

# Roofit.Solar

# Velario<sup>®</sup>

## 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 <sup>2</sup>
Tested Negative Load	2400 Pa
Impact Resistance	HW4 - hailstone up to 40 mm in size
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 <sup>2</sup> 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 <sup>2</sup> (installed)

## Packing

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

## Certification

**IEC 61215-1:2021** (PV Module Reliability)

**IEC 61730-1:2016** (PV Module Safety)

**EN 13501-5:2016** (Fire safety)

Broof (t1) by GTC

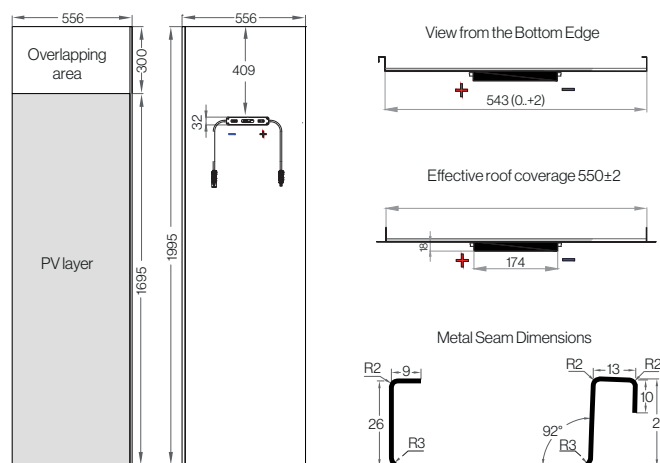
Broof (t2) by Eurofins Expert Services Oy



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



Engineering Drawings (units mm)



## Electrical Characteristics

		STC <sup>1</sup>	NMOT <sup>2</sup>
Nominal Power	P <sub>mpp</sub> (W)	<b>145</b>	99.2
MPP Voltage	V <sub>mpp</sub> (V)	<b>16.5</b>	14.7
MPP Current	I <sub>mpp</sub> (A)	<b>8.8</b>	6.75
Open Circuit Voltage	V <sub>OC</sub> (V)	<b>20.2</b>	18.4
Short Circuit Current	I <sub>SC</sub> (A)	<b>9.3</b>	7.19

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

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

## Thermal Characteristics

Temperature Coefficient of	P <sub>mpp</sub>	-0.363 % /K
Temperature Coefficient of	V <sub>OC</sub>	-0.276 % /K
Temperature Coefficient of	I <sub>SC</sub>	0.043 % /K