

**SOLAR COLLECTOR
CERTIFICATION AND RATING**



SRCC OG-100

CERTIFIED SOLAR COLLECTOR

SUPPLIER: **SolarUs, Inc.**
965 West Main Street
Branford, CT 06405 USA

MODEL: SL-30

COLLECTOR TYPE: SL-30 Tubular

CERTIFICATION#: 2010126A

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)	51.6	38.9	26.2	A (-9 °F)	48.9	36.9	24.8
B (5 °C)	49.8	37.1	24.3	B (9 °F)	47.2	35.1	23.1
C (20 °C)	46.3	33.6	20.9	C (36 °F)	43.9	31.9	19.8
D (50 °C)	38.2	25.7	13.1	D (90 °F)	36.2	24.3	12.5
E (80 °C)	27.9	15.4	4.5	E (144 °F)	26.4	14.6	4.3

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

Original Certification Date: 21-JAN-11

COLLECTOR SPECIFICATIONS

Gross Area:	4.378 m ²	47.12 ft ²	Net Aperature Area:	3.06 m ²	32.90 ft ²
Dry Weight:	120.0 kg	265. lb	Fluid Capacity:	1.7 liter	0.5 gal
Test Pressure:	1103. KPa	160. psig			

COLLECTOR MATERIALS

Frame: Aluminum
Cover (Outer): Borosilicate
Cover (Inner):

Pressure Drop

Flow		ΔP	
ml/s	gpm	Pa	in H ₂ O
20.00	0.32	58.60	0.24
50.00	0.79	284.5	1.1
80.00	1.27	676.07	2.72

Absorber Material: Tube - Copper / Plate - Aluminum
Absorber Coating: Selective coating

Insulation Side: Fiber, vacuum
Insulation Back: fiber, vacuum

TECHNICAL INFORMATION

Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Ta]	Y INTERCEPT	SLOPE
S I UNITS: $\eta = 0.483 - 1.05630 (P)/I - 0.01050 (P)^2/I$	0.489	-1.718 W/m².°C
I P UNITS: $\eta = 0.483 - 0.18607 (P)/I - 0.00103 (P)^2/I$	0.489	-0.303 Btu/hr.ft².°F

Incident Angle Modifier [(S)=1/cosθ - 1, 0°<θ<=60°]	Model Tested:	2010126A
Kτ_a = 1 1.095 (S) -0.717 (S) ²	Test Fluid:	Water
Kτ_a = 1 0.35 (S) Linear Fit	Test Flow Rate:	20.7 ml /s.m ² 0.0304 gpm/ft ²

REMARKS: Collector tested with long axis of tubes oriented north-south. IAM perpendicular to the tubes is listed above. IAM parallel to the tubes = 1.0 - 0.01(S)

March, 2011

Certification must be renewed annually, For current status contact:

SOLAR RATING & CERTIFICATION CORPORATION

c/o FSEC ♦ 1679 Clearlake Road ♦ Cocoa, FL 32922 ♦ (321) 638-1537 ♦ Fax (321) 638-1010

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