

**SOLAR COLLECTOR
CERTIFICATION AND RATING**



SRCC OG-100

CERTIFIED SOLAR COLLECTOR

SUPPLIER: Viessmann Manufacturing Company
(US) Inc.
45 Access Road
Warwick, RI 02886 USA

MODEL: 200-F, SV2/SH2

COLLECTOR TYPE: Glazed Flat-Plate

CERTIFICATION#: 2005019A

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)	39.3	29.6	20.0	A (-9 °F)	37.2	28.1	19.0
B (5 °C)	36.2	26.6	17.0	B (9 °F)	34.3	25.2	16.1
C (20 °C)	31.4	22.0	12.6	C (36 °F)	29.8	20.8	11.9
D (50 °C)	22.8	13.5	5.1	D (90 °F)	21.6	12.8	4.8
E (80 °C)	14.5	6.2	0.3	E (144 °F)	13.8	5.9	0.3

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: 31-JUL-06

COLLECTOR SPECIFICATIONS

Gross Area: 2.523 m² 27.15 ft²

Dry Weight: 44.2 kg 97. lb

Test Pressure: 1103. KPa 160. psg

Net Aperature Area: 2.33 m² 25.13 ft²

Fluid Capacity: 1.9 liter 0.5 gal

COLLECTOR MATERIALS

Frame: Aluminum

Cover (Outer): Tempered Glass

Cover (Inner): None

Pressure Drop

Flow		ΔP	
ml/s	gpm	Pa	in H ₂ O
20.00	0.32	17.60	0.07
50.00	0.79	63.5	0.3
80.00	1.27	132.90	0.53

Absorber Material: Tube - Copper /
Plate - Copper Fin

Absorber Coating: Sputtered cermet

Insulation Side: Polyurethane Foam

Insulation Back: Mineral Wool

TECHNICAL INFORMATION

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

	Y INTERCEPT	SLOPE
SI UNITS: $\eta = 0.716 - 3.05620 (P)/I - 0.00674 (P)^2/I$	0.720	-3.498 W/m ² .°C
I P UNITS: $\eta = 0.716 - 0.53835 (P)/I - 0.00066 (P)^2/I$	0.720	-0.616 Btu/hr.ft ² .°F

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

Ka = 1	-0.071 (S)	-0.123 (S) ²
Ka = 1	-0.20 (S)	Linear Fit

Model Tested: Vitosol 200F

Test Fluid: Propylene Glycol & Water

Test Flow Rate: 49.8 ml/s 0.79 gpm

REMARKS: Pressure drop shown above is for Model SV1

March, 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