FLAT PLATE SOLAR COLLECTORS

EN 12975-2

EN 9806

Applications:
Forced circulation thermal systems.

Characteristics:
Lateral connections, universal collector for forced circulation systems.

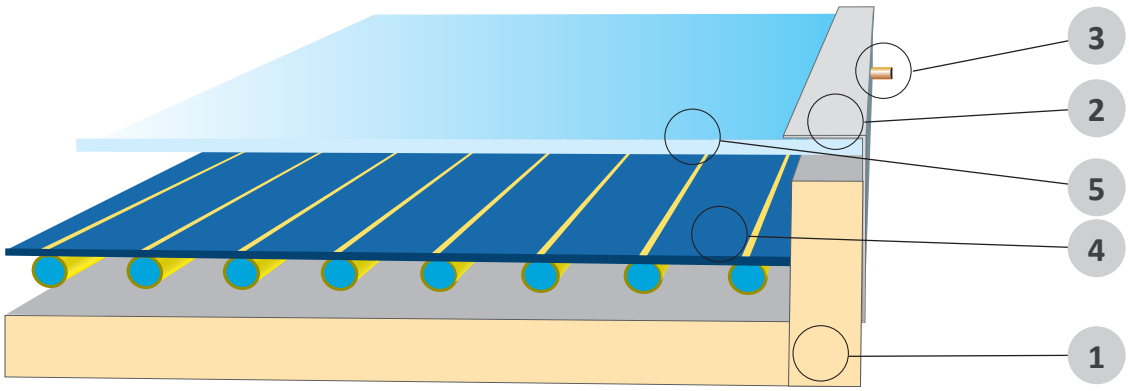
Solar Keymark

Technical data

Max P.	10 bar
Max T.	199° C
Gaskets	EPDM - Silicone

Cordivari flat plate solar collectors are manufactured with aluminum frame, insulation of mineral wool, highly selective absorber covered in titanium oxides and tempered glass according to EN 12150, tested against impact according to EN 12975 and EN 9806.

Cordivari flat plate solar collectors are the best solution for efficient and high-performing solar thermal systems thanks to the quality of the materials, the reliability of the functioning and to the multiple opportunities of integration.

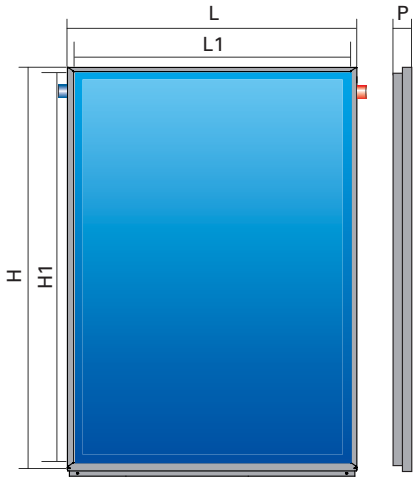


DESCRIPTION

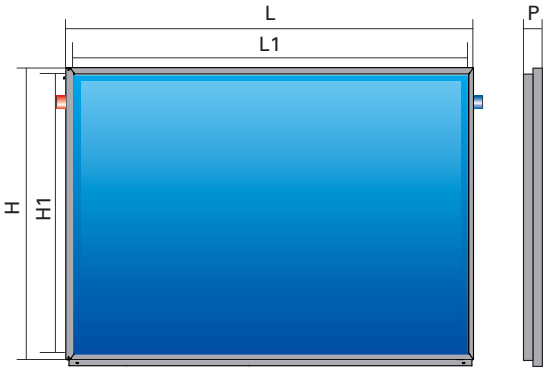
1	Insulation in mineral wool
2	Aluminium frame
3	Connections Ø 22 mm
4	Full plate absorber with high selective coating
5	Impact test according to EN 12975 and EN 9806 Tempered according to EN 12150

FLAT PLATE SOLAR COLLECTORS

VT



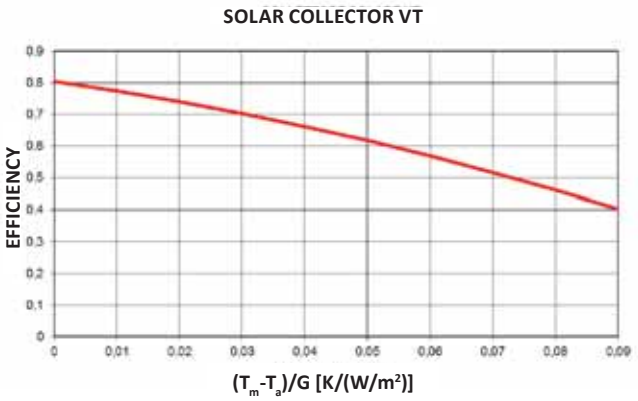
OR

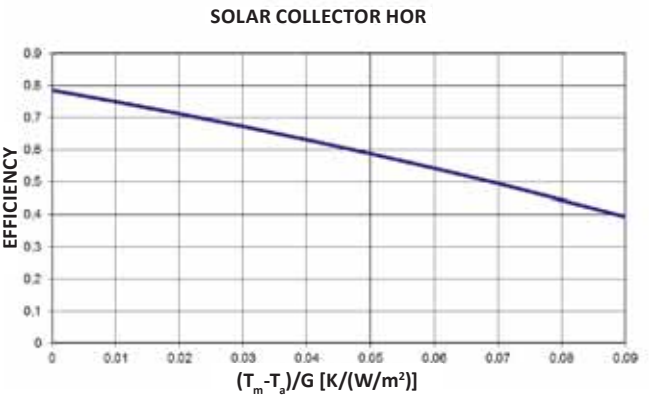


ART. NR.	VERSION	GROSS DIMENSIONS L	H	P	SURFACE	OPENING SURFACE	WEIGHT	CAP.	CONNECTIONS	
			[mm]		[m²]	[m²]	[kg]	[lt]	N°	[mm]
3400306501310	VT	1250	2000	85	2,5*	2,32	34	1,9	2	ø 22
3400306501311	OR	2000	1250	85	2,5*	2,32	34	1,9	2	ø 22

* For the detailed calculation please always refer to the product certification and to test reports.

EFFICIENCY CURVES (Solar radiation values G dir = 850 W/m² G dif = 150 W/m²)





FLAT PLATE COLLECTORS EFFICIENCY CURVES

The immediate efficiency curve of a solar collector represents its performances "ID" , that allows to quantify the collector capacity to turn solar energy into thermal energy.
Efficiency is defined as the relationship between the thermal power captured by the heat transfer fluid and the solar radiation that affects the collector. For the sake of convenience, the ratio is always applied to a square meter (1 m²) of surface.
So on the vertical axis, the efficiency η (eta) is the relationship between the power absorbed by the heat transfer fluid circulating in one square meter of the solar collector (W/m²) and the solar radiation on the collector surface.
It is clear that the efficiency so defined is an instantaneous value depending on test conditions as well as on the collector type.
On the horizontal axis we find the relationship between the difference in temperature Δt and the power of the solar radiation affecting the collector.
Δt is the difference between the average temperature of the heat transfer fluid inside the solar collector and the environment temperature.