

Wind Energy

The answer is blowin' in the wind ...

Wind generators supply clean and reliable power for lights, TVs, water pumps, computers and most other electrical Appliances.

When designed correctly and combined with quality components, AirX wind systems enhance output to satisfy most power needs in a cost effective way.

Ideal for households, tourist camps, hotels, water pumping, telecommunication etc. With wind systems, no power is lost during the day or at night.

These systems include Wind Generators, Inverters and Batteries. The systems save excess power to be utilized when low wind prevails. The wind systems come in different sizes and ratings suitable for all applications and budgets.thinksolartechncis



AirX Wind Module

Introducing the latest evolution in small wind turbines. The new microprocessor based turbine controller results in increased performance, improved battery charging capability and greater reliability.

Features

- * 1 YEAR WARRANTY
- * Carbon fibre composite blades
- * Aircraft quality aluminum alloy castings
- * Exclusive brush-less neodymium cubic curve alternator
- * Sophisticated internal battery charge regulator
- * Maintenance-free - only two moving parts
- * High Wind Safe Mode - automatically slows turbine in potentially damaging winds and reduces noise.

Applications

- * Remote homes & cabins
- * Water pumping
- * Recreational vehicles
- * Battery charging

For over a century, our world has been powered primarily by carbon fuels. In recent years, concern about global warming and the harmful effects of fuel emissions has created new demand for clean and sustainable energy sources, such as wind. In many areas around the globe, the energy market is also being driven by a dual new dynamic: deregulation and privatization.

As more and more consumers choose who produces their power, the market for renewable resources is forecast to expand at an even greater pace. Today, more than 31,000 megawatts of wind energy are installed throughout the world, and forecasts for wind power continue to be favorable with more than 83,000 cumulative megawatts predicted worldwide by 2007.

Wind is a low-cost renewable energy source that is less expensive than coal, oil, nuclear and most natural gas-fired generation, and is becoming attractive to utilities and electric cooperatives.

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What's New in the AirX?

- * New microprocessor-based controller.
- * Lower torque bearings allow for improved startup.
- * New series of carbon reinforced blades.
- * More robust tower clamp and assembly for stronger and more secure tower mounting.
- * MPPT (Power Point Tracking)

Clean Power Production:

The controller allows for peak-power tracking of the wind by optimizing the alternator's output on all points of the cubic curve and then efficiently delivers the energy to the battery.

Improved battery charging:

The AirX charge controller periodically stops charging, reads the battery voltage, compares it to the voltage setting and if the battery is charged, it completely shuts off all current going to the battery.

This function is performed within a few milliseconds. The closer the battery is to reaching its full state of charge, the more often the AirX circuit repeats this action. This means any size battery bank from 25 to 25,000 amp hours or higher can be charged safely. When the battery has reached its charged state, AirX wind system will slow to an almost complete stop.

Only when the battery has dropped below its voltage set point will it startup and resume charging.

The Benefit: Extended battery life, no overcharging.

Lower stress design:

AirX limits power on the input side of the electronics by controlling the torque from the blades.

TECHNICAL DATA

Items	W400	W800	W1200	W1400
Wind Modules:	1 x 110 W	2 x 110 W	3 x 400 W	4 x 400 W
DC/AC Inverter:	1 x 500 W	1 x 500 W	1 x 1100 W	1 x 1500 W
Solar Battery Bank:	1 x 400 Ah	1 x 800 Ah	1 x 1200 Ah	1 x 1400 Ah

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