

**SOLAR COLLECTOR
CERTIFICATION AND RATING**


SRCC OG-100

CERTIFIED SOLAR COLLECTOR

SUPPLIER: **Your Solar Home, Inc.**
299 Applewood Crescent, Unit 4
Vaughan, ON L4K 4E7

MODEL: SolarSheat 1500GS
COLLECTOR TYPE: Glazed Flat-Plate
CERTIFICATION #: 100-2006-008A

COLLECTOR THERMAL PERFORMANCE RATING

Megajoules Per Panel Per Day				Thousands of Btu Per Panel Per Day			
CATEGORY (Ti-Ta)	CLEAR DAY 23 MJ/m ² ·d	MILDLY CLOUDY 17 MJ/m ² ·d	CLOUDY DAY 11 MJ/m ² ·d	CATEGORY (Ti-Ta)	CLEAR DAY 2000 Btu/ft ² ·d	MILDLY CLOUDY 1500 Btu/ft ² ·d	CLOUDY DAY 1000 Btu/ft ² ·d
A (-5°C)	29	23	16	A (-9°F)	28	22	15
B (5°C)	23	16	10	B (9°F)	22	15	9
C (20°C)	14	8	3	C (36°F)	14	8	2
D (50°C)	2			D (90°F)	2		
E (80°C)				E (144°F)			

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: June 4, 2007

COLLECTOR SPECIFICATIONS

Gross Area: 2.428 m² 26.14 ft²
Dry Weight: 37 kg 82 lb
Test Pressure: 0 kPa 0 psig

Net Aperture Area: 2.211 m² 23.80 ft²
Fluid Capacity: 1 gal

COLLECTOR MATERIALS

Frame: Aluminum Extrusion
Cover (Outer): Tempered Glass
Cover (Inner): None
Absorber Material: Tube - / Plate - Aluminum
Absorber Coating: Powder coating
Insulation (Side): Polyisocyanurate
Insulation (Back): Polyisocyanurate

PRESSURE DROP

Flow		Δ P	
ml/s	gpm	Pa	in H ₂ O
25000	396.51	69	0.28
50000	793.02	280	1.12
100000	1586.04	1125	4.51

TECHNICAL INFORMATION

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

					<u>Y Intercept</u>	<u>Slope</u>	
SI Units:	$\eta = 0.489$	-6.8242 (P)/I	-0.0043 (P) ² /I		0.49	-6.9913	W/m ² ·°C
IP Units:	$\eta = 0.489$	-1.2026 (P)/I	-0.0004 (P) ² /I		0.49	-1.232	Btu/hr·ft ² ·°F

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

$K_{\alpha} = 1.0$ -0.1084 (S) -0.1851 (S)²
 $K_{\alpha} = 1.0$ -0.09 (S) (Linear Fit)

Model Tested: 1500GS

Test Fluid: Air

Test Flow Rate: 40 l/s 85.0 scfm

REMARKS:

June, 2007

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