

# Solar Collector, flat collector

**INDEX**
**AMX 2.38**

112 010 123

Solar installations with AMX collectors convert the sun's radiant energy into usable heat.

The heat generated in the solar collectors is transferred via the operating medium to the domestic or industrial water tank, where it is stored. Efficient system operation is controlled by a differential temperature controller in conjunction with a circulating pump.

## A unique method of absorber connection

The AMX flat-plate liquid collector has an absorber, in which a modern technology of connecting the plate with the pipe system, so far the only one of its kind on the market, is used. The technology consists in partial rolling of the copper pipe, which increases the transfer surface by seven times.

## Innovative collector frame construction

In the AMX collector a modern technology of bending aluminum frame has been used. The technology consists in making the main frame from one section of the profile without unnecessary joints in the corners. The frame without joints is much tighter, has a more aesthetic appearance, and most importantly, there is no risk of unsealing after several years of operation.

## Unique design

The natural aluminium color of the collector housing and the dark blue - black shade of the absorber visible through the solar glass refines the look of any roof.

## High performance

The excellent absorber and very good thermal insulation of the AMX collector makes it achieve very high efficiency in both summer and winter.

## Can be installed on any roof

Specially designed mounting sets, made of aluminum, ensure fast and safe installation of collectors on any roof with any covering.

## Standards & Testing

The AMX collector has been tested at the INTA Testing Laboratory in Spain and holds the Solar Keymark quality seal.

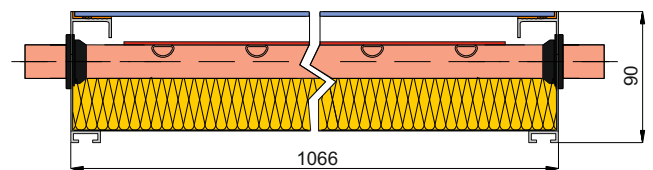
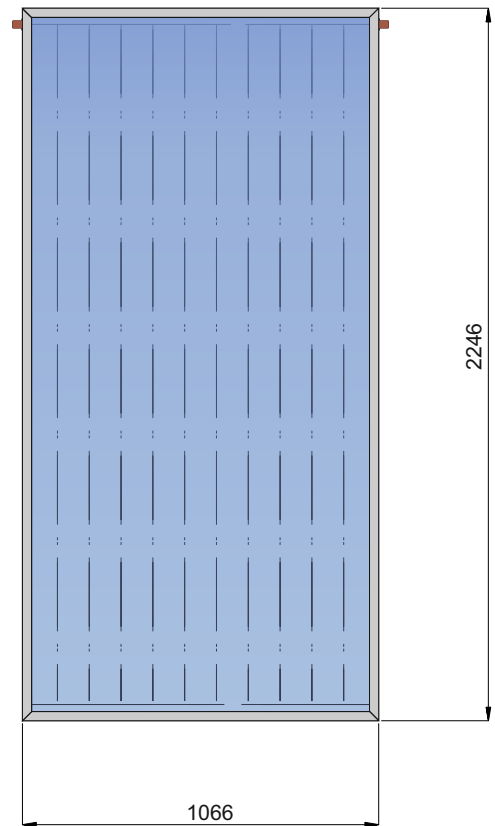


# Technical Specifications

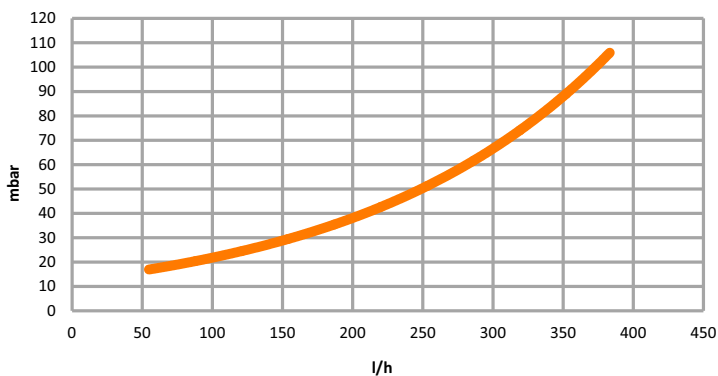
**AMX 2.38**

Application: Domestic hot water heating support  
Swimming pool heating support  
Underfloor heating support

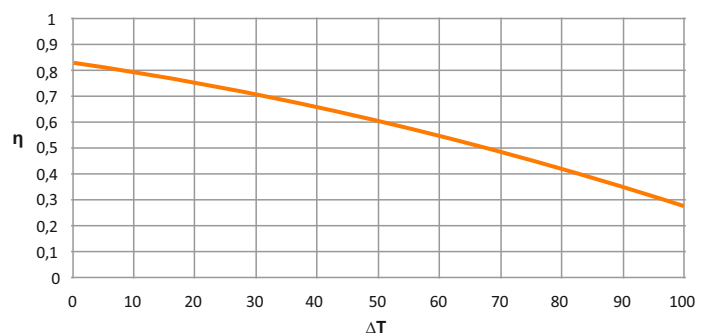
<b>Dimensions:</b>	
Length	2246 mm
Width	1066 mm
Height	90 mm
Weight	39,6 kg
<b>Surface area:</b>	
Gross area	2,39 m <sup>2</sup>
Aperture area	2,19 m <sup>2</sup>
Absorber's area	2,19 m <sup>2</sup>
<b>Frame:</b>	
Frame material	Aluminium (without welds)
Sealing material	Glue
<b>Collector bottom:</b>	
Material thickness	Aluminium sheet 0.4 mm thick
<b>Absorber:</b>	
Material	Copper harp, aluminum coating
Thickness	0,3 mm
Selective coating	highly selective
Solar absorptance	0,95 ± 0,01
Hemispherical emittance	0,05 ± 0,02
Absorber capacity	1,42 l
Heat transfer fluid	Propylene glycol + water / glycerine + water
Flow pattern	Double harp
Dimensions of flow channels	10 x Ø8 x 0,5 mm
Dimensions of header	2 x Ø22 x 1,0 mm
Number of connections	2
<b>Glass:</b>	
Type	Solar glass
Thickness	4 mm
Transmission rate	0,915
<b>Thermal insulation:</b>	
Material	Mineral wool
Thickness	40 mm
<b>Additional data:</b>	
Stagnation temperature	143 °C
Max. operating pressure	10 bar
Collector efficiency $\eta_0$	82,4 %
Microventilation	Yes
Recommended Flow Rate	25-60 l/m <sup>2</sup> x h
Connection in 1 row	Up to 7 collectors (recommended up to 5)
<b>Available colours:</b>	
Natural aluminum colour	
<b>Assembly options:</b>	
Roof Terrace Foundation Wall	



## Pressure drops



## Thermal efficiency



$$a_1 = 3,33 [W/m^2K] \quad | \quad a_2 = 0,023 [W/m^2K^2]$$