

Roofit 3x10/135W/RR33/B/DS

Building integrated photovoltaic module



High mechanical load resistance because of metal back sheet



Snail trail free structure



+5% 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

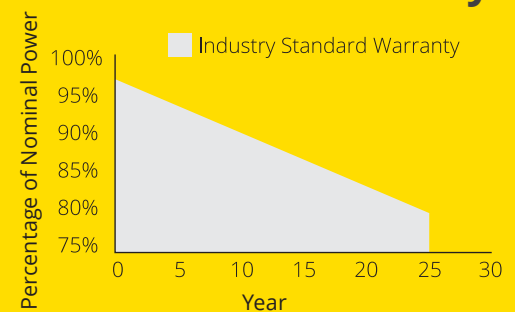


Patent pending technology

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 10 mono PERC
Junction boxes	decentralized three bypass diodes protection class IP67 PV4 connections
Effective roof coverage	1658 mm x 550mm
Mounting method	double seam technology
Weight	14.0 kg (pc) = 15.5 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 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)	135
Power Tolerance	0...+5 W	
MPP Voltage	V _{mpp} (V)	15.8
MPP Current	I _{mpp} (A)	8.54
Open Circuit Voltage	V _{oc} (V)	19.9
Short Circuit Current	I _{sc} (A)	9.04

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

Power	P _{mpp} (W)	99.2
MPP Voltage	V _{mpp} (V)	14.7
MPP Current	I _{mpp} (A)	6.75
Open Circuit Voltage	V _{oc} (V)	18.4
Short Circuit Current	I _{sc} (A)	7.19

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:

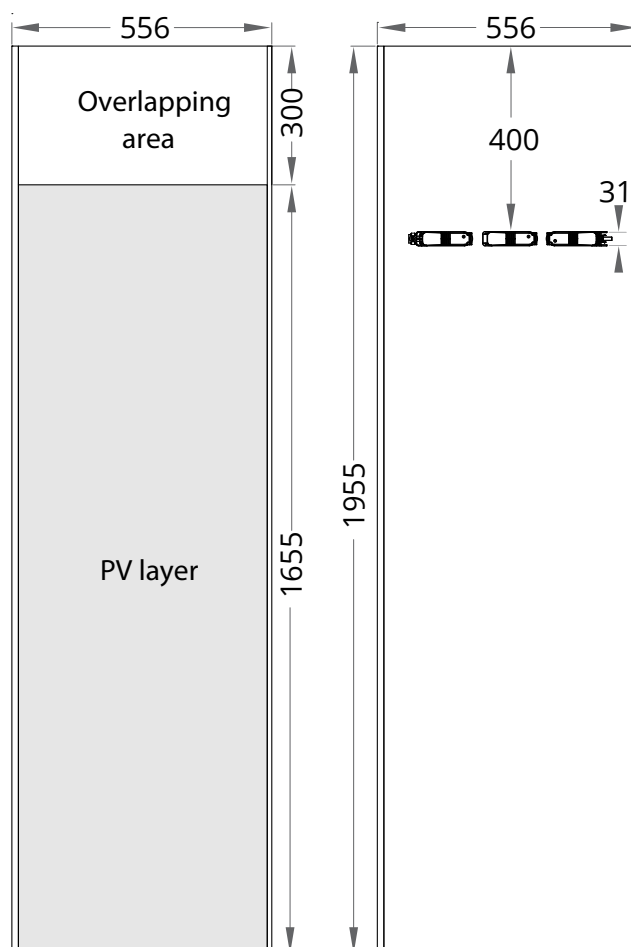
- IEC 61215-1:2016/IEC 61215-1-1:2016/IEC 61215-2:2016
IEC 61730-1:2016/IEC 61730-2:2016
IEC 61701
IEC 62716
- CEN TS 1187 for fire safety and comply with EN 13501-5:2016 B_{roof}(t2) classification criteria when installed.



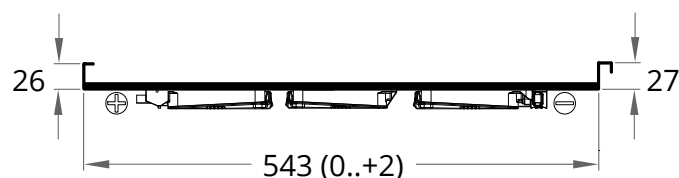
Engineering Drawings (units mm)

View from the Front

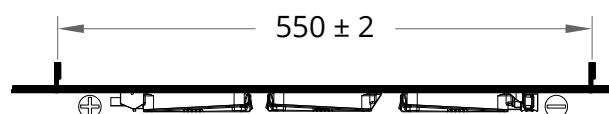
View from the Back



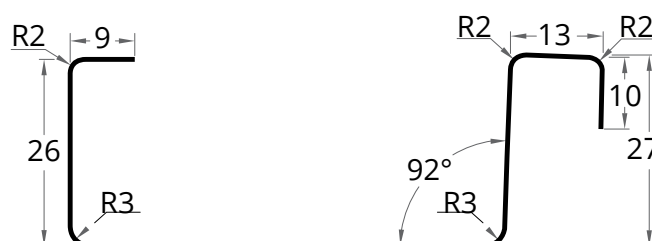
View from the Bottom Edge



Effective Area of Installed Modules



Metal Seam Dimensions



Roofit Solar Energy OÜ

Härgmäe 21, Tallinn13525, Estonia
<https://roofit.solar> / info@roofit.solar

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Photovoltaic metal roofs