

ICC-SWCC™ CERTIFICATION SWCC-11-04

Small Wind Turbine Certification Program

Issued: June 17, 2013
Expiration Date: July 1, 2024
Certification subject to renewal annually.

www.smallwindcertification.org

(888) 422-7233

3060 Saturn St., Suite 100, Brea, CA 92821 USA

A Program of the ICC Evaluation Service (ICC-ES)

CERTIFICATION 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 and the standards below.

PRODUCT: Small Wind Turbine (electricity-producing distributed wind turbine)

STANDARD: AWEA Small Wind Turbine Performance & Safety Standard (AWEA 9.1–2009)

LISTEE: SD Wind Energy Ltd.

Warhead, Stewarton Ayrshire, KA3 5LH

Scotland

United Kingdom

www.sd-windenergy.com +44 (0)1560 486 570

MODEL: SD6 (240 VAC, 1-phase, 60 Hz)

CONDITIONS:

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.

- The turbine listed in this ICC-SWCC certification has been evaluationed to the AWEA 9.1-2009 standard and has been found to comply in accordance with the ICC-SRCC Rules for Wind Turbine Listing Reports. It is valid between the date of issuance and expriation and is subject to annual renewal Certification validity should be confirmed on the ICC-SWCC website at www.smallwindcertification.org
- 2. Performance ratings are provided in accordance with the methodologies and conditions established by the *AWEA 9.1* standard. Actual results will vary based on the specific usage, installation and local environmental conditions.
- The certified turbine must be installed in accordance with the manufacturer's published installation instruction and applicable codes. Certification does not address the turbine tower, foundation or the electrical safety.
- 4. Wind turbine manufactured by SD Wind in Scotland, United Kingdom under a quality control program subject to periodic evaluation in accordance with the requirements of ICC-SWCC.



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TURBINE PARAMETERS

Manufacturer	. SD Wind Energy Ltd.
Model	SD6
Power Form	. 240 VAC, 1-phase, 60 Hz
Rotor Diameter	. 5.5 m
Rotor Swept Area	. 23.7 m ²
Cut-In Wind Speed	. 2.5 m/s
Cut-Out Wind Speed	. N/A
Maximum Power	. 6.135 kW
Maximum Current	. 22 ADC into, 23 AAC from inverter
Maximum Voltage	. 600 VAC (3-phase) from inverter

PERFORMANCE RATINGS

AWEA Rated Annual Energy @ 5 m/s	8,950 kWh
AWEA Rated Sound Level	43.1 dB(A)
AWEA Rated Power	5.2 kW @ 11 m/s
Peak Power	6.1 kW @ 17 m/s

DESIGN ASSESSMENT

Turbine design calculations comply 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 50.0 m/s.

DURATION TESTING AND IEC CLASSIFICATION

Turbine design and duration test comply 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. As a result of the particular wind distribution that occurred during the Duration Test period, it was not possible to demonstrate IEC Class I wind conditions.





