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 V DC
Operating Temperature	-40 °C ... +85 °C
Maximum Series Fuse Rating	16A
Safety Class	Class II
Tested Positive Load	6000 Pa = 610 kg/m²
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 monocrytalline 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 mm² 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)

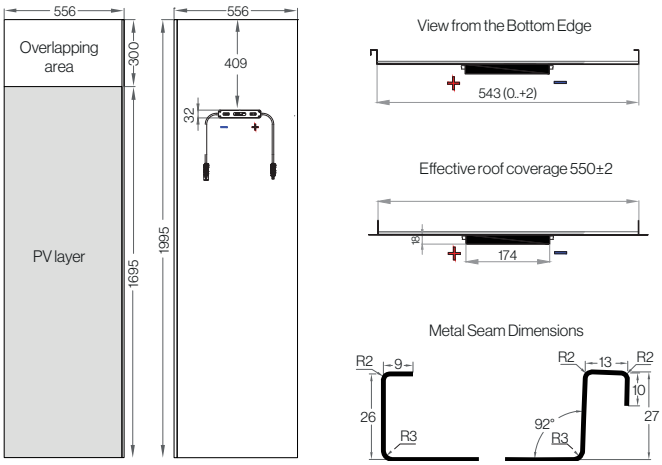
Packing

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

Certification

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

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

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

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