

**SOLAR COLLECTOR
CERTIFICATION AND RATING**



CERTIFIED SOLAR COLLECTOR

SUPPLIER: **Hot Sun Industries Inc.**
13460 Cayuga Drive
Poway, CA 92064 USA

MODEL: Powerstrip PSG135

COLLECTOR TYPE: Unglazed Flat-Plate

CERTIFICATION#: 2011121A

Original Certification Date: 28-MAR-12

ALL SIZES OF THIS COLLECTOR MODEL ARE CERTIFIED

COLLECTOR THERMAL PERFORMANCE RATING

Kilowatt-hours Per Square Meter Per Day				Thousands of BTU Per Square Foot 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)	5.1	3.9	2.8	A (-9 °F)	1.6	1.3	0.9
B (5 °C)	2.9	1.8	0.8	B (9 °F)	0.9	0.6	0.2
C (20 °C)	0.6	0.0	0.0	C (36 °F)	0.2	0.0	0.0
D (50 °C)	0.0	0.0	0.0	D (90 °F)	0.0	0.0	0
E (80 °C)	0.0	0.0	0.0	E (144 °F)	0.0	0.0	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

COLLECTOR SPECIFICATIONS

Gross Area: 0.682 m² 7.34 ft² Net Aperture Area: 0.68 m² 7.34 ft²

Dry Weight: 3.7 kg 8. lb Fluid Capacity: 2.6 liter 0.7 gal

Test Pressure: 103. KPa 15. psig

COLLECTOR MATERIALS

Frame: Poly

Cover (Outer): Poly

Cover (Inner):

Pressure Drop

Flow		ΔP	
ml/s	gpm	Pa	in H ₂ O
150.00	2.38	2830.40	11.38
250.00	3.96	7067.3	28.4
350.00	5.55	13184.20	52.99

Absorber Material: Tube - Poly / Plate - Poly

Insulation Side: No

Absorber Coating: none

Insulation Back: No

TECHNICAL INFORMATION

Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Ta]

	SI Units:	η= 0.776	-40.73540 (P)/l	0.87343 (P) ² /l	Y INTERCEPT	0.773	SLOPE	-24.002 W/m ² .°C
	IP Units:	η= 0.776	-7.17554 (P)/l	0.08547 (P) ² /l	0.773		-4.228 Btu/hr.ft ² .°F	

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

Kα = 1	-0.101 (S)	0.054 (S) ²	Test Fluid:	Water
Kα = 1	-0.05 (S)	Linear Fit	Test Flow Rate:	69.6 ml/s.m ² 0.1025 gpm/ft ²

REMARKS:

Equations listed above are based on only the low wind speed data from a test conducted in accordance with ISO 9806-3. When all data is included: Efficiency = 0.8318-0.0721*u-(18.3391+2.28283*u)*(P)/G". Ratings listed above are based on all of the data.

April, 2012

Certification must be renewed annually, For current status contact:

SOLAR RATING & CERTIFICATION CORPORATION

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