

Solex Energy Roof Tile System

Datasheet

Solex Solar Tiles

Solex Roof Tiles are connected to make up the solar roof, either as a patch, strip, or whole roof covering. The roof tiles are designed to lap with natural or artificial 300 x 600 slates. They are fixed onto conventional timber battens with the Solex clipping system. Any number of tiles can be strung together to suit the required output and the specified inverter.



Roof Specifications

Batten Size	25mm x 50mm
Batten Spacing	250 - 262mm
Head lap	75 -100mm
Roof Loading	12.5kg/m ²
Power Output	185W/m ²
Power Density	5.5m ² /kW
Maximum System Voltage	1000Vdc
Rated Wind Uplift	1900Pa
Compatible Slates (w x h x t)	300mm x 600mm x 4 - 6mm
Roof Guarantee Parts Only	25 years

Tile Physical Specifications

Dimensions (w x h x t)	1200 x 600 x 4.5mm
Weight	6.3kg
Cables	1000mm long x2
Cable Connectors	MC4 Compatible
Module Structure	Glass/EVA/Solar Cell/EVA/Back sheet
Encapsulant (EVA)	F406P and F806P
Back sheet	TPT (Black)

Tile Electrics Specifications

Solar Cell Type	Monocrystalline Silicon x36
Maximum Power (Pmax)	95Wp
Voltage at Max. Power (Vmp)	19.5V
Current at Max. Power (Imp)	4.87A
Open-Circuit Voltage (Voc)	23.01V
Short-Circuit Current (Isc)	5.3A
Solar Cell efficiency	22% or higher
Degradation	0.5% per year
Standard test conditions	1000W/m ² , AM1.5, 25°C
Operating temperature	-40°C to +85°C
Storage temperature	-40°C to +85°C
Power tolerance	-3% to +3%
Temperature Coefficients of Pmax	-0.35%/°C
Temperature Coefficients of Voc	-0.27%/°C
Temperature Coefficients of Isc	-0.048%/°C
Output Guarantee	25 years for 80% of Pmax

Tile Variants

We offer various fill-in tiles and blanks to enable tiling of different roof shapes and details.

Tile	Dimensions (mm)	Power Output (Wp)
Standard Tile (w x h x t)	1200 x 600 x 4.5	95
Half Tile (eaves and ridge)	1200 x 340 x 4.5	29
Fill-In Tile (900)	900 x 600 x 4.5	63
Fill-In Tile (600)	600 x 600 x 4.5	24
Blank Tile (for cutting)	1200 x 600 x 3.0	-

