

**SOLAR COLLECTOR
CERTIFICATION AND RATING**



SRCC OG-100

CERTIFIED SOLAR COLLECTOR

SUPPLIER: **Haining Fadi Solar Energy Co., Ltd**
No. 100, Gongren Road
Haining, Zhejiang Province 314400 China

MODEL: **FADI FD-SC-15**

COLLECTOR TYPE: **Tubular**

CERTIFICATION#: **2011104B**

COLLECTOR THERMAL PERFORMANCE RATING

Kilowatt-hours 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)	6.7	5.0	3.4	A (-9 °F)	22.8	17.2	11.6
B (5 °C)	6.4	4.8	3.1	B (9 °F)	21.8	16.2	10.6
C (20 °C)	5.9	4.3	2.7	C (36 °F)	20.3	14.7	9.1
D (50 °C)	5.1	3.5	1.9	D (90 °F)	17.4	11.9	6.4
E (80 °C)	4.2	2.6	1.1	E (144 °F)	14.5	9.0	3.8

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: 15-SEP-11

COLLECTOR SPECIFICATIONS

Gross Area: 2.451 m² 26.39 ft² Net Aperture Area: 1.39 m² 14.93 ft²

Dry Weight: 52.4 kg 116. lb Fluid Capacity: 0.9 liter 0.2 gal

Test Pressure: 44. KPa 6. psig

COLLECTOR MATERIALS

Frame: Aluminum

Cover (Outer): Glass

Cover (Inner): Glass

Pressure Drop

Flow		ΔP	
ml/s	gpm	Pa	in H ₂ O

Absorber Material: Tube - Copper / Plate - Aluminum Insulation Side: Fiber, vacuum

Absorber Coating: Selective coating Insulation Back: fiber, vacuum

TECHNICAL INFORMATION

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

SI Units: $\eta = 0.380 - 1.04780 (P)/l - 0.00196 (P)^2/l$ 0.380 -1.131 W/m².°C

IP Units: $\eta = 0.380 - 0.18457 (P)/l - 0.00019 (P)^2/l$ 0.380 -0.199 Btu/hr.ft².°F

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

K_{τα} = 1 1.422 (S) -1.054 (S)² Linear Fit Test Flow Rate: 449.9 ml/s.m² 0.6626 gpm/ft²

K_{τα} = 1 0.40 (S) Linear Fit

REMARKS: Collector tested with long axis of tubes oriented north-south. IAM perpendicular to the tubes is listed above. IAM parallel to the tubes = 1.0 - 0.1(S)

September, 2011

Certification must be renewed annually, For current status contact:

SOLAR RATING & CERTIFICATION CORPORATION

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