



Technical data sheet

## Eco 120M style

### Glass-foil module Best price-performance ratio

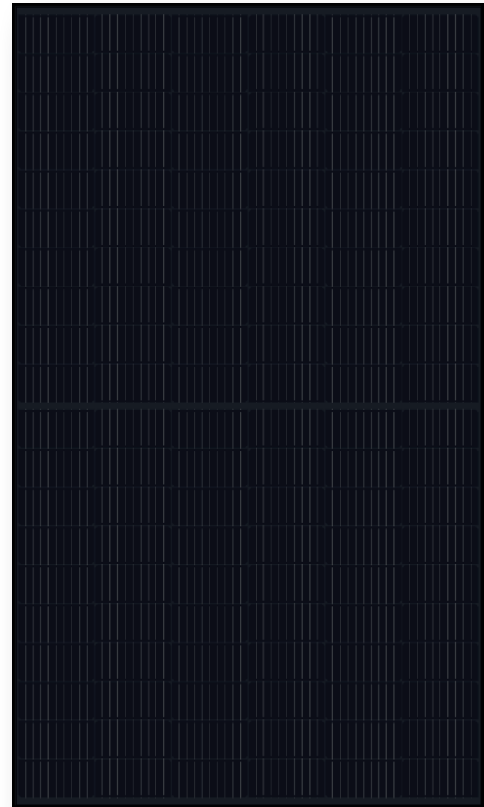
With the Eco models, SOLARWATT offers affordable, robust, high-performance solar modules of proven quality. They are durable and high-yielding as well as resistant to weather effects and environmental influences.

The Eco-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 ten-year product guarantee, with FullCoverage insurance even twelve years. FullCoverage insures almost all risks and takes effect if the modules do not produce electricity or deliver less than expected in the event of damage.

### Product Quality

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



### Service

**FullCoverage insurance**  
optional (up to 1,000 kWp\*)

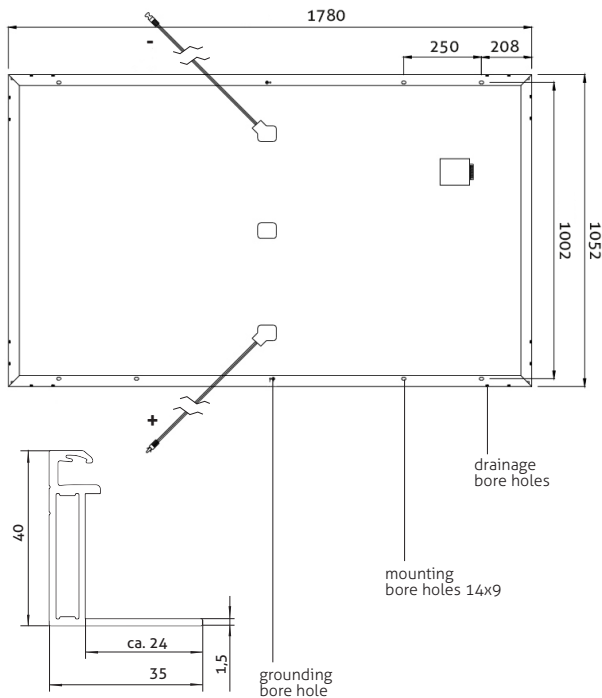
**Simple returns policy**  
as per „Delivery terms for SOLARWATT solar modules“

\* country-specific deviations apply

**12 Year Product Warranty**  
as per „Warranty conditions for SOLARWATT solar modules“

**25 Year Performance Warranty**  
on 80 % of nominal power as per „Warranty conditions for SOLARWATT solar modules“

### Dimensions



### General data

|  |  |
|--|--|
| Module technology  | Glass-foil laminate; aluminum frame, black   |
| Covering material<br>Encapsulation<br>Backing material     | Tempered solar glass with anti-reflective finish, 3,2 mm<br>EVA-solar cells-EVA<br>Multi-layer composite film, black |
| Solar cells  | 120 monocrystalline high power PERC solar cells  |
| Cell dimensions  | 166 x 83 mm  |
| L x W x H / Weight   | 1,780 <sup>±2</sup> x 1,052 <sup>±2</sup> x 40 <sup>±0,5</sup> mm / appr. 21 kg                                      |
| Connection technology                                      | Cables 2 x 1,0 m/4 mm <sup>2</sup><br>Stäubli Electrical MC4-connectors  |
| Bypass diodes  | 3  |
| Max. system voltage  | 1,000 V  |
| IP rating  | IP68   |
| Application class  | II (acc. to IEC 61140)   |
| Fire class   | C (acc. to IEC 61730)  |
| Certified mechanical ratings as per IEC 61215 <sup>1</sup> | Suction load up to 2,400 Pa (test load 3,600 Pa)<br>Pressure load up to 3,600 Pa (test load 5,400 Pa)                |
| Recommended stress load as per Installation Instructions   | Please refer to the specifications in the Installation Instructions and Warranty Conditions.                         |
| Qualifications (in preparation)                            | IEC 61215 (incl. LeTID)   IEC 61730  <br>2 PfG 2387 (PID) IEC 61701   IEC 62716  <br>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

|                                       |        |        |
|---------------------------------------|--------|--------|
| Nominal power P <sub>max</sub>        | 355 Wp | 360 Wp |
| Nominal voltage V <sub>MP</sub>       | 33,7 V | 33,9 V |
| Nominal current I <sub>MP</sub>       | 10,5 A | 10,6 A |
| Open circuit voltage V <sub>OC</sub>  | 41,5 V | 41,7 V |
| Short circuit current I <sub>SC</sub> | 11,0 A | 11,1 A |
| Module efficiency                     | 19,1 % | 19,4 % |

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

Reverse-current power rating I<sub>r</sub>: 20 A, operating modules with an external power source is only permissible if using a phase fuse with a tripping current of ≤ 20 A.

### Electrical data (NMOT and weak light)

NMOT (Nominal Module Operation 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 1m/s, load operation

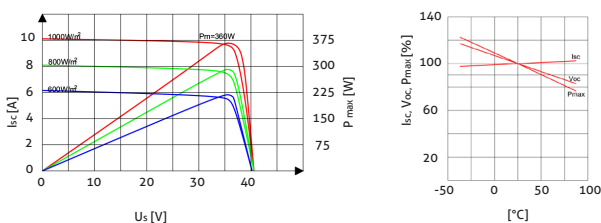
|  |        |        |
|--|--------|--------|
| Nominal power P <sub>max@NMOT</sub>                | 264 W  | 268 W  |
| Nominal power P <sub>max@200 W/m<sup>2</sup></sub> | 69,0 W | 70,0 W |

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

Reduction of module efficiency when irradiance is reduced from 1000W/m<sup>2</sup> to 200W/m<sup>2</sup> (at 25 °C): 4 ± 2 % (relative) / -0,6 ± 0,3 % (absolute).

### Characteristic lines (Performance Class 360 Wp)

Voltage characteristic line at different temperatures and irradiances



### Thermal Features

|  |                |
|--|----------------|
| Operating temperature range              | -40 ... +85 °C |
| Ambient temperature range                | -40 ... +45 °C |
| Temperature coefficient P <sub>max</sub> | -0,37 %/K      |
| Temperature coefficient V <sub>OC</sub>  | -0,27 %/K      |
| Temperature coefficient I <sub>SC</sub>  | 0,04 %/K       |
| NMOT                                     | 44 °C          |