

**SOLAR RATING & CERTIFICATION CORPORATION**

**AWARD OF COLLECTOR CERTIFICATION**

The solar collector listed below has been evaluated by the Solar Rating and Certification Corporation (SRCC) in accordance with SRCC Document OG-100, *Operating Guidelines and Minimum Standards for Certifying Solar Collectors*, and has been certified by the SRCC as specified in SRCC Standard 100-94, *Test Methods and Minimum Standards for Certifying Solar Collectors*. Certification and thermal performance ratings are based on the successful durability and performance testing of a sample unit where said tests have been conducted by an independent laboratory accredited by the SRCC.

Collector Certification Number: **100-2008006F**

Certification Date: 24-MAY-11	Type: Tubular	Expiration Date: 09-OCT-22
Test Laboratory: ITW	Report Number: 09COL814S	Report Date: 09-OCT-10
Brand: Soflower	Certified Model: SF-B245818	Model Tested: 2008006A

Supplier: **1st Sunflower Renewable Energy Co., Ltd**  
 No.1, Hongxi Road, Niutang Industrial District  
 Changzhou, Jiangsu 213163 China  
 (86) 519-83051691

Description: Aluminum or stainless steel frame. Borosilicate cover. Aluminum absorber with Selective coating. Fiber, vacuum side insulation and fiber, vacuum back insulation. Water was the fluid for performance tests. Gross Area: 3.645 m<sup>2</sup> (39.2 ft<sup>2</sup>). Aperture Area: 2.267 m<sup>2</sup> (24.4 ft<sup>2</sup>).

**TUBULAR COLLECTOR THERMAL PERFORMANCE RATING**

Megajoules Per Panel Per Day				Thousands of BTU Per Panel Per Day			
CATEGORY (Ti-Ta)	CLEAR DAY	MILDLY CLOUDY	CLOUDY DAY	CATEGORY (Ti-Ta)	CLEAR DAY	MILDLY CLOUDY	CLOUDY DAY
A (-5 °C)	34.4	26.0	17.6	A (-9 °F)	32.6	24.7	16.7
B (5 °C)	32.7	24.3	16.0	B (9 °F)	31.0	23.1	15.1
C (20 °C)	30.0	21.7	13.3	C (36 °F)	28.5	20.6	12.6
D (50 °C)	24.7	16.6	8.4	D (90 °F)	23.4	15.7	8.0
E (80 °C)	19.2	11.1	3.9	E (144 °F)	18.2	10.5	3.7

A- Pool Heating (Warm Climate) B- Pool Heating (Cool Climate) C- Water Heating (Warm Climate) D- Water Heating (Cool Climate) E- Air Conditioning

Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Ta]

<b>S I UNITS:</b>	$\eta = 0.363$	$-1.15130 (P)/I$	$-0.00306 (P)^2/I$
<b>I P UNITS:</b>	$\eta = 0.363$	$-0.20280 (P)/I$	$-0.00030 (P)^2/I$

**Y INTERCEPT**

0.365  
0.365

**SLOPE**

$-1.36 \text{ W/m}^2 \cdot \text{°C}$   
 $-0.20 \text{ Btu/hr.ft}^2 \cdot \text{°F}$

Incident Angle Modifier [(S)=1/cosθ - 1, 0°<θ<=60°]

**Ka = 1**      0.71 (S)      -0.260 (S)<sup>2</sup>

**Ka = 1**      0.21 (S)      Linear Fit (S)<sup>2</sup>

**REMARKS:**

This award of certification is subject to all terms and conditions of the program Agreement and the documents incorporated therein by reference. It must be renewed annually. Any change in collector design, materials, specifications, parts, or construction must be reported to SRCC for evaluation of continued certification.

  
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 Technical Director

May 26, 2011



OG-100 SRCC COLLECTOR CERTIFICATION