

Energy Management System

The SmartBox Control System incorporates a proprietary control system that is specifically designed to capture the most efficient power from wind at its unpredictable patterns and dynamics. It functions as a sophisticated energy management system and also provides a simple and seamless interconnection to the grid. The Honeywell Wind Turbine and the SmartBox offers cutting-edge turbine technology to the individual, enabling each to harness, utilize and manage

the energy at their local wind zone. The SmartBox is the control system that consists of a charge controller and a nongrid tie 1.5 kW inverter. Included within the charge controller is an automatic AC transfer switch that will automatically switch between your AC grid and power generated via the turbine. The Honeywell Wind Turbine works seamlessly with grid tie or DC Charge controllers. Refer to items A through D on prior page under Connection Options.





SmartBox **Control System** incorporates:

- Optimal Power Transfer Controller
- True Sine Wave Inverter
- Battery Power Management System Wind Direction &
- Speed Measurement Control System

URO Constant of the

Utility Grid Tie System The Honeywell Wind Turbine can also be configured with the Aurora® grid tie inverter for simple connectivity to any utility or building (F.I.T. or net metering).

Aurora[®] inverters operate at 96% efficiency and comply with standards set for grid tied operation, safety, and electromagnetic compatibility including: UL1741/IEEE1547 & CSA-C22.2 N.107.1-01, VDEO126, CEI 11-20, DK5940, CEI64-8, IEC 61683, IEC 61727, EN50081, EN61000, CE certification, El Real Decreto RD1663/2000 de España.

A Wind Turbine Like No Other For...

Residential

- Commercial Agricultural
- Remote
- Towers
- Energy
- Recovery
- Educational
- Design
- 6' Size Startup speed
- · Ease of
- Permitting
- Efficiency

Tip to Tip Blade Dimension 5.7' (1.7 m)

Quiet



| Description | Product Dimensions | | | | | |
|---|--------------------|-------------------------------|-----------------------------|----------|-----------------------------|-------------------------------|
| | Port Number | GTIN / UPC (Sellable Unit) | Weight (All Weights in lbs) | | Dimensions (All in Inches) | |
| | Fart Number | | Unit | Shipping | Unit | Shipping |
| Ioneywell WT6500 Wind Turbine | WT6500 | 824309100014 | 185** | 400 | 78.7 W x 85 H x 19.5 Deep | 85 W x 89 H x 21 Deep |
| SmartBox™ 120V/50Hz NGT (Non-Grid Tie) | SB650012050NGT | 824309200127 | 58 | 66 | 20 L x 20.125 W x 9.0 Depth | 25 L x 25 W x 23.76 H |
| SmartBox™ 120V/60Hz NGT (Non-Grid Tie) | SB650012060NGT | 824309200028 | 58 | 66 | 20 Lx 20.125 W x 9.0 Depth | 25 L x 25 W x 23.76 H |
| SmartBox™ 230V/50Hz NGT (Non-Grid Tie) | SB650023050NGT | 824309200073 | 58 | 66 | 20 L x 20.125 W x 9.0 Depth | 25 L x 25 W x 23.76 H |
| SmartBox™ 230V/60Hz NGT (Non-Grid Tie) | SB650023060NGT | 824309200097 | 58 | 66 | 20 L x 20.125 W x 9.0 Depth | 25 L x 25 W x 23.76 H |
| Aurora [®] Inverter 3.0kW (Grid Tie) | POGT6500*** | 824309500*** | 38 | 45 | 28.5 L x 15.5 W x 15 H | 24.5 L x 12.75 W x 8.25 H |
| DutBack™ Inverter 3000W 120/60Hz w/ Battery Backup (Grid Tie) | OBGTFX3048 | 824309400022 | 62 | 69 | 16.25 L x 8.25 W x 14 H | 22 L x 13 W x 22 H |
| DC Charge Controller 12/24/48V | DCCC6500 | 824309400015 | 13.2 | 14.96 | 14.7 L x 11.9 W x 6.6 H | 18.15 L x 12.441 W x 12.441 H |
| QuadPod™ Fixed Mount | MQP6500 | 824309300049 | 165 | 170 | 72 L x 46 W x 12 H | 74 L x 48 W x 12 H |
| QuadPod™ Ballast Attachment | MQP6500B | 824309300056 | 374 | 374 | 46 L x 45 W x 6 H | 46 L x 45 W x 6 H |
| Pole Coupler | MPT6500 | 824309***** | *** | *** | *** | *** |
| | | | | | | |

Turbine weight does not include the weight of connection box, mounts or directional fins, *Part number for Aurora® Grid Tie Inverter and Pole Coupler are dependent on model selection





WindTronics™

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Electromagnetic Braking

WIND-02-2011 February 2011 Printed in Canada © 2011 WindTronics[™] Inc.





WT6500 Wind Turbine

Honeywell

| I WT6500 Specifications | | | | |
|------------------------------|---|--|--|--|
| Auto Directional | Connects to building, utility or battery charge controller | | | |
| oh (0.2 m/s) | Optional Controllers included: | | | |
| s < 35dB at 10 feet (3.1 m) | Aurora [®] , OutBack [™] , SmartBox or DC Charger | | | |
| nds up to 140 mph (62.6 m/s) | 5 Year Limited Warranty | | | |
| 8 mph (17.0 m/s) | Annual CO2 Displacement 2.2 Tons | | | |
| System | | | | |

2,200 Watts at 38 mph

2752 kWh/yr maximum output

A WIND TURBINE LIKE NO OTHER -**ALWAYS TURNING**

Blade Tip Power System



Honeywell Model WT6500 Specifications



Today's wind energy...

like no other.



Gearless Blade Tip Power System – the future of wind power

The innovative Blade Tip Power System (BTPS) is the patented technology created by WindTronics[™]. The Honeywell Wind Turbine utilizes a system of magnets and stators surrounding its outer ring capturing power at the blade tips where speed is greatest, practically eliminating mechanical resistance and drag. Rather than forcing the available wind to turn a generator, the perimeter power system becomes the generator by swiftly passing the blade tip magnets through the copper coil banks mounted onto the enclosed perimeter frame. The Blade Tip Power System addresses past constraints such as size, noise, vibration and output. The enclosed perimeter shrouds the system and is more distinguishable to wildlife. WindTronics' proprietary systems are breaking traditional technological barriers across multiple markets, for homes and businesses, for both energy generation and energy recapture even in moderate winds.

Introducing a breakthrough wind energy system for home and business

The Honeywell Wind Turbine is a gearless wind turbine that measures just 6 feet (1.8 m) in diameter, weighs 185 lbs (84 kgs) and produces up to 1500 kWh per year depending on height and location. The Honeywell Wind Turbine's BTPS perimeter power system and unique design of multistage blades allows the system to react quickly to changes in wind speed. This ensures that the maximum wind energy is captured without the typical noise and vibration associated with traditional wind turbines. The Honeywell Wind Turbine has an increased operating span over traditional turbines with a start-up speed as low as 0.5 mph (0.2 m/s), with an auto shut off at 38 mph (17.0 m/s), traditional gearbox turbines require minimum wind speeds of 7.5 mph (3.5 m/s) to cut in and start generating power. The Honeywell Wind Turbine is designed to be installed by a licensed electrician wherever energy is consumed, turning homes and businesses from points of total consumption to distributed energy sources, in a cost effective and efficient manner.

Turbine Technology Comparison



Turning a wind turbine into a wind generator by eliminating the gear box.

Turbine Mounting Options: At 185 lbs (84 kgs) and 6 feet (1.8 m) versatile – like no other.

Flat Roof (Commercial) QuadPod and Ballast Mount





Directional Fins & Braking

The directional fins continuously guide the turbine for maximum wind exposure. The system starts turning at 0.5 mph (0.2 m/s), automatically shuts down in high winds (+38 mph [+17.0 m/s]) through its electromagnetic braking system and is designed to withstand winds up to 140 mph (62.6 m/s).

FAQ's

Many factors will affect the output of the turbine at each location depending on placement. Your location can be affected by trees, terrain and obstructions.

 Always seek the highest elevation and lowest obstruction field as possible (33 feet (10.0 m) minimum, the higher the better).

- You may advise your city, town or neighbors that you're installing a new generation wind turbine, but at 185 lbs (84 kgs), 6 feet (1.8 m), 35 dB at 10 feet (3.1 m), it may be not necessary.
 We're here to help you.
- An average annual wind rating of 12 mph (5.4 m/s) is recommended as a good minimum wind speed to keep in mind, off grid locations might consider less.
- The Honeywell Wind Turbine is designed for all environments from hot to cold temperatures and from coastal locations to mountaintops.
- Electrical connection is very similar to a backup generator connected to the building or solar power to the grid. Refer to connection options A through D.
- The system is designed to be installed by a licensed electrical contractor.



Pole Mount (Commercial or Residential) Cell Tower Mount (Commercial)



- Our Smart Swap warranty program allows contractors to replace components easily.
- The roof box QuadPod system is designed for pitched or flat roof tops. As roof construction and roof lines vary, pole mounted installations are recommended for residential environments for optimal cost, flexibility and performance.

WindTronics[™] has created a range of tools to assist in identifying proper site selection based on wind, rates and rebates.

www.windknowledge.com Easy look up of US and Canada wind rates, electrical rates, rebates and incentives.

www.windestimator.com

Global wind statistic, predominant wind direction and wind strength analysis.

Award Winning Technology



Edison Awards Gold Winner in the Energy & Sustainability category



One of the Most Brilliant Products of 2009 by Popular Mechanics Magazine



109 UNIDO Top Ten New Technologi for Renewable Energy Utilization



Built like no other - Automated assembly lines.

Product Certification ETL listed, conforming to UL 1741 and CAN/CSA C22.2 No.107.1.

Connection Options

Connect to Building/House, Utility or 12/24/48V Batteries Converts your wind – like no other.







Direct DC 12/24/48 V battery charging



