

**SOLAR COLLECTOR
CERTIFICATION AND RATING**



SRCC OG-100

CERTIFIED SOLAR COLLECTOR

SUPPLIER: Solene
927 Fern Street Suite 1500 Altamont
Springs, FL 32701 USA

MODEL: SLAR-40

COLLECTOR TYPE: Glazed Flat-Plate

CERTIFICATION#: 2009058C

COLLECTOR THERMAL PERFORMANCE RATING

Megajoules Per Panel Per Day

CATEGORY	CLEAR DAY	MILDLY CLOUDY	CLOUDY DAY
A (-5 °C)	59.6	45.0	30.6
B (5 °C)	53.5	38.9	24.5
C (20 °C)	44.7	30.4	16.3
D (50 °C)	29.1	16.1	4.4
E (80 °C)	15.7	5.1	0.0

Thousands of BTU Per Panel Per Day

CATEGORY	CLEAR DAY	MILDLY CLOUDY	CLOUDY DAY
A (-9 °F)	56.5	42.7	29.0
B (9 °F)	50.7	36.9	23.2
C (36 °F)	42.4	28.8	15.4
D (90 °F)	27.6	15.3	4.1
E (144 °F)	14.9	5.1	0.0

Original Certification Date: 06-AUG-09

COLLECTOR SPECIFICATIONS

Gross Area: 3.611 m² 38.87 ft² **Net Aperature Area:** 3.48 m² 37.44 ft²

Dry Weight: 60.0 kg 132. lb **Fluid Capacity:** 2.6 liter 0.7 gal

Test Pressure: 1103. KPa 160. psg

COLLECTOR MATERIALS

Frame: Aluminum Extrusion

Cover (Outer): Low Iron Tempered Glass

Cover (Inner): None

Pressure Drop

Flow		ΔP	
ml/s	gpm	gpm	in H ₂ O

Absorber Material: Tube - Copper /
Plate - Copper Fin

Absorber Coating: Black Chrome

Insulation Side: Polyisocyanurate

Insulation Back: Polyisocyanurate

TECHNICAL INFORMATION

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

S I UNITS: $\eta = 0.784 - 4.28050 (P)/I - 0.00484 (P)^2/I$

I P UNITS: $\eta = 0.784 - 0.75401 (P)/I - 0.00047 (P)^2/I$

Y INTERCEPT**SLOPE****0.787****-4.60 W/m².°C****0.787****-0.80 Btu/hr.
ft².°F**

Incident Angle Modifier [(S)=1/cos θ - 1, 0° <math>\theta<=60°]

K α = 1 -0.295 (S) -0.012 (S)²

K α = 1 -0.31 (S) Linear Fit

Model Tested:

2006045A

Test Fluid:

Water

Test Flow Rate:

44.7 ml/s 0.71 gpm

REMARKS:

October, 2009

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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