


SOLAR COLLECTOR CERTIFICATION AND RATING  SRCC OG-100	CERTIFIED SOLAR COLLECTOR SUPPLIER: Solar Panels Plus 533 Byron Street Chesapeake, VA 23320 USA MODEL: SPP-30A COLLECTOR TYPE: Tubular CERTIFICATION#: 2007050D
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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)	50.1	37.7	25.3	A (-9 °F)	47.4	35.7	24.0
B (5 °C)	48.3	35.9	23.6	B (9 °F)	45.8	34.0	22.3
C (20 °C)	45.1	32.8	20.4	C (36 °F)	42.8	31.1	19.4
D (50 °C)	38.4	26.1	13.9	D (90 °F)	36.4	24.7	13.2
E (80 °C)	30.4	18.9	7.4	E (144 °F)	28.8	18.9	7.4

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:

COLLECTOR SPECIFICATIONS

Gross Area:	4.810 m ²	51.78 ft ²	Net Aperature Area:	4.16 m ²	44.74 ft ²
Dry Weight:	86.0 kg	190. lb	Fluid Capacity:	1.6 liter	0.4 gal
Test Pressure:	600. KPa	87. psg			

COLLECTOR MATERIALS

Frame:	Stainless Steel
Cover (Outer):	Glass Vacuum Tube
Cover (Inner):	None

Pressure Drop

Flow		ΔP	
ml/s	gpm	Pa	in H ₂ O

Absorber Material:	Tube - Copper / Plate - Aluminum	Insulation Side:	Vacumn
Absorber Coating:	Aluminum Nitride	Insulation Back:	Vacumn

TECHNICAL INFORMATION

Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Taj]	Y INTERCEPT	SLOPE
S I UNITS: η= 0.477 -0.93740 (P)/I -0.00655 (P) ² /I	0.481	-1.334 W/m².°C
I P UNITS: η= 0.477 -0.16512 (P)/I -0.00064 (P) ² /I	0.481	-0.235 Btu/hr.ft².°F

Incident Angle Modifier [(S)=1/cosθ - 1, 0°<θ<=60°]	Model Tested:	100-2007-028A
Kα = 1 0.964 (S) -1.186 (S) ²	Test Fluid:	Water
Kα = 1 -0.27 (S) Linear Fit	Test Flow Rate:	71 ml/s 1.13 gpm

REMARKS: Tested with long axis of tubes oriented north-south. IAM perpendicular to the tubes is listed above. IAM parallel to the tubes = 1.0 - 0.33(S)

February, 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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