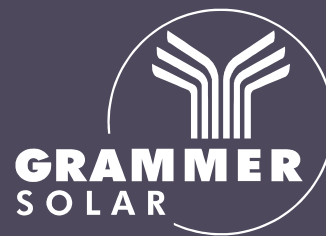


TWINSOLAR / TOPSOLAR

Technical Data Sheet



The TwinSolar and TopSolar systems are so simple that they can provide solar heating and solar ventilation for just about any building without modifying the existing traditional system. They can be installed on any kind of external surface: slanting roofs, flat roofs, vertical walls, integrated or on rail supports.

Their high performance not only improves the ambience inside, it also substantially reduces the building's energy consumption. There is a solution for every application with our full range of SLK air collectors:

SolarAir – solar heating and ventilation

The **SLK air collectors** by Grammer Solar stand for high performance and quality. High standard material, accurate manufacturing including the best components ensure durability and longevity:

- Covering of ESG 4mm glass
- Frame of seawater proven aluminum
- Laminar aluminum absorber
- 50 mm rock-wool plate for rear insulation
- High grade air filter



TwinSolar 4.0–14.0

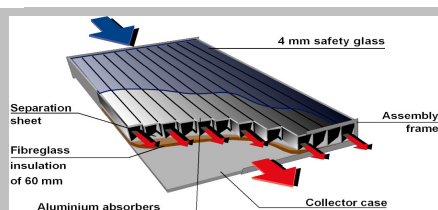
Modular stand-alone system of 4-14m², with integrated pv-cells



TopSolar 4.0 - 20.0

Modular 230 Volt powered systems of 4-20m².

All systems are easy to assemble thanks to their modularity. The weight of each SLK collector is only 45kg.



Modular TwinSolar and TopSolar

Connection: 160 mm duct
External ventilator
Also available for recirculation with two connection ducts.

TwinSolar with integrated pv-cells.
TopSolar connected to grid.

TwinSolar 1.3 and 6.0 Compact

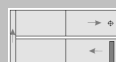
Compact collectors with integrated ventilator and pv-cells ready for operation

-see separate data sheet

Twin/TopSolar 4.0*)
To heat 40-60m²
4,000x1006x138 mm

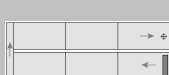


Twin/TopSolar 6.0*)
To heat 60-80m²
6,000x1006x138 mm



Twin/TopSolar 8.5
To heat 80-120m²
4250x2210x138 mm

Twin/TopSolar 8.0
To heat 80-120m²
8,00x1006x138 mm



Twin/TopSolar 12.5
To heat 120-180m²
6250x2210x138 mm

Twin/TopSolar 10.0
To heat 100-150m²
10,000x1006x138 mm



Twin/TopSolar 12.0
To heat 120-180m²
12,000x1006x138 mm

Twin/TopSolar 14.0
To heat 140-210m²
14,000x1006x138 mm

TopSolar 16.0
To heat 160-240m²
16,000x1006x138 mm

TopSolar 18.0
To heat 180-270m²
18,000x1006x138 mm

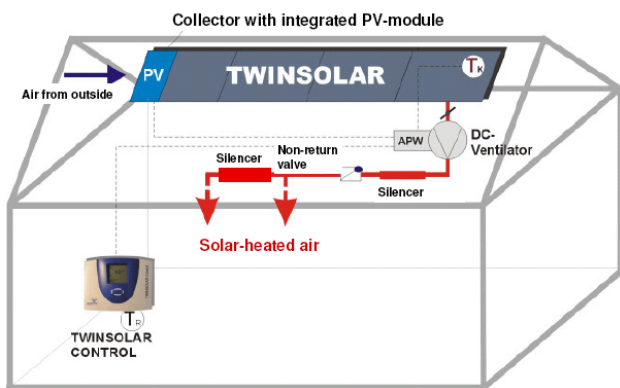
TopSolar 20.0
To heat 200-300m²
20,000x1006x138 mm

*) Optional available as TWINSOLAR Compact with integrated ventilators - see separate data sheet TWINSOLAR Compact

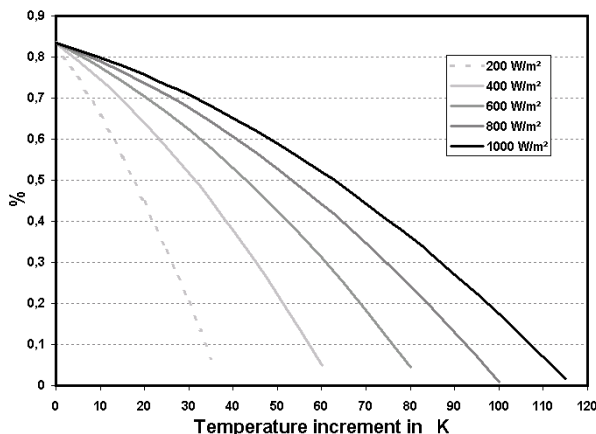
SLK collector characteristic values
(all data are referred to aperture surface)

Magnitude	Symbol	Unit	Certified value
Conversion factor at temperature difference ($t_m - t_a$) = 0	η_0		0,834
Linear loss coefficient	A_1	W/(m ² x K)	3,197
Squared loss coefficient	A_2	W/(m ² x K ²)	0,034
Angle factor	$K_{\theta}(50^\circ)$		0,96
Recommended flow range		m ³ /(h x m ²)	30 to 60
Reference surface			
Gross surface	A_G	m ²	2,01
Aperture surface	A_a	m ²	1,86
Operational limit		°C	150°C

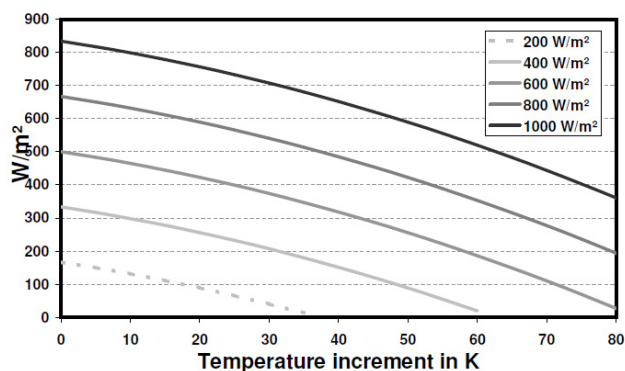
Installation	
Forms of Installation	On inclined roof, on flat roof, façade mounted:



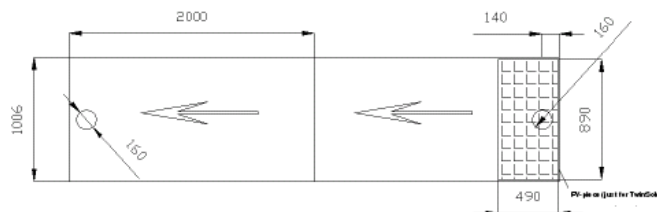
SLK efficiency against irradiance



TWINSOLAR power against irradiance



Surface of the collector



	TWIN 4.0 - 6.0	TWIN 8.0 - 14.0	TOP 4.0 - 6.0	TOP 8.0 - 10.0	TOP 12.0 - 20.0
Ventilator type	G1G120	G1G140	HE-160B	HE-160C	HE-200B
Nominal power	50W	100W	69W	100W	115W
Position	External; DC	External; DC	External; AC	External; AC	External; AC
Max. flow rate*	200 m ³ /h	350 m ³ /h	200 m ³ /h	350 m ³ /h	380 m ³ /h
Control	TwinSolar Control	TwinSolar Control	Delta Sol II	Delta Sol II	Delta Sol II

*Flowrate for collector systems with 150Pa external fit
As to the Twinsolar the flowrate is dependant on irradiation