Horizontal Wind Turbine G-Series RX-10KG 10kW

EN

What is the advantage of horizontal wind turbine?

1. Higher Power Output: Horizontal wind turbines have a larger blade and rotor radius, which allows them to generate more power compared to vertical wind turbines.

2.Lower Cost: Horizontal-axis wind turbines are much more widely used and mass-produced, which leads to lower manufacturing costs.

3.Compatibility with existing infrastructure: Horizontal-axis turbines are more easily integrated into existing power grids and infrastructure since they generate power in the same way as traditional power plants.

4.Simpler Maintenance: Horizontal-axis wind turbines have a simpler design and require less maintenance when compared to vertical-axis turbines.

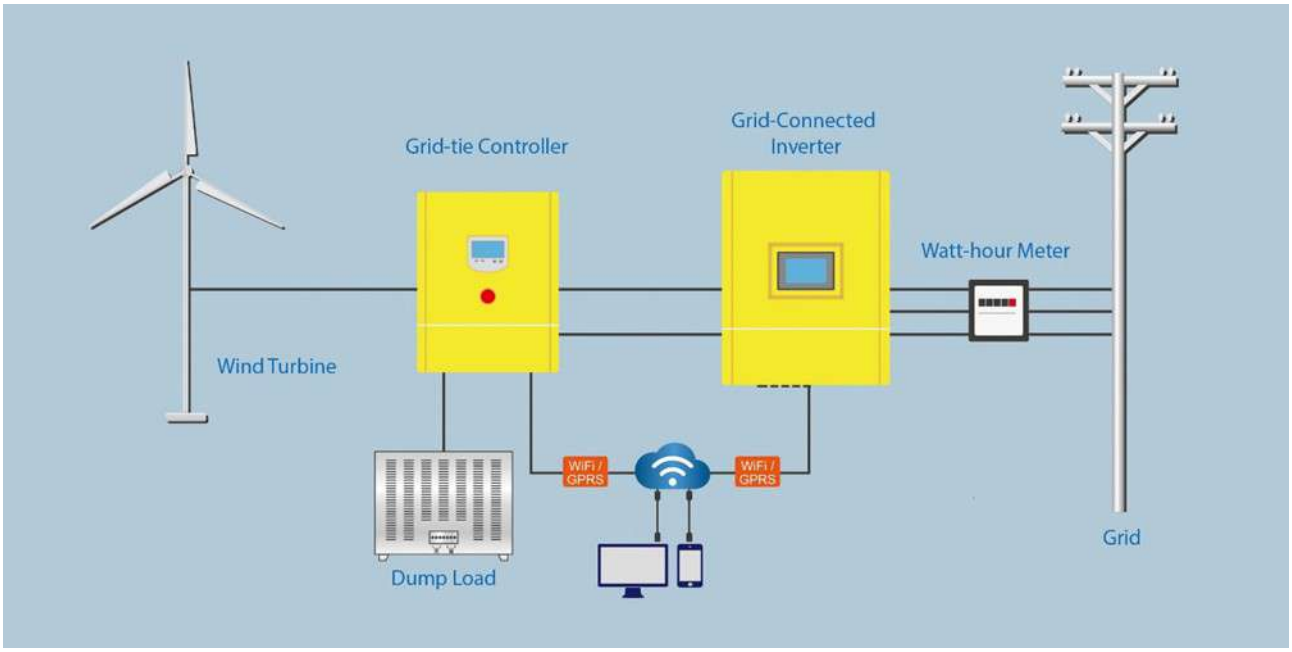
Overall, horizontal wind turbines provide greater efficiency, power output, and lower maintenance costs, making them a more cost-effective and practical option for widespread deployment.

G-Series RX-10KG 10kW

Model	RX-10KG
Rated Power	10KW
Max Power	12KW
Blades Length	2.78m
Wheel Diameter	5.85m
Blades Quantity	3
Rated Voltage	120~380V
Start Up Speed	2.5m/s
Rated Speed	12m/s
Cut-in Speed	3m/s
Survival Speed	45m/s
Blades Material	Glass fiber
Generator Type	Three Phase Permanent Magnet Generator
Working Temperature	-80℃~+80℃
Protection Level	IP54
Working environment humidness	≤90%
Altitude	≤4500m
Tower Type	Guyed Cable Tower
Gross Weight	550kg
Packing List(cm)	50*50*45cm 52*90*46cm 310*33*36cm 90*90*6cm

On grid Wind Turbine Controller 10kW

Functional Description



On grid Wind Turbine Controller

FKJ-GT (Grid-tie) model Product Characteristics

◆ The product is manufactured according the JB/T6939.1-2004 industrial standard and GB/T 19115.1-2003 national standard also with users' technical requirements.

◆ Big LCD display.The images tell working state visually.Various data show: real-time wind turbine voltage、current、solar panel voltage、current、DC output voltage、current,total power generation(The main board is with button battery,in case of power failure, history data can be saved for 30 days)

◆ Two sets of control systems： PWM constant voltage system and three-phase dump load system.

◆ PWM constant voltage control is 120% of the rated power of the wind turbine. In case exceeding of PWM's capacity, the three-phase dump load will automatically start immediately. After 10-20 minutes, the three-phase dump load will stop and the wind turbine will re-start to resume power supply to ensure the safe running of the overall wind turbine generation system.

◆ When the strong or super-strong wind conditions, the controller can conduct constant voltage output to ensure the inverter safety running.

◆ When the condition of disconnected grid-connected inverter, the controller can conduct constant voltage output and wait for inverter resumption.

◆ When the grid is cut off, the three-phase dump load of the controller will automatically start to work and the inverter will stop output to grid. When the grid resuming, the controller stops three-phase dump load and the inverter will resume power supply.

◆ The inside of the controller is equipped with surge protector. Contain the over voltage into the wind turbine under the bearable voltage of the equipment or system. On another way, to conduct the strong lightening current into the earth directly to avoid any damage of equipment.

◆ The controller is equipped with emergency stop switch; in case of emergency, press down the emergency stop

button in the front panel to cut off all power supply of the controller and the wind turbine will immediately brake （three-phase dump load）.

◆ The controller is equipped with manual three-phase dump load switch. To using this switch, the wind turbine will brake (three-phase dump load).

※ Adopt Modbus Communication protocol. Convenient to carry out the secondary development.

※ Adjusting the technical specification via RS485 is available.Convenient to adjust the different wind turbines for professional customers.

※ Support WIFI and GPRS.Customers can monitor the real-time working state of the on grid wind power system via PC and mobile and query history working sate.Both Android and OS are compatible in Mobile.

※ Can increase the solar panel control system according to customer requirements.

※ For the different wind turbine, the controller can be equipped with mechanical yawing, rotate tail control, furled empennage, mechanical brake,

hydraulic brake, electromagnetism brake and other brake functions.

Product Photo

CONTROLLER

Dump load

Technical Parameters

Technical Parameters of the On Grid Wind Turbine Controller 7.5KW

Type	FKJ-GT 10KW
Wind turbine rated power	10KW
Wind turbine Max. power	15KW
Function	Rectifier,control, DC output
Automatic protection function	Over voltage protection, network electric cut off protection, regulated supply output, arrester
Manual function	Manual brake, reset, emergency switch
Display mode	LCD
Display content	Wind turbine voltage, current, power; DC output voltage, DC output current, DC output power, total power.
PWM constant voltage	≥550dc
PWM dump load power	12KW
wind turbine 3-phase dump load voltage	580±5Vdc
Time-lapse of the wind turbine 3-phase dump load	12-20 min
PWM dump load fuse	16A
Fuse of DC output	25A
Work environment temperature	-30-60°C
Relative humidity	＜90% No condensation
Noise (1m)	＜40dB
Degree of protection	IP20(Indoor)
Cooling method	Forced air cooling
*Communication interface (**optional**)	RS485/USB/GPRS/WIFI/Ethernet
Size of the controller (mm)	650*470*340
Weight of the controller	25Kg
Size of the dump load (mm)	750*530*600
Weight of the dump load	44Kg

*Above parameter only for reference

1. Could be custom made to user specifications.
2, Could have solar power control subject to user demand.

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 solarpower 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

Grid-connected inverter
3-10kW grid tie 380V 400V

SPECIFICATION

Grid-connected inverter

Modle		3KW	4KW	5KW	6KW	7KW	8KW	9KW	10KW
Input	Voltage Range	DC 200~820V							
	START VOLTAGE	400VDC (Solar system /Solar-wind system) 300VDC（Wind）							
	Recommend Voltage	620VDC							
	Control System	MPPT							
Output	Normal Output Capacity	3KW	4KW	5KW	6KW	7KW	8KW	9KW	10KW
	voltage range	3-phase AC 380V (in accordance with the requirements of different countries and regions adjusted)							
	Rated Voltage	3-phase 380VAC							
	Normal Frequency	Grid-frequency 50/60Hz（can be set）							
	Number of phases	3 -phase							
	Power Factor	0.95							
	Maximum Current	4.5A	6A	7.5A	9A	10.6A	12A	13.6A	15A
	THD	At rated power and in the sine wave <3.5%							
	Efficiency	97%（Europe Efficiency:96.4%）							
Structure	Protection Class	IP65							
	Cooling System	Fan cooling							
	Noise	<50dB							
	Data Interfaces	External RS 232C							
Protection	Inverter	Input overvoltage,output short circuit overload, overheat,output DC component.							
	Grid	Anti-islanding(IEEE 1547),over/under voltage of grid,over/under frequency of grid.							
Environment	Operation temperature range	Ventilation via rear wall,-10˚C~40˚C（50˚C）							
	Stored temperature	-25˚C~60˚C							
	Relative humidity	0~100% (Do not wet with dew)							
	Environment	Have no corrosion gas, flammable gas,oil mist,dust etc.							
	Standby power consumption	<250mW							
	Altitude	6600 feet (2000 meters) above derating							