

# Flat plate collector K420EM

## 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 serpentine $\varnothing 12$ mm
Measurement (L / W / H)	1878 / 1158 / 75 mm
Gross area	2.175 m <sup>2</sup>
Aperture / absorber area (net)	1.973 m <sup>2</sup> /1.972 m <sup>2</sup>
Total Weight dry	34 kg
Liquid content	1.72 l
Efficiency $\eta_0$	80.2 %, related to the aperture area,
Heat loss coefficient a1	4.11 W / (m <sup>2</sup> K),
Heat loss coefficient a2	0.0133 W / (m <sup>2</sup> K <sup>2</sup> ),
Heat loss coefficient a40	4.642 W / (m <sup>2</sup> x K)
Max. stagnation temperature	209 °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	80 l/h (low flow conditions: 40 l/h)
Nominal pressure loss	60 mbar (low flow conditions: 30 mbar, water/propylene-glycol 20°C)
Hydraulic connection	Series connection with collectors side-by-side
Collector connection	2 connectors at upper short side, 12 mm for compression fittings
Max. operation pressure	10 bar
Heat insulation	Mineral wool 30 mm
Collector case	Aluminium frame, powder coated
Angle of inclination	15 – 90°
Permissible wind and snow load	3 kN/m <sup>2</sup> suction, 4 kN/m <sup>2</sup> pressure
Recommended heat transfer fluid	Antifreeze mix based on propylene-glycol
Report no. of Performance Test,	134-12/KD,
Reliability Test acc. to EN12975	133-12/KQ
Solar Keymark no. / expiry date	011-7S324 F / 2019-04-30
Guarantee	10 years for functionality and weathering resistance

