

EEBES Series

## 20KW Wind Turbine Bidirectional Inverter



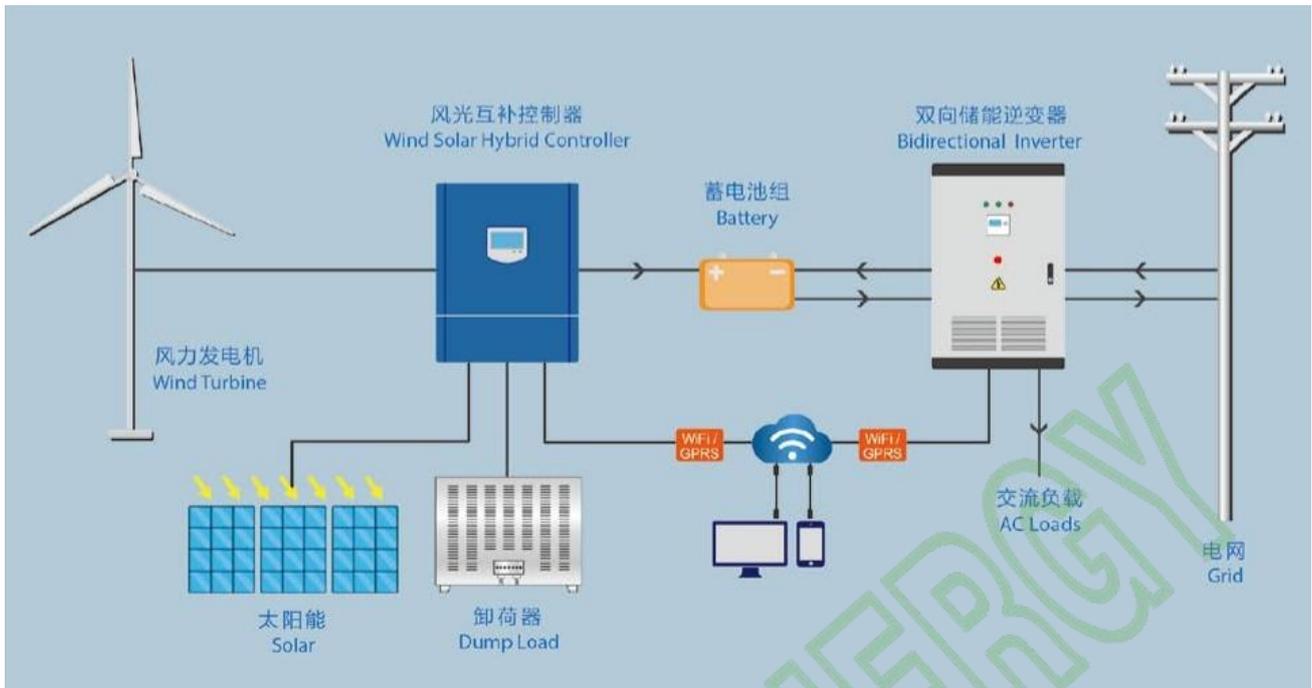
## General Introduction:

Engelec Power energy storage products and system solutions solve power supply problems in areas with no and weak electricity, and achieve smart power supply and demand allocation. This system is designed for three-phase energy storage system, which can realize the functions of on grid power generation, off-grid inversion, and city powers reverse charging. If the power grid is disconnected, the storage system can automatically and seamlessly switch to off-grid operation mode to ensure uninterrupted power supply.

- ✧ Power peaking and valley filling. Meet various needs of customers;
- ✧ Smooth output power, improve the proportion of grid acceptance;
- ✧ Ensure electricity safety;

## Product advantages:

1. The 32-bit DSP (Digital Processor TI 2812) +ARM (Touch Screen Master Chip) platform is used for touch screen display and operation, which facilitates field operation and parameter setup. The core driver of DSP control and ARM realize peripheral functions such as display and communication to improve power reliability.
2. Support RS485, WiFi, GPRS, Ethernet communication, satisfy customer remote monitoring and other functions; can display AC and DC side voltage, current, operation mode, operation status, fault information, and can upload related data to the Internet of Things platform through the communication interface, and can start and stop power supply, parameter settings and other operations through the computer or mobile phone;
3. Adopt three-phase four-bridge arm structure, which can carry 100% unbalanced load; ;
4. Designed for smart grids and smart micro grids, accept grid dispatching, cut peaks and fill valleys ;
5. Meets the access of lead-acid accumulator, lithium power, super capacitor, vanadium battery and other different energy storage forms, and has a wide range of applications.



## Technical Parameters

Type	EEBES-20KW
<b>AC Side parameters</b>	
Operation mode	Continuous
AC wiring mode	Three phase four wire
Rated output power	20KW
Output overload capacity	22KW
<b>DC Side Parameters</b>	
Maximum DC power	22KW
DC voltage range Vdc	200-800Vdc
Voltage accuracy	±1%
Steady flow accuracy	±1%
DC current ripple	<5% IPP

<b>On Grid charging and discharging mode (Constant power)</b>	
Rated grid voltage ( AC )	220V / 380V / 440V
Grid voltage range	±20%
Rated grid frequency	50Hz / 60Hz
Grid frequency range	±10%
Rated power ( THD )	<3% (Standard grid)
Power factor	≥0.99 (Rated power)
<b>Independent inverter mode</b>	
Rated output voltage ( AC )	220V / 380V / 440V ±1%
Output voltage distortion	<1% (resistive load)
Rated output frequency	50Hz / 60Hz ±1%
Voltage transition range	<10% (Resistance load 0% <=>100%)
Load imbalance	100%
<b>System Parameters</b>	
Max. conversion efficiency	97%
Noise	<60dB
Protection Degree	IP21
Working Temperature	- 25°C ~ +45°C
Cooling method	Air cooling
Working humidity	0 ~ 95%
Working altitude	≤6000m, ( Reduced usage for more than 2000m )
Emergency stop	Yes (via emergency stop button)
Display	Touch screen

Communication mode	RS485、WIFI、GPRS、Ethernet (Modbus protocol)
Dimensions	690*275*770mm
Weight	58KG

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

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## 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:**

