

Roofit.Solar

Velario[®]

145/3x10/001

Extremely Weatherproof

Our solar roof is equipped to withstand any weather condition, including snow, ice, hail, and wind.

2-in-1 solution

Combining roof and solar panel into one product (2-in-1) reduces material and labor costs for both manufacturing and installation.

Built to last

Premium quality materials and a strong metal backsheet.

Warranty

25-year power warranty and 10-year product warranty.

Ideal for Sloped Roofs

Ideal photovoltaic solution for sloped roofs with minimum pitch of 10°.

Dreamed in Europe. Made in Europe.

We commit to the highest quality and European standards in the production and installation of our solar roofs.

Tried-and- tested

Installed using traditional well-known double-lock standing seam roofing technology.

Timeless design

Accepted by authorities for protected and heritage buildings.



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Working Conditions

| | |
|----------------------------|--|
| Maximum System Voltage | 1000 VDC |
| Operating Temperature | -40 °C ... +85 °C |
| Maximum Series Fuse Rating | 16A |
| Safety Class | Class II |
| Tested Positive Load | 6000 Pa = 610 kg/m ² |
| Tested Negative Load | 2400 Pa |
| Impact Resistance | Hailstone up to 25mm in size and at the speed of 23m/s |
| Minimum Ventilation Below | 50 mm |
| Minimum Roof Slope | 10 degrees |

Mechanical Specifications

| | |
|-------------------------|--|
| Cells | 158,75 mm monocrystalline PERC 3x10 configuration |
| Front glass | 3.2 mm tempered low-iron glass |
| Back sheet | 0.5 mm galvanized steel with RR33 GreenCoat Pural BT coating |
| Encapsulant | POE |
| Junction boxes | 3 bypass diodes, IP68, potted |
| Connectors | QC4.10 |
| Cabels | 4 mm ² H1Z2Z2-K solar cabel lenght 700 mm |
| Effective roof coverage | 1698 mm x 550 mm |
| Mounting method | Double Seam technology |
| Weight | 14.0 kg (pc) = 15.5 kg/m ² (installed) |

Packing

| | |
|------------------------|-----------------------|
| Pacaking Configuration | 32 modules per pallet |
| Pallet (LxWxH) | 2050 x 1130 x 750mm |

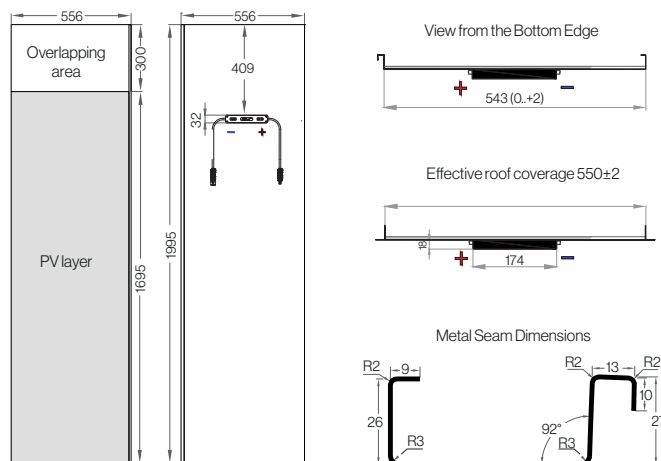
Certification

Designed to meet the requirements of following standards:
IEC 61215-1:2016 (PV Module Reliability)
IEC 61730-1:2016 (PV Module Safety)
EN 13501-5:2016 BROOF (t2) (Fire safety)

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.



Engineering Drawings (units mm)



Electrical Characteristics

| | | STC ¹ | NMOT ² |
|-----------------------|----------------------|------------------|-------------------|
| Nominal Power | P _{mpp} (W) | 145 | 99.2 |
| MPP Voltage | V _{mpp} (V) | 16.5 | 14.7 |
| MPP Current | I _{mpp} (A) | 8.8 | 6.75 |
| Open Circuit Voltage | V _{OC} (V) | 20.2 | 18.4 |
| Short Circuit Current | I _{SC} (A) | 9.3 | 7.19 |

Power Tolerances ±3 %
 Current and Voltage Tolerances ±3 %

¹ Standard Test Conditions (irradiance 1000 W/m², cell temperature 25 °C, spectrum AM1.5)
² Nominal Module Operating Temperature (irradiance 800 W/m², air temperature 20 °C, wind 1 m/s, spectrum AM1.5)

Thermal Characteristics

| | | |
|----------------------------|------------------|------------|
| Temperature Coefficient of | P _{mpp} | -0.363 %/K |
| Temperature Coefficient of | V _{OC} | -0.276 %/K |
| Temperature Coefficient of | I _{SC} | 0.043 %/K |