


SOLAR COLLECTOR CERTIFICATION AND RATING  SRCC OG-100	CERTIFIED SOLAR COLLECTOR SUPPLIER: Apricus Inc. 6 Sycamore Way, Unit #2 Branford, CT 06405 USA MODEL: AP-30 COLLECTOR TYPE: Tubular CERTIFICATION#: 2007033A
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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)	48.7	36.7	24.8	A (-9 °F)	46.1	34.8	23.5
B (5 °C)	46.5	34.5	22.5	B (9 °F)	44.0	32.7	21.4
C (20 °C)	42.9	30.9	19.0	C (36 °F)	40.6	29.3	18.0
D (50 °C)	36.0	24.2	12.4	D (90 °F)	34.2	23.0	11.8
E (80 °C)	28.6	16.8	6.2	E (144 °F)	27.1	15.9	5.9

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: 24-AUG-09

COLLECTOR SPECIFICATIONS

Gross Area:	4.158 m ²	44.76 ft ²	Net Aperture Area:	2.99 m ²	32.21 ft ²
Dry Weight:	96.2 kg	212. lb	Fluid Capacity:	1 liter	0.3 gal
Test Pressure:	1103. KPa	160. psig			

COLLECTOR MATERIALS

Frame:	Stainless Steel
Cover (Outer):	Glass Vacuum Tube
Cover (Inner):	None

Pressure Drop

Flow		ΔP	
ml/s	gpm	Pa	in H ₂ O
20.00	0.32	105.00	0.42
50.00	0.79	524.0	2.1
80.00	1.27	1257.00	5.05

Absorber Material:	Tube - Copper / Plate - Aluminum
Absorber Coating:	Aluminum Nitride

Insulation Side:	Vacuum
Insulation Back:	Vacuum

TECHNICAL INFORMATION

Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Taj]	Y INTERCEPT	SLOPE
S I UNITS: $\eta = 0.456 - 1.35090 (P)/I - 0.00381 (P)^2/I$	0.458	-1.579 W/m².°C
I P UNITS: $\eta = 0.456 - 0.23796 (P)/I - 0.00037 (P)^2/I$	0.458	-0.278 Btu/hr.ft².°F

Incident Angle Modifier [(S)=1/cosθ - 1, 0°<θ<=60°]	Model Tested:	100-2007-033A
Kα = 1 1.306 (S) -1.034 (S) ²	Test Fluid:	Water
Kα = 1 0.23 (S) Linear Fit	Test Flow Rate:	83 ml/s 1.32 gpm

REMARKS: Tested with long axis of tubes oriented north-south. IAM perpendicular to the tubes is listed above. IAM parallel to the tubes = 1.0 - 0.09(S)

April, 2010

Certification must be renewed annually, For current status contact:

SOLAR RATING & CERTIFICATION CORPORATION

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