



## General Characteristics

Dimension solar shingles:	745 mm x 745 mm x 7.5 mm
Front glass:	3.2 mm thermally tempered solar glass with textured surface
Back glass:	3.2 mm heat-strengthened float glass
Junction box:	According to IEC 62790
Bypass diodes:	2 diodes
Connection cable:	Solar cable 4 mm <sup>2</sup> , 950 mm length
Connector:	Original Stäubli MC4-Evo2
System weight:	Standard 20.5 kg/m <sup>2</sup> , Alpin 25.0 kg/m <sup>2</sup>
Substructure:	Wooden slats with M6 inlets
Tested temperature range:	-40°C until +85°C
Product guarantee:	12 years
Performance guarantee:	10 years at 90 % of the nominal output 30 years at 80 % of the nominal output

## Quality and Warranty

IEC certificate:	IEC 61730, IEC 61215*
Fire safety:	DIN-EN 13501-5: B <sub>ROOF</sub> (t1) DIN 4102-7: class B1
Hail resistance class:	HW 4
Permissible loads:	Snow load**: with alpine battens: ±2,400 Pa   ±3,600 Pa Wind load***: with wind hooks: ±3,600 Pa   ±5,400 Pa (design load   test load)
Accessibility:	Dry roof accessible without warranty restrictions
Water resistance:	Minimum roof pitch of 4° (see information sheet: sub-roof requirements)
System performance:	Up to 172 W <sub>p</sub> /m <sup>2</sup>

\*in progress \*\*Snow load pressure only (+) \*\*\* Wind load pressure and suction (±)

## System Properties

Maximum System voltage (IEC)	1000 V DC
Reverse current overload	18 A

## Electrical Properties \*

Type of solar tile	Solar tile	Solar tile bottom	Solar tile top	Solar tile left/right
Nominal output**	84 W <sub>p</sub>	50 W <sub>p</sub>	55 W <sub>p</sub>	33 W <sub>p</sub>
Voltage U <sub>mpp</sub>	8.1 V	4.8 V	5.3 V	3.2 V
Current I <sub>MPP</sub>	10.4 A	10.4 A	10.4 A	10.4 A
Open circuit voltage U <sub>oc</sub>	10.2 V	6.1 V	6.8 V	4.1 V
Short circuit current I <sub>sc</sub>	10.5 A	10.5 A	10.5 A	10.5 A

\*under standard test conditions (1000 W/m<sup>2</sup>, 25°C and AM 1.5) \*\* Tolerance Nominal power ± 3%

## Temperature Coefficients

Temperature coefficients α	for I <sub>sc</sub>	+0.07 %/K
Temperature coefficients β	for U <sub>oc</sub>	-0.36 %/K
Temperature coefficients γ	for P <sub>mpp</sub>	-0.38 %/K

## System Enhancements

Fixed supplementary tiles:	SunStyle®-Tile (VSG, black)
Supplementary tiles cut to size:	SunStyle®-Aluminium composite (black)

Snow and wind hook:	Stainless steel, black, 4mm INOX
Alpine support battens:	> 3600 Pa