


SOLAR COLLECTOR CERTIFICATION AND RATING  SRCC OG-100	CERTIFIED SOLAR COLLECTOR SUPPLIER: Solar Skies Mfg, LLC 106 Donovan Drive Alexandria, MN 56308 USA MODEL: NSC-32 COLLECTOR TYPE: North Star Glazed Flat-Plate CERTIFICATION#: 2007040E
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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)	45.0	34.0	23.0	A (-9 °F)	42.6	32.2	21.8
B (5 °C)	40.9	29.9	19.0	B (9 °F)	38.8	28.3	18.0
C (20 °C)	34.3	23.5	12.8	C (36 °F)	32.5	22.3	12.1
D (50 °C)	20.6	10.9	2.4	D (90 °F)	19.5	10.3	2.3
E (80 °C)	8.0	1.1	0.0	E (144 °F)	7.6	1.1	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

Original Certification Date: 04-OCT-07

COLLECTOR SPECIFICATIONS

Gross Area:	3.035 m ²	32.67 ft ²	Net Aperature Area: 2.75 m ² 29.60 ft ²
Dry Weight:	60.3 kg	133. lb	Fluid Capacity: 4.9 liter 1.3 gal
Test Pressure:	1103. KPa	160. psg	

COLLECTOR MATERIALS

Frame:	Anodized Aluminum
Cover (Outer):	Low Iron Tempered Glass
Cover (Inner):	None

Pressure Drop

Flow		ΔP	
m/s	gpm	Pa	in H ₂ O

Absorber Material:	Tube - Copper / Plate - Copper Fin	Insulation Side:	Polyisocyanurate
Absorber Coating:	Selective Coating	Insulation Back:	Polyisocyanurate

TECHNICAL INFORMATION

Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Taj]				Y INTERCEPT	SLOPE
S I UNITS:	η= 0.691	-3.39600 (P)/I	-0.01968 (P) ² /I	0.706	-4.910 W/m².°C
I P UNITS:	η= 0.691	-0.59821 (P)/I	-0.00193 (P) ² /I	0.706	-0.865 Btu/hr.ft².°F
Incident Angle Modifier [(S)=1/cosθ - 1, 0°<θ<=60°]			Model Tested:	100-2002-001A	
Kα = 1	-0.194 (S)	-0.006 (S) ²	Test Fluid:	Water	
Kα = 1	-0.20 (S)	Linear Fit	Test Flow Rate:	12.8 ml/s.m ² 0.0188 gpm/ft ²	

REMARKS:

September, 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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