

## Flat Plate Collector



### 1. TECHNICAL DESCRIPTION

The collectors of this series comprise a deep-drawn aluminium sheet, a laser-welded full-surface harp absorber, a 50 mm thick mineral wool slab and a highly light-transmissive, hail-proof solar glass. The collectors are available in portrait and landscape format.

### 2. TECHNICAL DESCRIPTION OF INDIVIDUAL PARTS

#### 2.1 Absorber

Full-surface absorber with highly selective coating, grid pipes and manifold are brazed and joined to the absorber plate by means of laser welding.

Absorber plate:	highly selective coating 0.4 mm
Manifolds:	copper pipe 22 x 0.8 mm with Holländer screwed connections 22-1"
Grid pipes:	8 x 0.5 mm

#### 2.2 Solar Glass

Tempered, low-iron safety glass (TSG) 3.2 mm

Transmission:	>91% +/- 2%
Plate glass seal:	UV-resistant, EPDM frame free from solvent evaporation

#### 2.3 Collector Sheet

Material:	Aluminium 0.8 mm
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#### 2.4 Thermal Insulation

50 mm thick mineral wool slab

Weight by volume:	50 kg/m <sup>3</sup>
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#### 2.5 Sealing of Manifold - Collector Sheet

Thermal isolation and sealing between the manifold and the collector sheet is effected by means of a high-temperature-resistant moulded silicone part.

### 3. TECHNICAL DATA OF COLLECTOR

	AK2300	AK2600	AK2300Q	AK2600Q
Gross area (m <sup>2</sup> )	2.27	2.62	2.27	2.62
Absorber (m <sup>2</sup> )	1.92	2.25	1.92	2.25
Aperture area (m <sup>2</sup> )				
<b>Dimensions (mm)</b>				
Length	2,110	2,110	1,075	1,240
Width	1,075	1,240	2,110	2,110
Height	92	92	92	92
Weight:	36 kg	41	36	41
Contents (l)	1.43	1.7	1.43	1.70
Coating	Highly selective absorber coating			
Absorption	95% +/- 2%	95% +/- 2%		
Emission	5% +/- 2%	5% +/- 2%		
Max. operating pressure	10 bar	10 bar		
Heat carrier type:	Propylene glycol/water mixture			