


SOLAR COLLECTOR CERTIFICATION AND RATING  SRCC OG-100	CERTIFIED SOLAR COLLECTOR SUPPLIER: 1st Sunflower Renewable Energy Co., Ltd No.1, Hongxi Road, Niutang Industrial District Changzhou, Jiangsu 213163 China MODEL: Sofflower SF-B185818 COLLECTOR TYPE: Tubular CERTIFICATION#: 2008006C Original Certification Date: 24-MAY-11
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COLLECTOR THERMAL PERFORMANCE RATING

Kilowatt-hours Per Panel Per Day				Thousands of BTU Per Panel Per Day			
CATEGORY (Ti-Ta)	CLEAR DAY (6.3 kWh / m ² .day)	MILDLY CLOUDY (4.7 kWh / m ² .day)	CLOUDY DAY (3.1 kWh / m ² .day)	CATEGORY (Ti-Ta)	CLEAR DAY (2000 Btu / ft ² .day)	MILDLY CLOUDY (1500 Btu / ft ² .day)	CLOUDY DAY (1000 Btu / ft ² .day)
A (-5 °C)	7.2	5.5	3.7	A (-9 °F)	24.6	18.7	12.7
B (5 °C)	6.9	5.1	3.4	B (9 °F)	23.4	17.5	11.5
C (20 °C)	6.3	4.6	2.8	C (36 °F)	21.5	15.6	9.6
D (50 °C)	5.2	3.5	1.8	D (90 °F)	17.7	11.9	6.0
E (80 °C)	4.0	2.3	0.8	E (144 °F)	13.8	7.9	2.8

A- Pool Heating (Warm Climate) **B-** Pool Heating (Cool Climate) **C-** Water Heating (Warm Climate) **D-** Water Heating (Cool Climate) **E-** Air Conditioning

COLLECTOR SPECIFICATIONS

Gross Area: 2.758 m² 29.69 ft²
Dry Weight: 69.0 kg 152. lb
Test Pressure: 900. KPa 131. psig

Net Aperture Area: 1.70 m² 18.31 ft²
Fluid Capacity: 1.1 liter 0.3 gal

COLLECTOR MATERIALS

Frame: Aluminum or stainless steel
Cover (Outer): Borosilicate
Cover (Inner):

Pressure Drop

Flow		ΔP	
ml/s	gpm	Pa	in H ₂ O

Absorber Material: Tube - Copper / Plate - Aluminum
Absorber Coating: Selective coating

Insulation Side: Fiber, vacuum
Insulation Back: fiber, vacuum

TECHNICAL INFORMATION

Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Ta] **Y INTERCEPT** **SLOPE**
SI Units: $\eta = 0.363 - 1.15130 (P)/l - 0.00306 (P)^2/l$ 0.365 -1.361 W/m².°C
IP Units: $\eta = 0.363 - 0.20280 (P)/l - 0.00030 (P)^2/l$ 0.365 -0.240 Btu/hr.ft².°F

Incident Angle Modifier [(S)=1/cosθ - 1, 0°<θ<=60°]

K_{τα} = 1 0.711 (S) -0.260 (S)²
K_{τα} = 1 0.21 (S) Linear Fit

Test Fluid: Water
Test Flow Rate: 12.7 ml/s.m² 0.0187 gpm/ft²

REMARKS:

February, 2012

Certification must be renewed annually, For current status contact:
SOLAR RATING & CERTIFICATION CORPORATION