



## CERTIFIED SOLAR COLLECTOR

**SUPPLIER:**  
Butler Sun Solutions, Inc.  
980 Santa Estella  
Solana Beach, CA 92075 USA  
www.butlersunsolutions.com

**BRAND:** Solar PV Wand  
**MODEL:** 1350W  
**COLLECTOR TYPE:** PV Water Heating  
**CERTIFICATION #:** 10001980  
**Original Certification:** August 14, 2015  
**Expiration Date:** May 12, 2027

In Accordance with:  
**SRCC Standard 100-2014-07**

The solar collector listed below has been evaluated by the Solar Rating & Certification Corporation™ (SRCC™), an accredited and EPA recognized Certification Body, in accordance with SRCC OG-100, Operating Guidelines and Minimum Standards for Certifying Solar Collectors, and has been certified by the SRCC. This award of certification is subject to all terms and conditions of the Program Agreement and the documents incorporated therein by reference. This document must be reproduced in its entirety.

### COLLECTOR THERMAL PERFORMANCE RATING (Collector Tested Per SRCC TM-1)

Kilowatt-hours (thermal) Per Collector Per Day				Thousands of Btu Per Collector Per Day			
Climate ->	High Radiation (6.3 kWh/m <sup>2</sup> .day)	Medium Radiation (4.7 kWh/m <sup>2</sup> .day)	Low Radiation (3.1 kWh/m <sup>2</sup> .day)	Climate ->	High Radiation (2000 Btu/ft <sup>2</sup> .day)	Medium Radiation (1500 Btu/ft <sup>2</sup> .day)	Low Radiation (1000 Btu/ft <sup>2</sup> .day)
Ambient 10°C	5.8	3.8	1.7	Ambient 50°F	19.8	12.8	5.9
Ambient 20°C	5.8	3.8	1.7	Ambient 68°F	19.8	12.9	5.9
Ambient 30°C	5.8	3.8	1.7	Ambient 86°F	19.9	13.0	6.0

**Collector Description:** PV modules connected to a DC heating element

#### PV ARRAY SPECIFICATIONS

Gross Area:	9.76 m <sup>2</sup>	105.10 ft <sup>2</sup>	Nominal Output per Module (STC): 225 W	
Module Manufacturer: Topoint Solar			Module Brand: JTM235	
Module Model: JTM235/240-60P			Number of Modules: 6, all in parallel	
Other PV panels and wiring configurations are acceptable substitutes if the overall array meets all of the following conditions and all applicable requirements of the versions of SRCC Standard 100 and TM-1 listed above.				
Isc >= 49.5 amps	Imp >= 46.68 amps	Pmax >= 1350 W	Voc >= 36.92 V	Vmp >= 28.91 V

#### INVERTER SPECIFICATIONS

Not applicable to this system

#### HEATING ELEMENT SPECIFICATIONS

Heating Element Power: 1500 W at 30 V DC	Number of Elements: 1
Test Lab: Florida Solar Energy Center	Test Report Date: May 12, 2015
Tested in accordance with: SRCC TM-1-2014-07	Test conducted: Outdoors

**Remarks:**

1. Ratings are based on the output of new PV modules. They do not account for degradation of the PV output over time.



*Jim Huggins*



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