



## STANDING SEAM SOLAR

## FALT SOLAR by Roofit.Solar

TECHNICAL SHEET

3x12/175W/RR33/B/DS

Building integrated photovoltaic modules and metallic sheets of 0.5 mm, with highly durable PUR coating.



High mechanical load resistance



Superior linear power warranty

2in1

Roofing material and PV module

+5%

Strictly positive power tolerance



Sustainable for heritage buildings



Outstanding low light performance



Ideal solution for sloped roofs



Snail trail free structure



Patent pending technology



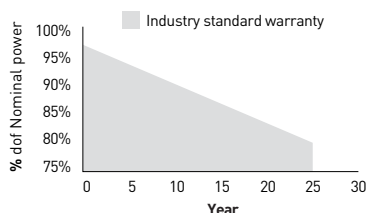
### Warranty

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            | 3 bypass diodes<br>Protection class IP68<br>QC4 connections |
| Effective roof coverage   | 2020 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 PUR coating          |
| Impact resistance         | d = 35 mm hailstone 46 m/s<br>= 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 | 16 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) | 175  |
| Power Tolerance       |                      | ± 3% |
| MPP Voltage           | V <sub>mpp</sub> (V) | 19.0 |
| MPP Current           | I <sub>mpp</sub> (A) | 9.21 |
| Open Circuit Voltage  | V <sub>oc</sub> (V)  | 23.9 |
| Short Circuit Current | I <sub>sc</sub> (A)  | 9.74 |

**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) | 116.8 |
| MPP Voltage           | V <sub>mpp</sub> (V) | 17.4  |
| MPP Current           | I <sub>mpp</sub> (A) | 6.71  |
| Open Circuit Voltage  | V <sub>oc</sub> (V)  | 21.9  |
| Short Circuit Current | I <sub>sc</sub> (A)  | 7.2   |

Current and voltage tolerances ±3 %

## Thermal Characteristics

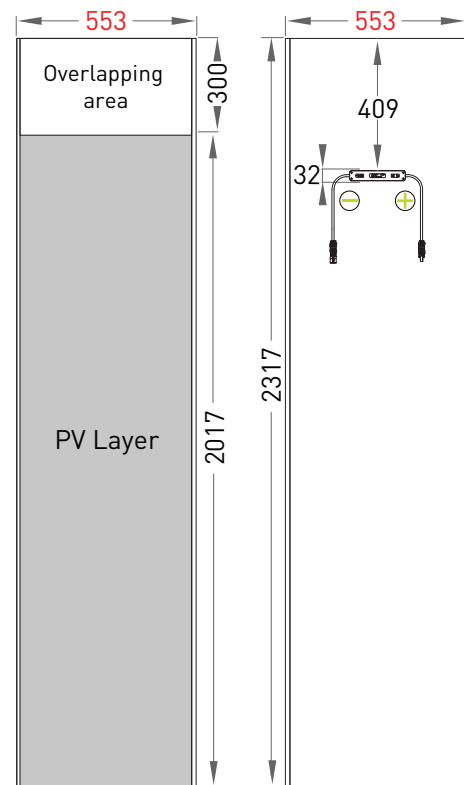
|                                             |      |               |
|---------------------------------------------|------|---------------|
| Normal Operating Cell Temperature           | NOCT | 42.1 ± 4.0 °C |
| Temperature Coefficient of P <sub>mpp</sub> | γ    | -0.363 %/K    |
| Temperature Coefficient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

## Engineering Drawings

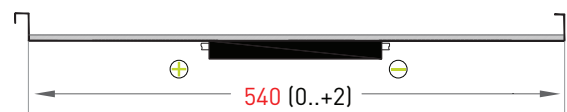
(units: mm)

View from the Front

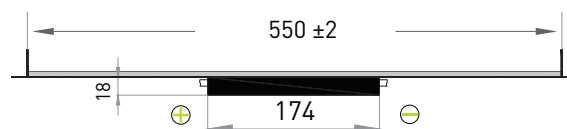
View from the Back



View from the Bottom edge



Effective Roof Coverage



Metal Seam Dimensions

