

Flat plate collector K423MS-AL

Technical data

Type of construction	Flat plate collector for on-roof, flat-roof and facade mounting
Absorber type	KBB absorber with Al-sheet and Cu-tubes, Absorber with 1 meander $\varnothing 9$ mm and 2 manifold $\varnothing 22$ mm
Measurement (L / W / H)	2160 / 1150 / 95 mm
Gross area	2.51 m ²
Aperture area/Absorber area (net)	2.3 m ² / 2.3 m ²
Total Weight dry	39 kg
Liquid content	1.80 l
Efficiency η_0	81.2 %, related to the aperture area
Heat loss coefficient a1	3.66 W / (m ² x K)
Heat loss coefficient a2	0.016 W / (m ² x K ²)
Heat loss coefficient a40	4.3 W / (m ² x K ²)
Max stagnation temperature	187 °C
Absorber coating	Highly selective on Aluminium
Absorptance / Emittance	95 % / 5%
Covering	Low iron, structured, solar safety glass (ESG)
Transmission of covering	91.5 %
Impact resistance of covering	Cover passed the optional impact resistance tests following EN12975-2.
Nominal flow	120 l/h (low flow conditions: 50 l/h)
Nominal pressure loss	280 mbar (low flow conditions: 90 mbar, water/propylene-glycol 20°C)
Hydraulic connection	Parallel connection with collectors side-by-side
Collector connection	4 connectors, $\varnothing 22$ mm plug connectors or $\varnothing 22$ blank ends
Max operation pressure	10 bar
Heat insulation	Mineral wool 50 mm
Collector case	Aluminium frame, powder coated
Angle of inclination	15 – 90°
Permissible wind and snow load	3 kN/m ² suction, 5 kN/m ² pressure
Recommended heat transfer fluid	Antifreeze mix based on propylene-glycol
Report no. of Performance Test,	16COL1344,
Reliability Test acc. to EN12975	109-08/KQ
Solar Keymark no. / expiry date	011-7S1683 F / 2014-06-30
Guarantee	10 years for functionality and weathering resistance

