

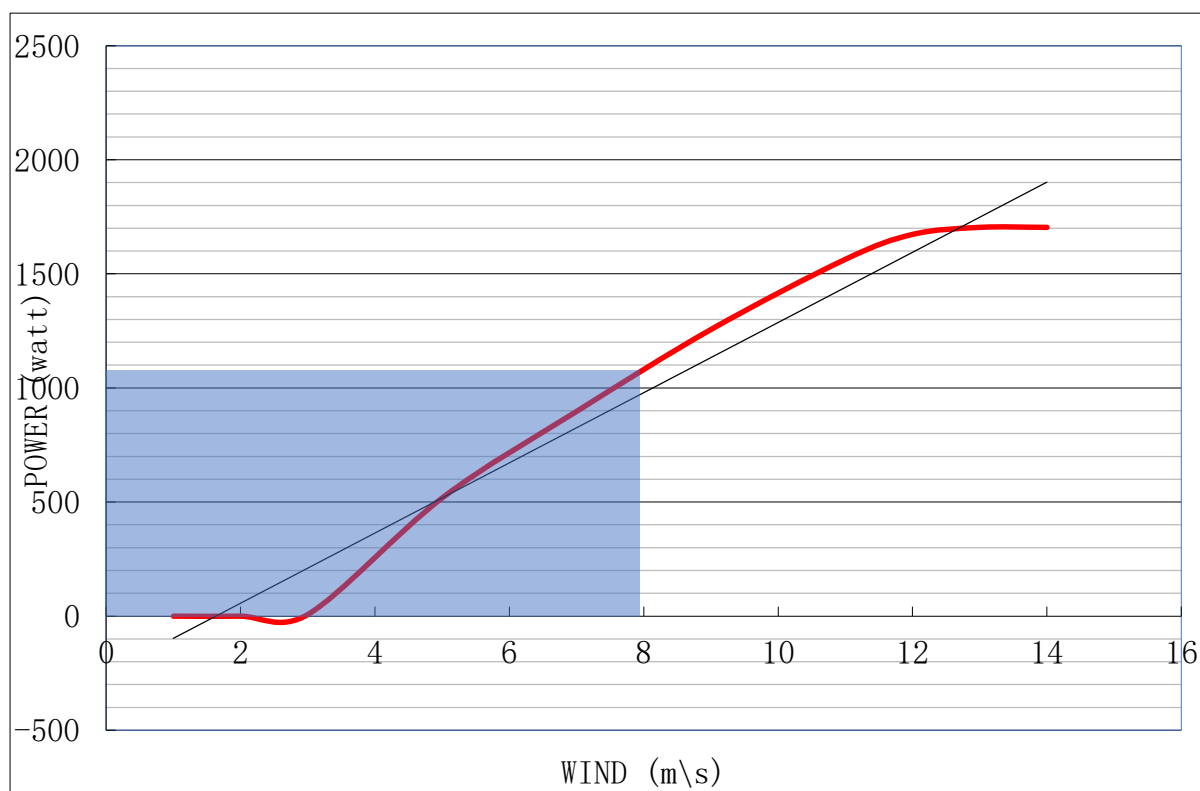
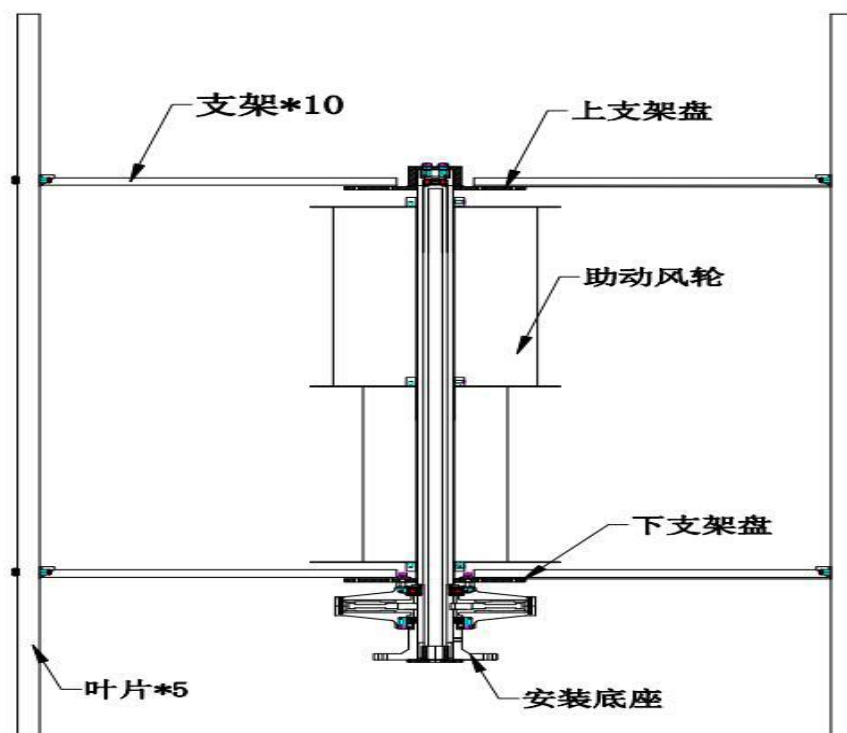
## C-Wave VAWT 1000W Windy-Model 1



Main Technical data	
<b>MODEL</b>	C-Wave VAWT 1000W Windy-Model 1
<b>Rated power w</b>	1000
<b>Rated voltage V</b>	48/96/120/220/380
<b>Startup m/s</b>	2
<b>Rated m/s</b>	8
<b>Safety m/s</b>	35
<b>Blade height m</b>	3.2
<b>Wind wheel diameter m</b>	2.1
<b>Blades material</b>	High strength brushed aluminum profile
<b>Blades quantity</b>	5 high speed blades + auxiliary wind wheel
<b>Brake mode</b>	electromagnetic brake
<b>Generator</b>	Maglev generator
<b>Working temperature</b>	-40°C~80°C
<b>Tower high</b>	3m 6m 9m 12m 20m 30m
<b>Insolation class</b>	F
<b>IP grade</b>	IP54
<b>corrosion-proof grade</b>	C5

Note: The above parameters are for sales reference only, not as an attachment to the contract.  
 Subject to change without notice.

## Wind turbine main components:



## **Product structure and advantages:**

### **Product Structure**

Windy-Model 1 wind turbines are mainly composed of the main engine, high-speed blades, auxiliary wind wheels, brackets, upper and lower bracket plates, bases and towers, etc., as detailed in the above exploded diagram.

1. The magnet is made of high-quality rubidium-iron-boron high-temperature resistant magnetic material, with small starting torque and low noise.
2. The blades adopt advanced aerodynamic design and high-strength aluminum alloy profiles to ensure the reliability of operation.
3. The shell of the magnetic levitation motor is made of high-strength aluminum alloy, which is integrally cast by mold, and part of the outer rotor motor shell is integrally formed by high-quality alloy steel coil, and the surface is sprayed with anti-corrosion treatment, which is suitable for various complex and harsh working environments.
4. All exposed parts of the machine are treated with long-term anti-corrosion surface treatment, and the connecting screws are treated with stainless steel or Dacromet plating to ensure that the fan will not corrode during long-term normal operation in various harsh environments.

### **Product Advantages:**

1. The appearance structure design with independent intellectual property rights is adopted to perfectly realize the effect of breeze start and breeze power generation, the whole machine is small in size, light in weight, beautiful in appearance and low in operating vibration.
2. The generator shell is made of high-strength aluminum alloy through mold integral die-casting or high-quality alloy steel coil integrally, with high mechanical strength and good heat dissipation performance. With a special stator and rotor design, it can effectively reduce the running resistance torque.
3. The wind turbine blades are made of new process drawing aluminum molds through precision manufacturing, with optimized aerodynamic shape design and structural design, the wind energy utilization coefficient is high, and the annual power generation is increased.
4. The main engine blade bracket is made of high-quality alloy steel plate and is bent and formed as a whole after laser cutting, with high installation accuracy and stronger typhoon resistance to ensure the safe and reliable operation of the fan.
5. The whole machine adopts waterproof and dustproof design to meet the use conditions under different working conditions, and the middle of the fan is equipped with an auxiliary wind wheel to further improve the utilization range of wind speed and ensure the electricity demand in low wind speed areas.
6. The intelligent tracking technology of wind energy power generation efficiency is adopted to effectively regulate the current and voltage, and the power generation conversion rate is high.

7. Low noise during operation, all-round automatic windward, suitable for various occasions. The use of distributed wind power generation layout can effectively solve the customer's electricity difficulties.

### **Installation of wind turbines:**

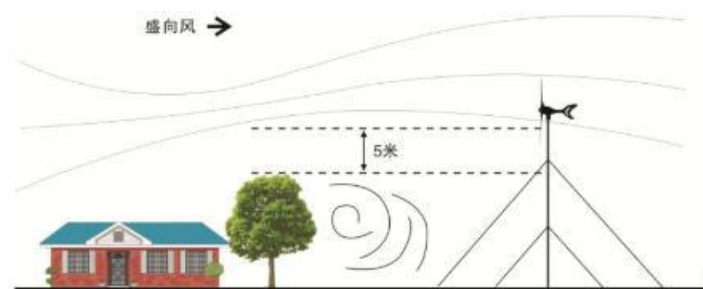
Select the installation site

The location of the installation is very important for power generation and safe operation, which is listed below for reference.

1. The higher the average wind speed, the greater the power generation and power generation of the fan. The higher the average annual wind speed, the greater the power and capacity of the wind turbine. The energy of the wind is directly proportional to the cubic of the wind speed. For example, Wind energy at 5 m/s is almost twice as high as at 4 m/s.
2. If the airflow at the installation site is unstable and the turbulence is serious, the wind turbine will be greatly damaged, which is not conducive to the safe operation of the wind turbine for many years. Turbulence also significantly reduces power generation. The high-wind zone with severe turbulence is by no means a desirable installation point.

**Conclusion:** Small changes in wind speed can have an impact on the generation of electrical energy. Therefore, the site selection of wind turbines should not only take into account the height of the tower pole, the distance from the output cable to the battery, but also consider the local planning requirements and obstacles such as buildings and trees.

In general, the higher the tower, the higher the wind speed and the higher the final power generation. It is recommended that the tower pole should be at least 5m (open ground) or 5m above the surrounding obstacles (see figure). Try to install wind turbines where there is little turbulence, as turbulence reduces the efficiency of the wind turbine and accelerates the wear and tear of rotating parts.





## Project cases

