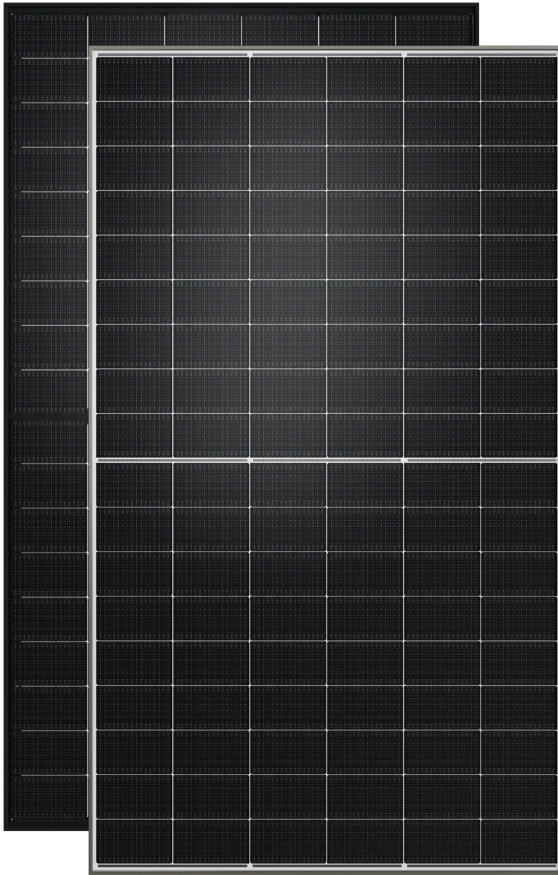


## PRODUCT



# SOLARWATT Panel

## vision L 5.5 style

## vision L 5.5 pure

### Glass-Glass Module

#### Robust quality. High performance.

Engineered for durability and efficiency, Solarwatt glass-glass modules deliver outstanding long term energy yields. Their robust, resilient design is built to perform under demanding conditions.

Advanced bifacial TOPCon half-cut cells maximise power output, while the nearly indestructible glass-glass composite permanently protects the solar cells from weather influences and mechanical stress.

This uncompromising build quality enables Solarwatt to offer a 30-year warranty on performance and a 25-year warranty on product quality.



## SUSTAINABILITY



#### Low CO<sub>2</sub> footprint

< 220 kg CO<sub>2</sub> eq per module,\* a 50 % lower CO<sub>2</sub> footprint than standard modules



#### Fair working conditions

Zero use of forced- or child labour, fair pay, with regular independent audits of our supply chain



#### High use of recycled materials

Aluminium: 75 %, Cell silicon: 45 %  
Our panels are sustainable thanks to their durability and end-of-life recyclability.

\* Specification without frame, with frame: < 240 kg CO<sub>2</sub> eq per module

## PRODUCT QUALITY

- performance: 510 Wp to 525 Wp
- 100 % plus-sorting
- bifacial TOPCon half-cut-cells
- LeTID tested and PID protected
- ammonia resistant
- salt mist resistant
- intensive hailstorm resistant

## SERVICE

#### 25 year product warranty

as per "Warranty conditions for SOLARWATT Panel vision"

#### 30 year performance warranty

on 90 % of nominal power as per "Warranty conditions for SOLARWATT Panel vision"

#### Simple and fair returns policy

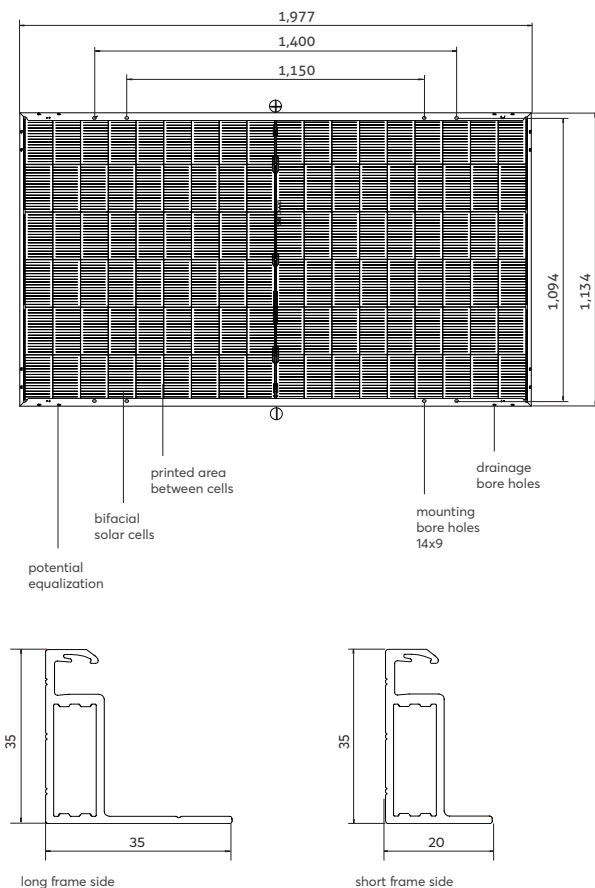
as per "Delivery terms for Solarwatt solar modules"

Subject to change | Errors excepted.

This datasheet fullfills the requirements listed in IEC 61215-1-1 | EN

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Certified acc. to DIN EN ISO 9001, 14001, 45001

## DIMENSIONS



## GENERAL DATA

<b>Module technology</b>	Glass-glass laminate; aluminum frame black (style) or silver (pure)
<b>Covering material</b>	Tempered solar glass with anti-reflective finish, 2 mm
<b>Encapsulation</b>	Solar cells in polymer encapsulant
<b>Backing material</b>	Tempered glass transparent (style) or partially printed (spaces between the cells) in white (pure), 2 mm
<b>Solar cells</b>	108 monocrystalline, bifacial, high power TOPCon-solar cells
<b>Cell dimensions</b>	182 x 106 mm
<b>L x W x H / Weight</b>	1,977 <sup>±2</sup> x 1,134 <sup>±2</sup> x 35 <sup>±0.3</sup> mm / 27.6 kg
<b>Connection technology</b>	Cables 2x 1.2 m / 4 mm <sup>2</sup> Stäubli Electrical MC4-Evo 2 connectors
<b>Bypass diodes</b>	3
<b>Max. system voltage</b>	1,500 V
<b>IP rating</b>	IP68
<b>Protection class</b>	II (acc. to IEC 61140)
<b>Fire class</b>	A (IEC 61730/UL 790), B-s1, d0 (EN 13501-1), B <sub>ROOF</sub> (t2) (EN 13501-5)
<b>Certified mechanical ratings as per IEC 61215</b>	Pressure load up to 8,100 Pa (test load 12,150 Pa) Suction load up to 2,800 Pa (test load 4,200 Pa)
<b>Qualifications</b>	IEC 61215 (incl. LeTID)   IEC 61730 PID IEC TS 62804   IEC 61701   IEC 62716 hail resistance class HW 3

## 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>	-0.29 %/K
<b>Temperature coefficient V<sub>oc</sub></b>	-0.25 %/K
<b>Temperature coefficient I<sub>sc</sub></b>	0.05 %/K
<b>NMOT</b>	42 °C

## TRANSPORT AND PACKAGING

<b>Modules per pallet</b>	31
<b>Modules per container</b>	744
<b>Stacked pallets/pallets per truck</b>	12/24
<b>Gross weight per pallet</b>	820 kg
<b>Gross weight per stacked pallet (max. 2)</b>	1,640 kg
<b>Pallet dimensions (packing size)</b>	1,985 x 1,140 x 1,250

## 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 the performance class availability!

	510 Wp	515 Wp	520 Wp	525 Wp
<b>Nominal power P<sub>max</sub></b>	510 Wp	515 Wp	520 Wp	525 Wp
<b>Nominal voltage V<sub>mp</sub></b>	34.4 V	34.6 V	34.9 V	35.1 V
<b>Nominal current I<sub>mp</sub></b>	14.8 A	14.9 A	14.9 A	15.0 A
<b>Open circuit voltage V<sub>oc</sub></b>	40.6 V	40.8 V	40.9 V	41.0 V
<b>Short circuit current I<sub>sc</sub></b>	15.8 A	15.8 A	15.9 A	15.9 A
<b>Module efficiency</b>	22.7 %	23.0 %	23.2 %	23.4 %
<b>Power per sqm</b>	228 Wp	230 Wp	232 Wp	234 Wp

## ELECTRICAL DATA (WEAK LIGHT AND BNPI)

Weak light conditions: Irradiation intensity 200 W/m<sup>2</sup>, Temperature 25 °C, Wind speed 1 m/s, load operation

BNPI: Bifacial Nameplate Irradiance  $G = 1000 \text{ W/m}^2 + \varphi \cdot 135 \text{ W/m}^2$   
 $\varphi = \text{MIN}(\varphi_{\text{ISC}}, \varphi_{\text{Pmax}})$ ,  $\varphi_{\text{ISC}} = 80 \%$ ,  $\varphi_{\text{VOC}} = 100 \%$ ,  $\varphi_{\text{Pmax}} = 80 \%$

The values specified @BNPI apply only to style and pure.

	510 W	515 W	520 W	525 W
<b>Nominal power P<sub>max@STC</sub></b>	510 W	515 W	520 W	525 W
<b>Nominal power P<sub>max@200 W/m<sup>2</sup></sub></b>	101 W	102 W	103 W	104 W
<b>Nominal power P<sub>max@BNPI</sub></b>	564 W	570 W	575 W	581 W
<b>Open circuit voltage V<sub>oc@BNPI</sub></b>	40.6 V	40.8 V	40.9 V	41.0 V
<b>Short circuit current I<sub>sc@BNPI</sub></b>	17.4 A	17.4 A	17.5 A	17.5 A

P<sub>max</sub> Nominal power: -0/+3%

All measured values are within the normal measurement tolerances of P<sub>max</sub> ±5 %; V<sub>oc</sub> ±3 %; I<sub>sc</sub> ±3 %, I<sub>mp</sub> ±10 %.

Reverse-current power rating IR: 30 A, operating modules with an external power source is only permissible if using a phase fuse with a tripping current of ≤ 30 A.