



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

**SUPPLIER:**  
Fegensolar LLC  
2252 W Carson St A  
Torrence, CA 90501  
USA  
www.fegensolar.com

**BRAND:** FEGEN SOLAR  
**MODELS:** RFK-16P  
**COLLECTOR TYPE:** PV Thermal  
**CERTIFICATION #:** 10002102  
**ORIGINAL CERTIFICATION:** March 01, 2020  
**RENEWAL EXPIRATION DATE\*:** March 01, 2021  
*\*Certifications must be renewed annually*

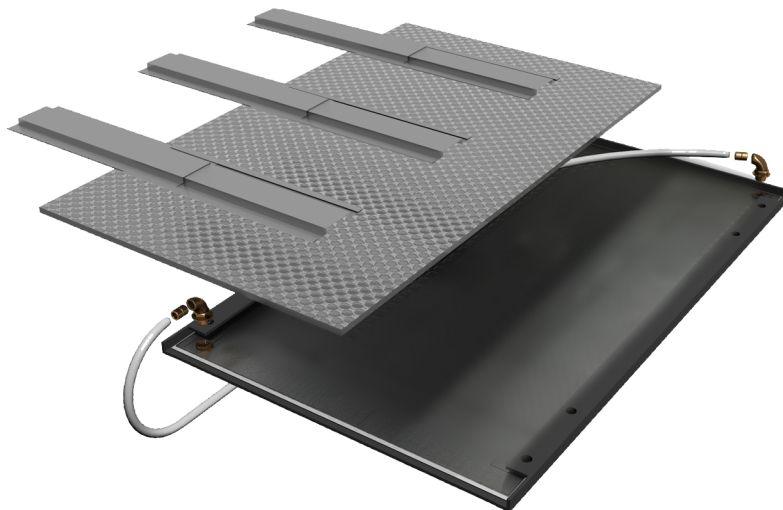
In Accordance with: **ICC-901/SRCC Standard 100-2015**

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							
Kilowatt-hours (thermal) Per Collector <sup>1</sup> Per Day				Thousands of Btu Per Collector <sup>1</sup> Per Day			
Climate → Category (T <sub>i</sub> -T <sub>a</sub> )	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 → Category (T <sub>i</sub> -T <sub>a</sub> )	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)
A (-5°C)	4.72	3.65	2.60	A (-9°F)	16.11	12.48	8.87
B (5°C)	2.64	1.61	0.67	B (9°F)	9.02	5.48	2.30
C (20°C)	0.57	0.02	0.00	C (36°F)	1.96	0.05	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. See tested collector details below.

### COLLECTOR DESCRIPTION: Solar Thermal PVT Collector



Please verify certification is active on SRCC website [www.solar-rating.org](http://www.solar-rating.org)  
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### TECHNICAL RESULTS

ISO Efficiency Equation: [Note: Based on gross area and (P)=T<sub>i</sub>-T<sub>a</sub>]

SI UNITS	Wind speed (u) in m/s, Temperature (T <sub>i</sub> -T <sub>a</sub> ) in °C, Radiation (G") in W/m <sup>2</sup> ETA = 0.4617 *(1 - 0.0422 *u) -(9.0893 + 2.36799*u)*(P)/G"						
IP UNITS	Wind speed (u) in m/s, Temperature (T <sub>i</sub> -T <sub>a</sub> ) in °F, Radiation (G") in Btu/hr-ft <sup>2</sup> ETA = 0.4617*(1 - 0.0189 *u) -(1.6007 + 0.18643*u)*(P)/G"						
<b>Incident Angle Modifier IAM</b>				<b>Impact Safety Rating: 11</b>			
θ	10°	20°	30°	40°	50°	60°	70°
Κ <sub>τ</sub>	1.00	0.99	0.97	0.94	0.88	0.79	0.60

### LABORATORY TEST INFORMATION

<b>Test Lab:</b>	CENER	<b>Test Report No.</b>	30.3506.00
<b>Tested in Accordance With:</b>	EN ISO 9806:2017 (indoors)	<b>Test Report Date:</b>	March 16th, 2020

#### TESTED COLLECTOR 1 SPECIFICATIONS\*\*

<b>Gross Area:</b>	1.63 m <sup>2</sup>	17.545 ft <sup>2</sup>	<b>Dry Weight:</b>	28.7 Kg	63.27 Lbs.
<b>Aperture Area:</b>	1.63 m <sup>2</sup>	17.545 ft <sup>2</sup>	<b>Fluid Capacity:</b>	0.8 Lt.	0.211 Gal
<b>Tested PV Module:</b>	Canadian Solar CS6K-295MS		<b>Dimensions:</b>	99.1 x 165.0 x 4.0 cm	

#### TESTED COLLECTOR 2 SPECIFICATIONS\*\*

<b>Gross Area:</b>	1.67 m <sup>2</sup>	18.30 ft <sup>2</sup>	<b>Dry Weight:</b>	28.9 Kg	63.27 Lbs.
<b>Aperture Area:</b>	1.67 m <sup>2</sup>	18.30 ft <sup>2</sup>	<b>Fluid Capacity:</b>	0.8 Lt.	0.211 Gal
<b>Tested PV Module:</b>	Solar World Sun module SWA 300 Mono		<b>Dimensions:</b>	100.0 x 167.0 x 3.2 cm	

\*\* Thermal performance testing conducted with two different PV modules as shown above. Thermal performance ratings provided are valid for a PVT assembly using either PV module. See remarks below for more information.

### REMARKS:

- All wiring, connections, components and labeling shall be made in accordance with the National Electrical Code (NFPA 70) and as specified by the manufacturer.
- PVT collectors mounting and racking shall comply with all local codes and the PV and solar thermal panel manufacturers' installation requirements.
- PVT assemblies using the specified solar thermal panel are compliant with the ICC 901/SRCC 100 standard where all of the following conditions are satisfied:
  - PV Module is listed and labeled to UL 1703 and installed in accordance with manufacturer's specifications and all applicable codes and module listing criteria.
  - PV module meets all criteria of the solar thermal panel manufacturer. PV module is assembled with the solar thermal panel in accordance with the solar thermal panel manufacturer's installation requirements.





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4. OG-100 Performance ratings have been calculated for the tested components at the standardized conditions established by the OG-100 program. Thermal performance values provided are only valid when the solar thermal panel is installed on the same PV modules utilized for testing (Canadian Solar CS6K-295MS or Solar World Sun Module SWA 300 Mono). Thermal efficiency performance may differ when installed on a different PV module and based on actual usage and installation location.
5. 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.
6. 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

