

SOLAR COLLECTORS

D12c range



SYRIUS D12c solar thermal collectors complete the backbone of the SYRIUS SOLAR INDUSTRY product range.

They merge the features of the D12 series with a new generation of absorbing surfaces to reduce overheating. Just as efficient as its counterpart in normal operation, this new coating increases its emissivity at high temperatures, which significantly reduces the stagnation temperature.

Among the plus points:

- Lessening of liquid losses due to evaporation in the glycol circuit.
- Expanding the collector lifespan thanks to the pressure deduction on all elements.

Based on the Microthermal® technology which has been proven in the international market for more than 15 years.



Description

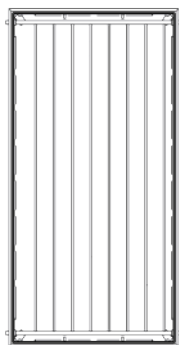
Syrius D12c collectors were designed for multiple applications:

- Forced circulation systems and Thermosiphons
- Thick insulation of 40mm Rockwool
- High resistance to snow and wind loads (zone 5): validated for high altitudes and hurricane zones
- Hydraulic circuit for forced circulation and thermosiphon



Features

Model	C 2000 D12c	C 2500 D12c
Absorber type	Selective aluminum laser welded on Cu tubes	
Absorber coating	Highly selective Alanod Mirotherm	
Absorptance / Emittance	96% / 4% +/- 2%	
Collector circuit	Absorber with 8 harp tubes \varnothing 12mm and 2 manifolds \varnothing 22mm	Absorber with 8 harp tubes \varnothing 12mm and 2 manifolds \varnothing 22mm
Collector connection	4 outlets \varnothing 22 for compression fitting	
Dimensions (mm)	2033 x 1015 x 98	2033 x 1245 x 98
Gross area (m ²)	2.06	2.53
Net area (m ²)	1.83	2.28
Net weight (kg)	31	37
Liquid content (liters)	2.13	3
Nominal flow (l/h)	150	180
Nominal pressure loss	0.6 mbar (low flow conditions: 0.3 mbar, water/propylene-glycol 20°C)	
Covering	Low iron, tempered safety glass 3.2 mm (Solar Glass ESG)	
Transmission of covering	91 %	
Impact resistance of covering	Cover passed the optional impact resistance tests following EN12975-2	
Insulation	40 mm rock wool	
Frame collector	Anodised aluminium cover	
Angle of inclination	10° to 90°	
Recommended heat transfer fluid in Europe	Antifreeze mix based on propylene-glycol	
Warranty	10 years	
Efficiency $\eta_{0,a}$ absorber area	78.8 %	76.4 %
Heat loss coefficient a1	a1 : 3.82 W/(m ² .K)	a1 : 3.99 W/(m ² .K)
Heat loss coefficient a2	a2 : 0.016 W ² /(m ² .K ²)	a2 : 0.014 W ² /(m ² .K ²)
Max. stagnation temperature	180° C	
Max. operation pressure (bar)	10/7	
Permissible wind load	3 kN/m ² negative pression (3000 Pa)	3 kN/m ² negative pression (2500 Pa)
Permissible snow load	3 kN/m ² positive pression (3000 Pa)	



Collectors 10 years warranty

Certifications

SolarKeymark collectors certification
078/000381



EPA's Energy Star Programme



Made in France



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