EVEREADY

kestrel wind turbines

Eveready Diversified Products (Pty) Ltd

www.kestrelwind.co.za

e400^{i}

Up to 3000 watts of power from a high performance three blade turbine

Affordable clean electricity, adaptable to your needs

Reliable and convenient with a long-life design

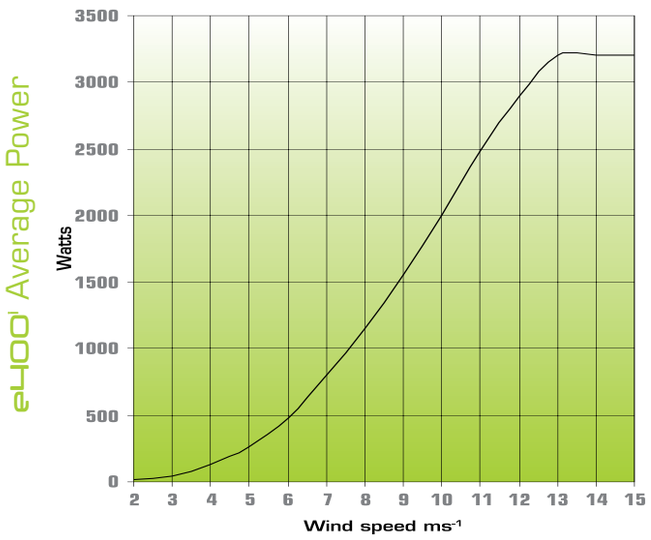
Suitable for urban living

Power • Quality • Affordability

Specifications

The new e400^{i} is the next level in small wind turbines. By optimising renewable power output and performance, the efficiency of the e400^{i} makes it a valuable asset for fulfilling energy requirements.

Modern living requires a massive amount of energy that is depleting fossil fuels. The e400^{i} generates regulated and optimised energy for increased energy efficiency that is adaptable to all installation requirements.



Design

The three aerofoil blades are managed by an advanced passive pitch control system that allows the e400^{i} to continuously generate rated energy in wind speeds that exceed rated wind speed.

The three blade design, with a diameter of 4m, moderates noise emissions effectively, making it an unobtrusive and reliable method of renewable energy generation in all installations and environments. The e400^{i} advanced direct drive alternator incorporates three main shaft bearings for longevity and increased reliability.

Applications

- Boost solar & other renewable energy installations increasing productivity, reliability & cost effectiveness
- Water pumping systems with suitable water pump controller to reduce utility costs
- Continual & reliable power for repeater stations, suitable for the telecommunications industry
- Grid tie applications using approved inverters to reduce energy costs
- Generate dedicated power for housing, community & health centres not connected to the national grid
- Small wind farm installations
- Adaptable to meeting many electrical needs

renewable power for life

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Small Wind Turbine Class	II
Rated Output	3000w
Maximum Power	3300w at 12ms^{-1}
Rated Wind speed	11ms^{-1}
Cut-in Wind speed	2.8ms^{-1}
Generator Type	Permanent-magnet Axial flux brushless
Rotor Diameter	4m
Number of Blades	3
Blade Material	Fibre glass
Tower Top Mass	150kg
Tower Height	12-15m
Tower Type	Tripod
Overspeed Protection	Pitch Control
Controller Type	Charge ONLY
Output Voltage	48*,200 and 300 Vdc
Application	Battery-charging
	Grid Tie
	Hybrid
	Water Pumping

**Available on request*

Technical Specifications

Rated output is achieved at the rated wind speed at sea level. Rated power is the optimal power rating of the turbine at the rated wind speed. making it maintainable without a cut out wind speed.

Rated output is optimised by technology and design, namely by dynamically limiting the output by pitch control. The Axial Flux alternator type reduces the heat losses while energy is being generated in the form of polyphase high frequency output.

The full aerofoil blades are moulded from fibre glass and protected from dust and moisture. The e400^{i} conforms to IEC standards and follows the provisions in the directives IEC61400-2 (small wind turbines).

Kestrel Wind Turbines and its global affiliates and dealers are committed to renewable energy generation as well as reducing the use of fossil fuels. Wind power addresses most of the current issues of present renewable power generation options. Kestrel is continuously developing small wind turbine technology to supply personal or business energy demands.

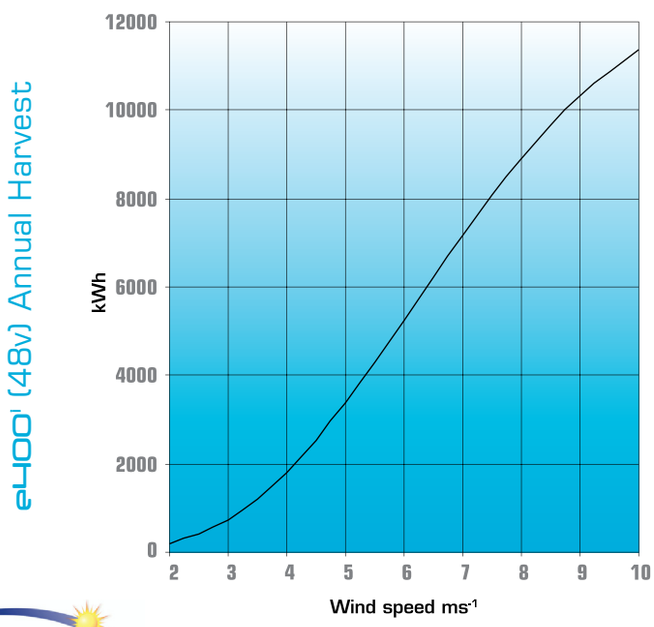
Kestrel is continuously improving current small wind turbines in the Kestrel range to ensure that the highest quality product is distributed. All Kestrel dealers share these values and are trained to support Kestrel's customers in understanding their power requirements and the local wind resource available to them. Also, to evaluate the turbines in the Kestrel range that best accommodates these requirements, assist installations and advise on maintenance procedures.

Power Generation

Generating your own renewable power is low maintenance as routine maintenance is largely based on visual assessments. Maintenance schedules are designed to suit the local, respective, wind area and power class. With a maximum instantaneous power rating of 3300W, annual energy harvests can exceed 13 600kWh. Energy may be harvested at any different wind speed exceeding cut in speed and rated output is maintained at any wind speed exceeding the rated wind speed through rotor turbulence. Energy output is intrinsically linked to regional wind distribution, topology and altitude as well as tower height. Potential energy harvest is estimated using an average wind speed in order to tailor the most suitable Kestrel wind system to your electrical need.

Results may vary based on wind distribution, topology, tower height and altitude. In order to estimate ones own potential energy harvest an average wind speed must be used.

Note: Specifications may vary with continuing development and innovation.



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