



Descriptive Report and Test Results

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PROJECT: 2421731

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PRODUCTS

CLASS 8854 01 - VERIFICATION OF SOLAR COLLECTOR - Verification Listing of Solar Collectors to CAN/CSA-F378

Glazed Air Heating Solar Collector: Models Solar Sheet 1000G, 1500G and 1500GS

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APPLICABLE REQUIREMENTS

CAN/CSA-F378-87 (R1998) -- Solar Collectors

MARKINGS

The collector shall be clearly and permanently marked with the following information:

- Submitter's name or trademark
- Model designation or equivalent
- Serial number
- Country of manufacture (final assembly)
- Maximum working pressure
- Installation limitations (where applicable)
- Toxic nature of the intermediate heat transfer fluid (where applicable)
- CSA Energy Efficiency Verification mark

The EEV marking and associated wording must be incorporated into the equipment rating plate or applied in the form of a separate label.

ALTERATIONS

This report is issued on the condition that the alterations herein listed shall be made and that verification of the subject products applies only to such products on which these alterations have been effected.

1. Marking is as detailed above.

FACTORY TESTS

No factory tests are required.

DESCRIPTION

The following models are hereby verified:

Model Number	Description	Figures
SolarSheat 1000G	Stationary Glazed, flat plate, closed loop air-heating solar collector with a gross area of 1.2 m ² , dimensions 1440 mm (L) x 1096 mm (W) x 97 mm (D), powder coated aluminum collector enclosure. Net aperture area 1.037 m ²	1 - 2
SolarSheat 1500G	Stationary Glazed, flat plate, closed loop air-heating solar collector with a gross area of 2.428 m ² , dimensions 2210 mm (L) x 1096 mm (W) x 97 mm (D), powder coated aluminum collector enclosure. Net aperture area 2.211m ²	3-4-5
SolarSheat 1500GS	Same as model 1500G except installed with model 1500G as A secondary collector FOR LARGER ROOM HEATING NEEDS.	3-4-5

These collectors are manufactured by Solar Sheat, Canada.

Material details:

- 1 - Cover Plates (flat plate collectors): Cleared tempered Glass, 4mm thick.
- 2 – Absorber material: Corrugated sheet aluminum. 0.032 inches thick.
- 3 – Absorber Coatings: Kynar 500, powder coating, black
- 4 – Collector Box: Aluminum extrusion, powder coated
- 5 – Gaskets and Sealants: EPDM / silicon Tremsil 600 black
- 6 – Insulations: Back and side, 0.5 inches thick foil faced polyisocyanurate

TESTS

CAN/CSA F378-equivalent performance tests were conducted by Bodycote Testing Group at the National Solar Test Facility located at 2395 Speakman Dr., Mississauga, ON to SRCC OG-100 standards.

The following performance tests were carried out on the Your Solar Home Inc. (Solar Sheat) collector model 1500GS (Bodycote Testing Group Report No. 06-08-9148):

- Initial static pressure leak
- Exposure
- Thermal shock/water spray
- Second static pressure leak
- Collector time constant
- Thermal performance
- Incident angle modifier
- Final inspection

In addition, Bodycote Testing Group performed Uniform Positive and Negative Load test in accordance with CAN/CSA F378 Standard (Bodycote Testing Group Report No. 07-08-9195)

The test results are acceptable and attached together with SRCC certificates for model 1000G, 1500G and 1500GS as ATT2 Test data to the engineering file located at CSA (Toronto) under the Project 251693-2373730 (stored electronically in documentum under this sales order no.)

Project 2421731:

Update report to correct the performance factor of collectors from 0.31 to 0.44 and to correct an error on the certificate of verification.

The performance factor for model 1000G, 1500G and 1500GS was corrected mainly because of the correction to the performance of reference collector by Natural Resources Canada.