



PITCH CONTROL WIND TURBINE

Model: RS-PCWT-5KW

Applicable scenarios



Telecom



Oil & Gas



Off Grid



Micro Grid



Residential



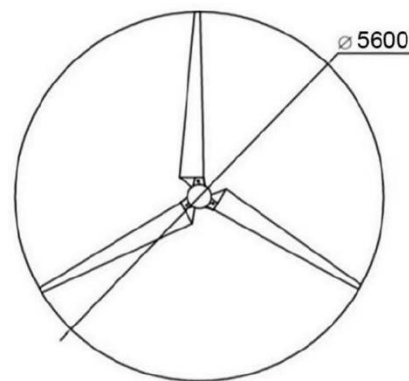
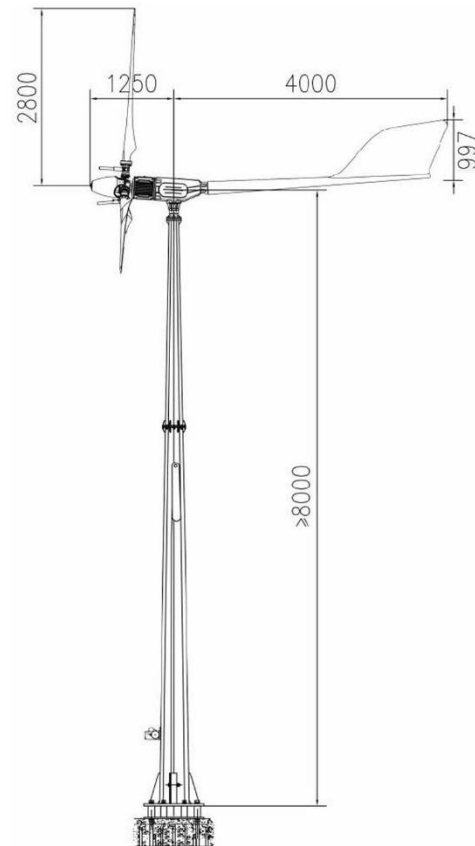
Island Power

Advantages

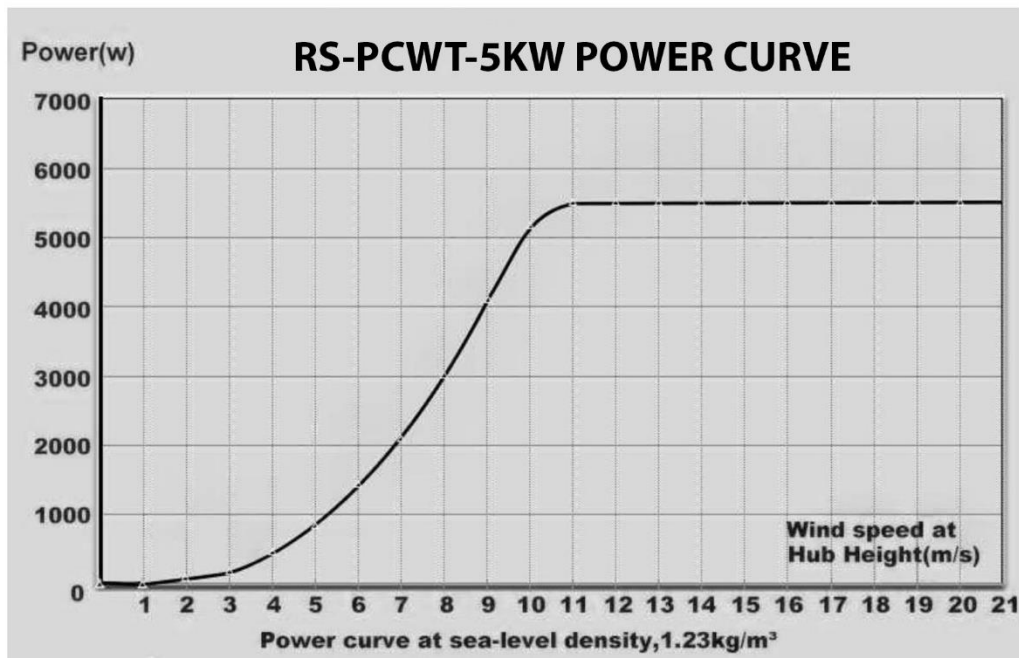
- 30%** More energy output
- 3-5** years Return on Investment
- 30_{m/s}** Max working wind speed
- 60_{m/s}** Safety wind speed
- UL Intertek** IEC61400-2/IEC61400-12 Veritfield wind farm test report

Technical specification

Model	RS-PCWT-5KW
Performance	
Rated Power	5KW
Max Power	6KW
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)
Physical Parameters	
Blades Length	2.5M(8.2ft)
Blades Rotor Diameter	5.6M(18.37ft)
Blades Material &Quantity	FRP /3PCS
Mill Weight	400kg
Swept Area	24 m ²
Tower Height	≥8m,Hot dip galvanized
Generator Parameters	
Rated Speed	240 RPM
Rated Working voltage	DC400V/DC240V
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



Power Curve



Annual Energy Production

Annual Wind Speed(m/s)	3.5	4	4.5	5	5.5	6	6.5	7
Production (kWH)	2481	3744	5168	7298	8277	12120	13785	16980

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-5KW Wind turbine?

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

★Excellent

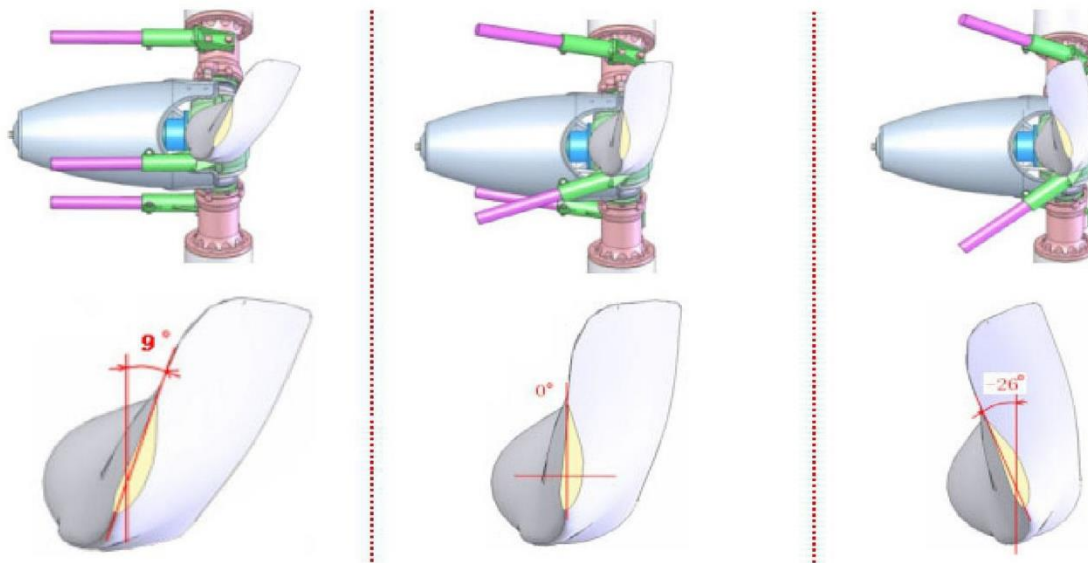
Large initial blade angle (+9°), excellent acceleration performance, start at low wind speed of 2.5m/s;

★Efficiently

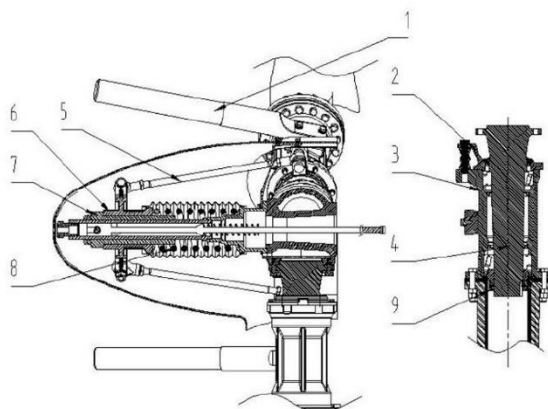
Below the rated wind speed, the wind turbine outputs efficiently;

★Stable

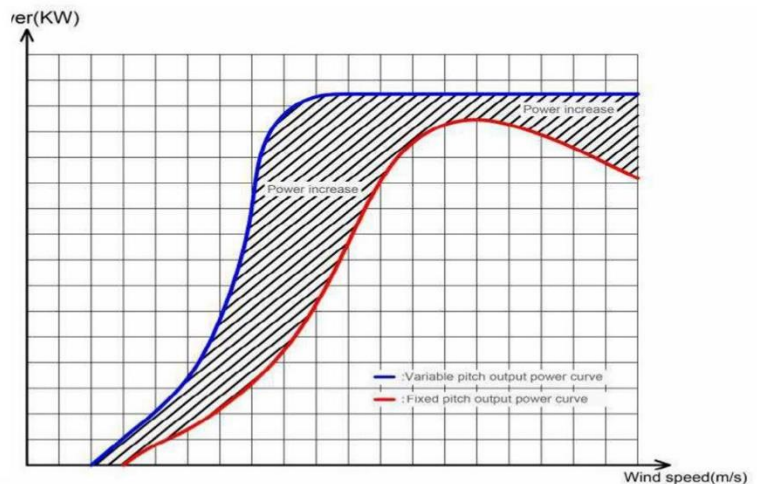
Above the rated wind speed, adjust the pitch angle so that the rotor speed is maintained near the rated speed and the power output is stable.



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-PSWT-5KW wind turbine?

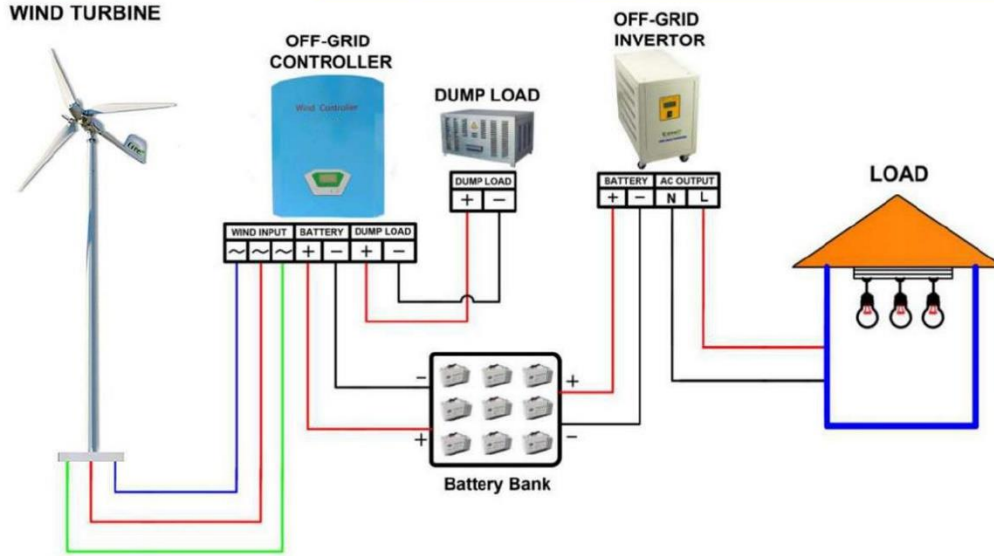
Power Curve Tracking Function

- For off-grid system –Marching MPPT Charge controller
- For on-grid system –Marching MPPT Wind Invertor

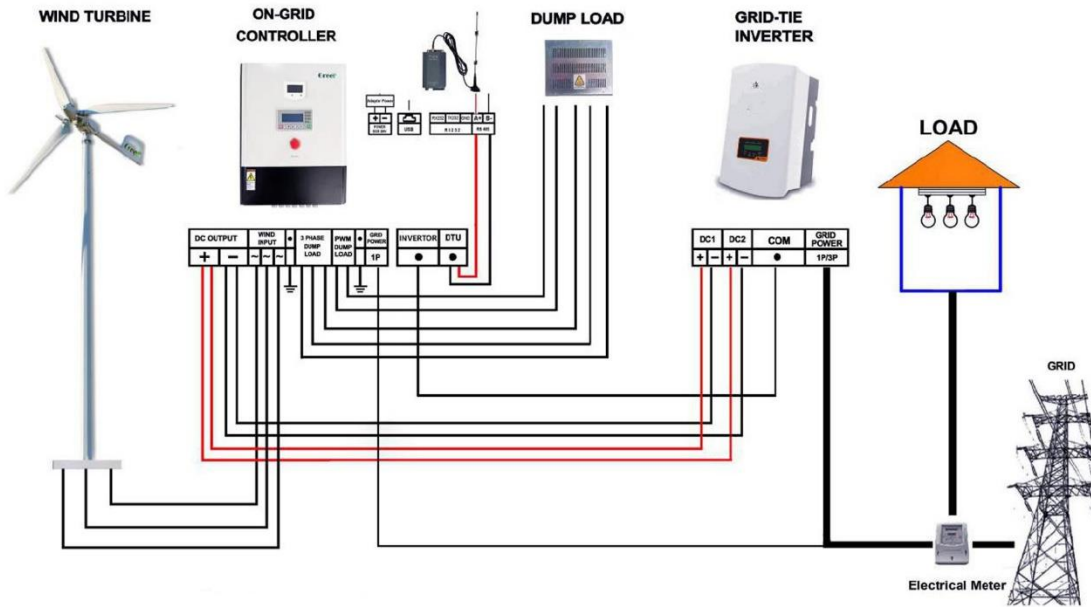
- Wind turbine MPPT track point adjustable by yourself.
- Off-grid system wind turbine low cut in wind speed charge.
- Complete protection function.
- Several functions are optional, such as PV control function, wind speed measure function, rotational speed control function and temperature compensation 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

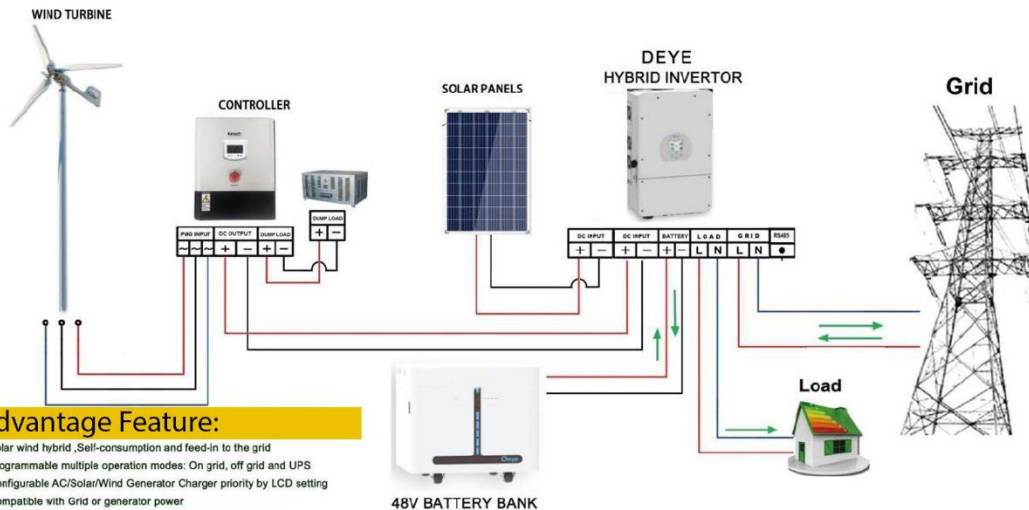


ROCKSOLAR® GRID TIED SYSTEM WIRING DIAGRAM





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

