WINDMAX Green Energy

www.greenpower4less.com

WINDMAX H Series Wind Turbine

USER'S MANUAL

WindMax H20

Contents

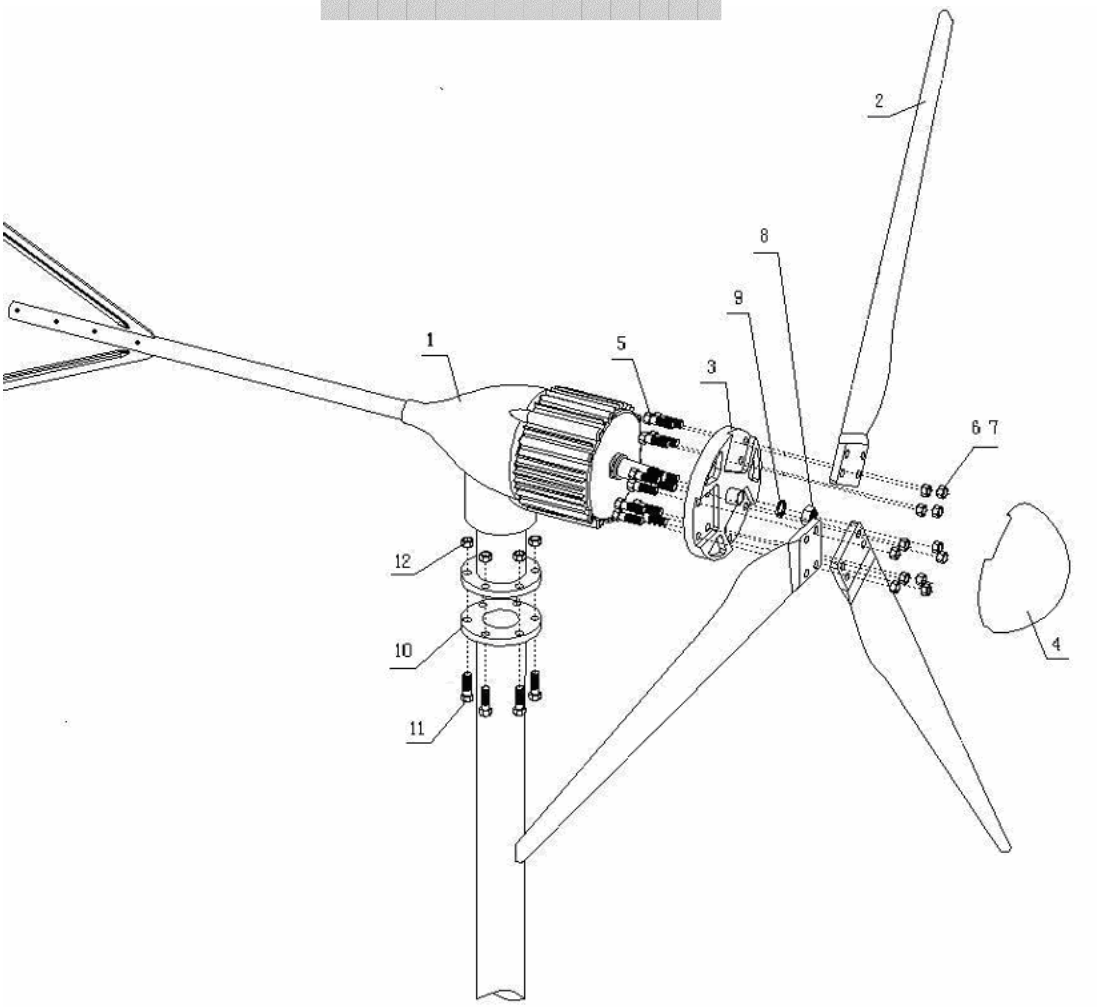
Thank you for choosing WindMax H20 wind turbine. Please read this user's manual carefully before installation to assure optimal performance, please read "Important Safety Information" before installation to ensure safe use of this product.

Package content

It is important to know the parts to assure the proper and safe use of this wind turbine. please verify the parts listed below with the contents of the box to make sure that you have all the parts for assembly.

Corresponding Number	Description	Quantity	Component Types
1	Wind Generator	1	Main Components
2	Rotor Blade	3	
3	Rotor Hub	1	
4	Front Cover	1	Accessories
5	Bolt M10×45	12	For rotor blades
6	Flat washer Ø10	12	
7	Nylock Nut M10	12	
8	Bolt M24×2	1	Accessories
9	Lock washer M24	1	
10	Flange	1	For flange joint
11	Bolt M12×45	6	
12	Lock washer M12	6	

Assembly Diagram



1. System overview

High Efficiency 3000W Maximum/48V WINDMAX Wind Turbine system with Slip Ring, Electromagnetic speed limitation, blade over-speed braking and hybrid solar/wind power output capability with 15 year maintenance free life span.

WINDMAX Wind Turbine system WINDMAX-H20 is built for residential/industrial land, RV, and marine applications.

Ring mount connector included for easy connection, safety and durability.

Patented, twisted high efficiency blades and extremely efficient aerodynamics design optimize

angle of attack all along blades at different wind speeds and create the highest lift to drag ratio, blades are made using the latest advanced thermoplastic engineering and precision injection molding technology.

Multifunctional Hybrid controller combines the functions of solar/wind charge control, dump load, over-charge protection, short-circuit protection and pole-confusion protection

Strong Neodymium magnet PMA, the unique winding and multi-pole design reduces the start-up torque of the alternator that assures that H20 can generate more electricity at low wind speed than other systems. Incredible survival wind speed of 134 mph (60 m/s) is the highest in its class and ensures safe, consistent performance in high wind speed.

2. Siting

Siting is an important issue for wind power installation to assure its safety and power output. Below description are for consideration,

There are two basic requirements for a good site: high average wind speed and low wind turbulence.

1. The higher the average wind speed, the more the power will H20 wind turbine generate. The power available in the wind goes up with the cube of the wind speed. For example, the power available in the wind of 5m/s speed is nearly twice as of 4m/s.

2. The lower the wind turbulence, the lower the stress the wind turbine will have to endure. Lower turbulence also results in more power. The zone with high wind speed but high turbulence is not a desirable site.

Install the wind turbine as high as you can. The higher the tower and the higher the wind speed, the lower the turbulence. The recommended tower height for the H20 SERIES is 8 meter above ground level without barriers.

Barriers (trees, buildings, etc.) to the flow of wind will produce wakes that may extend far downwind of the barrier and to a height considerably above the barrier. These wakes are areas decreased wind speed and potentially damaging turbulence. Do not install the wind turbine in these areas. A tower should be at least 2m higher than the highest barrier within 100m radius.

All WindMax wind turbines must be installed following the guidelines established by state and local regulations. Consult a local electrical contractor or the local planning and zoning office for details and regulations.

3. Material

Blades：By applying the latest advanced thermoplastic engineering, are manufactured by precision injection molding process to make blades exceptional consistency of aerodynamic outline and mass distribution that ensures the rotors to operating at nearly no noise performance and minimal vibration. It has very low start-up/cut-in wind speed, high wind energy coefficient, and is specially designed to prevent the blades from feathering by aerodynamical effect.

Generator：Built with high-quality permanent magnet, the alternator is a miniature set with

high power generating efficiency. The unique winding and pole wheel design reduces the start-up torque of alternator that warranty H20 can generate electrical at a very low wind speed.

Body：H series' body is made from high-quality aluminum by precision casting process to enhance its fitness and excellent finishing. The H20 series is designed for various working conditions such as severe climate, sand and salt corrosive environment and marine and etc. H series is an exquisite set with unmatched power generating performance. It is not only a clean power source, but also admiring scenery for modern living environment.

4. Technical Parameter

Model	H20 wind turbine
Rated wind speed	12 m/s or 26 mph
Rated voltage(DC)	$48V_{DC}$ | $110V_{DC}$ (upon request)
Rated power (W)	2000W
Peak power(W)	3000W
Rotor diameter(m)	3.4 meters or 11 Feet
Blade quantity	3
Overspeed protection	blade stalling & electromagnetic brake
Overload protection	electromagnetic brake or dump load

5. Assembly






6. Maintenance

6. Maintenance

The H20 wind turbine is a very reliable set and is designed to run for long periods at severe conditions without any maintenance. But routine checking of system tower and cable wiring system is suggested to maintain the reliability and performance of the system.

6.1 Check guy rope tension and tighten if needed, especially after storms. During first three months after erecting the tower, periodic inspection should be carried out.

6.2 Check all electrical connections to make sure they are properly connected, tightened and free from corrosion.

6.3 Maintain batteries according to battery manual.

6.4 Put the tower down if severe weather is coming (like typhoon) to avoide any unexpected happening.

7. Troubleshooting

H series wind generator was designed and produced on free maintainess if install and use correctly. In case of any malfunction, pls refer to below for help,

Symptoms	Reason	Solution
Wind generator is noisy	1.Steel wire of the tower loose 2.Bolts on blades loose 3.Blades damaged 4.Unbalance of rotor blades	1.Tension the steel wire 2.Fasten the bolt 3.Blance the blades after changing damage one. 4.Clean the rain drop on blades
Abnormal noise	1.Generator bearing damaged. 2.Generator rotor rubbed by other parts	1.Put down the wind generator，tightened and free from corrosion 2.Change bearing 3.Exclusion checking
Low rotating speed	1.Generator rotor rubbed by other parts 2.Power switch on controller is “off”	1.Change rotating bearing 2.Find the short circuit，then insulate it 3.Put switch on “on”
Low output voltage	1.Motor rotating speed low 2.Short circuit in the controller 3.Long output line，and small	1.Check the reason 2.Find the short circuit，then insulate it

	diameter of the wire	3.Change good one 4.Short the output line or change the wire with bigger diameter to reduce the consumption.
No output current of wind generator	1. fuse burn out 2.Short circuit in output line	1.Find the reason，bridge it. 2.Find the short ciuciut, bridge it.
AC output working, but no DC output	1.Fuse in branch circuit burn out. 2.Output line open circuit 3.Rectifier damaged	1.Change a new fuse. 2.Find the open circuit, bridge it. 3.Change rectifier
Low output power of the battery	1.Low output voltage or no output power 2.Failure of battery	Check battery connections

8. Important Safety Information

We recommend the wind turbine is installed by professional wind turbine installers certified by NABCEP, state or local government. All WindMax wind turbines must be installed following the guidelines established by state and local regulations. Consult a local electrical contractor or the local planning and zoning office for details and regulations. The H20 wind turbine may output high current and high voltages, if you install the wind turbine yourself, you assume full responsibility and risk such as electrical shock or improper operation.

WindMax Green Energy Corp. / Applied Magnets shall not be responsible for any consequential damages that any person or property might suffer as a result of wind turbine defects and failures.

The end user of information and products by WindMax Green Energy Corp. / Applied Magnets products assumes full responsibility and risk.

All specifications are subject to change without notice