



Genersys®

IMPROVED

1000-4 Solar Collector



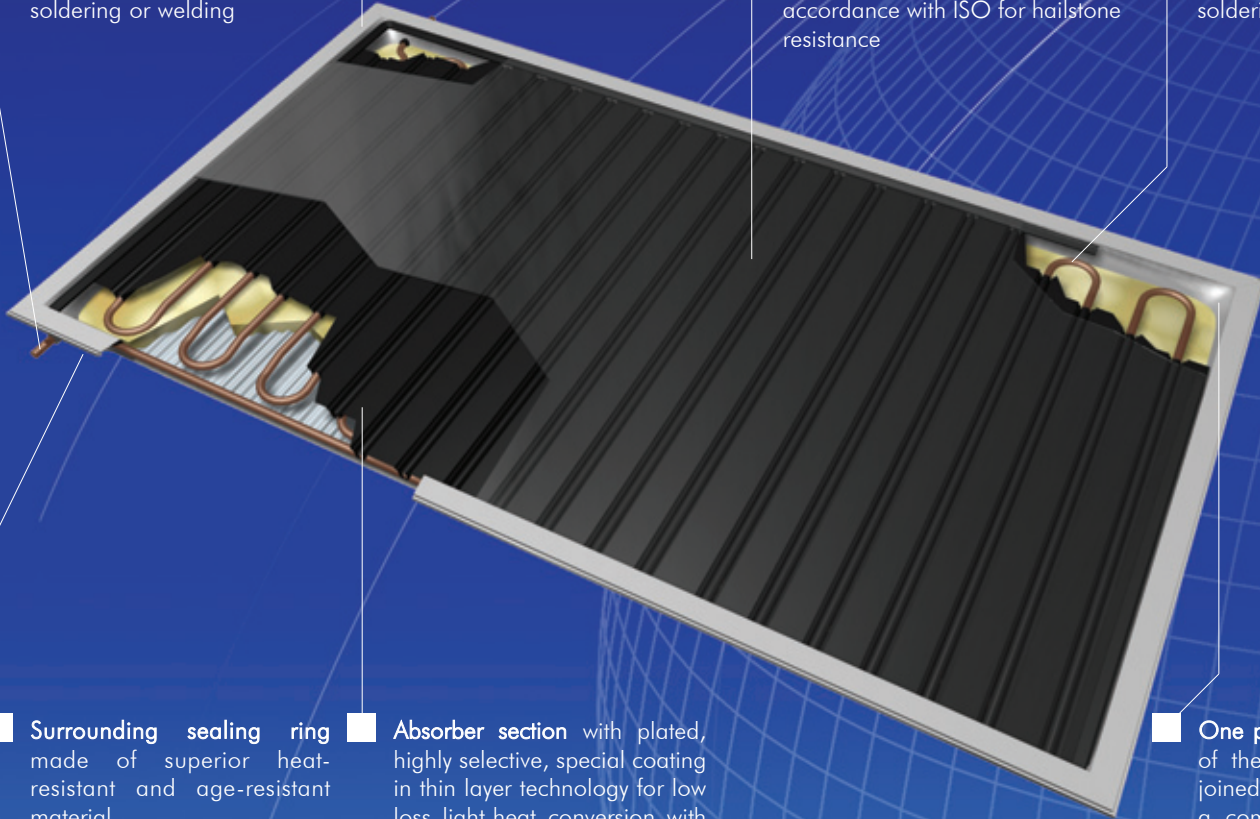
Connecting system

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

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

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

Meandering heat transfer pipe consisting of compression-proof copper piping folded into absorber plate without soldering



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

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, vaccum-proof design means longest lifespan of any collector worldwide

-no welds, rivets screws, bolts or solder



GENERYS®
A Global Solar Corporation

Genersys 1000-4 Solar Collector

Genersys 1000-4 is a world-leading flat-plate, vertically-mounted type collector without collection pipes, intended for applications in smaller 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 Ø12 copper connection pipes are connected to the hydraulic circuit by soldering or by means of clamp fitting.

The flanged connection pipes are connected to the hydraulic circuit by patented connection clamps. Three collectors can be connected in a series.



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Technical Specifications

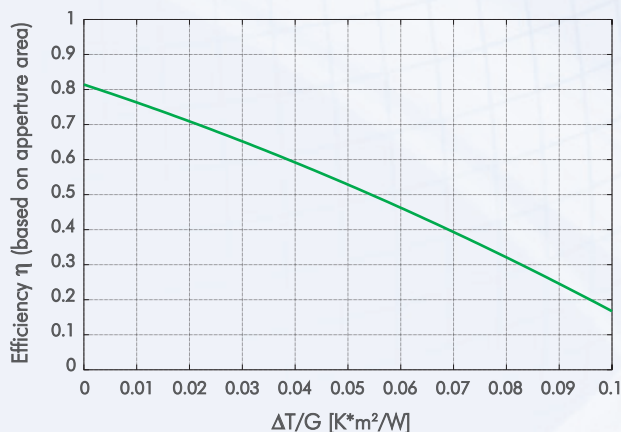
Floor Space:	2.03 m ²
Absorbing Surface:	1.76 m ²
Linkage dimension:	1040 x 2040mm
Cover glass:	Safety solar glass 4mm thick.
Connection:	Ø 12mm piping
Casing:	Stamping from non-corrosive Al-Mg sheet.
Thermowell:	To accommodate Ø 4mm or Ø 6mm sensor.
Weight empty:	36.5kg
Fluid Volume:	1.3 litres
Solar absorptivity: $\alpha_{M1.5}$	Min. 0.96
Thermal emissivity: ϵ_{820C}	Max. 0.14
Optical efficiency:	81%
Operating temperature:	Below 100°C

No-load temperature at radiation 1000 W/m² and ambient temperature of 25°C: 178°C

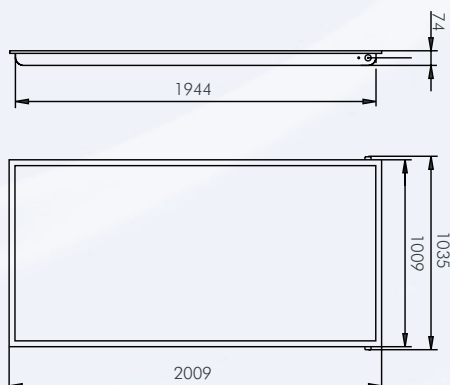
Max. working over-pressure of heat transfer fluid: 600kPa/20bar

Recommended flow of heat transfer fluid: 30 L/h

Efficiency curve for the determined coefficients and for an assumed irradiation of 800 W/m² based on aperture area



Dimensions



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

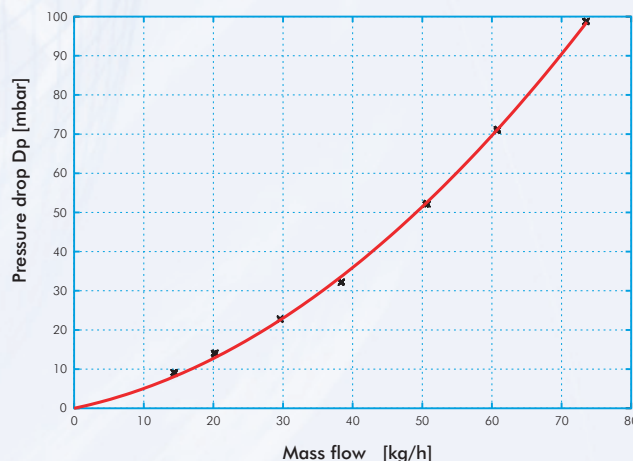
Energy and environmental protection

- 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. Life expectancy is 35 years.

Certified and independently tested to comply with BS EN 12975 Parts 1 & 2

Pressure Loss of G-1000-4 Panel with anti-freeze-Liquid

The measurement of the pressure drop Δp was carried out with water as fluid until a flow rate of 73 kg/h. The inlet temperature of the water was 20°C.



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