

DATA SHEET

KPG1 ALC Solar Collector



Main Features

Description	Flat plate collector, harp type, with highly selective absorber.
Installation	Installation above roofing, follow instructions.
Working fluid	Propylene glycol–water solution (1.7 l).
Code	10336

Technical Data

Absorber design	harp type, laser welded
Max. working pressure	10 bar
Max. working temperature	120 °C
Stagnation temperature	200 °C
Recommended flowrate	60–120 l/h
Total (gross) area	2.52 m ²
Aperture area	2.31 m ²
Glass thickness	3.2 mm
Insulation thickness	40 mm
Empty weight	38 kg
Height x Width x Depth	2150 x 1170 x 85 mm
Absorber tube size	12x Cu Ø 8 mm x 0.4 mm
Connecting piping	4x Cu Ø 22 mm x 0.8 mm

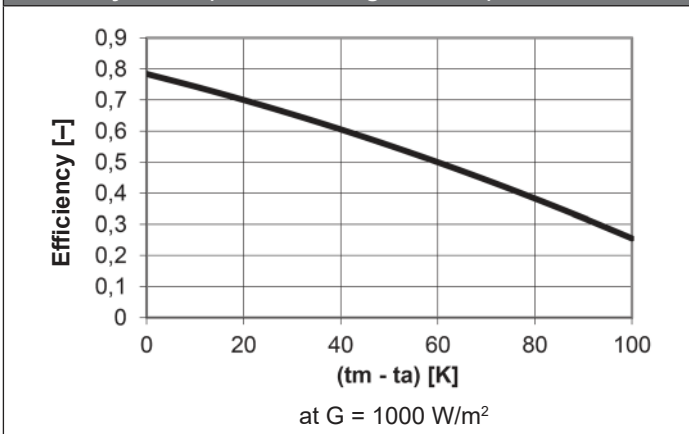
Data for Designers

Incidence angle modifier IAM (50°)	0.98
Max. collector output at 1000 W/m ² solar irradiance Q_{max}	1866 W
Collector efficiency at zero heat loss η_{0b}	0.744 per gross area 0.812 per aperture
Linear collector heat loss coefficient a_{1a}	3.716 W/m ² K per gross area 4.054 W/m ² K per aperture
Quadratic collector heat loss coefficient a_{2a}	0.013 W/m ² K ² per gross area 0.014 W/m ² K ² per aperture

Materials

Absorber material	aluminium, 0.4 mm thick
Absorber surface coating	TiNOx
Glazing material	tempered low-iron glass
Insulation material	mineral wool
Backplate material	aluminium alloy, 0.5 mm thick
Frame material	aluminium alloy, frame colour silver

Efficiency Curve (in relation to gross area)



Collector Pressure Drop Graph

