



OG-100 ICC-SRCC™ CERTIFIED SOLAR COLLECTOR # 10002099

SUPPLIER:
DualSun
2 rue Marc Donadille
CS 80001- 13453 Marseille
Cedex 13, France
www.dualsun.fr

BRAND: DualSun
MODELS: XXXM-60-3BBPN
COLLECTOR TYPE: PV Thermal
CERTIFICATION #: 10002099
ORIGINAL CERTIFICATION: February 01, 2020
RENEWAL EXPIRATION DATE*: February 01, 2021
**Certifications must be renewed annually*

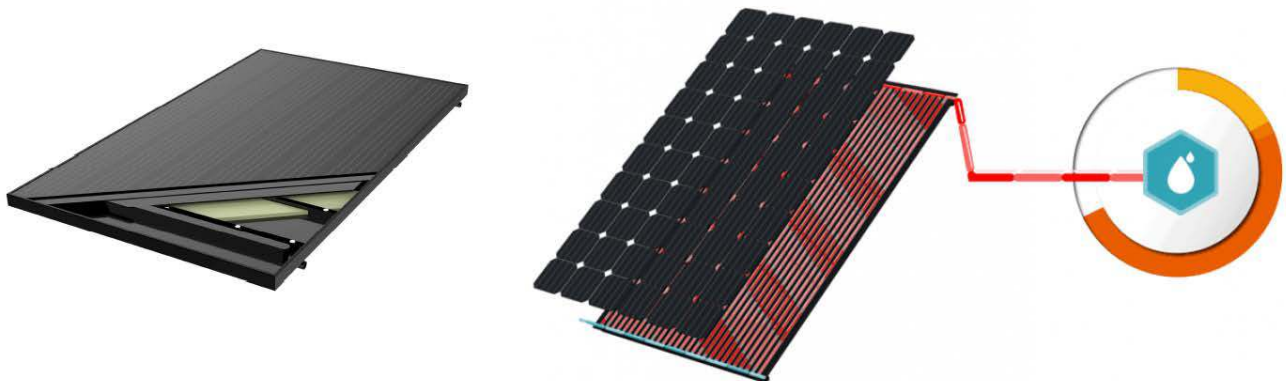
In Accordance with: **ICC-901/SRCC Standard 100-2015**

This solar collector listed below has been evaluated and certified by the Solar Rating & Certification Corporation (ICC-SRCC™), an ISO/IEC 17065 accredited Certification Body, in accordance with ICC-SRCC OG-100, Operating Guidelines and Minimum Standards for Certifying Solar Collectors. This award of certification is subject to all terms and conditions of the ICC-SRCC OG-100 Program Agreement and the documents incorporated therein by reference. This document must be reproduced in its entirety.

PV THERMAL COLLECTOR PERFORMANCE RATINGS ²							
Kilowatt-hours (thermal) Per Collector ¹ Per Day				Thousands of Btu Per Collector ¹ Per Day			
Climate →	High Radiation (6.3 kWh/m ² ·day)	Medium Radiation (4.7 kWh/m ² ·day)	Low Radiation (3.1 kWh/m ² ·day)	Climate →	High Radiation (2000 Btu/ft ² ·day)	Medium Radiation (1500 Btu/ft ² ·day)	Low Radiation (1000 Btu/ft ² ·day)
A (-5°C)	4.95	3.91	2.91	A (-9°F)	16.77	13.34	9.93
B (5°C)	2.26	1.29	0.45	B (9°F)	7.72	4.41	1.52
C (20°C)	0.01	0.00	0.00	C (36°F)	0.03	0.00	0.00
D (60°C)	0.00	0.00	0.00	D (90°F)	0.00	0.00	0.00
E (80°C)	0.00	0.00	0.00	E(144°F)	0.00	0.00	0.00

1. Collector area of 1.635 m² (17.599 ft²) gross collector area used for performance rating calculations.

COLLECTOR DESCRIPTION: Solar Thermal PVT Collector



Please verify certification is active on SRCC website www.solar-rating.org
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TECHNICAL RESULTS

ISO efficiency Equation: [Note: Based on gross area and (P)=Ti-Ta]

SI UNITS	Wind speed (u) in m/s, Temperature (Ti-Ta) in °C, Radiation (G") in W/m ² ETA = 0.4457 *(1 - 0.0967 *u) -(15.3591 + 0.36920*u)*(P)/G"						
IP UNITS	Wind speed (u) in m/s, Temperature (Ti-Ta) in °F, Radiation (G") in Btu/hr-ft ² ETA = 0.4457 *(1 - 0.0432 *u) -(2.7049 + 0.02907*u)*(P)/G"						
Incident Angle Modifier IAM							
θ	10°	20°	30°	40°	50°	60°	70°
K _r	0.97	0.98	1.01	1.09	1.1	1.07	0.8
Impact Safety Rating: 11							

COLLECTOR SPECIFICATIONS

Gross Area:	1.635 m ²	17.599 ft ²	Dry Weight:	22.8 Kg	50.3 Lbs.
Aperture Area:	1.635 m ²	17.599 ft ²	Fluid Capacity:	5 Lt.	1.31 Gal

REMARKS: PVT model number is acceptable that meets all of the following conditions:

1. P_{max} of each module between 285 W to 315 W (@STC).
2. Module is listed and labeled to UL 1703 and installed in accordance with manufacturer's specifications.

LABORATORY TEST INFORMATION

Test Lab: TUV Rheinland	Test Report No. 07/2019
Tested in Accordance With: EN ISO 9806:2017	Test Report Date: September 12th, 2019
Tested PVT Collector: 305M-60-3BBPI	Test Location: Indoors

REMARKS:

1. All wiring, connections, components and labeling shall be made in accordance with the National Electrical Code (NFPA 70) and as specified by the manufacturer.
2. PVT collectors mounting and racking shall comply with all local codes and the manufactures' installation requirements.
3. Performance ratings have been calculated for the specified components at the standardized conditions established by the OG-100 program. Installed performance values may differ.
4. PVT collectors certified under the ICC-SRCC OG-100 program include the assembly of components that convert solar radiation to thermal energy in a fluid. In this case, the collector is comprised of the PV modules in the front of the panel and A Solar Thermal Fluid Heat exchanger in the back of the panel, PVT collectors do not include or account for tanks, auxiliary water heaters, and any controllers.
5. The collectors listed in this ICC-SRCC OG-100 PVT certification must display a label within the installation and operation manual(s) in accordance with the *ICC-SRCC Certification, Trademark and Certificate Policy*, which is available on the ICC-SRCC website.

Shawn Martin

Vice President of Technical Services, ICC-SRCC



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