



SMALL WIND  
CERTIFICATION  
COUNCIL™

# ICC-SWCC™ CERTIFICATION SWCC-10-16



## Small Wind Turbine Certification Program

**Certification Number: SWCC-10-16**  
**Original Certification Date: Jun. 7, 2016**  
**Expiration Date: April 1, 2022**  
*Certification subject to renewal annually.*

[www.smallwindcertification.org](http://www.smallwindcertification.org) (888) 422-7233 3060 Saturn St., Suite 100, Brea, CA 92821 USA  
*A Program of the ICC Evaluation Service (ICC-ES)*

**Program:** This wind turbine has been evaluated and certified by the Small Wind Certification Council (ICC-SWCC™), an ISO/IEC 17065 accredited Certification Body, in accordance with the Small Wind Turbine Certification Program, as defined in *ICC-SWCC Rules for Wind Turbine Listing Reports*. This award of certification is subject to all terms and conditions of the current SWT Program Agreement and the documents incorporated therein by reference. This document must be reproduced in its entirety.

**Products:** Small Wind Turbines—electricity-producing wind turbines with a swept area up to 200 m<sup>2</sup>  
**Reference Standard:** AWEA Small Wind Turbine Performance & Safety Standard (AWEA 9.1–2009)

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**Listee:** **Eveready Diversified Products (Pty) Ltd.**  
**T/A Kestrel Renewable Energy**  
Eveready Road, Struandale  
Port Elizabeth, South Africa

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

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**Model:** **Kestrel e400nb** (240 VAC, 1-phase, 60 Hz)

Changes to the design of this wind turbine are to be approved by ICC-SWCC. If changes are made to the turbine without approval, this Certificate is not valid.

The specifications of the certified wind turbine, relevant to this Certificate, are provided on the following page.

*Shawn Martin*

*Vice President of Technical Services, ICC-SWCC*

Please verify certification is active on the ICC-SWCC website: [www.smallwindcertification.org](http://www.smallwindcertification.org)

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# ICC-SWCC™

## CERTIFICATION SWCC-10-16



### Wind Turbine Specification:

#### Turbine Parameters

Manufacturer .....	Eveready/Kestrel Renewable Energy
Model .....	Kestrel e400nb
Power Form .....	240 VAC, 1-phase, 60 Hz
Rotor Diameter .....	4.0 m
Rotor Swept Area.....	12.6 m <sup>2</sup>
Cut-In Wind Speed.....	4.0 m/s
Cut-Out Wind Speed .....	N/A
Maximum Power .....	3,025 W
Maximum Voltage.....	550 VDC, unloaded generator output
Maximum Current.....	25 ADC, short circuit generator output

#### Turbine Ratings

AWEA Rated Annual Energy @ 5 m/s .....	3,930 kWh
AWEA Rated Sound Level .....	55.6 dB(A)
AWEA Rated Power .....	2.5 kW @ 11 m/s
Peak Power.....	3.0 kW @ 19.5 m/s

### Design and Duration

Turbine design complies with AWEA Standard 9.1 – 2009 for an IEC Class I SWT with an average wind speed ( $V_{ave}$ ) of 10 m/s and reference wind speed ( $V_{ref}$ ) of 50 m/s.

As a result of the particular wind distribution that occurred during the test period, it was not possible to demonstrate IEC Class I wind conditions. The turbine duration test complies with AWEA Standard 9.1-2009 for an IEC Class II SWT with an average wind speed ( $V_{ave}$ ) of 8.5 m/s and reference wind speed ( $V_{ref}$ ) of 42.5 m/s.

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