

SOLAR COLLECTOR CS 20 58/1800

Technical datasheet

General description

- Vacuum tube solar collector based on heat-pipe technology, suitable for residential, commercial and industrial applications.
- Can be used for producing domestic hot water, floor heating, pool heating or other industrial applications.
- Heat-pipe technology, with anti-freezing protection up to -50°C and high heat transfer capacity.
- Split system permits flexible water tank positioning and good performance during cold season.
- Modular system, allows serial connection for up to 300 tubes.

System components

Collector box

- Collector for 20 tubes
- Aluminum framework and screws
- 20 heat-pipes
- 20 fixing systems for vacuum tubes
- 20 vacuum tube gaskets
- Thermal conductivity paste

Vacuum tubes box

- 20 three-layer vacuum tubes - 58x1800mm, Cu/SS-ALN(H)/SS-ALN(L)/ALN

Main characteristics

- High performance, even in cold weather
- Circular absorption layer provides maximum output all day long
- Hail resistance up to 30 mm
- Wind resistance up to 100km/h
- Easy to replace vacuum tubes, without disturbing system functioning
- Heat pipes with anti-freeze resistance down to -50 °C
- Manufactured and tested according to DIN EN 12975-1 quality standards
- ¾" brass thread connection
- Mounting accessories available for : metal tile, ceramic tile, terraces
- Terrace aluminum framework available for : 45° fixed angle or 15-35° adjusting angle
- Over 20 years of lifetime
- 10 year guarantee
- Equipped with thermal sensor sheath on both ends
- Manufactured in Romania



Subassembly specifications

- Vacuum tubes : 3.3 borosilicate glass (1.8 mm thickness)
- Vacuum tube absorption layers : Cu/SS-ALN(H)/SS-ALN(L)/ALN
- Heat pipe : Cu-DHP CW024A copper with 22mm condenser
- Heat-pipe radiator : aluminum foil (0.2 mm)
- Gaskets : silicone rubber
- Framework : "U" shaped aluminum profile (2 mm)
- Collector housing : AISI 430 stainless steel, with PVC protective
- Thermic insulation: mineral rock wool with rigid polyurethane foam (density 50kg/cbm.)

Performance

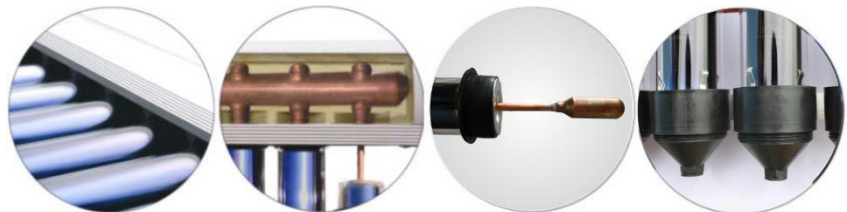
- Ideal flow rate : 2.5 l/min
- Maximum flow rate : 18 l/min
- Maximum output : 1290 W / 4420 Btu
- Eta0 : 0.687
- a1 (W/m²K) : 1.505
- a2 (W/m²K) : 0.0111
- Daily heating capacity (Δ45°C) : 160-200 l

Technical specifications

- Dimensions (mm) : 1670 x 1990 x 175
- Weight : 63 kg
- Absorption area : 1.98 sqm.
- Gross area : 3.32 sqm.
- Liquid capacity : 1666 ml
- Maximum pressure : 800kpa/116Psi
- Manifold stagnation temperature : 190°C
- Vacuum tube stagnation temperature : 270°C

Conformity

- Manufactured and tested according to DIN EN 12975-1 quality standards
- Manual should be read carefully before installing and commissioning.



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