

Roofit.Solar

# Double Seam Solar Roof Modules

3x12/160W/RR33/B/DS

## 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.



# Roofit.Solar

**Contact** Roofit Solar Energy OÜ  
Härgmäe 21, Tallinn 13525, Estonia  
<http://roofit.solar>  
[info@roofit.solar](mailto:info@roofit.solar)

## Working Conditions

Maximum System Voltage	1000 VDC
Operating Temperature	-40 °C ... +85 °C
Maximum Series Fuse Rating	15 A

## Thermal Characteristics

Temperature Coefficient of $P_{mpp}$	$\gamma$	-0.363 %/K
Temperature Coefficient of $V_{oc}$	$\beta$	-0.276 %/K
Temperature Coefficient of $I_{sc}$	$\alpha$	0.043 %/K

## Electrical Characteristics

		STC <sup>1</sup>	NMOT <sup>2</sup>
Nominal Power	$P_{mpp}$ (W)	160	116.8
Power Tolerance	0...+5 W		
MPP Voltage	$V_{mpp}$ (V)	19.00	17.41
MPP Current	$I_{mpp}$ (A)	8.44	6.71
Open Circuit Voltage	$V_{oc}$ (V)	23.9	21.87
Short Circuit Current	$I_{sc}$ (A)	9.00	7.20

Power Measurement Tolerances  $\pm 3\%$   
Other Parameter Tolerances 0.5 %

<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)

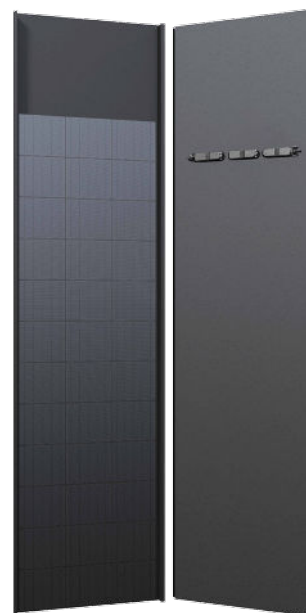
**Roofit.solar modules have been tested according to the following PV standards:**

**IEC 61215-1:2016/IEC 61215-1-1:2016/IEC 61215-2:2016** –  
Design qualification and type approval –  
modules are suitable for long-term operation in general open-air climates.

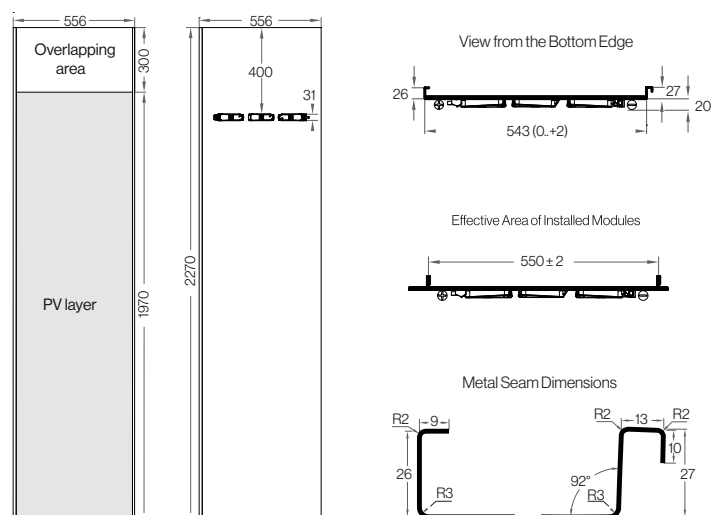
**IEC 61730-1:2016/IEC 61730-2:2016** –  
PV module safety qualification – construction requirements for  
PV modules to provide safe electrical and mechanical operation.

**IEC 62716** – Ammonia corrosion testing  
**IEC 61701** – Salt mist corrosion testing

Fire safety [CEN TS 1187]: **EN 13501-5:2016 Broof(t2)**  
Electrical Shock Hazard: **EVS-EN IEC 61730-2:2018**  
Metal parts are CE marked: **EN 14782:2006**



Engineering Drawings (units mm)



## Mechanical Specifications

Cells	3 x 12 mono PERC
Junction boxes	Decentralized Three bypass diodes Protection class IP67 PV4 connections
Effective roof coverage	1973 mm x 550 mm
Mounting method	Double Seam technology
Weight	16.5 kg (pc) = 15.5 kg/m <sup>2</sup> (installed)
Front glass	3.2 mm tempered low-iron glass
Back sheet	0.5 mm metal sheet with highly durable Pural coating
Impact resistance	d = 35 mm hailstone 46 m/s = 165.5 km/h
Minimum roof slope	10 degrees
Minimum ventilation below	50 mm