

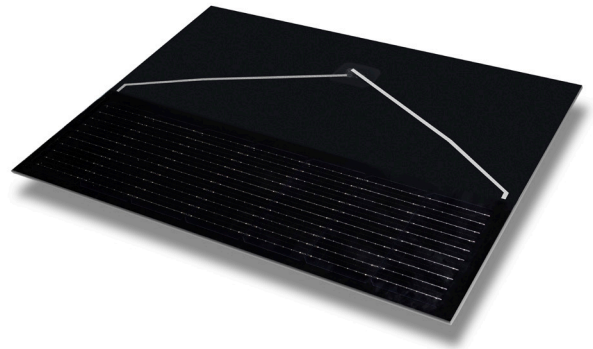


## TECHNICAL SPECIFICATIONS

### SOLARIS™ SUPERHC7 Classic

**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.



**Suitable for new buildings and renovations with a contemporary architectural style.**

#### 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.

#### 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.

#### 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.

#### Designed in Switzerland

Freesuns Solar Roof tiles are designed and developed in Switzerland.



#### Easy to install

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

#### 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.



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#### Physical specifications

Dimension of the tile (L x H mm)	– 690 x 510 mm
Surface of the visible area (L x H mm)	– 690 x 200 mm
Thickness of the tile	– 8.5 mm
Number of half cells per tile	– 7
Number of tiles per m <sup>2</sup>	– 7.14
Power per m <sup>2</sup>	– 168 Wp
Unit weight	– 7.3 kg
Weight per m <sup>2</sup>	– 52.2 kg
Cell Type	– Half-cut cell M10 PERC
Connector type	– MC4 (IP65)
Type of glass	– Anti-reflective solar glass front/back
Hail resistance	– HW4
Max. test load (Incl. safety factor of 1.5)	– 13 333 Pa

#### Electrical specifications

Bypass diode per tile	– 1
Power per tile (Pmpp)	– 23.5 Wp
Voltage (Umpp)	– 3.98 V
Current (Impp)	– 5.92 A
Open Circuit Voltage (Voc)	– 4.88 V
Short Circuit Current (Isc)	– 6.26 A
Tile efficiency	– 17.03%
Electrical Measures	– +/- 5%
Max. system voltage	– 1000 V
Max. reverse current	– 20 A
Temperature coefficient (Voc)*	– -0.36%/K
Temperature coefficient (Isc)*	– +0.07 %/K
Temperature coefficient (Pmpp)*	– -0.38%/K

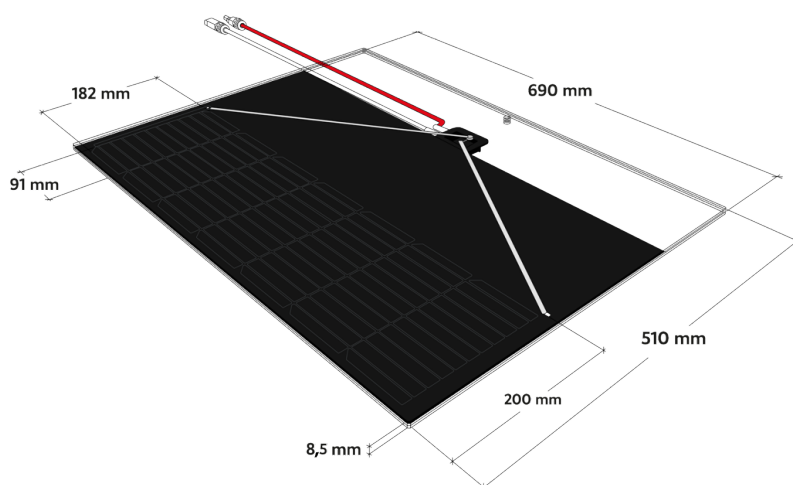
\* Measured coefficients for the cells. Electrical performance characteristics under STC conditions (1000 W/m<sup>2</sup>, 25° C, AM 1.5).

#### Appearance

- Black with visible silver lines
- Anti-reflection coating (AR)

#### Warranty

- 10 years on the tiles
- Minimum power guarantee: 90% after 10 years
- Weather resistance guarantee: 40 years



Data subject to change