

# Flat plate solar collectors

## A new series of flat plate collectors

Flat plate collectors 'F' (frame) series represents the latest generation of products based on 30 years of manufacturer's experience. They have been designed to maximize the use of its construction area.

Thanks to the use of casing made of rigid aluminium profiles, the share of the active (aperture) area in the gross collector area increases.

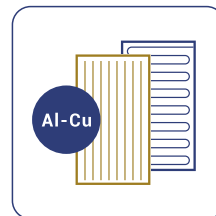
The efficiency and heat out put of the 'F' series collector related to the gross area, according to the current ISO 9806 standard, increased by 7% compared to the earlier version of the flat plate collector.

The 'F' series collectors obtain the increased A+++ energy efficiency class according to the SOLERGY classification.



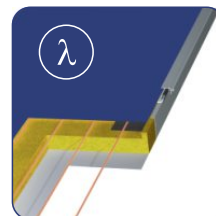
## Possible applications

The 'F' series collectors are designed to work in any type of climate. They can be used in small and large solar installations.



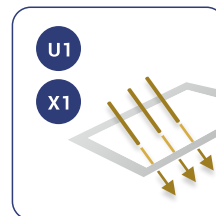
### Aluminium-copper absorber

The favourable investment cost in relation to the effects. Harp or meander system with 4 connectors ensures assembly versatility and protection against overheating.



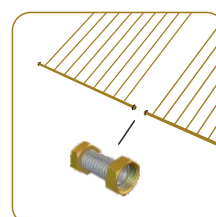
### Full casing insulation

The mineral wool and melamine insulation of the bottom of the casing and side walls, reduces heat losses to a minimum and makes it possible to work in any climate.



### Structured or anti-reflective glass

The highest transmittance class U1 of solar radiation for structured glass or X1 for anti-reflective glass, increases solar energy reaching the absorber surface.



### Versatile connection options

Flexible hydraulic connections allow for connecting up to 8 solar collectors in one battery.

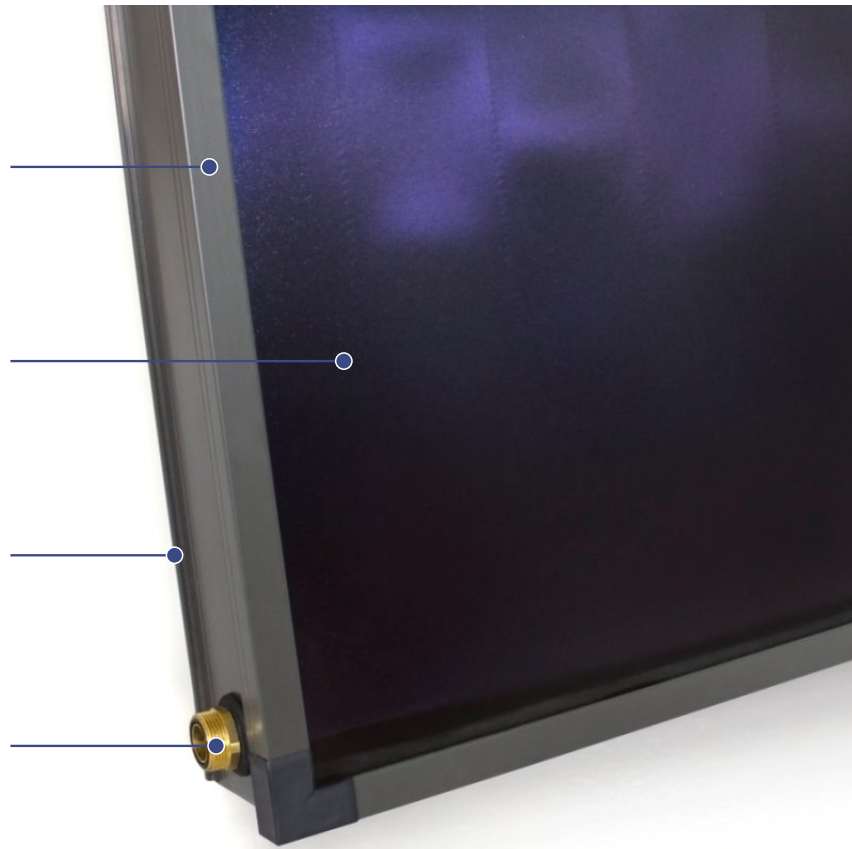
# Important functional features

Maximum use of the assembly place due to the increased share of the aperture area in the gross area – up to 95% (KS3200F)

Casing adapted to work in any type of climate. Tested at increased load (climate conditions type A according to Solar Keymark)

Universal casing design adapted to the collector mounting systems available on the market

Convenience and certainty of assembly thanks to screws and gaskets made of VITON® rubber



## Mounting systems and additional equipment



- Mounting systems made of aluminium profiles and stainless steel connectors
- Optional mounting hooks or 2-threaded screws
- Optional mounting options depending on the type of roof cover and slope as well as construction conditions – horizontal roof, building façade, etc.
- Support in the design and implementation of non-standard fastening systems

## Flat plate collectors with aluminium-copper absorber and structured glass pane

		KS2100F TLP AC	KS2200F TLP AC	KS2400F TLP AC	KS2600F TLP AC
Absorber	aluminium-copper piping, PVD casing, piping in a single harp system				
Collector glass type	<b>structured</b>				
Gross/aperture area	<b>m<sup>2</sup></b>	2,06/1,93	2,25/2,11	2,43/2,29	2,62/2,47
Length × Width × Depth	<b>mm</b>	2022x1019x90	2022x1110x90	2022x1202x90	2022x1295x90
Weight	<b>kg</b>	35	38	40	43
Number and diameter of connections		4x 3/4" external (male)			
Optical efficiency $\eta_0$	<b>%</b>	<b>75,3/81,5 (gross/aperture)</b>			
Coefficient of heat loss a1	<b>W/m<sup>2</sup>K</b>	<b>3,168/3,430 (gross/aperture)</b>			
Coefficient of heat loss a2	<b>W/m<sup>2</sup>K<sup>2</sup></b>	<b>0,012/0,013 (gross/aperture)</b>			
Maximum working pressure	<b>bar</b>	10			
Maximum number in battery	<b>pcs.</b>	8			
Delivery: length × width × height of the pallet	<b>m</b>	1,2 x 1,16 x 2,2	1,2 x 1,2 x 2,2	1,2 x 1,35 x 2,2	1,2 x 1,4 x 2,2
Delivery: number of collectors in a pallet	<b>pcs.</b>	12	12	12	12
Warranty period	<b>year</b>	10			
Solar Keymark certificate number		011-7S2822 F			

## Flat plate collectors with aluminium-copper absorber and anti-reflective glass

		KS2100F TLP ACR	KS2600F TLP ACR	KS3200F TLP ACR	KS2100F TLP ACRm	KS2550F TLP ACRm
Absorber	aluminium-copper, PVD casing, piping in a single harp system				aluminium-copper, PVD casing, meander piping	
Collector glass type	<b>anti-reflective</b>					
Gross/aperture area	<b>m<sup>2</sup></b>	2,06/1,93	2,62/2,47	3,20/3,04	2,06/1,93	2,55/2,41
Length × Width × Depth	<b>mm</b>	2022x1019x90	2022x1295x90	2895x1108x90	2022x1018x90	2185x1166x90
Weight	<b>kg</b>	36	43	53	35	42
Number and diameter of connections		4x 3/4" external (male)		4x 5/4" male	4x 3/4" external (male)	
Optical efficiency $\eta_0$	<b>%</b>	<b>79,1/83,9 (gross/aperture)</b>			<b>79,8/85,2 (gross/aperture)</b>	
Coefficient of heat loss a1	<b>W/m<sup>2</sup>K</b>	<b>3,342/3,545 (gross/aperture)</b>			<b>3,473/3,707 (gross/aperture)</b>	
Coefficient of heat loss a2	<b>W/m<sup>2</sup>K<sup>2</sup></b>	<b>0,014/0,015 (gross/aperture)</b>			<b>0,012/0,013 (gross/aperture)</b>	
Maximum working pressure	<b>bar</b>	10				
Maximum number in battery	<b>pcs.</b>	8				
Delivery: length × width × height of the pallet	<b>m</b>	1,2 x 1,16 x 2,2	1,2 x 1,4 x 2,2	2,9 x 1,15 x 2,3	1,2 x 1,16 x 2,2	1,2 x 1,35 x 2,2
Delivery: number of collectors in a pallet	<b>pcs.</b>	12	12	20	12	12
Warranty period	<b>year</b>	10				
Solar Keymark certificate number		011-7S2823 F			011-7S2808 F	

ATTENTION: Collectors type KS2200F TLP ACR and KS2400F TLP ACR are also available



## Possibilities and production technologies

- Qualified staff of 200 employees
  - Modern production technologies
  - 10.000 m<sup>2</sup> of production and office space
  - Own facilities for production, construction, sales, consulting, training, development and research
  - Certification of production and product quality since 1992
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- Production under own Hewalex brand or for the needs of OEM customers
  - The possibility to develop, research, certify and produce an individual product
  - Production of fastening systems, pump units and automation. Complete solar sets on offer.



**HEWALEX**   
SOLAR ENERGY

**A family engineering and manufacturing company**  
**30 years of production and distribution in the RES industry**  
**Top10 european producers of flat plate collectors (solrico 2015-2018)**  
**Produced over 1.000.000 m<sup>2</sup> of flat collector area**  
**Over 160.000 solar, photovoltaic and heat pump installations**  
**Presence on over 40 markets around the world**

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