



Genersys

1450 Solar Collector



Patented connection clamp for pressure sealed link up to adjacent collector and system piping without soldering or welding

Surrounding glass frame with integral groove to seal the collector to roof join

Low-reflection transparent, special solar glass, consisting of thermally pre-stressed, hardened white glass, tested in accordance with ISO for hailstone resistance

High temperature-resistant, elastic support elements to absorb and transmit atmospheric pressure from the pane of glass to the membrane at base of the housing

Meandering heat transfer pipe consisting of compression-proof copper piping

Absorber section with plated, highly selective, special coating in thin layer technology for low loss light-heat conversion with quick transfer of heat to heat transfer pipe.

One piece construction (AlMg) of the trough and frame (no joined framing) combined with a compression, vacuum-proof design means longest lifespan of any collector worldwide

Evacuation connection to produce and renew vacuum

Surrounding vacuum sealing ring made of superior heat-resistant and age-resistant material

Integrated roof piping allowing erection of collector panels so as to accommodate Tichelmann piping system

1 panel (2m2) average output 1400 kw per annum at constant 50 degrees C *



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Krypton Inside™

Genersys 1450 High-Performance Evacuated Flat Plate Collector



Genersys 1450 is a world leading flat-plate, vertically-mounted type collector without collection pipes, intended for applications in systems equipped with circulating pumps. It consists of a one-piece forged metal casing to which safety solar glass is fixed by means of a frame made from non-corrosive aluminium profile.

Stamped Al-Mg sheet absorber fins with high-selective conversion layer span the copper pipe meander. The flanged connection pipes are connected to the hydraulic circuit by patented connection clamps. The collectors can be connected in series, up to 10 pcs in total.

Krypton can be used as a replacement of the residual gas (air) inside the collector.



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* the collector's energy gain depends on operating mode, geographic position and microclimatic conditions.



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Technical Specifications

Floor Space: 2,03 m²
 Absorbing Surface: 1,76 m²
 Linkage dimension: 1024 x 2040mm
 Cover glass: Safety solar glass 4mm thick.
 Connection: Patented connection clamp.
 Casing: Stamping from non-corrosive Al-Mg sheet.
 Thermowell: To accommodate Ø 4mm or Ø 6mm sensor.

Thermal insulation: Vacuum 100 Pa
 Total liquid capacity: 1.31
 Total weight: 48kg
 Conversion layer: High selective based on colloidal nickel pigmented alumina.

Solar absorptivity: $\alpha_{M1.5}$ Min. 0.94
 Thermal emissivity: ϵ_{820C} Max. 0.16
 Optical efficiency: 81%
 Operating temperature: Above 100°C

No-load temperature at radiation 1000 W/m² and ambient temperature 25°C: 219°C

Max. working over-pressure of heat transfer fluid: 600 kPa

Recommended flow of heat transfer fluid: 60 L/h

High Quality Panel

The casing

- stamping from non-corrosive Al-Mg sheet
- sea-water resistant

The Absorber

- made of corrosion-resistant aluminium
- corrosion-proof and pressure-proof copper piping for fluids

The glass covering

- safety glass for security against breakage, tested for hailstone-resistance
- maximum light-transmitting properties in excess of 90% due to high degree of transparency

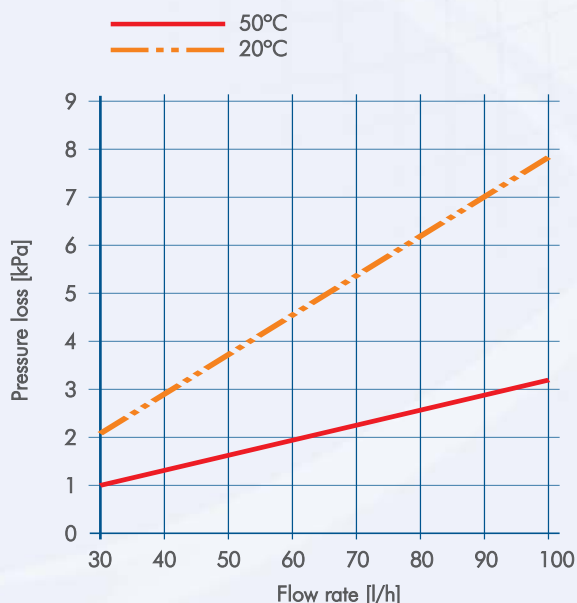
Modular construction in line with architectural requirements

- attractive appearance due to integrated collection piping
- straightforward collector erection even for attic conversions

Energy and environmental protection

- The flat plate collector produces heat without polluting the environment and with only minimal energy consumption. It saves the energy required for its manufacture in approximately 2 years.

Pressure Loss of G-1450 Panel with anti-freeze-Liquid



Dimensions

