


SOLAR COLLECTOR CERTIFICATION AND RATING  SRCC OG-100	CERTIFIED SOLAR COLLECTOR SUPPLIER: Heat Transfer Products 120 Braley Road East Freetown, MA 02717 MODEL: FP-40SC COLLECTOR TYPE: Glazed Flat-Plate CERTIFICATION#: 2009039F
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COLLECTOR THERMAL PERFORMANCE RATING							
Megajoules Per Panel Per Day				Thousands of BTU Per Panel Per Day			
CATEGORY	CLEAR DAY	MILDLY CLOUDY	CLOUDY DAY	CATEGORY	CLEAR DAY	MILDLY CLOUDY	CLOUDY DAY
A (-5 °C)	54.8	41.4	28.1	A (-9 °F)	51.9	39.2	26.6
B (5 °C)	49.8	36.4	23.1	B (9 °F)	47.2	34.5	21.9
C (20 °C)	41.7	28.6	15.6	C (36 °F)	39.6	27.1	14.8
D (50 °C)	25.1	13.3	2.9	D (90 °F)	23.7	12.6	2.8
E (80 °C)	9.7	1.4	0.0	E (144 °F)	9.2	1.4	0.0

Original Certification Date: 16-JUL-09

COLLECTOR SPECIFICATIONS

Gross Area:	3.696 m ²	39.79 ft ²	Net Aperature Area:	3.481 m ²	37.47 ft ²
Dry Weight:	69.4 kg	153. lb	Fluid Capacity:	6.1 liter	1.6 gal
Test Pressure:	1103. KPa	160. psg			

COLLECTOR MATERIALS

Frame:	Anodized Aluminum
Cover (Outer):	Low Iron Tempered Glass
Cover (Inner):	None
Absorber Material:	Tube - Copper / Plate - Copper Fin
Absorber Coating:	Selective Coating
Insulation Side:	Polyisocyanurate
Insulation back:	Polyisocyanurate

Pressure Drop

Flow		ΔP	
ml/s	gpm	gpm	in H ₂ O

TECHNICAL INFORMATION

Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Taj]				Y INTERCEPT	SLOPE
S I UNITS:	$\eta = 0.6910$	$-3.39600 (P)/I$	$-0.01968 (P)^2/I$	0.7	$-4.9 \text{ W/m}^2 \cdot \text{°C}$
I P UNITS:	$\eta = 0.6910$	$-0.5982 (P)/I$	$-0.0019 (P)^2/I$	0.7	$-0.9 \text{ Btu/hr.ft}^2 \cdot \text{°F}$

Incident Angle Modifier [(S)=1/cosθ - 1, 0°<θ<=60°]			Model Tested:	2002011A
Kα = 1	-0.194 (S)	-0.006 (S) ²	Test Fluid:	Water
Kα = 1	-0.20 (S)	Linear Fit	Test Flow Rate:	38.8 ml/s 0.61 gpm

REMARKS:

July, 2009
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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