



# AEROSTAR<sup>®</sup> 6 METER WIND TURBINE

10 kW instantaneous power production

**Two Blade Teetering Rotor.** The two blade teetering rotor virtually eliminates the large gyroscopic forces inherent in 3 blade rotors. This results in extremely smooth running, low turbine weight and substantially lower cost for both the turbine and tower. Tapered, twisted blades with efficient low Reynolds Number airfoils provide optimum efficiency at low wind speeds.

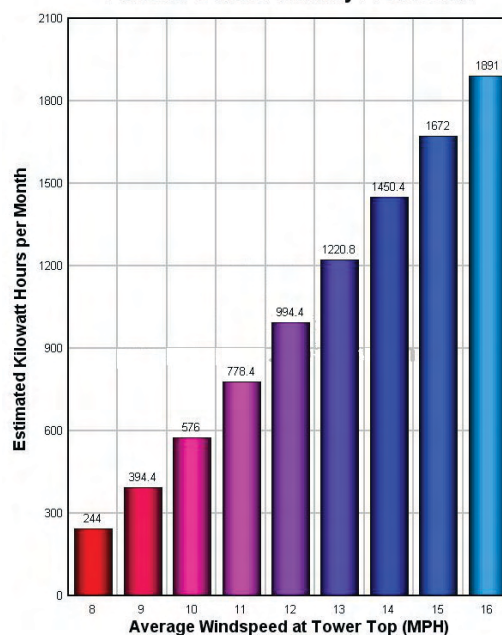
**Aerodynamic Rotor Control.** Safety was the foremost consideration when designing the Aerostar. Designers of large wind turbines learned early on that the only safe and reliable way of controlling a wind turbine is by using some method of aerodynamic braking. Changing the pitch of the rotor blades or blade tips is the most commonly accepted way of stopping or slowing the rotor in high winds. All brakes, whether electrical, mechanical, air or hydraulic are subject to failure and may not stop the rotor in high winds allowing it to accelerate to high speeds and subject the turbine and tower to potential destruction. Aerostar uses a patent pending fully automatic and failsafe aerodynamic rotor control. Take the advice of large turbine experts, and consider the safety of your family and neighbors. Don't even think about installing a turbine unless it has aerodynamic overspeed control.

**Induction Generator - No Inverter.** The turbine uses an induction generator. There is no complex, expensive and trouble prone inverter. The generator connects directly to a standard 60 amp circuit breaker. The system is simple, reliable, efficient and cost effective. The constant speed generator causes the rotor to turn at the same speed no matter what the wind speed. This means the turbine is extremely quiet, even in high winds.

**Generator Control Optimized for Low Winds.** The control system uses a microprocessor to vary generator excitation in order to increase efficiency at low wind speeds. The patent pending design reduces generator losses at low wind speeds, dramatically increasing power production at average wind speeds.

**Full Data Collection.** Unlike other small turbines on the market, all Aerostar turbines include full data collection at no extra cost. A large color touchscreen display shows average power produced, power used, power exported to the utility, average wind speeds and wind gusts, which are stored for each day for a full year.

**Aerostar 6 Meter Monthly Production**



Averages shown have been derated to account for differences in site conditions such as altitude, turbulence, wind shear and other factors which have the potential to degrade turbine performance. Because average wind velocities can have varying distributions of wind speeds, average power production is necessarily an approximation and will vary in accordance with local factors such as height, obstructions, wind shear, turbulence, etc. THE POWER PRODUCTION AT ANY SPECIFIC SITE MAY BE MORE OR LESS THAN SHOWN ON THIS TABLE.

## Specifications

Turbine Type	Downwind, Free Yaw	Cut-in WS	8 MPH
Rotor Diameter	22'- (6.7m)	Shut Down WS	50 MPH, Automatic Reset
Rotor Type	Two Blade Teetering, Self Start, Coning	Control System	Microprocessor, all components UL Listed
Blades	Tapered, Twisted Fiberglass Reinforced Composite	Display	Color Touchscreen Display
Overspeed Protection	Aerodynamic Tip Brakes, Failsafe Rotor Brake	Data Storage	One Year. kWh generated, used, exported, imported purchased,, avg. WS, wind gust.
Swept Area	380 Sq.Ft. (35.3 sq. m)	Interfaces	Web server (optional)
Generator	Induction, 240 VAC Single Phase, 60 Hz	Weight	650 lbs (281 kg)
Rated Capacity	10 kW continuous, 12 kW peak power		