

Parts and Accessories

Product Information

Hummer wind turbine includes the body, tower plus accessories, and controlling units.

Body includes: rotor blades, generator, yaw shaft, nose cone, tail pole, tail wing, etc.

Tower and accessory: pole, nut, pedestal, guy wire, anchor, and cable, etc.

controlling unit: controller, inverter and load damping

The generator, blades, nose cone, shaft, tail pole, tail wing, tower, anchor, etc are all spray-painted, galvanized and antisepticised.

1) Generator



The generator you purchased is the most advanced in the world, which has four patents.

It is extreme light and small, high in efficiency--more than 0.78 of utilization ratio.

Light: Generator is extremely light; the weight of 1000w generator is only 15kg, including blades, hub and nose cone.

Small: The generator is inside the nose cone, and the volume is only 1/6 of conventional ones.

Low in energy consumption, noise and speed-up wind speed (3m/s for 1000W).

Swift running: hummer generator runs 1.5-3 times faster than other types of generators under equal condition due to lightness, high efficiency and low resistance. As a result it can output more power than others.

Swift charging: due to high efficiency and low wind start-up, the running time of hummer generator will be longer than conventional ones, and that is why it can charge batteries faster than others.

2) Control System

① Grid-Tied Inverter

- The power efficiency has been highly improved by using IGBT.
- With the automatic program optimization of MPPT ,the generator capacity is highly improved.
- LCD indicates kinds of information simultaneously .
- Real-time work curve can be saw from the PC interface.
- Several optional communication interface includes power line carrier ,RS485,wireless data transmission .
- Comprehensive protection function with highly reliability .
- Wide AC voltage range.
- Freely set working curve chart.
- Simple, reliable and special plug connection .



② Off-Grid Inverter

-
- Using intelligent control technology ,the control line simple ,reliable and can rapid response to the external environment.
- Using SPWM technology ,output stable frequency, stable voltage ,filter out noise ,low distortion of pure sine wave.
- The inverter has high converting efficiency with the usage of amorphous transformer and high frequency breaker ,and also it has good capability of loading that has better compatibility .
- Has the protection function of overload ,over voltage ,over current and over temperature. The CPU will turn off the inverter automatically when there is no load for a long time to protect the battery .



3) Rotor blades



The picture shows the new wind blade and its structure. It could be made of glass fiber reinforced plastic or aluminum alloy.

The blade is designed by the aerodynamics expert according to the airscrew structure and the wind power utilization ratio enhances up to 0.78.

The hummer wind blade's successful application prolongs the entire wind turbine's service life to 10~15 years. With the auto-deflection tech, it operates stable-quietly and soundlessly, and also brings enormous convenience for use and replacement.

4) Nose Cone& Protection Cover



Nose cone is made of reinforced aluminum alloy.

It locates in front of blades to reduce the wind resistance. The generator is enclosed in the nose cone, which is favorable for heat dispersion.

Protection cover is made of reinforced aluminum alloy.

It is located between blades and nose cone to further reduce the wind resistance and protect the generator.

5) Yaw shaft



It is made of superior steel to integrate blades, the generator, tail pole, tail wing and tower.

6) Tail pole & Tail wing



Tail pole is light with high intensity and made of manganese steel.

Tail wing is made of stainless steel, inflexible, auto-deflection in high wind condition, reliable and sharp in speed limitation.

They are used in 500w,1kw,2kw models.

7) Dogvane and Anemometer



Dogvane: It receives wind signal ,measure and indicate wind direction .It will read the average angle of dogvane every 120s,if the angle degree between dogvane and wind generator axes is more than 10 degree ,the 24V DC generator will drive yaw shaft to seek wind automatically .

Anemometer : measure wind speed ,if the wind speed is over 3m/s continuously within 30s,wind direction automatic tracking system will start to make the blades face wind correctly ,if the wind speed is less than 3m/s the system will keep in standby situation .

They are used in 3kw,5kw,10kw,20kw models.

8) Tower



It is made of carbon steel, with several sizes of outer diameters and height. They are anticorrosion, as well as UV-proof.

9) Wire rope and pedestal



10) Surface coating and protection

All the parts are static molded and then galvanized, so they are anticorrosion, UV-proof, crashworthy, fastness and will be fresh all year round.

All the parts are made of high quality aluminum alloy and superior steel, which can be used in the temperature ranging from -45°C to 45°C , in the surroundings of high wet, sand salt or frost area.