

Application:

The laser welded aluminium absorber and high quality materials, such as mineral wool of the thermal conductivity group 040 of the flat-plate collectors “OKF-CK/CS22” guarantee a high efficiency. The flat-plate collectors can be used for heating of potable water and swimming pools as well as solar support of the heating system. The flat-plate collectors can be mounted horizontally or vertically and are suitable for rooftop installation, roof integration or free-standing installation (flat roof installation).

A vertical roof installation is possible with the “OKF-CK22” only.

Installation:

Depending on the type of installation, a basic set for the installation of 2 collectors, an extension set for each additional collector and an individual set for the installation of one collector are available. The pre-assembled rail systems for rooftop or flat rooftop installation allow for a quick installation on site. Oventrop offers special carrying handles for an easy transport of the collectors on site (to be ordered separately). The carrying handles are connected to the collector frame laterally. All fixing elements are easily accessible and allow for a time-saving installation.

The absorber made of aluminium heat conducting steel sheet and copper pipe is connected to the supply and return of the solar circuit via two collector connections with plug-in connection $\varnothing 18$ (see illustration on page 2).

The flat-plate connectors are connected with one another using flexible stainless steel corrugated pipes which also serve to compensate any thermal conditional expansions.

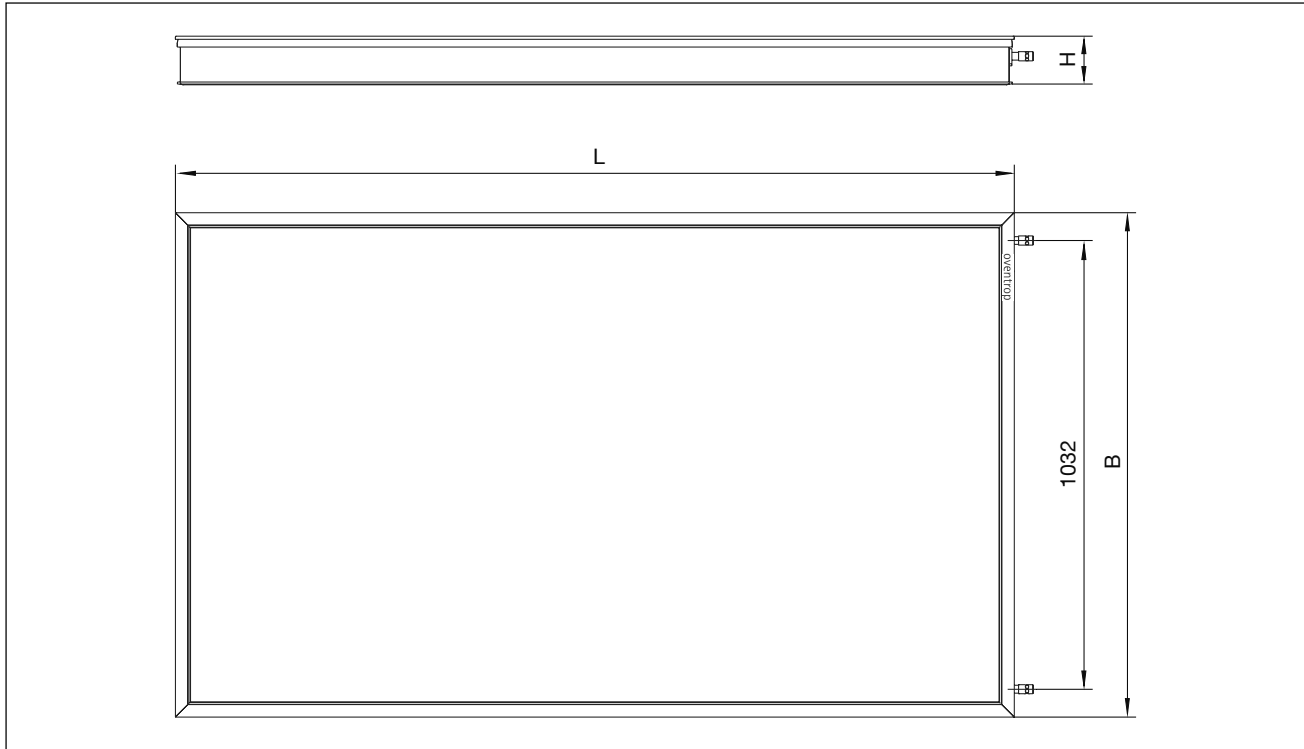
Advantages:

- collector cover with matt finished antireflective glass for 96% light transmission (“OKF-CK22”)
- laser welded aluminium surface absorber with copper pipe elements for an optimum heat return and a low pressure loss
- rear wall insulation made of mineral wool (with low binding agent content) of the thermal conductivity group 040
- peripheral frame insulation made of mineral wool (with low binding agent content) of the thermal conductivity group 040
- UV-resistant EPDM glass sealing
- permanent mechanical fastening of the glass pane
- suitable for horizontal or vertical installation
- architecturally appealing solution of roof integration (only “OKF-CK22”)
- pre-assembled rail systems (“plug and play”)



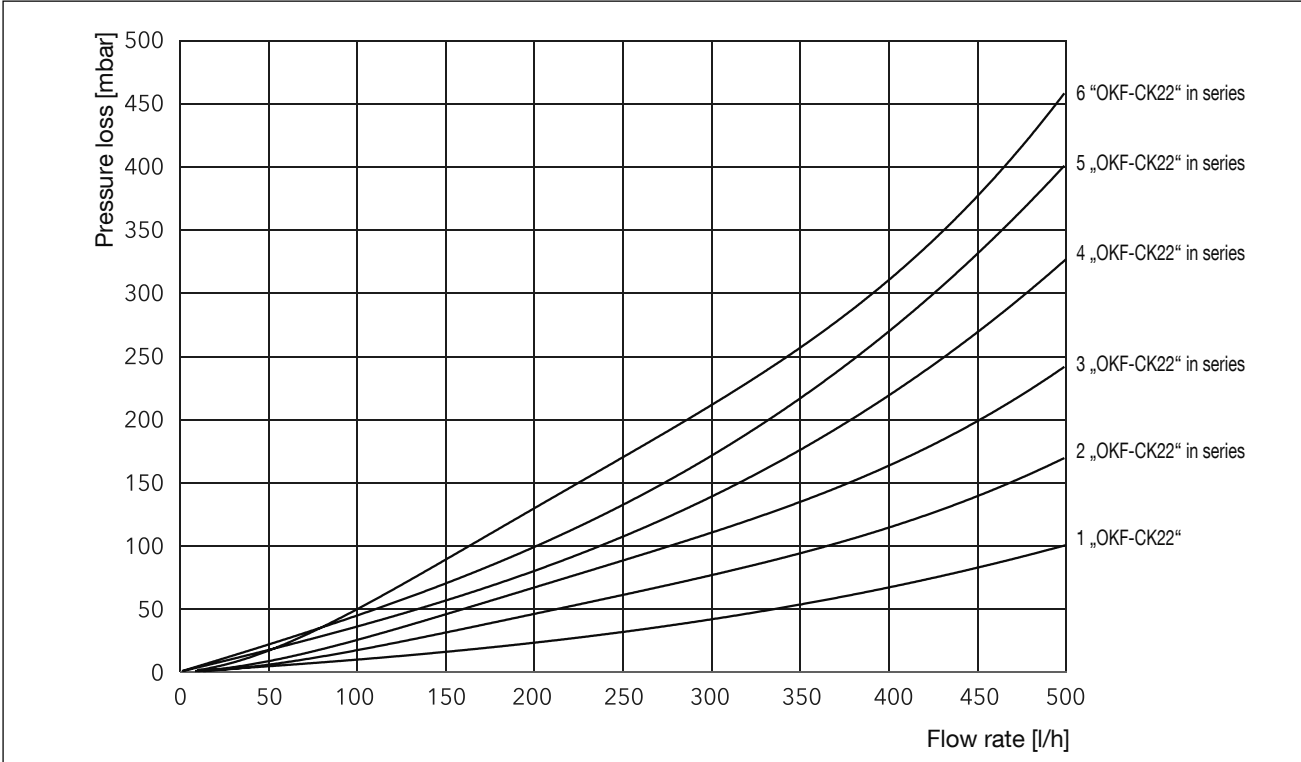
“OKF-CK22” Flat-plate collector

Technical data:

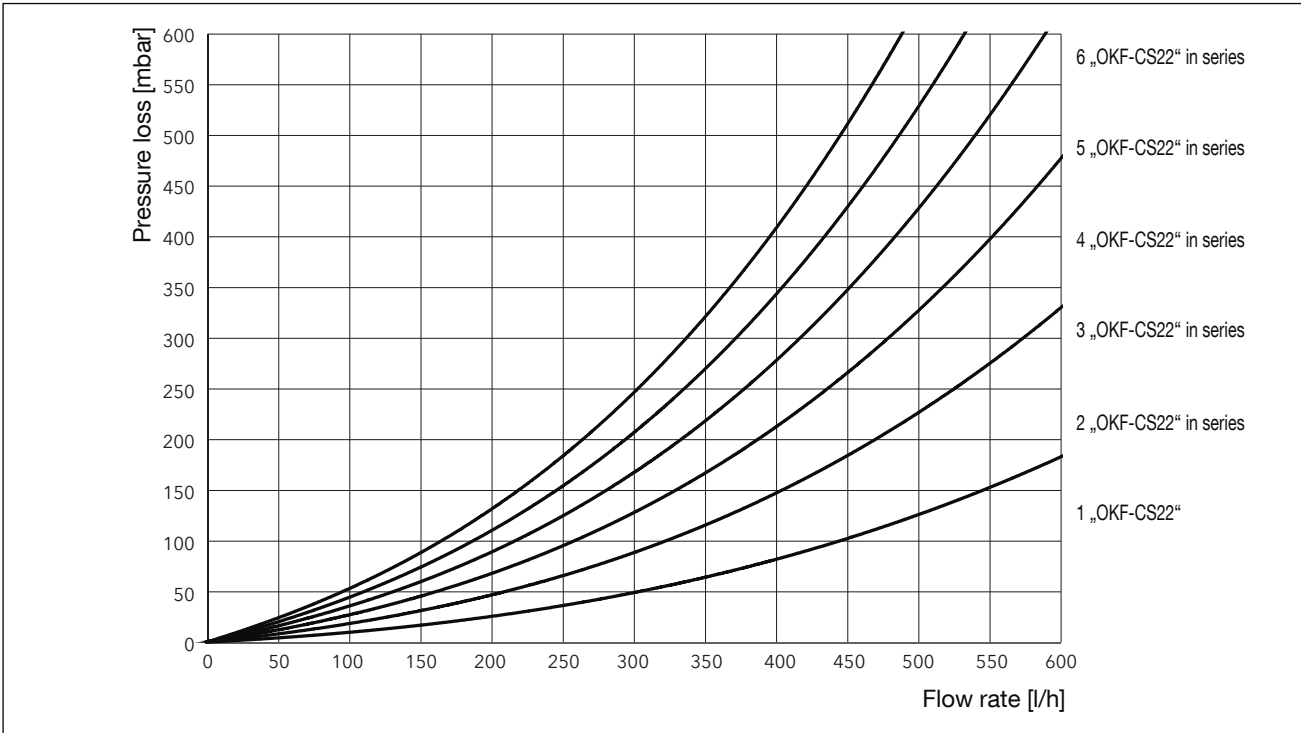


Flat-plate collector	Unit	“OKF-CK22”	“OKF-CS22”
Item no.		1361340	1361345
Gross surface area	m ²	2.25	2.25
Outer dimensions (L x W x H)	mm	1933 x 1163 x 110	1933 x 1163 x 80
Aperture surface area	m ²	2.01	2.01
Collector connection	-	Ø 18 plug-in connection	Ø 18 plug-in connection
Weight	kg	37	33
Absorption coefficient	α	95 %	95 %
Emission coefficient	ε	5 %	5 %
Transmission	τ	96 %	91 %
Collector tilt gradient freestanding installation (horizontal)	Degree	37-50	37-50
Collector tilt gradient freestanding installation (vertical)	Degree	35-50	35-50
Collector tilt angle rooftop installation	Degree	10-85	10-85
Collector tilt angle roof integration	Degree	27-85	not possible
Stagnation temperature at 1000 W/m ² and 30°C	°C	approx. 208	approx. 191
Max. permissible operating pressure	bar	10	10
Collector heat return	kWh/m ²	> 525	> 525
Heat transfer liquid content	l	1.3	1.2
Glass cover	-	3.2 mm solar safety glass with antireflective coating	3.2 mm solar safety glass
Solar sensor (inner diameter)	Ø	6 mm	6 mm
Absorber	-	Laser welded aluminium absorber made of heat conducting steel sheet and copper pipe	Laser welded aluminium absorber made of heat conducting steel sheet and copper pipe

Pressure loss chart “OKF-CK22” and “OKF-CS22”



Pressure loss for several collectors connected in series depending on the flow rate.
Heat transfer medium: 40% glycol/60% water at 40°C, pressure loss indications with coupling and connection hoses



Pressure loss for several collectors connected in series depending on the flow rate.
Heat transfer medium: 40% glycol/60% water at 40°C, pressure loss indications with coupling and connection hoses

Recommended flow rate (except for low flow installations): 30-40 litres/m² collector surface and hour

Subject to technical modifications without notice.

Product range 9
ti 235-EN/10/MW
Edition 2017

