## PRODUCT


# SOLARWATT Panel vision H 3.0 style

## Glass-Glass module

**Solid quality with high performance**

Thanks to their modern design Solarwatt glass-glass modules deliver the highest long-term yields. They are robust and more resilient than their predecessors. Bifacial PERC half-cut-cells enable modules that are optimized for maximum performance.

The solar cells are embedded almost indestructibly in the glass-glass composite and thus optimally protected against all weather effects and mechanical stress. Solarwatt can therefore offer a 30-year warranty on performance and product quality.

The Solarwatt FullCoverage insurance is included for 5 years and free of charge. It insures almost all risks and takes effect even if the modules do not produce electricity or deliver less than expected in the event of damage.

## PRODUCT QUALITY

- bifacial PERC half-cut-cells
- transparent embedding of the cells
- LeTID tested
- ammonia resistant
- intensive hailstorm resistant
- salt mist resistant
- 100 % plus-sorting
- PID protected
- snow-load warranty
- max. 12,150/ 5,400 Pa

## SERVICE

**FullCoverage insurance**
included (up to 1,000 kWp*)

**Simple returns policy**
as per „Delivery terms for Solarwatt solar modules"

**30 Year Product Warranty**
as per „Warranty conditions for Solarwatt solar modules"

**30 Year Performance Warranty**
as per „Warranty conditions for Solarwatt solar modules"

* country-specific deviations apply

| Product Scorecard | |
|---|---|
| Material Health | Silver |
| Material Reutilization | Silver |
| Renewable Energy & Carbon Management | Gold |
| Water Stewardship | Silver |
| Social Fairness | Gold |
| **Overall Certification Level** | **SILVER** |

**Subject to change | Errors excepted**
This data sheet fulfills the requirements listed in IEC 61215-1-1 | EN
Cradle to Cradle Certified® is a registered trademark of the Cradle to Cradle Products Innovation Institute.

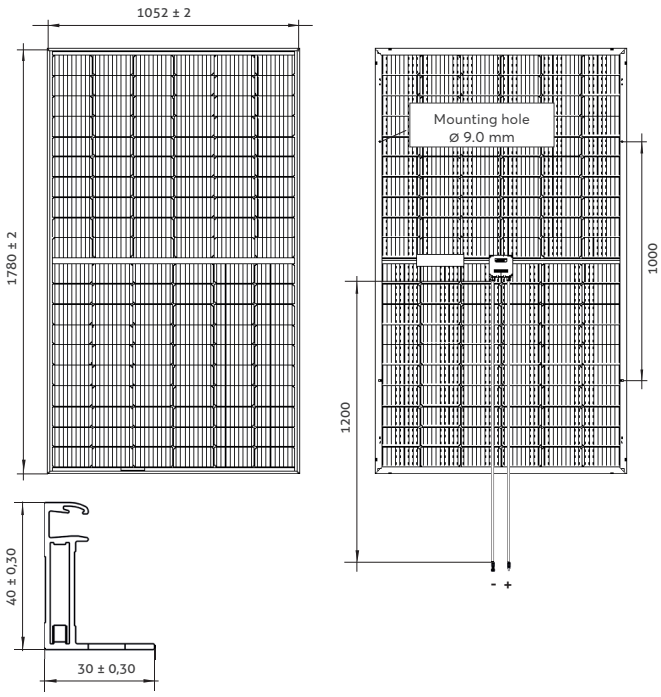
**Solarwatt GmbH** | Maria-Reiche-Str. 2a | 01109 Dresden | Germany |
T +49-351-8895-555 | F +49-351-8895-100 | solarwatt.com
Certified acc. to DIN EN ISO 9001, 14001, 45001, 50001

#05787 | Rev 0 | ---

**Technical data sheet**
SOLARWATT Panel vision H 3.0 style

SOLARWATT®

## DIMENSIONS




## GENERAL DATA

| | |
|---|---|
| **Module technology** | Glass-glass laminate, aluminum frame, black |
| **Covering material**<br>**Encapsulation**<br>**Backing material** | Tempered solar glass with anti-reflective finish, 2 mm<br>Solar cells in polymer encapsulation, transparent<br>Tempered glass, 2 mm |
| **Transparent areas** | appr. 7.4 % |
| **Solar cells** | 120 monocrystalline, bifacial, high power PERC-solar cells |
| **Cell dimensions** | 166 x 83 mm |
| **L x W x H / Weight** | $1{,}780^{\pm 2}$ x $1{,}052^{\pm 2}$ x $40^{\pm 0{,}3}$ mm / appr. 25 kg |
| **Connection technology** | Cables 2 x 1,2 m/ 4 mm²<br>Stäubli Electrical MC4 or MC4-type connectors |
| **Bypass diodes** | 3 |
| **Max. system voltage** | 1,000 V |
| **IP rating** | IP67 |
| **Protection class** | II (acc. to IEC 61140) |
| **Fire class** | A (acc. to IEC 61730/UL 790), E (acc. to EN 13501-1), $B_{ROOF}$ (t1) (acc. to EN13501-5) |
| **Certified mechanical ratings as per IEC 61215** | Pressure load up to 8,100 Pa (test load 12,150 Pa)<br>Suction 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** | IEC 61215 \| IEC 61730 \| LeTID \| IEC 61701<br>IEC 62804 \| IEC 62716 \| MCS 005 |

## ELECTRICAL DATA (STC)

**STC (Standard Test Conditions): Irradiation intensity 1,000 W/m², spectral distribution AM 1,5 | Temperature 25 ± 2 °C, in accordance to EN 60904-3**

| | | | |
|---|---|---|---|
| **Nominal power $P_{max}$** | 360 Wp | 365 Wp | 370 Wp |
| **Nominal voltage $V_{mp}$** | 34.4 V | 34.5 V | 34.6 V |
| **Nominal current $I_{mp}$** | 10.6 A | 10.7 A | 10.8 A |
| **Open circuit voltage $V_{oc}$** | 41.1 V | 41.2 V | 41.3 V |
| **Short circuit curren $I_{sc}$** | 11.1 A | 11.2 A | 11.3 A |
| **Module efficiency** | 19.4 % | 19.6 % | 19.9 % |

Measurement tolerances: $P_{max}$ ±5 %; $V_{OC}$ ±10 %; $I_{SC}$ ±10 %, $I_{MP}$ ±10 %

Reverse-current power rating $I_R$: 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 Operating Temperature): Irradiation intensity 800 W/m², spectral distribution AM 1,5, Temperature 20 °C**
**Weak light conditions: Irradiation intensity 200 W/m², Temperature 25 °C, Wind speed 1 m/s, load operation**

| | | | |
|---|---|---|---|
| **Nominal power $P_{max\ @NMOT}$** | 268 W | 271 W | 275 W |
| **Nominal power $P_{max\ @200\ W/m²}$** | 70.5 W | 71.4 W | 72.4 W |

Measurement tolerances: $P_{max}$ ±5 %; $V_{OC}$ ±10 %; $I_{SC}$ ±10 %, $I_{MP}$ ±10 %

Reduction of module efficiency when irradiance is reduced from 1,000 W/m² to 200 W/m² (at 25 °C): 4 ± 2 % (relative) / −0,6 ± 0,3 % (absolute).

## BIFACIAL SPECIFICATIONS

**Bifi gain: Possible additional power by backside compared to front side power, depending on the mounting situation.**

| | $P_{max}$ | $I_{sc}$ | $P_{max}$ | $I_{sc}$ | $P_{max}$ | $I_{sc}$ |
|---|---|---|---|---|---|---|
| **Bifi gain 0 %** | 360 W | 11.1 A | 365 W | 11.2 A | 370 W | 11.3 A |
| **Bifi gain 5 %** | 378 W | 11.6 A | 383 W | 11.8 A | 389 W | 11.9 A |
| **Bifi gain 10 %** | 396 W | 12.2 A | 402 W | 12.3 A | 407 W | 12.4 A |
| **Bifi gain 15 %** | 414 W | 12.7 A | 420 W | 12.9 A | 426 W | 13.0 A |
| **Bifi gain 20 %** | 432 W | 13.3 A | 438 W | 13.4 A | 444 W | 13.6 A |

## THERMAL FEATURES

| | |
|---|---|
| **Operating temperature range** | -40 … +85 °C |
| **Ambient temperature range** | -40 … +45 °C |
| **Temperature coefficient $P_{max}$** | -0,37 %/K |
| **Temperature coefficient $V_{oc}$** | -0,27 %/K |
| **Temperature coefficient $I_{sc}$** | 0,04 %/K |
| **NMOT** | 44 °C |

## TRANSPORT AND PACKAGING

| | |
|---|---|
| **Modules per pallet** | 32 |
| **Pallet dimensions (gross) L x W x H** | 1,800 x 1,070 x 1,550 mm |
| **Gross weight per pallet** | 847 kg |
| **Pallets per truck** | 14 |
| **Modules per truck** | 448 |

#05787 | Rev 0 | ---