

Flat plate collector K423DH-AR

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 12 harp tubes \varnothing 8mm and 2 manifolds \varnothing 18mm
Measurement (L / W / H)	2168 / 1158 / 95 mm
Gross area	2.511 m ²
Aperture area/absorber area (net)	2.294 m ² /2.29 m ²
Absorber area (net)	2.3 m ² (=aperture area)
Total Weight dry	39.7 kg
Liquid content	1.5 l
Efficiency η_0	83.9 %, related to the aperture area
Heat loss coefficient a1	3.71 W/(m ² K)
Heat loss coefficient a2	0.0155 W/(m ² K ²)
Heat loss coefficient a40	4.33 W/(m ² K)
Stagnation temperature	213°C
Absorber coating	Highly selective on Aluminium
Absorptance / Emittance	95 % / 5%
Covering	structured solar safety glass (ESG) with antireflective coating
Transmission of covering	96.5 %
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 (30 mm sideways)
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,	111-12/KD,
Reliability Test acc. to EN12975	112-12/KQ
Solar Keymark no. / expiry date	011-7S2187 F / 2018-06-30
Guarantee	10 years for functionality and weathering resistance

