



## PITCH CONTROL WIND TURBINE

### Model: RS-PCWT-10KW

#### Applicable scenarios



Telecom



Oil & Gas



Off Grid



Micro Grid



Residential



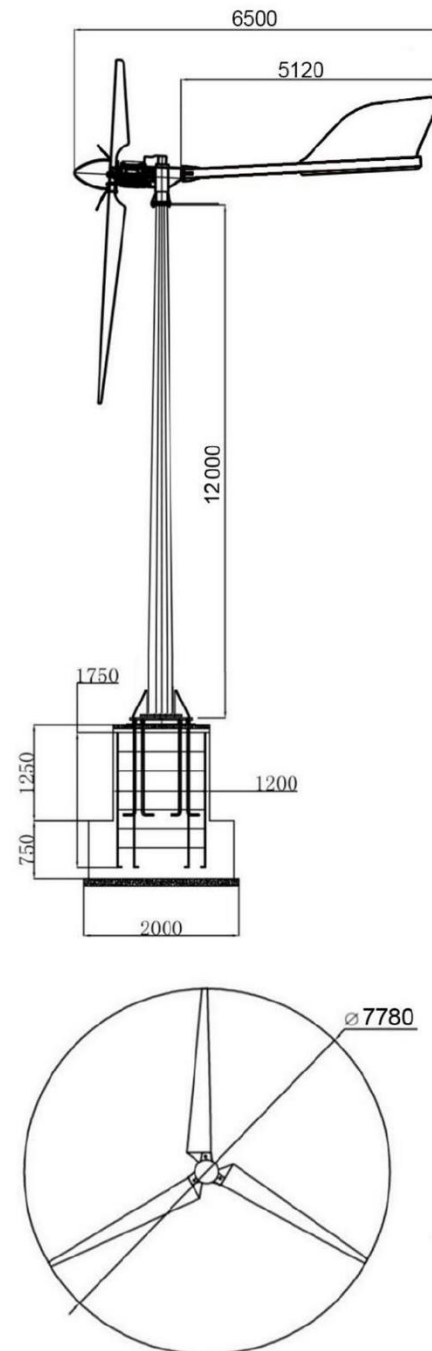
Island Power

#### Advantages

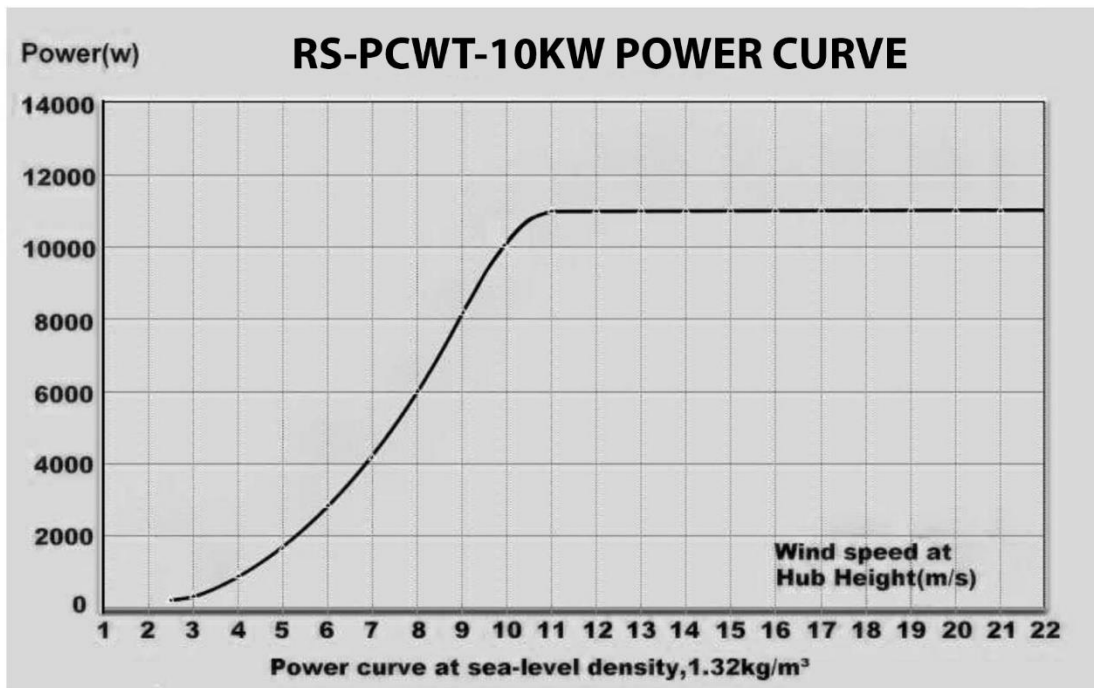
- 30%** More energy output
- 3-5** years Return on Investment
- 30<sub>m/s</sub>** Max working wind speed
- 60<sub>m/s</sub>** Safety wind speed
- UL Intertek** IEC61400-2/IEC61400-12 Veritfield wind farm test report

# Technical specification

Model	RS-PCWT-10KW
<b>Performance</b>	
Rated Power	10KW
Max Power	12KW
Start Wind Speed	2.5m/s (5.59mph)
Rated Wind Speed	10m/s(22.37mph)
Working Wind Speed	3-30m/s (6.71-67.2 mph)
Safety Wind Speed	60m/s(133.8mph)
<b>Physical Parameters</b>	
Blades Length	3.6M(11.8ft)
Blades Rotor Diameter	7.78M(25.2ft)
Blades Material &Quantity	FRP /3PCS
Mill Weight	550kg
Swept Area	47.5 m <sup>2</sup>
Tower Height	≥12m,Hot dip galvanized
<b>Generator Parameters</b>	
Rated Speed	180 RPM
Rated Working voltage	DC400V
Start Torque	<0.3N.M
Generator Type	Three-phase permanent AC magnet generator
Wind Answering Method	Up wind+yawing
Stop Method	Pitch brake + active yaw
Speed Mode	Pitch + active yaw + electromagnetic brake
Protection Grade	IP54
Working Temperature	-20--+50°C
Life time	20 Years



## Power Curve



## Annual Energy Production

Production (kWH)	2920	7300	13140	21900	32120	43800	58400
Annual Wind Speed(m/s)	3	4	5	6	7	8	9

This data will have  $\pm 10\%$  difference according to local condition.

## Sound Data

Test position: At 15m away from generator (average value of 3 points-rears, left, right)

Wind Speed (m/s)	3	4	5	6	7	8	9	10	11
Sound( dB )	1.35	3.08	6.22	9.45	13.44	22.09	32.55	36.45	37.22
Wind Speed (m/s)	12	13	14	15	16	17	18	19	20
Sound( dB )	45.33	45.22	45.33	45.43	45.54	45.66	45.76	45.85	46.00

Note: The sound value includes wind noise.

# Why choose RS-PCWT-10KW Wind turbine?

Using the world's leading mechanical centrifugal variable pitch technology, the average annual power generation is 30% more.

★Excellent

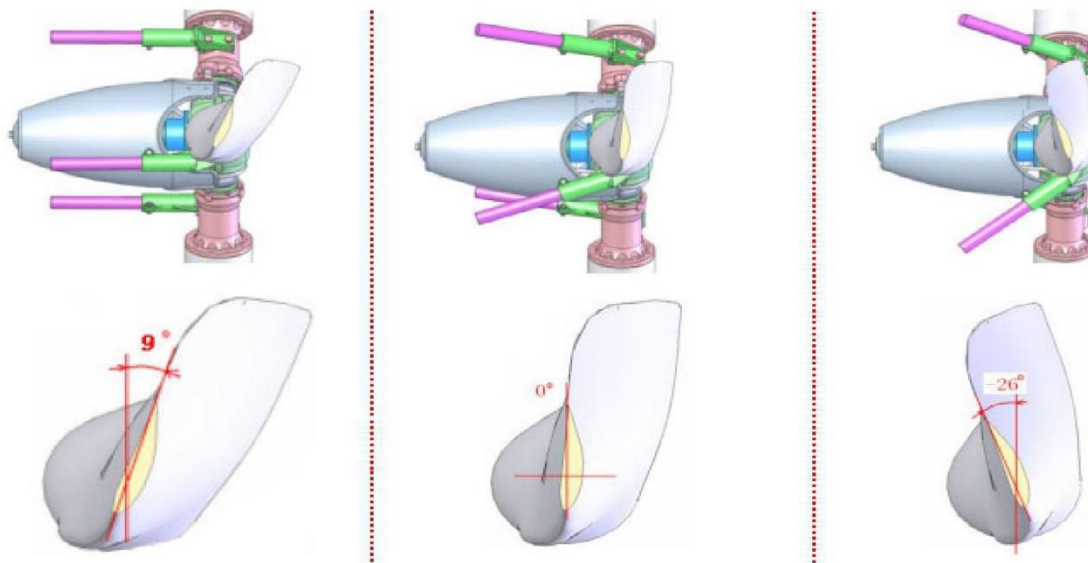
Large initial blade angle (+9°), excellent acceleration performance, start at low wind speed of 2.5m/s;

★Efficiently

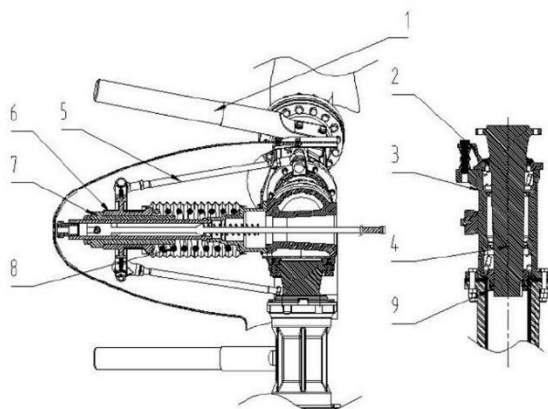
Below the rated wind speed, the wind turbine outputs efficiently;

★Stable

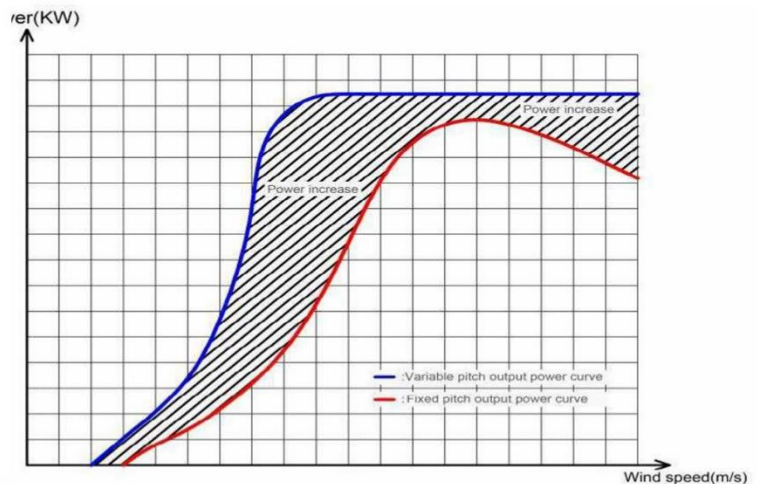
Above the rated wind speed, adjust the pitch angle so that the rotor speed is maintained near the rated speed and the power output is stable.



The use of variable pitch technology has greatly improved the efficiency of wind turbine power generation, The graph of increased power is shown below:




- 1. Fly rod
- 2. Blade flange cover
- 3. Blade flange
- 4. Blade fixed shaft
- 5. Synchronous lever
- 6. Sync disk
- 7. Guide sleeve
- 8. Speed control spring
- 9. Round nuts



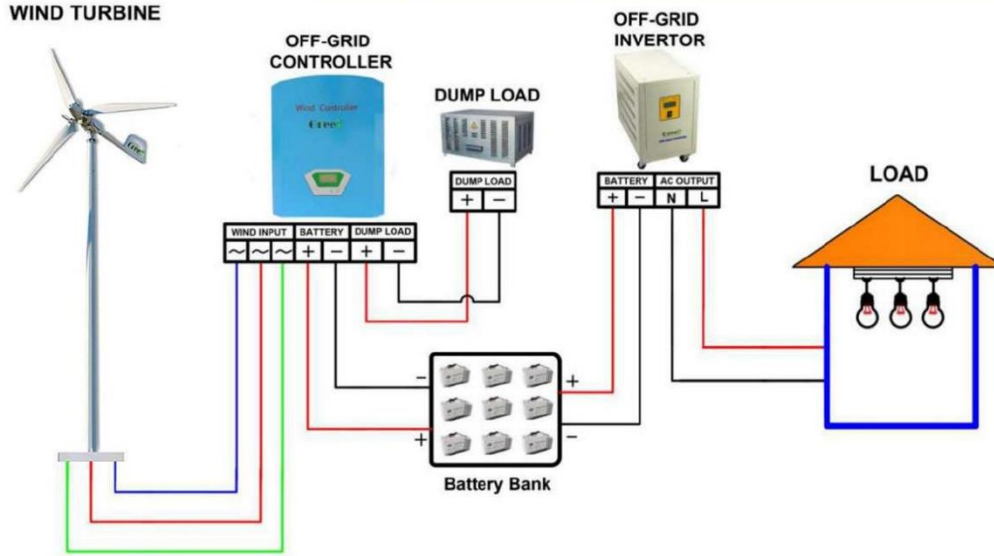
## RS-PCWT-10KW wind turbine?

### Power Curve Tracking Function

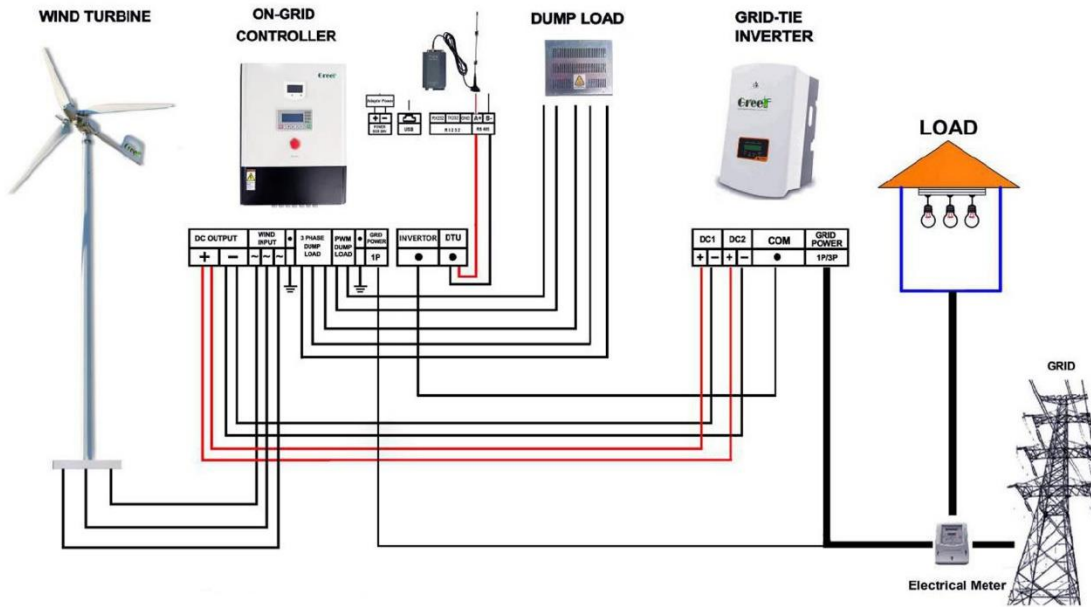
- For off-grid system –Marching MPPT Charge controller
- For on-grid system –Marching MPPT Wind Invertor
- Wind turbine MPPT track point adjustable by yourself.
- Off-grid system wind turbine low cut in wind speed charge.
- Complete protection function.
- Several functions are optional, such as PV control function, wind speed measure function, rotational speed control function and temperature compensation function.
- RS232/RS485/RJ45/GPRS/WIFI/Bluetooth/Zigbee optional. ( It can be monitored by app for those with GPRS/WIFI/Bluetooth/RJ45 connection).

	
<p>MPPT Charge Controller with dump load(off-grid)</p>	<p>Pure sine wave Invertor (off-grid)</p>
	
<p>On-grid Controller (On-grid)</p>	<p>On-grid Invertor (On-grid)</p>

# ROCKSOLAR® OFF GRID WIND POWER GENERATOR SYSTEM

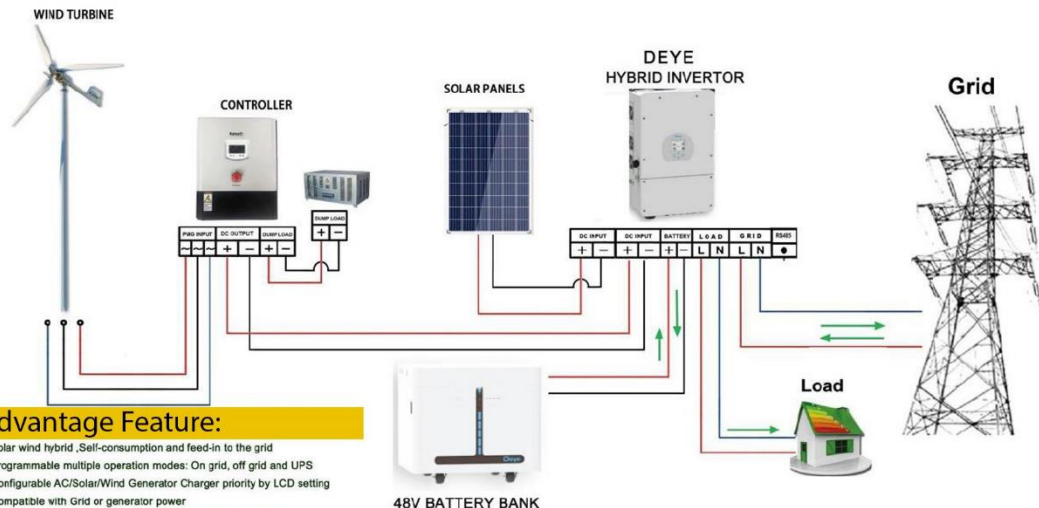


# ROCKSOLAR® GRID TIED SYSTEM WIRING DIAGRAM





# HYBRID SYSTEM SOLUTION



### Advantage Feature:

- ◆ Solar wind hybrid ,Self-consumption and feed-in to the grid
- ◆ Programmable multiple operation modes: On grid, off grid and UPS
- ◆ Configurable AC/Solar/Wind Generator Charger priority by LCD setting
- ◆ Compatible with Grid or generator power
- ◆ With limit function, prevent excess power overflow to the grid
- ◆ Smart settable three stages MPPT charging for optimized battery performance
- ◆ Time of use & Smart Load function

## Wind turbine installation process and engineering display



## Why Choose ROCKSOLAR?

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- ★ Bureau ,SGS,TUV , Intertek verified Gold Plus Supplier
- ★ Top 3 suppliers of generators products with all 5 star feedback on alibaba.com
- ★ 13 years'experience engineer&QC team
- ★ 7days\*24hours on time service.
- ★ 3 years guarantee service, focus on after-sale service
- ★ One stop customized system solution
- ★ Trade experience with more than 60 countries
- ★ CE ,RoHS certificated
- ★ OEM,ODEM are accepted
- ★ Support safe payment through Alibaba trade assurance ,
- ★ Products quality and on time delivery are guaranteed by alibaba.com

