



# ICC-SWCC™ CERTIFICATION SWCC-18-02



## Small Wind Turbine Certification Program

Certification Number: **SWCC-18-02**  
Original Certification Date: **May 10, 2019**  
Expiration Date: **May 10, 2020**  
*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)

**Listee:** **Hi VAWT Technology Corp.**  
No. 168, Jhulin 1<sup>st</sup> Rd.  
Linkuo town, 244  
Taipei county, Taiwan, ROC

*Represented in USA by:*

**Colite Technologies**  
5 Technology Circle  
Columbia, SC 29203

[www.hi-vawt.com.tw](http://www.hi-vawt.com.tw)  
+886-2-8601-4373  
[www.colitetech.com](http://www.colitetech.com)  
(803) 935-9000

**Model:** **DS3000** (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*

# ICC-SWCC™

## CERTIFICATION SWCC-18-02



### Wind Turbine Specification:

#### Turbine Parameters

|                          |                         |
|--------------------------|-------------------------|
| Manufacturer .....       | Hi VAWT Technology      |
| Model .....              | DS3000                  |
| Power Form .....         | 240 VAC, 1-phase, 60 Hz |
| Rotor Diameter .....     | 3.66 m (effective)      |
| Rotor Swept Area.....    | 10.6 m <sup>2</sup>     |
| Cut-In Wind Speed.....   | 3.5 m/s                 |
| Cut-Out Wind Speed ..... | 15 m/s                  |
| Maximum Power .....      | 2.7 kW                  |
| Maximum Current .....    | 10.2 A AC from inverter |
| Maximum Voltage .....    | 264 V AC from inverter  |

#### Turbine Ratings

|  |                   |
|--|-------------------|
| AWEA Rated Annual Energy @ 5 m/s ..... | 2,460 kWh         |
| AWEA Rated Sound Level .....           | 42.3 dB(A)        |
| AWEA Rated Power .....                 | 1.4 kW @ 11 m/s   |
| Peak Power.....                        | 1.4 kW @ 10.5 m/s |

### Design and Duration

Turbine design calculations comply with AWEA Standard 9.1 – 2009 for an IEC Class III SWT with an average wind speed ( $V_{ave}$ ) of 7.5 m/s and reference wind speed ( $V_{ref}$ ) of 37.5 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 III wind conditions. The DS3000 successfully completed a Duration Test for an IEC Class IV Small Wind Turbine with an Operational Time Fraction of 90%, an average wind speed ( $V_{ave}$ ) of 6.0 m/s and reference wind speed ( $V_{ref}$ ) of 30 m/s.