

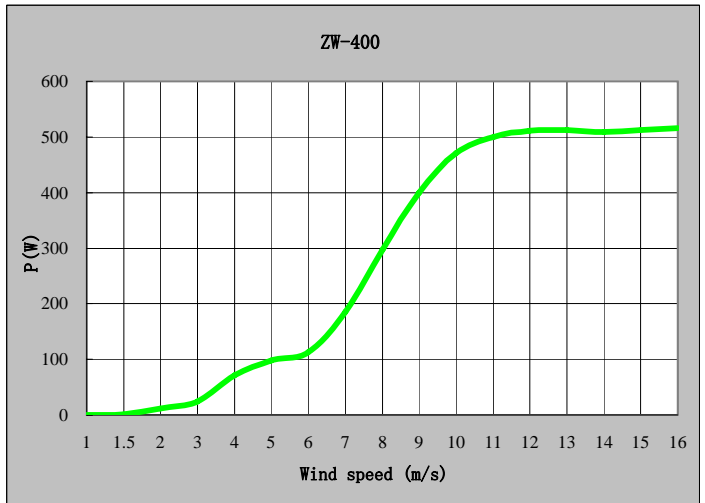
Windmaster ZW-400 Wind Turbine Data Sheet

Wind (m/s)	P (W)
0	0.00
1	0.00
1.5	1.00
2	12.00
3	24.00
4	71.00
5	98.00
6	113.00
7	185.00
8	297.00
9	400.00
10	471.00
11	500.00
12	511.00
13	513.00
14	509.00
15	512.00
16	516.00



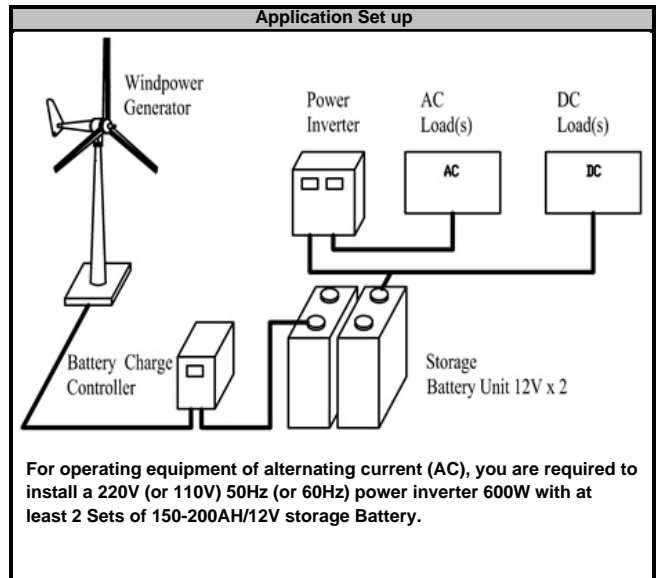
Description:

The ZW 400 windmill is of attractive appearance accompanied with safe and reliable mechanical and electrical performances. The fan blades are optimally designed with innovation and workmanship. The weight tolerance of each blade is controlled within 3 g, so they are well balanced with less noise and more power can be generated compared to similar products.



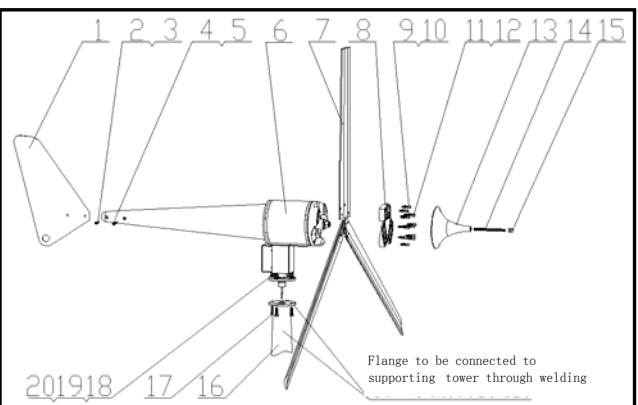
Product Details

Technical Specifications	
Number of Blades	3
Material of Blades	Alu
Generator Type	Permanent Magnet
Rotor Diameter	2.0 m
Rated Voltage (V)	48VAC(3Ph) or 24VDC OUT
Rated Power (W)	400
Start-up wind speed (m/s)	1.5 m/s
Cut-in wind speed (m/s)	2.2 m/s
Rated wind speed (m/s)	9 m/s
Braking wind speed (m/s)	14 m/s
Rotor Speed	up to 650 rpm
Braking System	Mechanical Break
Product Life Circle	10 Years
Warranty Period	2 Years
Net Weight/Gross Weight	34KG/38KG
Packaging	Carton with Styrofoam
Packaging size	1210 x 470 x 290mm
Product Origin	China
Optional Accessories Available	Charge Controller, Dummy Load Box, Inverter, Galvanized taper mast (8m h., 70~200 Dia.)



Windmill Installation Description

No.	Description:	Qty:	No.	Description:	Qty:
1	Wind direction regulator	1	11	Hexagonal screws: M8 x 40	3
2	Disk head screws: M6 x 40	1	12	Spring gaskets: 8 Dia.	3
3	Anti-backing screws: M6	1	13	Nose cone	1
4	Disk head screws: M6 x 58	1	14	Bolts: M10 x 140	1
5	Anti-backing nuts: M6	1	15	Nut for nose cone	1
6	Generator	1	16	Supporting tower	1
7	Fan blade	3	17	Hexagonal screws: M10x140	4
8	Hub	1	18	Nuts: M10	4
9	Hexagonal screws: M8 x 30	9	19	Spring gaskets: 10 Dia.	4
10	Spring gaskets: 8 Dia.	9	20	Gaskets: 10 Dia.	4



An optimal installation site should provide high average wind speed and minimum turbulence

- 1.) The higher the average wind speed caught, the bigger the power generated (Wind power is relatively proportional to the cube of the wind speed, for example a wind speed at 5m/s will generate almost 2 times the power of 4m/s).
- 2.) The windmill will be encountered with severe damages if the installation site is of unstable airflow and serious turbulences. This will be detrimental to windmill's long-term safe operation. The turbulences will greatly reduce the power generated. Therefore, a location with serious turbulences is definitely not a good site selection.
- 3.) The windmill's supporting tower must be set as high as possible. Since the higher the tower above the ground level, the greater the wind speed, and the more stable the airflows. The recommended windmill's installation height in flat areas must be higher than 8m.

Greenmaster
Energy Technology
(Shanghai) Co., Ltd.
www.greenmasterinc.com