

# CERTIFIED SOLAR COLLECTOR

SOLAR COLLECTOR  
CERTIFICATION AND RATING



SRCC OG-100

SUPPLIER:

**Lochinvar Corporation**  
300 Maddox Simpson Pkwy  
Lebanon, TN 37090  
USA

MODEL:

SCH110

COLLECTOR TYPE: Lochinvar/TiSun  
Glazed Flat-Plate

CERTIFICATION#: 2010061C

## 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)	149.8	113.3	77.0	A (-9 °F)	142.0	107.4	73.0
B (5 °C)	136.3	99.9	63.6	B (9 °F)	129.2	94.6	60.3
C (20 °C)	115.4	79.6	44.2	C (36 °F)	109.3	75.5	41.8
D (50 °C)	74.3	42.0	11.8	D (90 °F)	70.4	39.8	11.2
E (80 °C)	36.3	10.0	0.0	E (144 °F)	34.4	9.4	0.0

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: 30-AUG-10

### COLLECTOR SPECIFICATIONS

<b>Gross Area:</b>	10.100 m <sup>2</sup>	108.71 ft <sup>2</sup>	<b>Net Aperature Area:</b>	9.10 m <sup>2</sup>	97.95 ft <sup>2</sup>
<b>Dry Weight:</b>	232.0 kg	512. lb	<b>Fluid Capacity:</b>	9 liter	2.4 gal
<b>Test Pressure:</b>	1103. KPa	160. psg			

### COLLECTOR MATERIALS

<b>Frame:</b>	Aluminum
<b>Cover (Outer):</b>	Low Iron Tempered Glass
<b>Cover (Inner):</b>	None
<b>Absorber Material:</b>	Tube - Copper / Plate - Aluminum Sheet
<b>Absorber Coating:</b>	Selective Vapor Deposition

### Pressure Drop

Flow		ΔP	
ml/s	gpm	Pa	in H <sub>2</sub> O

**Insulation Side:** Mineral Wool  
**Insulation Back:** Rigid Foam

### TECHNICAL INFORMATION

<b>Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Taj]</b>		<b>Y INTERCEPT</b>	<b>SLOPE</b>
<b>S I</b>	$\eta = 0.732 - 3.36050 (P)/I - 0.01240 (P)^2/I$	0.738	-4.098 W/m <sup>2</sup> .°C
<b>I P</b>	$\eta = 0.732 - 0.59195 (P)/I - 0.00121 (P)^2/I$	0.738	0.722 Btu/hr.ft <sup>2</sup> .°F

<b>Incident Angle Modifier [(S)=1/cosθ - 1, 0°&lt;θ&lt;=60°]</b>	<b>Model Tested:</b>	2007052A
<b>Kα = 1</b> 0.005 (S) -0.244 (S) <sup>2</sup>	<b>Test Fluid:</b>	Water
<b>Kα = 1</b> -0.25 (S) Linear Fit	<b>Test Flow Rate:</b>	1.6 ml /s.m <sup>2</sup> 0.0023 gpm/ft <sup>2</sup>

REMARKS:

September, 2010  
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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