


<p>SOLAR COLLECTOR CERTIFICATION AND RATING</p>  <p>SRCC OG-100</p>	<p><b>CERTIFIED SOLAR COLLECTOR</b></p> <p>SUPPLIER: <b>Synergy Solar</b> 6114 Bullard Suite A Austin, TX 78757</p> <p>MODEL: Synergy TC-26.52 COLLECTOR TYPE: Glazed Flat-Plate CERTIFICATION #: 100-2005-007A</p>
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COLLECTOR THERMAL PERFORMANCE RATING							
Megajoules Per Panel Per Day				Thousands of Btu Per Panel Per Day			
CATEGORY (Ti-Ta)	CLEAR DAY 23 MJ/m <sup>2</sup> ·d	MILDLY CLOUDY 17 MJ/m <sup>2</sup> ·d	CLOUDY DAY 11 MJ/m <sup>2</sup> ·d	CATEGORY (Ti-Ta)	CLEAR DAY 2000 Btu/ft <sup>2</sup> ·d	MILDLY CLOUDY 1500 Btu/ft <sup>2</sup> ·d	CLOUDY DAY 1000 Btu/ft <sup>2</sup> ·d
A (-5°C)	37	28	19	A (-9°F)	35	27	18
B (5°C)	33	24	15	B (9°F)	32	23	15
C (20°C)	28	19	10	C (36°F)	26	18	10
D (50°C)	17	9	2	D (90°F)	16	9	2
E (80°C)	8	2		E (144°F)	7	2	

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: October 3, 2005

**COLLECTOR SPECIFICATIONS**

<b>Gross Area:</b>	2.480 m <sup>2</sup>	26.70 ft <sup>2</sup>	<b>Net Aperture Area:</b>	2.271 m <sup>2</sup>	24.45 ft <sup>2</sup>
<b>Dry Weight:</b>	49 kg	108 lb	<b>Fluid Capacity:</b>	2.3 l	0.6 gal
<b>Test Pressure:</b>	1103 kPa	160 psig	<b>Max. Oper. Temp.:</b>	100 °C	212 °F

**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 - Copper Fin
<b>Absorber Coating:</b>	Sputtered aluminum nitride
<b>Insulation (Side):</b>	Paper-faced fiberglass
<b>Insulation (Back):</b>	Foil-faced fiberglass

**PRESSURE DROP**

Flow		Δ P	
ml/s	gpm	Pa	in H <sub>2</sub> O
20	0.32	164	0.66
50	0.79	647	2.60
80	1.27	1412	5.67

**TECHNICAL INFORMATION**

<b>Efficiency Equation [NOTE: Based on gross area and (P) = Ti-Ta]</b>				<b>Y Intercept</b>	<b>Slope</b>
<b>SI Units:</b>	$\eta = 0.688$	$-3.6994 (P)/I$	$-0.0105 (P)^2/I$	0.697	-4.573 W/m <sup>2</sup> ·°C
<b>IP Units:</b>	$\eta = 0.688$	$-0.6519 (P)/I$	$-0.0010 (P)^2/I$	0.697	-0.806 Btu/hr·ft <sup>2</sup> ·°F

<b>Incident Angle Modifier [(S) = 1/cos θ - 1, 0° ≤ θ ≤ 60°]</b>	<b>Model Tested:</b>	TC-26.52
$K_{\alpha r} = 1.0$	<b>Test Fluid:</b>	Water
$K_{\alpha r} = 1.0$	<b>Test Flow Rate:</b>	51 ml/s      0.80 gpm

**REMARKS:**

November, 2005

Certification must be renewed annually. For current status contact:

SOLAR RATING & CERTIFICATION CORPORATION

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