

VERTICAL AXIS WIND TURBINE

Products Brochure

200
rpm

Low rated speed

1.8
m/s

Low start wind speed

<
30db

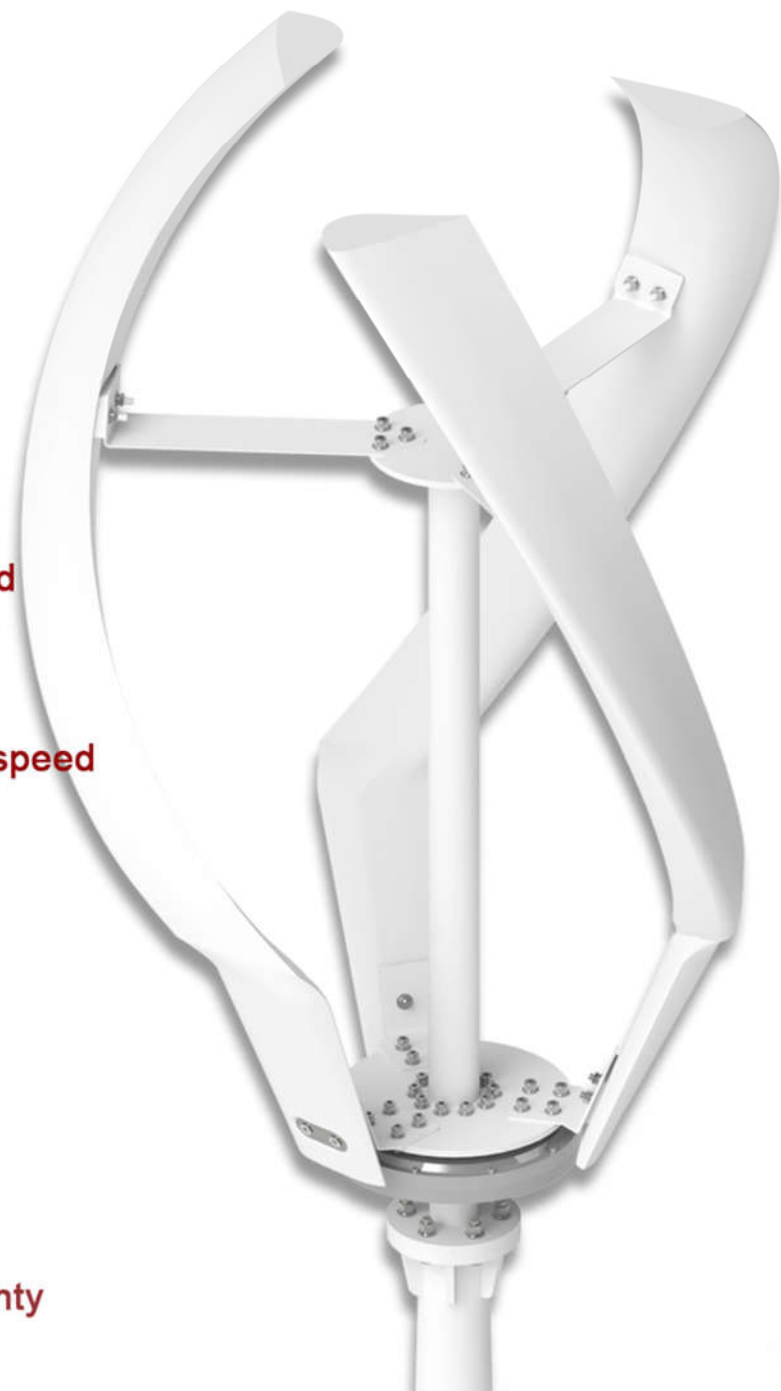
Low noise

CE

IEC61400-2
IEC61400-12

3
years

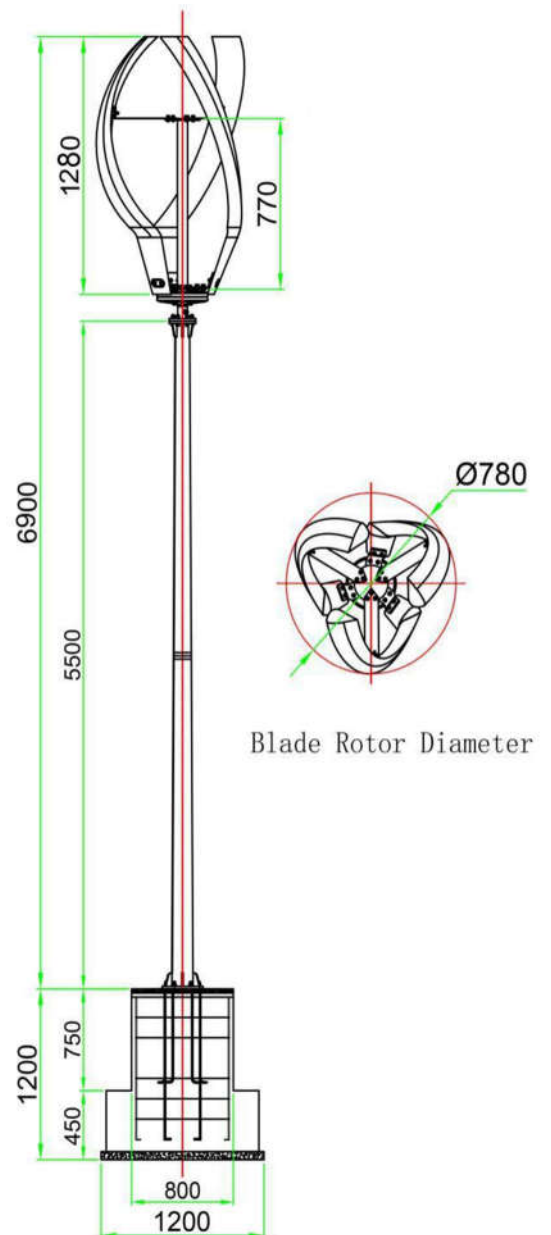
Products warranty



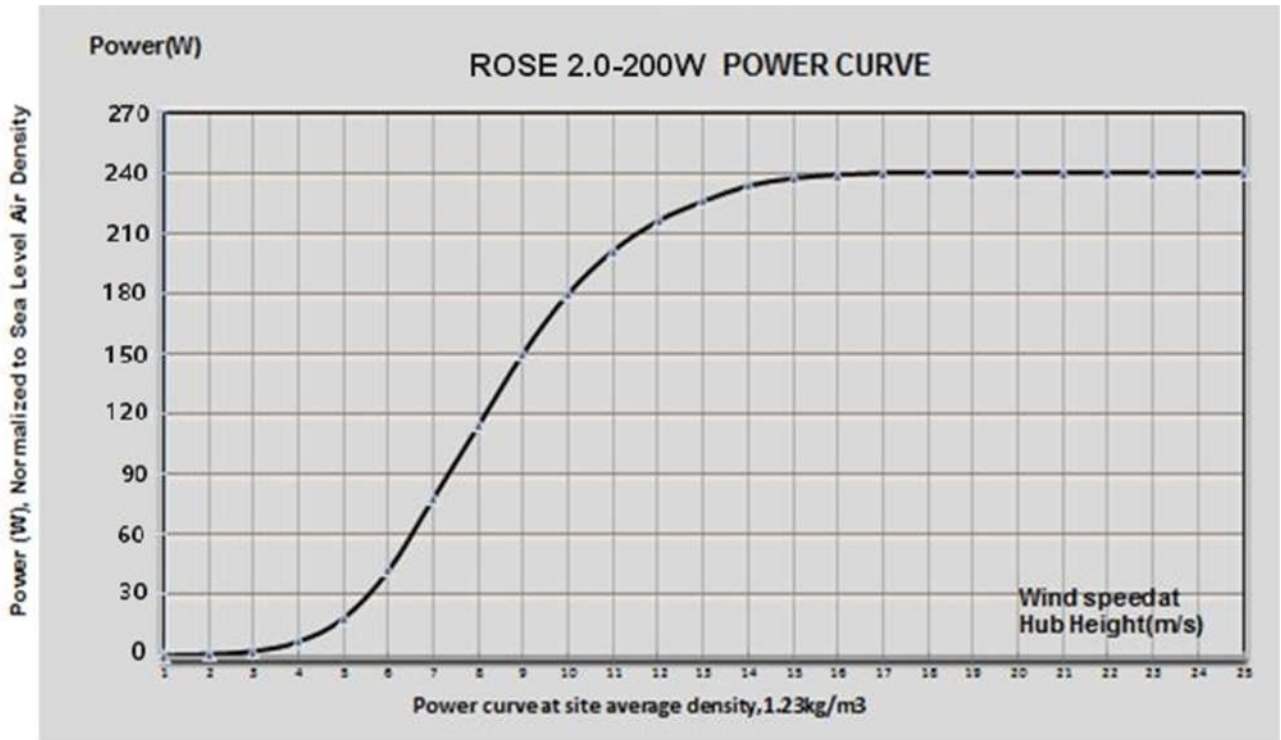


Technical specification

Model	ROSE-2.0
Performance	
Rated Power	200W
Max Power	250W
Start Wind Speed	1m/s (2.24mph)
Rated Wind Speed	10m/s (22.4mph)
Working Wind Speed	1-25m/s (2.24-56 mph)
Safety Wind Speed	50m/s(112mph)
Physical Parameters	
Blades Length	1.28M(4.20ft)
Blades Rotor Diameter	0.78M(2.56ft)
Blades Material &Quantity	FRP /3PCS
Mill Weight	30kg
Swept Area	0.90 m²
Tower Height	6m(19.68ft.)
Generator Parameters	
Generator Type	Axial Flux Coreless outer rotor disc permanent magnet direct drive generator
Rated Speed	200RPM
Start Torque	<0.1N.M
Option Voltage	12-24V
Protection Method	Electromagnetic Brake +PWM
Protection Grade	IP54
Working Temperature	-40-50°C
Life time	20 Years



Power Curve



Annual Energy Production

Annual Wind Speed(m/s)	3	4	5	6	7	8	9
Production (WH)	7	10	21	40	75	110	150
Annual Wind Speed(m/s)	10	11	12	13	14	15	16
Production(kWH)	180	200	220	232	238	250	250

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

Sound Data

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

Wind Speed (m/s)	3	4	5	6	7	8	9	10	11
Sound(dB)	1.33	3.02	6.18	9.40	13.45	22.02	32.50	36.43	37.25
Wind Speed (m/s)	12	13	14	15	16	17	18	19	20
Sound(dB)	45.16	45.20	45.23	45.53	45.52	45.58	45.63	45.82	46.10

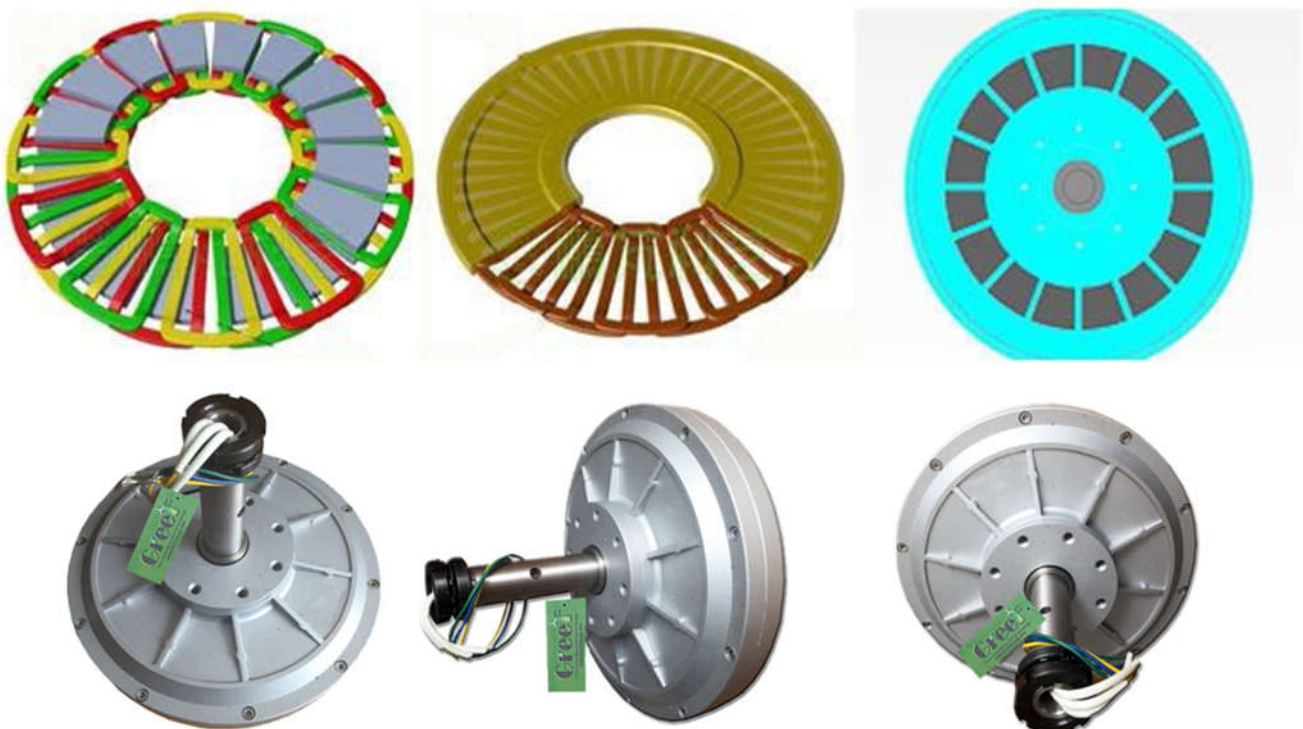
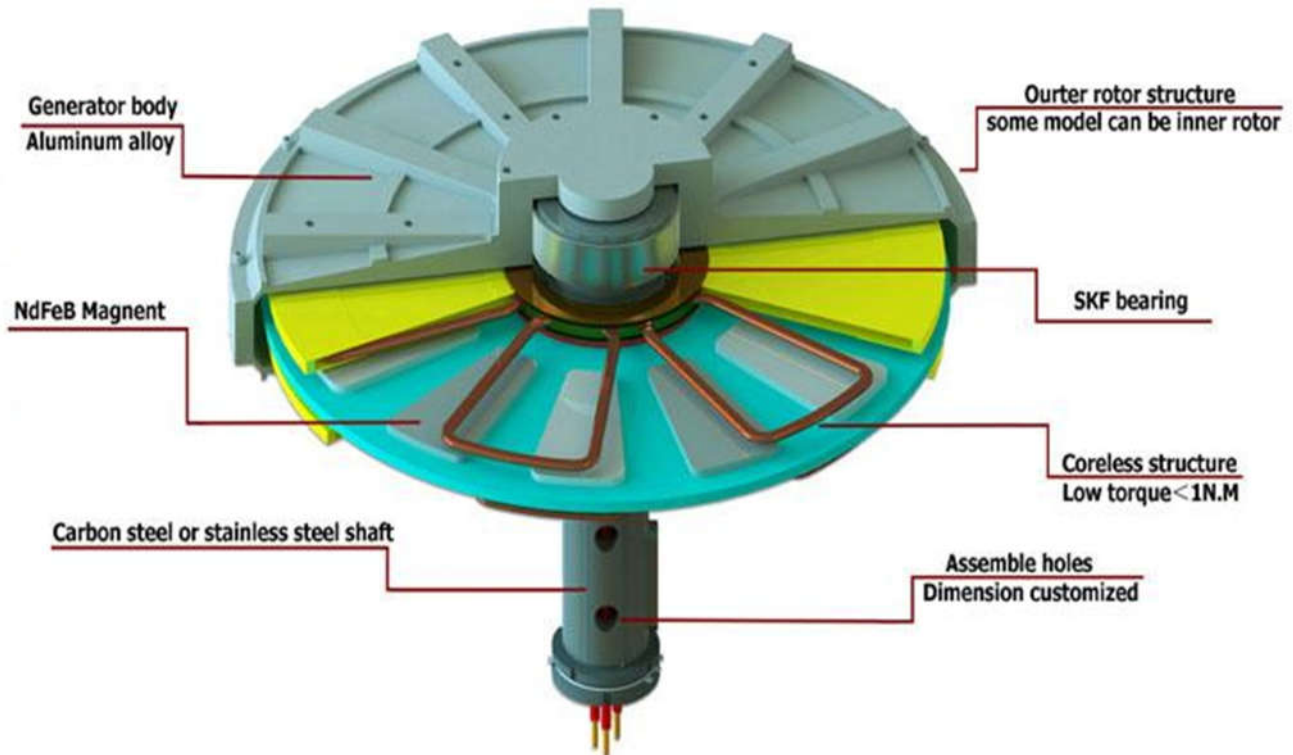
Note: The sound value includes wind noise.

Why choose ROSE 2.0-200W wind turbine?

● Especial Generator ---- coreless disc generator

Advantage:

1. Torque Patent Technology: use newest "Precise Coil" technology.
2. No hysteresis and gear notches effect make the start torque very low $<1\text{N.M}$,it can make the wind turbine have **low start wind speed**.
3. Original Structure: use disc coreless motor to take place traditional motor makes it less drag
4. Higher Reliability: special structure make it bigger ratio of power to volume, power to weight and have long life of 8 times longer than traditional motor.

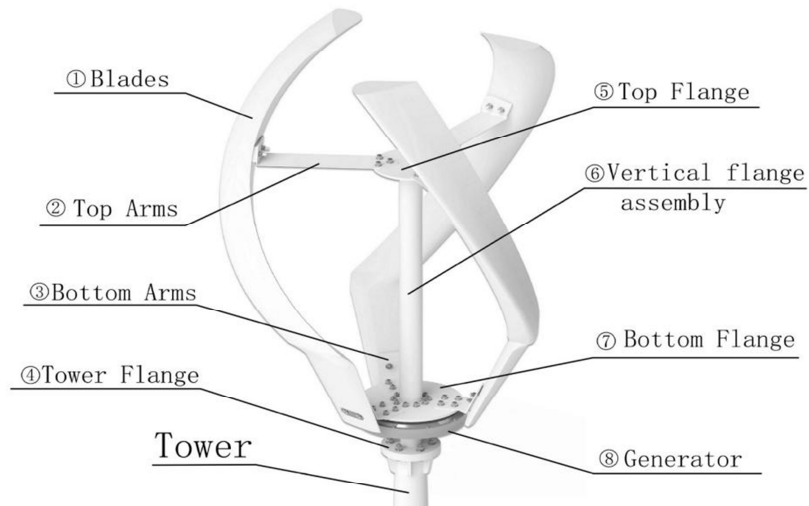


Why choose ROSE 2.0-200W wind turbine ?








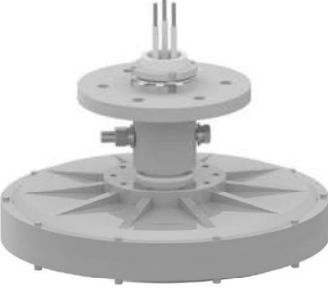
- Simple structure ,1hour installation

ROSE 2.0 Accessories List

1.Parts Name:



2.Product packing list:

No.	Name	Components pictures	Quantity	Packing method
1	Blades	① 	3	Packed in one box
	Support Arms (Top/Bottom)	③  ② 	3	
	Vertical flange	⑤ ⑥ ⑦ 	1	
	Carton (Bolt,Screw etc)		1	
	Tower Flange	④ 	1	Packed in one box
	AC Generator	⑧   Delivery as a whole		

Why choose ROSE 2.0-200W 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)

SYSTEM SOLUTION

