

# Solar Heating System Factsheet

## Dalsun CN152



**System model** Dalsun CN152  
**System type** Thermosiphon system  
**Manufacturer** Nicoll S.p.A.  
**Address** Via Gorizia 7  
 31025 Santa Lucia di Piave (TV)  
**Phone** +39 0438 4697  
**Fax** +39 0438 460766  
**E-mail** info@nicoll.it  
**Internet** www.nicoll.it  
**Date of test** 11.2011

- Performance test EN12976:2006
- Quality test EN12976:2006

- Solar Keymark



### System-Data

**No. of collector modules/pipes** 1  
**Gross collector area** 2.1 m<sup>2</sup>  
**Storage tank volume** 145 l  
**Design load<sup>1)</sup>** 110 l/d

### Types of collector mounting

- Construction for sloping roof
- Integration into sloping roof
- On flat roof with stand
- Facade

**Gross dimensions flat roof (D x W x H)**  
**Gross dimensions sloping roof (L x W)**

2070 mm x 1270 mm x 1980 mm  
 2600 mm x 1270 mm

### Collector

**Model** ARIS 2003  
**Type** Flat-plate collector  
**Total length** 2032 mm

**Total width** 1031 mm  
**Gross area** 2.1 m<sup>2</sup>  
**Weight empty** 40 kg

### Storage tank

**Model** Dalsun CN152  
**Type** Horizontal  
**Insulation material** Polyurethane foam  
**Corrosion protection** Enamelled,  
Mg sacrificial anode  
**Total length** 1265 mm

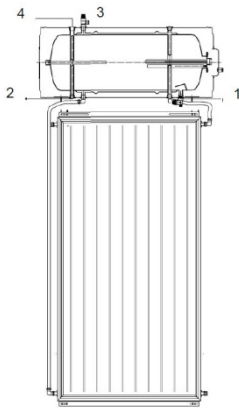
**Outside diameter** 502 mm  
**Weight empty** 106 kg  
**Electrical heater** --  
**Max. operating pressure** 6 bar  
**Max. storage temperature** 95 °C

### Heat transfer medium solar loop

**Manufacturer** Shell Chemicals  
**Type** Water-/Propyleneglycol mixture

**Model** MPG-Industrial  
**Concentration/Freezing point** 17% / -6°C

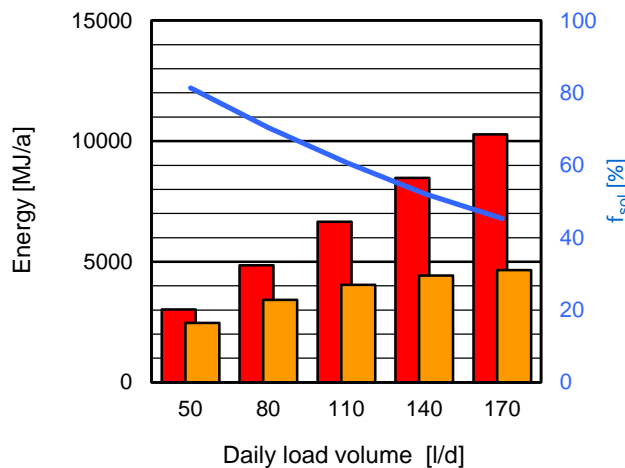
**Schematic of system**



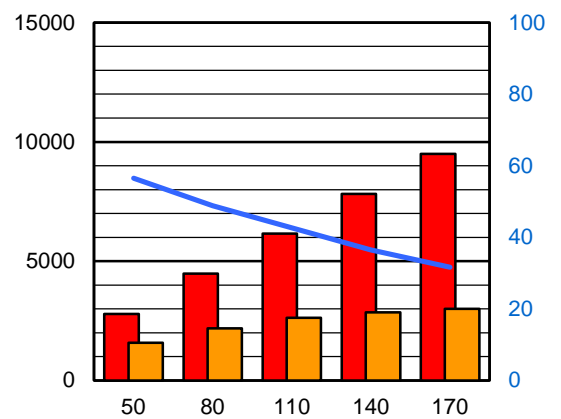
- 1 Cold water inlet
- 2 Hot water outlet
- 3 Pressure relief valve (3 bar)
- 4 Temperature and pressure relief valve (93 °C / 6 bar)

**Annual performance prediction and solar fraction for the EN locations\***

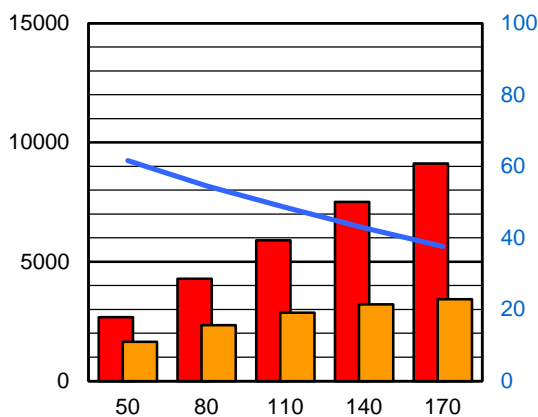
**Davos**



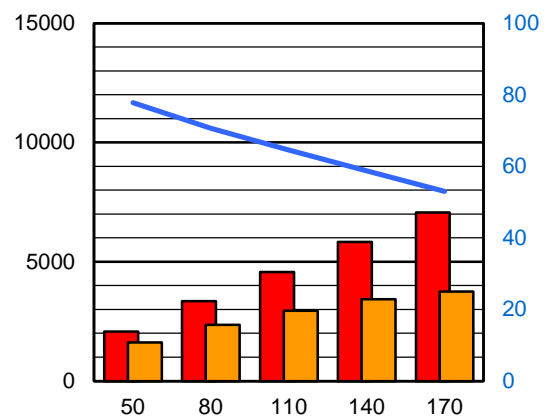
**Stockholm**



**Würzburg**



**Athens**



**Reference conditions according to EN 12976**

- Collector alignment South, tilt angle 45°
- Hot water temperature 45°C
- Draw-off 6 h after solar noon; 100 %

**Performance indicators**

- $f_{sol}$ : Solar fraction in % ( $f_{sol} = Q_L/Q_d$ )
- $Q_L$ : Heat delivered by the solar system (load)
- $Q_d$ : Heat demand

<sup>\*)</sup> The reference conditions for annual performance prediction in accordance with EN 12976:2006 are described in the **accompanying document to the system factsheets**.