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: 100-2010066C

Certification Date: 03-JUN-11

Test Laboratory: Pacific Energy Testing Report Number: 10-2010-001 Certified Model: FSC030B

Type: Tubular

Expiration Date: 10-MAR-23 Report Date: 10-MAR-11

Model Tested: 2010066A

Brand: SUNCHASER

Supplier: First Solar Products, Inc.

18102 Chesterfield Airport Road, Unit O Chesterfield, MO 63005 USA (314) 406-8651

Description: Aluminum frame: Glass cover: Aluminum absorber with Selective coating, Fiber, vacuum side insulation and fiber, vacuum back insulation, Water was the fluid for performance tests, Gross Area: 4,393 m² (47,3 ft²), Aperture Area: 2,85 m² (30,7 ft²),

	TUBUL	ARCOLLEC	TOR THER	MAL PERFOR	MANCE R	ATING	
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
A (-5 °C)	39,7	30.0	20.3	A (-9 °F)	37.6	28.4	19.2
B (5 °C)	37,6	27,9	18.2	B (9°F)	35.6	26.5	17.3
C (20 °C)	34.3	24.6	15.0	C (36 °F)	32.5	23.3	14.2
D (50 °C)	28.1	18.6	9.0	D (90 °F)	26.6	17.6	8.6
E (80 °C)	21.5	11.9	3.6	E (144 °F)	20.3	11.3	3.4
A- Pool Heating (War	m Climate) B- Po	ool Heating (Cool Cli	imate) C- Water H	leating (Warm Climate)	D- Water Heating	g (Cool Climate) E-	- Air Condition
Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Ta]					Y INTERCEPT SLOPE		
S I UNITS:	S: $\eta = 0.332$ -1.20030 (P)/I -0.002		-0.0027	$72 (P)^2/I$	0.333	-1.38 W/m ² .°C	
I P UNITS:	$\eta = 0.332$	-0.21140 (P)/I	-0.0003	-0.00030 (P) ² /I		-0.20 Btu/hr.ft ² .°F	
Incident Angle M	odifier [(S)=1/	cosθ - 1, 0°<θ<=6	0°				

Collector tested with long axis of tubes oriented north-south, IAM perpendicular to the tubes is listed above. IAM **REMARKS:** parallel to the tubes = 1.0 + 0.1(S)

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.

Technical Director August 25, 2011 OG-100 SRCC COLLECTOR CERTIFICATION

Solar Rating & Certification Corporation, 400 High Point Drive, Suite 400, Cocoa, Florida 32926