



CERTIFIED SOLAR THERMAL COLLECTOR

SUPPLIER:
Solar Industries SPHS
 1940 Rutgers Univ. Blvd
 Lakewood, NJ 08701 USA

MODEL: 10204-12
 THERMAL COLLECTOR TYPE: Unglazed Flat Plate
 CERTIFICATION #: 96026C
 Original Certification: November 01, 1996
 Expiration Date: November 01, 2016

This solar collector was evaluated by the Florida Solar Energy Center (FSEC) in accordance with prescribed methods and was found to meet the minimum standards established by FSEC. This evaluation was based on solar collector tests performed by an FSEC approved laboratory. The purpose of the tests is to verify initial performance conditions and quality of construction only. The resulting certification is not a guarantee of long term performance or durability. This collector has been rated for energy output on measured performance and an assumed standard day. Total solar energy available for the standard day is 5045 Watt-hour/m² (1600 Btu/ft²) distributed over a 10 hour period.

COLLECTOR THERMAL PERFORMANCE RATING (Collector Tested per ASHRAE 96)							
Kilowatt-hours (thermal) Per Panel Per Day				Thousands of Btu Per Panel Per Day			
Category Inlet	Low 30°C	Intermediate 50°C	High 100°C	Category Inlet	Low 86°F	Intermediate 122°F	High 212°F
ENERGY OUTPUT	13.8	5.2	0.0	ENERGY OUTPUT	47.2	17.8	0.0

COLLECTOR SPECIFICATIONS					
Gross Area:	4.386 m ²	47.21 ft ²	Dry Weight:	10 kg	23 lb
Net Aperture Area:	4.385 m ²	47.20 ft ²	Fluid Capacity:	14.0 liter	3.7 gal
Absorber Area:	4.386 m ²	47.21 ft ²	Test Pressure:	241 kPa	35 psi

TECHNICAL INFORMATION		Tested in accordance with: ASHRAE 96
Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Ta]		
SI UNITS:	Wind speed (u) < 1.5 m/s, Temperature (Ti - Ta) in °C, Radiation (G) in W/m ² $\eta = 0.863 - 18.210(P/G) - 52.290(P^2/G)$	
IP UNITS:	Wind speed (u) < 3 mph, Temperature (Ti - Ta) in °F, Radiation (G) in Btu/hr-ft ² $\eta = 0.863 - 3.209(P/G) - 5.116(P^2/G)$	

IAM Coefficient:	1 - 0.03	
Test Fluid:		
Test Mass Flow Rate:	kg/(s m ²)	lb/(hr ft ²)

REMARKS:

Joseph Walters
 Technical Director

