


<p>SOLAR COLLECTOR CERTIFICATION AND RATING</p>  <p>SRCC OG-100</p>	<p>CERTIFIED SOLAR COLLECTOR</p> <p>SUPPLIER: Thermo Dynamics, Ltd. 101 Frazee Avenue Dartmouth, Nova Scotia B3B 1Z4 Canada</p> <p>MODEL: S32-P</p> <p>COLLECTOR TYPE: Glazed Flat-Plate</p> <p>CERTIFICATION#: 2009007A</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	MILDLY CLOUDY	CLOUDY DAY	CATEGORY (Ti-Ta)	CLEAR DAY	MILDLY CLOUDY	CLOUDY DAY
A (-5 °C)	42.7	32.3	22.0	A (-9 °F)	40.5	30.6	20.8
B (5 °C)	38.3	27.9	17.5	B (9 °F)	36.3	26.4	16.6
C (20 °C)	31.6	21.4	11.2	C (36 °F)	29.9	20.2	10.6
D (50 °C)	18.5	9.3	1.6	D (90 °F)	17.5	8.8	1.5
E (80 °C)	7.1	0.8	0.0	E (144 °F)	6.7	0.8	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: 02-JUN-09

COLLECTOR SPECIFICATIONS

Gross Area:	2.976 m ²	32.04 ft ²	Net Aperature Area:	2.78 m ²	29.96 ft ²
Dry Weight:	43.5 kg	96. lb	Fluid Capacity:	.8 liter	0.2 gal
Test Pressure:	310. KPa	45. psg			

COLLECTOR MATERIALS

Frame:	Aluminum
Cover (Outer):	Tempered Glass
Cover (Inner):	None

Pressure Drop

Flow		ΔP	
ml/s	gpm	Pa	in H ₂ O

Absorber Material:	Tube - Copper / Plate - Aluminum	Insulation Side:	Fiberglass
Absorber Coating:	Moderately Selective Black Paint	Insulation Back:	Fiberglass

TECHNICAL INFORMATION

Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Taj]	Y INTERCEPT	SLOPE
S I UNITS: η= 0.685 -3.75590 (P)/I -0.01512 (P) ² /I	0.694	-4.811 W/m².°C
I P UNITS: η= 0.685 -0.66160 (P)/I -0.00148 (P) ² /I	0.694	-0.847 Btu/hr.ft².°F

Incident Angle Modifier [(S)=1/cosθ - 1, 0°<θ<=60°]	Model Tested:	S32-P
Kα = 1 -0.340 (S) 0.082 (S) ²	Test Fluid:	Water
Kα = 1 -0.25 (S) Linear Fit	Test Flow Rate:	20.24 ml/s 0.32 gpm

REMARKS:

January, 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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