



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: **100-2006011A**

Date Certified: **April 1, 2008**

Expiration Date: **August 30, 2019**

Test Laboratory: **Bodycote**

Report Number: **06-08-0540**

Report Date: **August 30, 2007**

Product: **Tubular**

Certified Model: **20EVT**

Model Tested: **20EVT**

Supplier: **Silicon Solar Inc.
2917 State Highway 7
Bainbridge, NY 13733 USA
(800) 746-5508**

Description: **Aluminum frame. Glass Vacuum Tube glazing. Aluminum absorber with Sputtered aluminium nitride coating. Vacuum side insulation and Polyurethane and glass wool back insulation. Water was the fluid for performance tests. Gross Area: 3.44 m² (37.04 ft²). Aperture Area: 3.16 m² (34.00 ft²)**

GLAZED COLLECTOR THERMAL PERFORMANCE RATING

Megajoules Per Panel Per Day				Thousands of Btu Per Panel Per Day			
Category (Ti-Ta)	CLEAR	MILDLY CLOUDY	CLOUDY	Category (Ti-Ta)	CLEAR	MILDLY CLOUDY2	CLOUDY
	23 MJ/m ² -d	17 MJ/m ² -d	11 MJ/m ² -d		2 kBtu/ft ² -d	1.5 kBtu/ft ² -d	1 kBtu/ft ² -d
A (-5 °C)	33	25	17	A (-9 °F)	31	23	16
B (5 °C)	32	24	16	B (9 °F)	30	22	15
C (20 °C)	30	22	13	C (36 °F)	28	20	13
D (50 °C)	25	17	9	D (90 °F)	23	16	8
E (80 °C)	19	11	4	E (144 °F)	18	10	3

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 [Based on Gross Area and (P) = Ti-Ta]

	Y Intercept	Slope	
SI Units: $\eta = 0.371 - 0.8252 (P)/I - 0.0076 (P)^2/I$	0.376	-1.32	W/m ² ·°C
IP Units: $\eta = 0.371 - 0.1454 (P)/I - 0.0007 (P)^2/I$	0.376	-0.233	Btu/hr·ft ² ·°F

Incident Angle Modifier [NOTE: (S) = 1/cos θ - 1]

$K_{at} = 1.0 + 1.2177 (S) - 0.7479 (S)^2$	$K_{at} = 1.0 + 0.44 (S)$	(Linear Fit)
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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

April 1, 2008

