





# Roofit 3x8/105/RR33/B/A

Building integrated photovoltaic module


 High mechanical load resistance because of metal back sheet


 Snail trail free structure


 Strictly positive 0...+5W power tolerance


 Superior linear power warranty. Maximum 0.5 % degradation per year.


 Made in EU

 Outstanding low light performance

 Roofing material and photovoltaic module 2in1

 Suitable for historic buildings

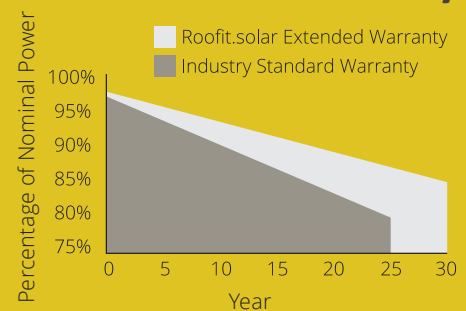
 Ideal photovoltaic solution for sloped roofs

 Patent pending technology

## Warranty

<b>First year</b>	97.5% of nominal power during the first year
<b>Linear power warranty</b>	85% power output after 30 years
<b>PUR coating warranty</b>	20 years
<b>Metal sheet technical warranty</b>	50 years

## Linear Power Warranty



## Mechanical Specifications

<b>Cells</b>	3 x 8 monocrystalline 156 mm x 156 mm cells
<b>Junction box</b>	decentralized junction box two bypass diodes protection level Class II degree of protection IP68
<b>Effective roof coverage</b>	1340mm x 515 mm
<b>Mounting method</b>	click technology
<b>Weight</b>	11.6 kg
<b>Front glass</b>	3.2 mm tempered low-iron glass with anti-reflective technology
<b>Back sheet</b>	0.5 mm metal sheet with highly durable PUR coating
<b>Impact resistance</b>	d = 35 mm hailstone 46 m/s = 165.5 km/h

<b>Minimum roof slope</b>	10 degrees
<b>Maximum distance between roof rafters</b>	1200 mm
<b>Purlins</b>	32 mm x 100 mm max. spacing 350 mm
<b>Minimum ventilation below</b>	50 mm

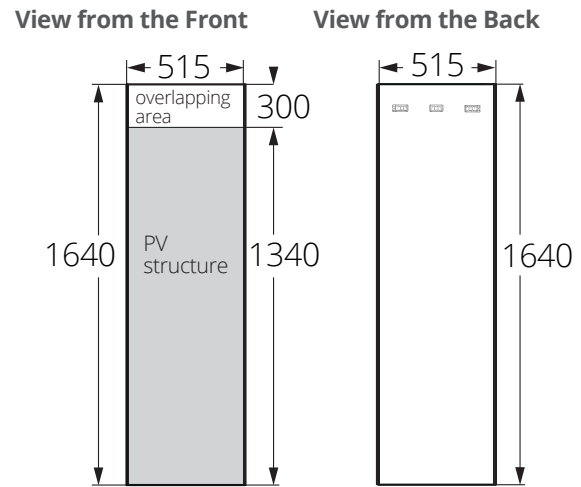
## Working Conditions

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

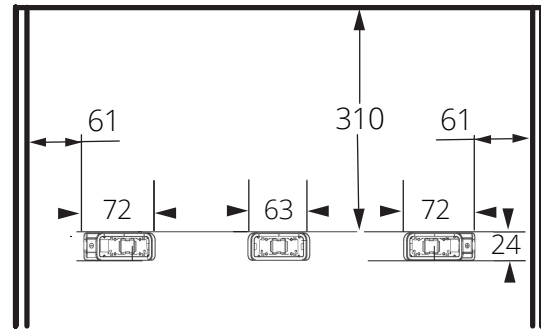
## Electrical Characteristics

Standard Test Conditions (irradiance 1000 W/m <sup>2</sup> , cell temperature 25 °C, spectrum AM1.5)		
Nominal Power	P <sub>mpp</sub> (W)	105
Power Tolerance		0...+5 W
MPP Voltage	V <sub>mpp</sub> (V)	12.73
MPP Current	I <sub>mpp</sub> (A)	8.25
Open Circuit Voltage	V <sub>oc</sub> (V)	16.13
Short Circuit Current	I <sub>sc</sub> (A)	8.53
Normal Operating Conditions (irradiance 800 W/m <sup>2</sup> , air temperature 20 °C, wind 1 m/s, spectrum AM1.5)		
Power	P <sub>mpp</sub> (W)	82
MPP Voltage	V <sub>mpp</sub> (V)	12.73
MPP Current	I <sub>mpp</sub> (A)	6.45
Open Circuit Voltage	V <sub>oc</sub> (V)	15.98
Short Circuit Current	I <sub>sc</sub> (A)	6.83
Power Measurement Tolerances ±3 %		
Other Parameter Tolerances ±5 %		

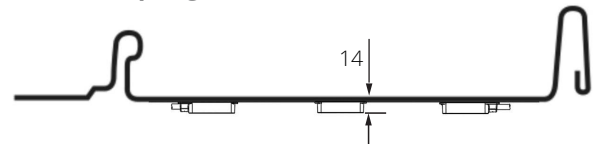
## Engineering Drawings (units mm)



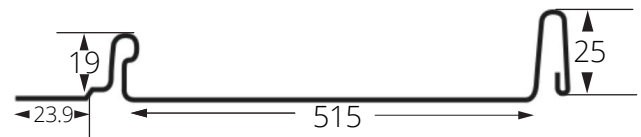
Details from the Back



View from the Top Edge



Standing Seam Joint



## Thermal Characteristics

Normal Operating Cell Temperature	NOCT	45 °C
Temperature Coefficient of P <sub>mpp</sub>	γ	-0.42 %/K
Temperature Coefficient of V <sub>oc</sub>	β	-0.32 %/K
Temperature Coefficient of I <sub>sc</sub>	α	0.05 %/K