running data by visual table, includes power station power generation, benefit, CO2 emission reduction benefit, equipment running status, equipment real-time data, history data query, power generation comparison, equipment performance comparison. As fashion and intelligent application, it can let user demonstrate his hybrid wind solar power station and PV power station at any occasion, user has intuitive feeling, enhance user confidence.

- Various data output interface, support Android, iphone, ipad, windows, macOS
- Delicate and precise data, easy to operate, download and install, Wechat binded, real-time monitoring, data synchronization
- 24-hour monitoring
- Low maintenance cost
- Power station information sharing function



## Optional Parts



1.RS485 to WIFI



2.RS485 to GPRS



3.RS485 to Ethernet



4.RS485 to USB

**Project Sample:**

