

Flatplate collector K420-VH

Technical data

Type of construction	Flatplate 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 $\varnothing 22\text{mm}$
Measurement	1,870 x 1,150 mm
Gross area	2.15 m ²
Height	95 mm
Absorber area (net)	2.0 m ² (=aperture area)
Total Weight dry	34 kg
Liquid content	1.13 l
Efficiency η_0	78.1 %, related to the aperture area
Heat loss coefficient a1	3.70 W / (m ² x K)
Heat loss coefficient a2	0.0141 W / (m ² x K ²)
Max stagnation temperature	203 °C
Absorber coating	High selective on Aluminium (eta plus_al)
Absorption	95 %
Emission	5%
Covering	Low iron, structured, solar safety glass (ESG)
Transmission of covering	91 %
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	Parallel connection with collectors side-by-side
Collector connection	4 connectors at the long sides, $\varnothing 22\text{mm}$
Max operation pressure	10 bar
Heat insulation	Mineral wool 50 mm
Collector case	Aluminium frame, powder coated
Angle of inclination	20 – 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
Guarantee	10 years for functionality and weathering resistance

