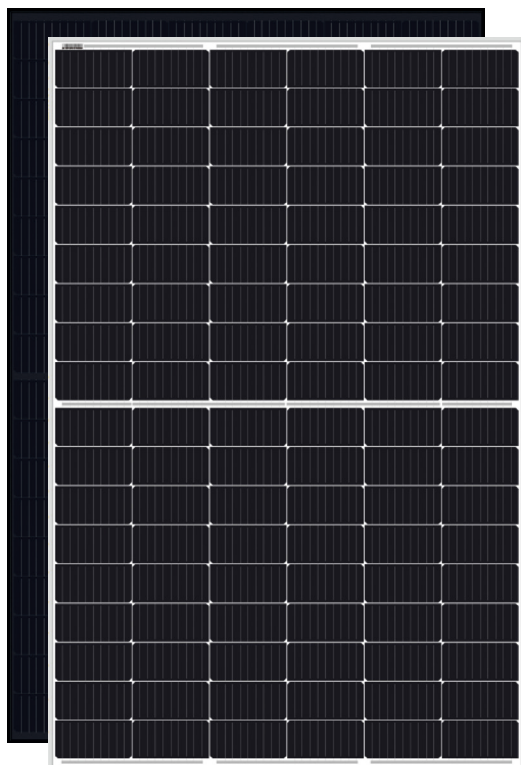


## PRODUCT



# SOLARWATT Panel

classic AM 2.5 pure

classic AM 2.5 black

## Glass-Foil-Module

### Best price-performance ratio

With the classic models, Solarwatt offers affordable, robust, high-performance solar modules of proven quality. They are durable and high-yielding as well as resistant to weather effects and environmental influences.

The classic-modules are produced on state-of-the-art production lines and meet the high Solarwatt quality standards. They will therefore generate solar power well beyond their warranty period.

The modules come with a solid 20-year product guarantee.



## PRODUCT QUALITY

- ammonia resistant
- salt mist resistant
- LeTID tested
- PID protected
- 100 % plus-sorting

## SERVICE

**FullCoverage insurance**  
optional (up to 1,000 kWp) <sup>1</sup>

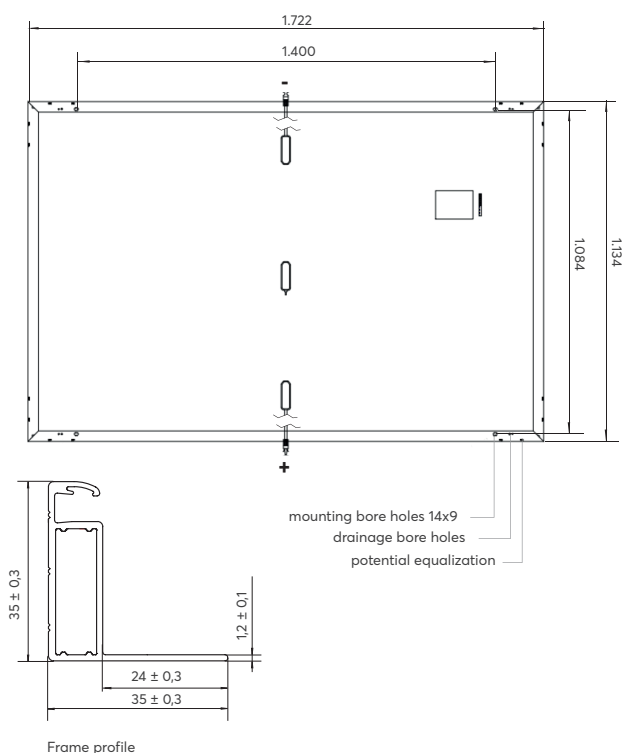
**simple returns policy**  
as per Delivery terms for Solarwatt solar modules

**20 year product warranty**  
as per Warranty conditions for Solarwatt solar modules

**25 year performance warranty**  
on 89.4 % of nominal power as per Warranty conditions for Solarwatt solar modules

<sup>1</sup> country-specific deviations apply

## DIMENSIONS



## GENERAL DATA

|   |   |
|---|---|
| <b>Module technology</b>  | Glass-foil laminate; aluminum frame<br>black (black) or silver (pure)   |
| <b>Covering material</b>  | Tempered solar glass with anti-reflective finish, 3.2 mm  |
| <b>Encapsulation</b>  | Solar cells in POE encapsulation  |
| <b>Backing material</b>   | Multi-layer composite film<br>Cell background: white (pure) or black (black)<br>Module backside: white (pure and black) |
| <b>Solar cells</b>  | 108 monocrystalline high power TOPCon solar cells   |
| <b>Cell dimensions</b>  | 182 x 91 mm   |
| <b>L x W x H / Weight</b>                                       | 1,722 <sup>±2</sup> x 1,134 <sup>±2</sup> x 35 <sup>±0.3</sup> mm / 20.8 kg   |
| <b>Connection technology</b>                                    | Cables 2x 1.2 m / 4 mm <sup>2</sup> ,<br>Stäubli Electrical MC4 connectors  |
| <b>Bypass diodes</b>  | 3   |
| <b>Max. system voltage</b>                                      | 1,000 V   |
| <b>IP rating</b>  | IP68  |
| <b>Protection class</b>   | II (acc. to IEC 61140)  |
| <b>Fire class</b>   | C (acc. to IEC 61730)   |
| <b>Certified mechanical ratings as per IEC 61215</b>            | Pressure load up to 3,600 Pa (test load 5,400 Pa)<br>Suction load up to 1,600 Pa (test load 2,400 Pa)                   |
| <b>Recommended stress load as per Installation Instructions</b> | Please refer to the specifications in the Installation Instructions and Warranty Conditions.                            |
| <b>Qualifications</b>   | IEC 61215 (incl. LeTID)   IEC 61730<br>in preparation:<br>PID IEC TS 62804 IEC 61701   IEC 62716   MCS 005              |

## ELECTRICAL DATA (STC)

STC (Standard Test Conditions): Irradiation intensity 1,000 W/m<sup>2</sup>, spectral distribution AM 1.5 | Temperature 25 ± 2 °C, in accordance to EN 60904-3

Please check specific power class availability with your Solarwatt sales team

|   | 420 W <sub>p</sub> | 425 W <sub>p</sub> | 430 W <sub>p</sub> | 435 W <sub>p</sub> |
|---|--------------------|--------------------|--------------------|--------------------|
| <b>Nominal power P<sub>max</sub></b>        | 420 W <sub>p</sub> | 425 W <sub>p</sub> | 430 W <sub>p</sub> | 435 W <sub>p</sub> |
| <b>Nominal voltage V<sub>mp</sub></b>       | 32.0 V             | 32.2 V             | 32.4 V             | 32.6 V             |
| <b>Nominal current I<sub>mp</sub></b>       | 13.1 A             | 13.2 A             | 13.3 A             | 13.4 A             |
| <b>Open circuit voltage V<sub>oc</sub></b>  | 38.4 V             | 38.6 V             | 38.8 V             | 39.0 V             |
| <b>Short circuit current I<sub>sc</sub></b> | 13.8 A             | 13.8 A             | 13.9 A             | 13.9 A             |
| <b>Module efficiency</b>                    | 21.5 %             | 21.8 %             | 22.0 %             | 22.2 %             |

Measurement tolerances: P<sub>max</sub> ±5 %; V<sub>oc</sub> ±3 %; I<sub>sc</sub> ±3 %, I<sub>mp</sub> ±10 %

Reverse-current power rating I<sub>r</sub>: 25 A, operating modules with an external power source is only permissible if using a phase fuse with a tripping current of ≤ 25 A.

## THERMAL FEATURES

|  |                |
|--|----------------|
| <b>Operating temperature range</b>             | -40 ... +85 °C |
| <b>Ambient temperature range</b>               | -40 ... +45 °C |
| <b>Temperature coefficient P<sub>max</sub></b> | -0,31%/K       |
| <b>Temperature coefficient V<sub>oc</sub></b>  | -0,25%/K       |
| <b>Temperature coefficient I<sub>sc</sub></b>  | 0,06%/K        |
| <b>NMOT</b>                                    | 45 °C          |

## ELECTRICAL DATA (NMOT AND WEAK LIGHT)

NMOT (Nominal Module Operating Temperature): Irradiation intensity 800 W/m<sup>2</sup>, spectral distribution AM 1.5, Temperature 20 °C  
Weak light conditions: Irradiation intensity 200 W/m<sup>2</sup>, Temperature 25 °C, Wind speed 1 m/s, load operation

|  | 316 W  | 320 W  | 323 W  | 326 W  |
|--|--------|--------|--------|--------|
| <b>Nominal power P<sub>max</sub>@NMOT</b>                | 316 W  | 320 W  | 323 W  | 326 W  |
| <b>Nominal power P<sub>max</sub>@200 W/m<sup>2</sup></b> | 82.6 W | 83.5 W | 84.7 W | 85.7 W |

Measurement tolerances: P<sub>max</sub> ±5 %; V<sub>oc</sub> ±3 %; I<sub>sc</sub> ±3 %, I<sub>mp</sub> ±10 %

Reduction of module efficiency when irradiation is reduced from 1,000 W/m<sup>2</sup> to 200 W/m<sup>2</sup> (at 25 °C): 4 ±2 % (relative) / -0.6±0.3 % (absolute).

## TRANSPORT AND PACKAGING

|   |                          |
|---|--------------------------|
| <b>Modules per pallet</b>                       | 31                       |
| <b>Modules per container</b>                    | 806                      |
| <b>Pallets per truck</b>                        | 14 / 28                  |
| <b>Modules per truck</b>                        | 434 / 868                |
| <b>Gross weight per pallet</b>                  | 691 kg                   |
| <b>Gross weight per stacked pallet (max. 2)</b> | 1,382 kg                 |
| <b>Pallet dimensions (packing size)</b>         | 1,770 x 1,140 x 1,250 mm |