

# Flat plate collector K423-VH (2L)

## Technical data

Type of construction	Flat plate collector for on-roof, in-roof, flat-roof and facade mounting
Absorber type	KBB absorber with Al-sheet and Cu-tubes, Absorber with 10 harp tubes $\varnothing 8\text{mm}$ and 2 manifolds $\varnothing 18\text{mm}$
Measurement (L / W / H)	2160 / 1150 / 95 mm
Gross area	2.511 m <sup>2</sup>
Aperture / absorber area (net)	2.300 m <sup>2</sup> /2.327 m <sup>2</sup>
Total Weight dry	39 kg
Liquid content	1.3 l
Efficiency $\eta_0$	78.1 %, related to the aperture area
Heat loss coefficient a1	3.70 W / (m <sup>2</sup> x K)
Heat loss coefficient a2	0.0141 W / (m <sup>2</sup> x K <sup>2</sup> )
Heat loss coefficient a40	4.264 W / (m <sup>2</sup> x K)
Max stagnation temperature	203 °C
Absorber coating	Highly selective on Aluminium (eta-Plus_al)
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	100 l/h (low flow conditions: 50 l/h)
Nominal pressure loss	5 mbar (low flow conditions: 3 mbar, water/propylene-glycol 20°C)
Hydraulic connection	Series connection with collectors side-by-side
Collector connection	2 connectors at on side, 1/2" male thread, flat sealing
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 <sup>2</sup> suction, 5 kN/m <sup>2</sup> pressure
Recommended heat transfer fluid	Antifreeze mix based on propylene-glycol
Report no. of Performance Test,	98-08/KD,
Reliability Test acc. to EN12975	105-08/KQT
Solar Keymark no. / expiry date	011-7S323 F / 2019-04-30
Guarantee	10 years for functionality and weathering resistance

