


SOLAR COLLECTOR CERTIFICATION AND RATING  SRCC OG-100	CERTIFIED SOLAR COLLECTOR SUPPLIER: Stiebel Eltron 17 West Street West Hatfield, MA 01088 MODEL: Stiebel Eltron Sol 25 Plus COLLECTOR TYPE: Glazed Flat-Plate CERTIFICATION #: 100-2005-016A
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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 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)	41	31	21	A (-9°F)	39	29	20
B (5°C)	37	27	17	B (9°F)	35	26	16
C (20°C)	32	22	12	C (36°F)	30	21	12
D (50°C)	21	12	4	D (90°F)	20	11	3
E (80°C)	10	3		E (144°F)	10	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: June 26, 2006

COLLECTOR SPECIFICATIONS

Gross Area:	2.734 m ²	29.43 ft ²	Net Aperture Area:	2.595 m ²	27.93 ft ²
Dry Weight:	48.9 kg	108 lb	Fluid Capacity:	1.6 l	0.4 gal
Test Pressure:	1103 kPa	160 psig			

COLLECTOR MATERIALS

Frame:	Aluminum Extrusion
Cover (Outer):	Low Iron Tempered Glass
Cover (Inner):	None
Absorber Material:	Tube - Copper / Plate - Copper
Absorber Coating:	Sputtered titanium nitride
Insulation (Side):	Mineral Wool
Insulation (Back):	Mineral Wool

PRESSURE DROP

Flow		Δ P	
ml/s	gpm	Pa	in H ₂ O
20	0.32	218	0.88
50	0.79	1145	4.60
80	1.27	2792	11.21

TECHNICAL INFORMATION

Efficiency Equation [NOTE: Based on gross area and (P) = Ti-Ta]				Y Intercept	Slope
S I Units:	$\eta = 0.649$	$-3.1374 (P)/I$	$-0.0148 (P)^2/I$	0.66	-4.287 W/m ² ·°C
I P Units:	$\eta = 0.649$	$-0.5529 (P)/I$	$-0.0014 (P)^2/I$	0.66	-0.755 Btu/hr·ft ² ·°F

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

$K_{arr} = 1.0$	-0.2824 (S)	-0.0111 (S) ²
$K_{arr} = 1.0$	+0.27 (S)	(Linear Fit)

Model Tested: Sol 25 Plus

Test Fluid: Water

Test Flow Rate: 55 ml/s 0.87 gpm

REMARKS:

July, 2007

Certification must be renewed annually. For current status contact:

SOLAR RATING & CERTIFICATION CORPORATION

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