



kestrel
wind turbines

Eveready Diversified Products (Pty) Ltd

www.kestrelwind.co.za

e150

Specifications

The e150 is one of the smaller turbines in the Kestrel range. Every feature is designed to optimise small scale renewable energy generation, making clean energy accessible to everyone. Its usefulness is limitless. Its cut-in speed is low in order to facilitate continuous generation, creating a reliable energy source for the owner. The standard finish of an etching marine primer, an intermediate protective coat and a polyurethane two pack finishing coat ensures protection from the elements.

The durability of the e150 has been proven through many installations that experience wind speeds in excess of 150km/h. Modern living requires a massive amount of energy that is depleting fossil fuels. The e150 generates renewable and cost-saving energy whenever the wind blows.

Design

The heart of the machine comprises of a single axial flux permanent magnet brushless alternator which is powered by the six aerofoil blades. The six blade design is a self-regulating aerodynamic rotor which allows the e150 to generate usable energy in any wind speed. Speed control is achieved through blade turbulence that controls the speed of the rotor with no moving parts.

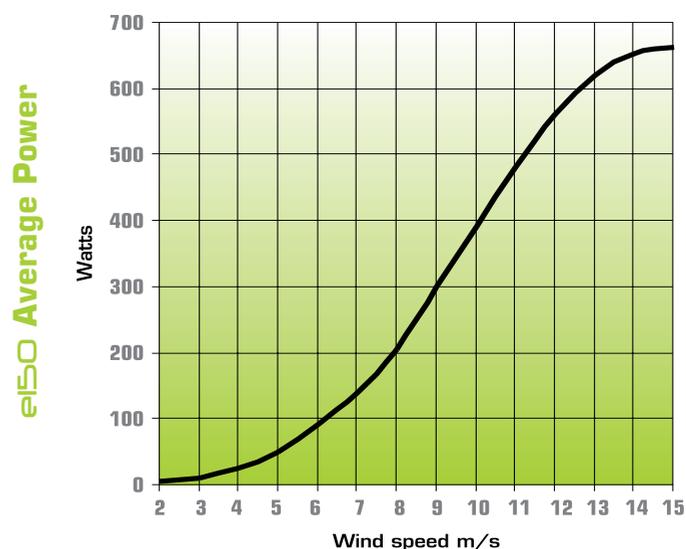
This allows the e150 to be one of the quietest small wind turbines on the market. Being only 1,5m in diameter and unobtrusive, it is suitable for urban areas as it harvests energy by harnessing the clean, abundant and renewable resource of wind.

Applications

- Cost saving mechanism, replacing noisy generators for back-up power that rely on fossil fuels
- Battery charging for use in remote areas or specific electrical needs
- Boost other renewable energy installations with hybrid generation, making the installations more productive, reliable and cost effective
- Grid tie applications using approved inverters to reduce energy costs
- Small wind farm installations
- Adaptable to meeting all other specific electrical needs

- Up to 600 watts of power from a unique six blade turbine
- Affordable clean electricity, adaptable to your needs
- Reliable and convenient with a long life design
- Suitable for urban living

POWER • QUALITY • AFFORDABILITY



Renewable Power for Life



Small Wind Turbine Class	II
Rated Power	600w
Rated Windspeed	13m/s
Rated Rotational Speed	800rpm
Power Output@11m/s	500w
Maximum Power	650w from 14m/s
Cut in Windspeed	2.8m/s
Alternator Type	Axial Flux
Rotor Diameter	1.5m
Number of Blades	6
Type of Blades	Full Aerofoil
Tower Top Weight	20kg
Speed Control	Rotor Turbulence
Emergency Brake	-
Charge Regulator	Charge or Dump
Standard Voltage	12, 24, 48, 200
Protection	IP55

Technical Specifications

Rated output is the optimal power rating of the turbine at the rated wind speed at sea level. Rated rotational speed is the turbine rpm for optimal power output. Without a cut-out wind speed power generation is continuous.

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 glass fibre to protect against dust and moisture damage. Rotor turbulence causes self stalling, which allows for almost silent power generation without passive speed control.

The e150 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.

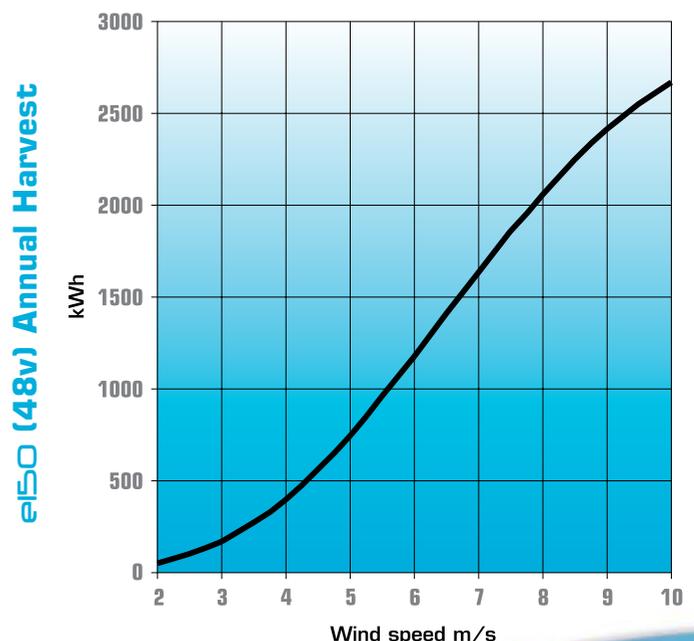
Kestrel is continuously improving current small wind turbines in the Kestrel range to ensure the highest quality product is distributed. All Kestrel dealers share these values and are trained to support Kestrel's customers in understanding their power requirements and the local wind resource available 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 650W, annual energy harvests can exceed 2600kWh. 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 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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