

Flat plate collector K420DH

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 8mm and 2 manifolds \varnothing 18mm
Measurement (L / W / H)	1870 / 1150 / 95 mm
Gross area	2.175 m ²
Aperture / absorber area (net)	1.965 m ² /1.963 m ²
Total Weight dry	33.5 kg
Liquid content	1.16 l
Efficiency η_0	80.1 %, related to the aperture area
Heat loss coefficient a1	3.65 W / (m ² x K)
Heat loss coefficient a2	0.0169 W / (m ² x K ²)
Heat loss coefficient a40	4.326 W / (m ² x K)
Max. stagnation temperature	203 °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	100 l/h (low flow conditions: 50 l/h)
Nominal pressure loss	10 mbar (low flow conditions: 5 mbar, water/propylene-glycol 20°C)
Hydraulic connection	Series connection with collectors side-by-side
Collector connection	2 connectors at short 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 ² suction, 5 kN/m ² pressure
Recommended heat transfer fluid	Antifreeze mix based on propylene-glycol
Report no. of Performance Test, Reliability Test acc. to EN12975	86-07/D, 87-07/Q
Solar Keymark no. / expiry date	011-7S323 F / 2019-04-30
Guarantee	10 years for functionality and weathering resistance

