SOLAR COLLECTOR CERTIFICATION AND RATING

SRCC OG-100

CERTIFIED SOLAR COLLECTOR

SUPPLIER:	**Solimpeks Solar Energy Corp** Hilal Sk. No:20, 42300 Karatay Konya, Karatay 42300 Turkey
MODEL:	Wunder CLSF 2108
COLLECTOR TYPE:	Glazed Flat-Plate
CERTIFICATION#:	2010070B
Original Certification Date:	16-NOV-11

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)	8.8	6.7	4.5	A (-9 °F)	30.1	22.7	15.4
B (5 °C)	8.1	5.9	3.8	B (9 °F)	27.5	20.2	12.9
C (20 °C)	6.9	4.8	2.7	C (36 °F)	23.5	16.4	9.3
D (50 °C)	4.8	2.8	1.0	D (90 °F)	16.5	9.6	3.3
E (80 °C)	2.9	1.2	0.0	E (144 °F)	10.0	4.1	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: 2.070 m^2 22.28 ft^2
Net Aperture Area: 1.89 m^2 20.34 ft^2
Dry Weight: 39.0 kg 86. lb
Fluid Capacity: 2.7 liter 0.7 gal
Test Pressure: 1500. KPa 218. psig

COLLECTOR MATERIALS

Frame: Aluminum
Cover (Outer): Tempered glass
Cover (Inner):

Pressure Drop

Flow		ΔP	
ml/s	gpm	Pa	in H_2O

Absorber Material: Tube - Copper / Plate - Copper
Insulation Side: Fiber
Absorber Coating: Selective coating
Insulation Back: Fiber

TECHNICAL INFORMATION

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

				Y INTERCEPT	SLOPE
SI Units:	η= 0.696	-3.27150 (P)/I	-0.00566 $(P)^2/I$	0.699	-3.640 $W/m^2.°C$
IP Units:	η= 0.696	-0.57627 (P)/I	-0.00055 $(P)^2/I$	0.699	-0.641 $Btu/hr.ft^2.°F$

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

Kτα = 1	-0.137 (S)	-0.005 $(S)^2$
Kτα = 1	-0.15 (S)	Linear Fit

Test Fluid: Water
Test Flow Rate: 16.4 ml /s.m^2 0.0241 gpm/ft^2

REMARKS:

November, 2011
Certification must be renewed annually, For current status contact:
SOLAR RATING & CERTIFICATION CORPORATION
400 High Point Drive, Suite 400 ♦ Cocoa, Florida 32926 ♦ (321) 213-6037 ♦ Fax (321) 821-0910