

Technical Specifications

SOLARIS™ SUPER4 Premium Black

Freesuns Solar Roof tiles are powerful, beautiful and sustainable. Every Freesuns roof generates carbon-emission-free solar power creating a return on investment for building owners and a stunning roof for their building.

Powerful

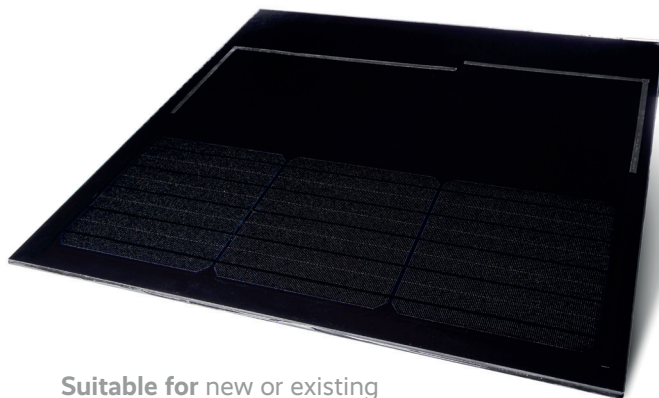
Freesuns Solar Roof tiles contain photovoltaic cells that convert sunlight into clean energy. Our solar tiles provide maximum photovoltaic coverage for optimal energy production on all types of roofs.

Beautiful

Freesuns Solar Roof tiles are available in a wide range of colours and finishes, suitable for both modern and traditional architecture. This allows the production of solar energy without compromising the aesthetics of the building.

Flexible

Our small format tiles, pre-cut in different shapes, allow you to accommodate roof obstacles such as windows and chimneys, adapt to complex roof shapes and thus guarantee maximum coverage of photovoltaic cells.



Suitable for new or existing buildings, modern architecture, replacement of roofs with cement tiles.

Safe

The design of our tiles significantly reduces the risk of fire thanks to a diode present in each tile, a high thermal mass, and monitoring by power optimizers.

Easy to install

The tiles are installed by traditional roofers on existing roof structures with existing fixtures.

Return on Investment

By generating a portion of your energy needs for free, the Freesuns Solar Roof has a positive return on investment and will pay for itself over its lifetime - unlike a traditional roof.

Detailed Engineering

With its state-of-the-art software, Freesuns provides a detailed layout of each roof, showing how to install each tile with precision.

Designed in Switzerland

Freesuns Solar Roof tiles are designed and developed in Switzerland.



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Physical specifications

Dimension of the tile (L x H mm)	700 x 460 mm
Surface of the visible area (L x H mm)	700 x 175 mm
Thickness of the tile	7 mm
Number of cells per tile	4
Number of tiles per m ²	8.05
Power per m ²	144.3 Wp
Unit weight	5.8 kg
Weight per m ²	46.69 kg
Cell Type	Monocrystallin PERC 5BB 158.75 x 158.75 mm
Connector type	MC4 type IP65
Material	Tempered Solar Glass
Structure	Glass/glass
Hail resistance	HW5 (ø 50 mm at 30.8 m/s)
Max. test load (positive pressure)	5400 Pa (heavy snow load)

Electrical specifications

Power per tile (Pmpp)	17.93 Wc
MPP Voltage	2.14 V
MPP Current (Impp)	8.39 A
Open Circuit Voltage Voc	2.72 V
Short Circuit Current Isc	8.93 A
Module efficiency	14.43 %
Power Tolerance	+/- 5 %
Max. system voltage	TBC
Max. reverse current	TBC
Temperature coefficient Voc*	-0.36 %/K
Temperature coefficient Isc*	+0.07 %/K
Temperature coefficient Pmpp*	-0.38 %/K

* Measured coefficients for the cells.

Electrical performance characteristics under STC conditions (1000 W/m², 25° C, AM 1.5).

Appearance

Glossy black with no visible lines
Anti-reflection coating (AR)

Compatibility

Solaris™ SUPER4 Premium Black solar roof tiles are compatible with standard roof tiles such as Eternit Vulcanit N 6650 or SVK Alpina, or SVK Planalp.

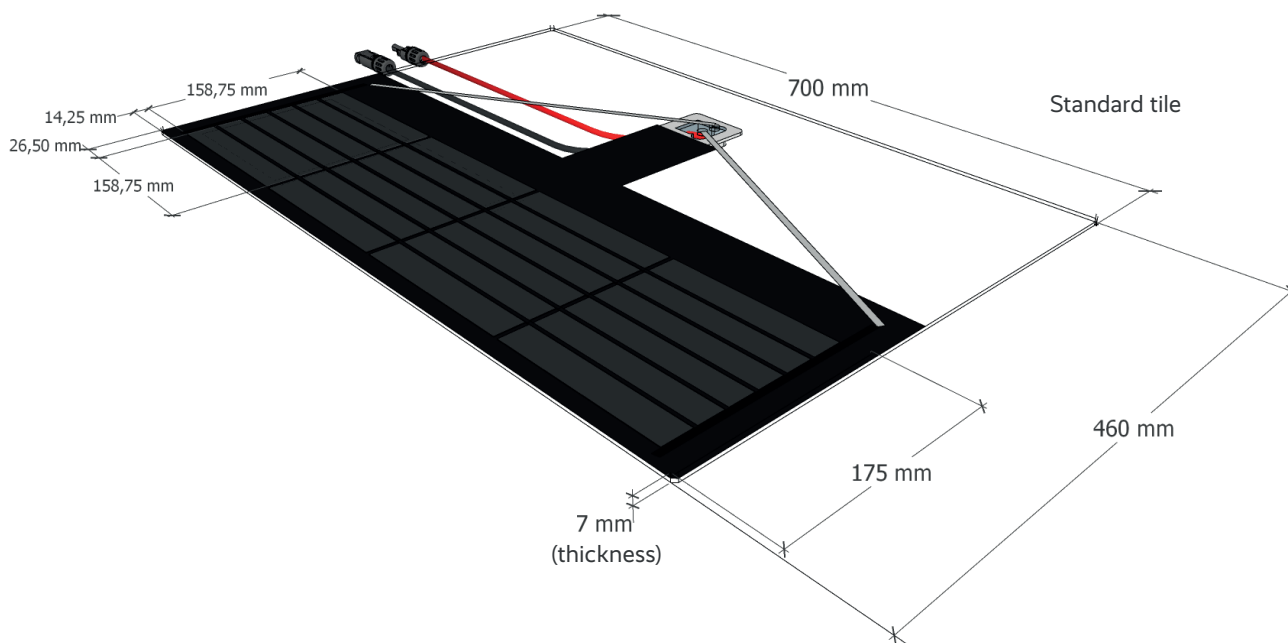
Warranty

10 years on the tiles
Minimum power guarantee:
90% after 10 years

Contact

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Each project includes tiles of different sizes.