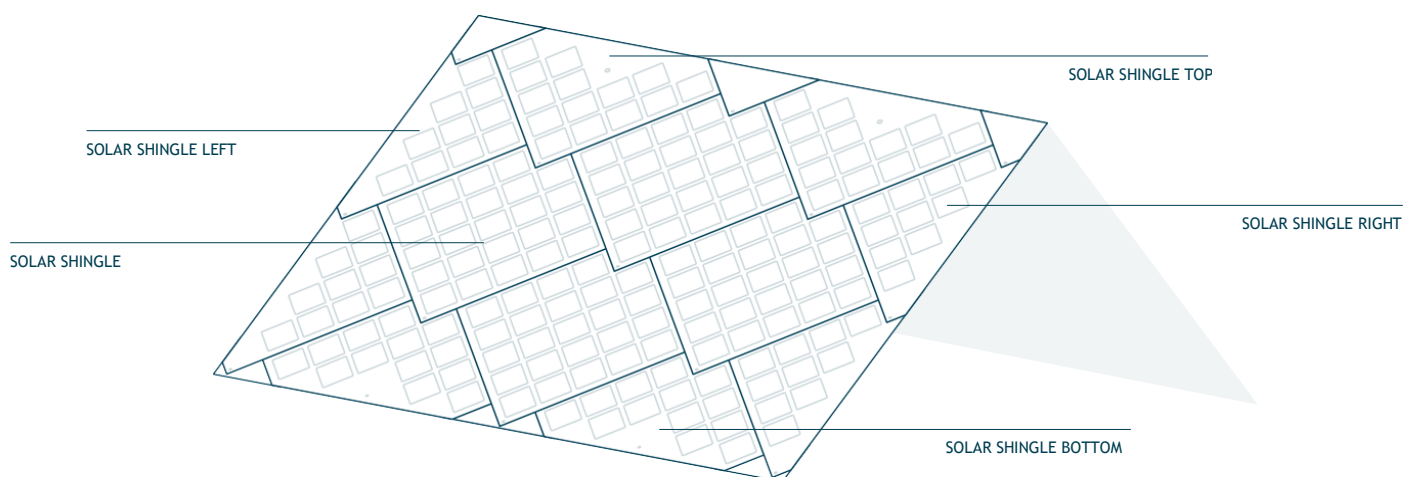


SUNSTYLE® SOLAR ROOF

TECHNICAL DATA



GENERAL CHARACTERISTICS

Dimension solar shingles	870 × 870 mm
Glass properties	Transmission optimized solar glass (ESG)
Glass thickness	6 mm
Solar cell type	Monocrystalline silicon cells
Laminate structure	Glass EVA Cells EVA Back sheet
Junction box	according to IEC 62790
Bypass diodes	3 diodes per shingle
Connection cable	Solar cable 4 mm ² , 800 mm length
Connector	Original Multi-Contact (MC4)
System weight	19.5 kg / m ²
Substructure	Wooden slats or steel tubes
Temperature range	-40 °C bis +85 °C
System power	Up to 173 W _p /m ²

QUALITY AND WARRANTY

Product guarantee	10 years
Performance guarantee	10 years at 90 % of the nominal output 25 years at 80 % of the nominal output
Quality criteria production	IEC 61215
Quality criteria safety	IEC 61730 (protection class II)
Fire safety	DIN-EN 13501-5: B _{ROOF} (t1)/(t3) DIN 4102-7: class B1
Hail resistance class	HW 4 (withstands 40 mm Ø hailstones)
Pressure load w/o support battens	5 400 N/m ²
Pressure load with support battens	15 400 N/m ²
Accessibility	Dry roof can be accessed without any warranty restrictions
Water tightness	Min. slope 3° (cf. notice sheet: requirement roof-buildup)

ELECTRICAL PROPERTIES AT STC (1000 W/m², 25 °C and AM 1.5)

Type of solar shingle	Solar shingle	Solar shingle bottom	Solar shingle top	Solar shingle left	Solar shingle right
Nominal output	115 W _p	62 W _p	67 W _p	48 W _p	48 W _p
Voltage V _{mpp}	13.6 V	7.3 V	7.9 V	5.7 V	5.7 V
Current I _{mpp}	8.5 A	8.5 A	8.5 A	8.5 A	8.5 A
Open circuit voltage U _{oc}	17.0 V	8.9 V	9.6 V	6.8 V	6.8 V
Short circuit current I _{sc}	9.0 A	9.0 A	9.0 A	9.0 A	9.0 A
Maximum system voltage	1000 V DC	1000 V DC	1000 V DC	1000 V DC	1000 V DC
Reverse current overload	18 A	18 A	18 A	18 A	18 A
Tolerance nominal output	+5/-0 %	+5/-0 %	+5/-0 %	+5/-0 %	+5/-0 %

TEMPERATURE COEFFICIENTS

Temperatur coefficient α for short circuit current (I _{sc})	+0,038 %/K
Temperatur coefficient β for open circuit voltage (V _{oc})	-0,269 %/K
Temperatur coefficient γ for nominal output (P _{MPP})	-0,375 %/K

SYSTEM ENHANCEMENTS

Complementary shingles fixed size	SUNSTYLE®-shingle (screenprint)
Customizable shingles	SUNSTYLE®-compound metal
Snow stopper	Stainless steel, black
Support lath for alpine applications	Wood