

**Technical Specifications** 



# SOLARIS™ SUPER4 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.

### 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 construction, renovation with a modern architecture style.

### 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**

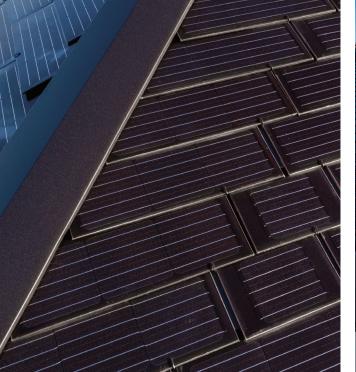
By generating a portion of your energy needs for free, the Freesuns Solar Roof has a positive return on investment and will pay for itself over its lifetime - unlike a traditional roof.

### **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.





# SOLARIS<sup>™</sup> SUPER4 Classic

## **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 m2		8.05	
Power per m2		150.2 Wp	
Unit weight		5.8 kg	
Weight per m2		46.69 kg	
Cell Type		Monocristallin 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)	 18.66 Wp
MPP Voltage	 2.13 V
MPP Current (Impp)	 8.76 A
Open Circuit Voltage Voc	 2.73 V
Short Circuit Current Isc	 9.27 A
Module efficiency	 15.02 %
Power Tolerance	 +/- 5 %
Max. system voltage	 ТВС
Max. reverse current	 TBC
Temperature coefficient Voc*	 -0.36 %/K
Temperature coefficient lsc*	 +0.07 %/K
Temperature coefficient Pmpp*	 -0.38 %/K

### Appearance

Glossy black with visible silver lines Anti-reflection coating (AR)

# Compatibility

Solaris<sup>™</sup> SUPER4 Classic 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

### FREESUNS SA

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\* Measured coefficients for the cells.

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

