

Roofit 4x12/235W/RR33/B/RC

Building integrated photovoltaic module



High mechanical load resistance because of metal back sheet



Snail trail free structure



± 3% power tolerance



**Superior linear power warranty
Maximum 0.8 % degradation per year**



Made in the EU



Outstanding low light performance



**Roofing material and photovoltaic module
2in1**



Suitable for historic buildings

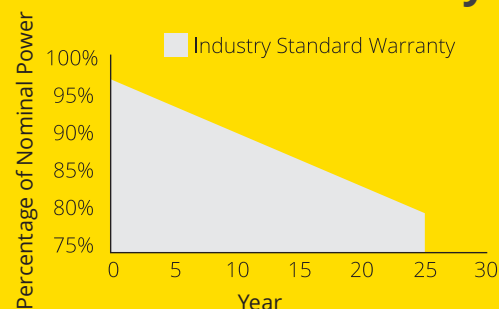


Ideal photovoltaic solution for sloped roofs

Warranty

First year	97.5% of nominal power during the first year
Linear power warranty	80% power output after 25 years
Product warranty	10 years

Linear Power Warranty



Mechanical Specifications

Cells	4 x 12 mono PERC
Junction boxes	two bypass diodes protection class IP68 MC4 EVO2 connections
Effective roof coverage	2023x712 mm
Mounting method	Click Seam technology
Weight	24.0 kg (pc) = 17.0 kg/m ² (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 gap	50 mm



Working Conditions

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

Electrical Characteristics

Performance at STC

Standard Test Conditions (irradiance 1000 W/m², cell temperature 25 °C, spectrum AM1.5)

Nominal Power	P_{mpp} (W)	235
Power Tolerance	± 3%	
MPP Voltage	V_{max} (V)	26.5
MPP Current	I_{max} (A)	8.9
Open Circuit Voltage	V_{oc} (V)	32.4
Short Circuit Current	I_{sc} (A)	9.3

Performance at LIC

Low Irradiance Conditions (irradiance 200 W/m², cell temperature 25 °C, spectrum AM1.5)

Power	P_{mpp} (W)	46
MPP Voltage	V_{max} (V)	27.2
MPP Current	I_{max} (A)	1.7
Open Circuit Voltage	V_{oc} (V)	30.7
Short Circuit Current	I_{sc} (A)	1.87

Current and voltage tolerances ± 3%

Thermal Characteristics

Normal Operating Cell Temperature	NOCT	46 ± 2 °C
Temperature Coefficient of P_{mpp}	γ	-0.39%/K
Temperature Coefficient of V_{oc}	β	-0.3%/K
Temperature Coefficient of I_{sc}	α	0.06%/K

Roofit.solar modules are being tested according to the following PV standards:

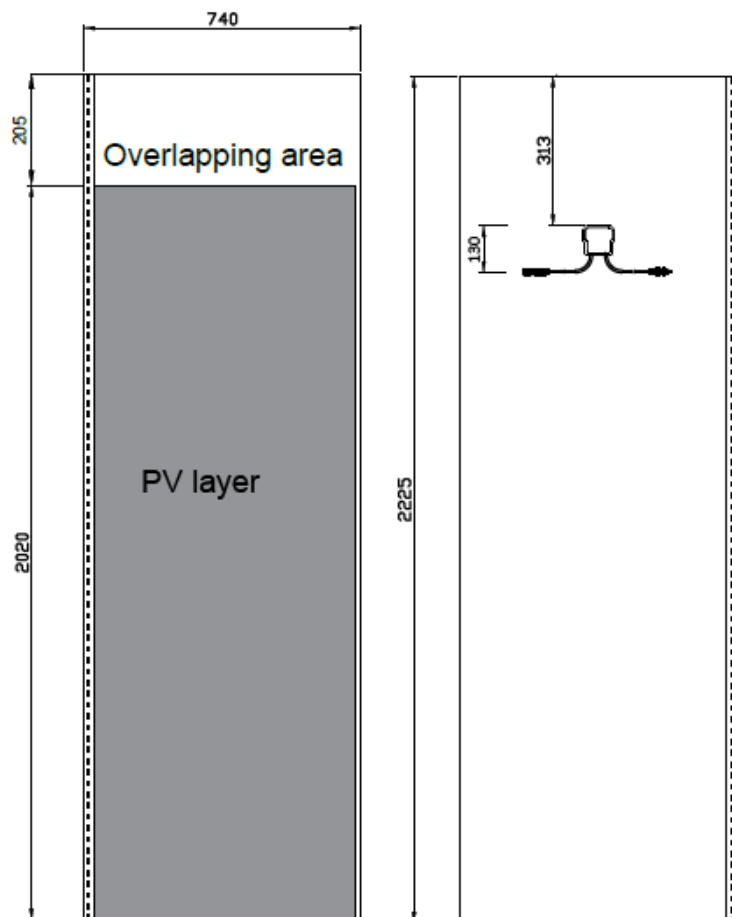
- IEC 61215-1:2021/IEC 61215-1-1:2021/IEC 61215-2:2021
- IEC 61730-1:2016/IEC 61730-2:2016
IEC 61701
IEC 62716
- CEN TS 1187 for fire safety and comply with EN 13501-5:2016 B_{roof}(t2) classification criteria when installed.



Engineering Drawings (units mm)

View from the Front

View from the Back



View from the Bottom Edge



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Roofit.solar
 Photovoltaic metal roofs