



# OG-100 Solar Thermal Collector Certification

**No./10002109**

Issued: July 07, 2020

Expiration Date: April 01, 2025

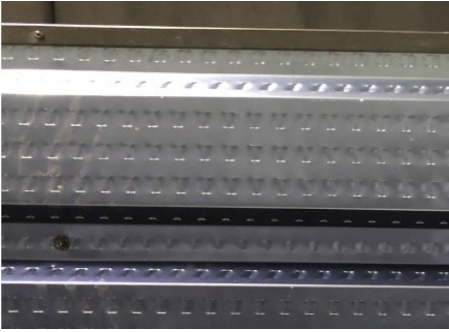

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<b>CERTIFICATION HOLDER:</b> <b>ATAS International</b> 6612 Snowdrift Road Allentown, PA 18106 USA  <a href="http://www.atas.com">www.atas.com</a>	<b>EVALUATION SUBJECT</b>	
	<b>BRAND:</b>	ATAS
	<b>MODEL:</b>	InSpire HP
	<b>TYPE:</b>	Solar Air Heating Collector - Transpired, Building Integrated, Unglazed

### PRODUCT CERTIFICATION SYSTEM:

The ICC-SRCC OG-100 certification program includes evaluation and performance ratings for solar thermal collectors as established in the [ICC-SRCC Rules for Solar Heating & Cooling Product Listing Reports](#). The program also includes periodic factory inspections and surveillance of the manufacturer’s quality management system.

**COMPLIANCE WITH THE FOLLOWING STANDARD(S):** ICC 901/SRCC 100 - 2020, Solar Thermal Collectors Standard  
**THERMAL PERFORMANCE TEST STANDARD:** ISO 9806-2017

COLLECTOR SPECIFICATIONS		
To be considered certified, installed collectors must match the following specifications.		
<b>Max. Design Flow Rate</b>	2.7 scmm/m <sup>2</sup> (9.0 scfm/ft <sup>2</sup> )	
<b>Panel Width</b>	1.0 m (39.375 in)	
<b>Panel Length</b>	1.8 to 12.2 m (6 to 40 ft)	
<b>Weight</b>		
<b>Air Inlet</b>	Absorber panel perforations	
<b>Air Outlet</b>	Varies	
<b>Orientation</b>	0° (horizontal) - 90° (vertical)	
<b>Absorber Type</b>	Perforated, profiled metal plate with multi-layer selective coating	
<b>Absorber Material</b>	Aluminum, 0.75 mm (0.030”) thick	
<b>Absorber Profile</b>	BWS392 profile, with and without stiffener	

### IDENTIFICATION:

Certified collectors must be identified with the OG-100 certification mark below in accordance with the [Rules for Certification Mark and Certificate Use](#) and labeled in with the information below per ICC 901/SRCC 100:



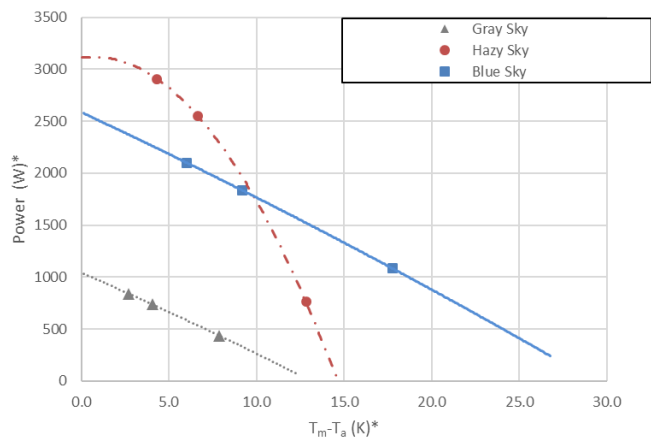
1. Manufacturer’s name and model number.
2. ICC-SRCC OG-100 collector certification number
3. Maximum operating temperature
4. Dry (empty) weight
5. Fluid volume
6. Compatible heat transfer fluids
7. Standard stagnation temperature
8. Year of manufacture and/or serial number.

**LABORATORY TESTING SUMMARY**

Test Lab	Fraunhofer, ISE	Laboratory testing of a collector sample is required for OG-100 certification to confirm that the collector passes qualification tests and to obtain performance results. These sections provide information on the sample tested for the purposes of OG-100 certification and the measured results.
Test Report Number	2020-02-k2	
Test Report Date	July 21, 2020	
Test Standard	ISO 9806-2017	

**TEST SAMPLE DETAILS**

<b>Absorber</b>	<b>Coating</b>	Multi-Layer Selective
	<b>Absorptivity</b>	0.935 (measured by lab)
	<b>Emissivity</b>	0.025 (measured by lab)
	<b>Material</b>	Aluminum
	<b>Porosity</b>	Not Reported
<b>Gross Area (A<sub>G</sub>)</b>		2.56 m <sup>2</sup> (27.56 ft <sup>2</sup> )
<b>Aperture Area (Net)</b>		2.43 m <sup>2</sup> (26.16 ft <sup>2</sup> )
<b>Gross Sample Dimensions (LXWXH)</b>		2.44 m x 1.03 m x 25 cm (8.0 ft x 3.4 ft x 9.8 in)



**THERMAL EFFICIENCY TESTING DETAILS**

<b>Testing Location</b>	Indoor solar simulator @ 20°C
<b>Added Back/Side Insulation</b>	2" rigid foam (R-16)

**POWER OUTPUT PER COLLECTOR AT STANDARD RATING CONDITIONS\***

Air Flow Rate (kg/hr)	Standard Condition	Blue Sky		Hazy Sky		Gray Sky	
		Q(W)	Δ T (K)*	Q(W)	Δ T (K)*	Q(W)	Δ T (K)*
98		437	7.9	760	12.8	1083	17.8
320		738	4.0	2547	6.7	1835	9.2
548		839	2.7	2908	4.3	2099	6.0

\*Standard rating conditions for Gray Sky, Hazy Sky and Blue Sky with 1.34 m/s wind as established in ISO 9806-2017, corrected for back and edge losses.  $\Delta T = T_m - T_a$  where  $T_m$  is the mean air temperature of the air in the collector and  $T_a$  is the ambient (inlet) air temperature.

**CONDITIONS:**

1. Collector must be installed and operated in accordance with the manufacturer's published instructions and local codes and regulations.
2. Standard Performance Ratings have been calculated for the tested components using standardized conditions established by the test standards. Actual performance will vary based on the specific usage, installation, and local environmental conditions. Thermal performance values are valid only for collectors with the same absorber profile, porosity, and color and where a pressure drop across the collector is less than 25 Pa.
3. Wind impact on efficiency should not be extrapolated to large-scale systems due to differences in the ratio of wind-blown edge loss to thermal gain across the surface area between large and small collectors.
4. The collector listed in this ICC-SRCC OG-100 certification must be labeled with the information listed above in accordance with the [ICC-SRCC Rules for Mark and Certificate Use](#).
5. OG-100 certifications do not include mounting hardware and fixtures.
6. Solar thermal collectors and mounting hardware and appurtenances must comply with all applicable local requirements for fire resistance. Solar thermal collectors must be mounted in accordance with the requirements of the collector and mounting hardware manufacturers to comply with local codes for structural loading for wind, seismic, snow and other loads.
7. Solar thermal collectors must be used with the heat transfer fluids listed in this document.
8. Solar thermal collector manufactured under a quality control program subject to periodic evaluation in accordance with the requirements of ICC-SRCC.
9. This document must be reproduced in its entirety.
10. Certification status should be confirmed on the ICC-SRCC Directory at [www.solar-rating.org](http://www.solar-rating.org)

*Shawn Martin*

Vice President of Technical Services, ICC-SRCC

