

Roofit 3x12/160W/RR33/B/DS

Building integrated photovoltaic module



High mechanical load resistance because of metal back sheet



Snail trail free structure



Strictly positive 0...+5 W power tolerance



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



Made in EU



Outstanding low light performance



**Roofing material and photovoltaic module
2in1**



Suitable for historic buildings



Ideal photovoltaic solution for sloped roofs

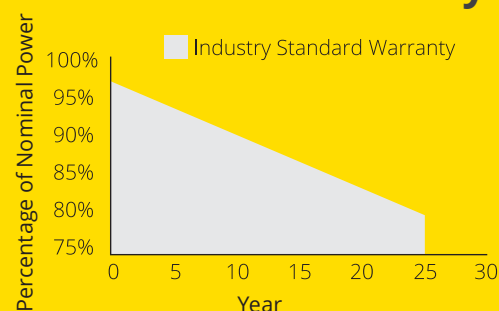


Patent pending technology

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	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/m² (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



Working Conditions

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

Electrical Characteristics

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

Nominal Power	P _{mpp} (W)	160
Power Tolerance	0...+5 W	
MPP Voltage	V _{mpp} (V)	19.00
MPP Current	I _{mpp} (A)	8.44
Open Circuit Voltage	V _{oc} (V)	23.9
Short Circuit Current	I _{sc} (A)	9.00

Normal Operating Conditions (irradiance 800 W/m², air temperature 20 °C, wind 1 m/s, spectrum AM1.5)

Power	P _{mpp} (W)	116.8
MPP Voltage	V _{mpp} (V)	17.41
MPP Current	I _{mpp} (A)	6.71
Open Circuit Voltage	V _{oc} (V)	21.87
Short Circuit Current	I _{sc} (A)	7.20

Power Measurement Tolerances ±3 %
Other Parameter Tolerances 0...5 %

Thermal Characteristics

Normal Operating Cell Temperature	NOCT	42.1 ± 4.0 °C
Temperature Coefficient of P _{mpp}	γ	-0.363 %/K
Temperature Coefficient of V _{oc}	β	-0.276 %/K
Temperature Coefficient of I _{sc}	α	0.043 %/K

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

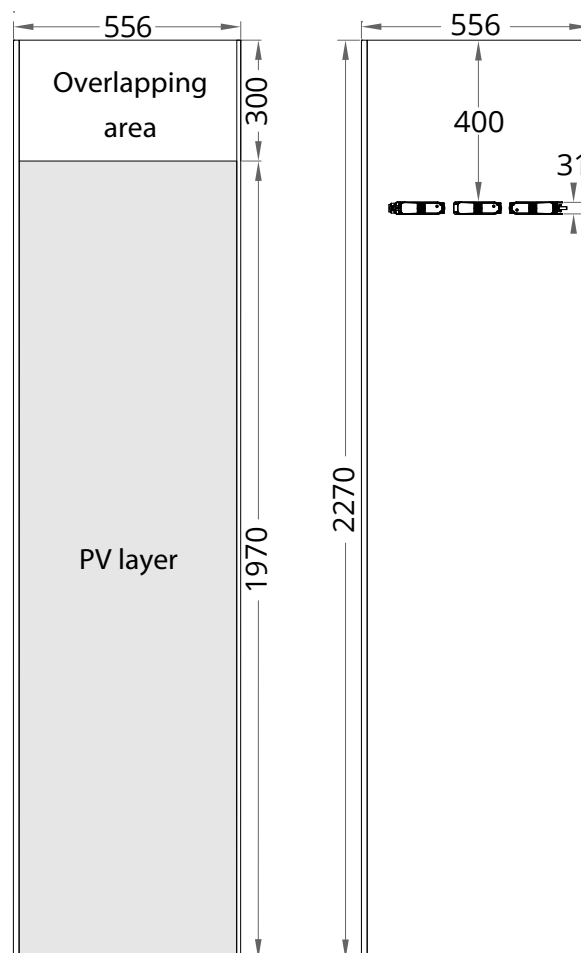
- IEC 61215-1:2016/IEC 61215-1-1:2016/IEC 61215-2:2016
IEC 61730-1:2016/IEC 61730-2:2016
IEC 61701
IEC 62716
- CEN TS 1187 for fire safety and comply with EN 13501-5:2016 B_{roof}(t2) classification criteria when installed.



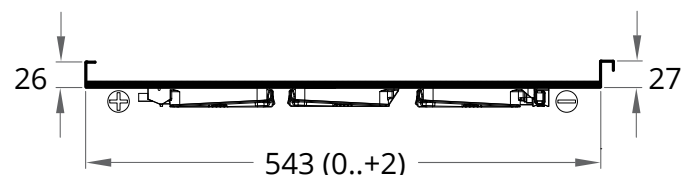
Engineering Drawings (units mm)

View from the Front

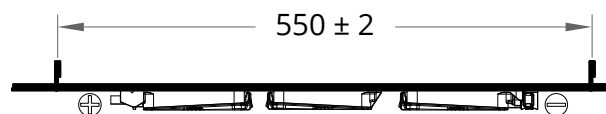
View from the Back



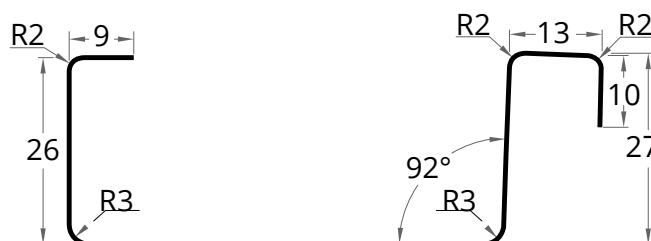
View from the Bottom Edge



Effective Area of Installed Modules



Metal Seam Dimensions



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Photovoltaic metal roofs