



kestrel  
wind turbines

Eveready Diversified Products (Pty) Ltd

[www.kestrelwind.co.za](http://www.kestrelwind.co.za)

e300<sup>i</sup>

Up to 1000 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 next generation e300<sup>i</sup> exemplifies the beauty of sophisticated aerodynamic design. The e300<sup>i</sup> is compact and unobtrusive making it suitable for urban living. The e300<sup>i</sup> is suitable in all wind classes and has a low start-up torque that requires minimal wind to generate energy.

Modern living demands more applications that require energy usage. Every feature of the e300<sup>i</sup> optimises renewable energy generation, increasing energy efficiency and cost saving.

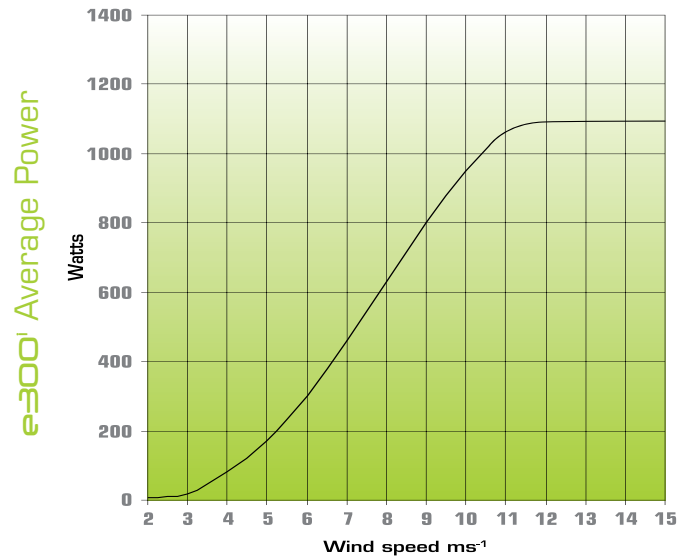
## Design

The three aerofoil blades, with a diameter of 3.0m, are managed by a passive pitch control system that allows the e300<sup>i</sup> to continuously generate usable energy in wind speeds that exceed rated wind speed.

This is one of the factors that contribute to the e300<sup>i</sup> being one of the best machines in its class in terms of overall energy harvest on an annualised basis. The e300<sup>i</sup> advanced design moderates noise emissions effectively, making it an inconspicuous power source in all installations and environments.

## Applications

- Boost solar & other renewable energy installations increasing productivity, reliability & cost effectiveness
- Water pumping systems with optional 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
- Small wind farm installations
- Generate dedicated power for housing, community & health centres not connected to the national grid
- Adaptable to meeting many specific electrical needs



renewable power for life



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Small Wind Turbine Class	II
Rated Output	1000w
Maximum Power	1150w at 12ms <sup>-1</sup>
Rated Wind speed	11ms <sup>-1</sup>
Cut-in Wind speed	2.5ms <sup>-1</sup>
Generator Type	Permanent-magnet Axial flux brushless
Rotor Diameter	3m
Number of Blades	3
Blade Material	Fibre glass
Tower Top Mass	75kg
Tower Height	9-15m
Tower Type	Scissor or Guyed
Overspeed Protection	Pitch Control
Controller Type	Charge or Dump
Output Voltage	12, 24, 36*,48, 110* and 200 Vdc
Application	Battery-charging Grid Tie Hybrid Water Pumping

\*Available on request

## Technical Specifications

Rated output is the optimal power rating of the turbine at the rated wind speed at sea level.

Without a cut-out wind speed power generation is continuous. Rated output is maintained by limiting the output using passive pitch control in high winds, which prevents over speeding inefficiencies.

The Axial Flux Alternator remains cool while maximum energy is being generated in the form of polyphase high frequency output, reducing inefficiency through energy losses.

The full aerofoil blades are moulded from fibre glass to protect against dust and moisture damage. The e300' 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.

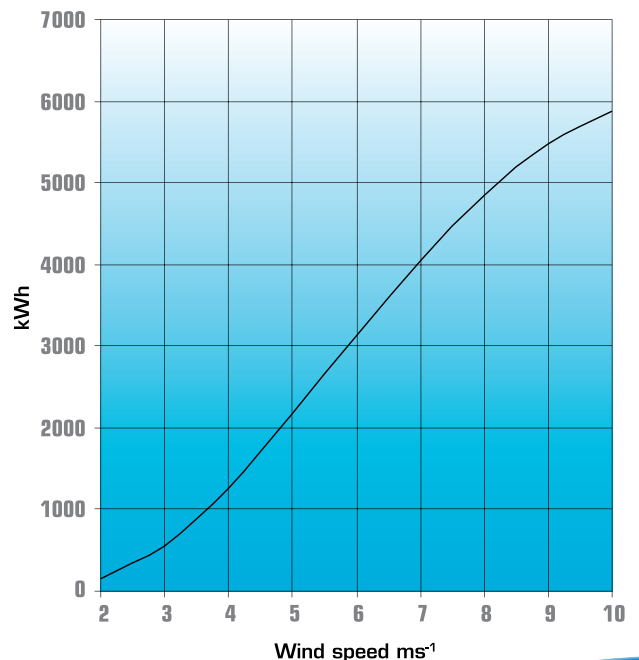
## Power Generation

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 1200W, annual energy harvests can exceed 5500kWh. Energy may be harvested at any wind speed above the cut-in speed and rated output is maintained at any wind speed exceeding the rated wind speed through passive speed control. 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.

e300' (48v) Annual Harvest



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