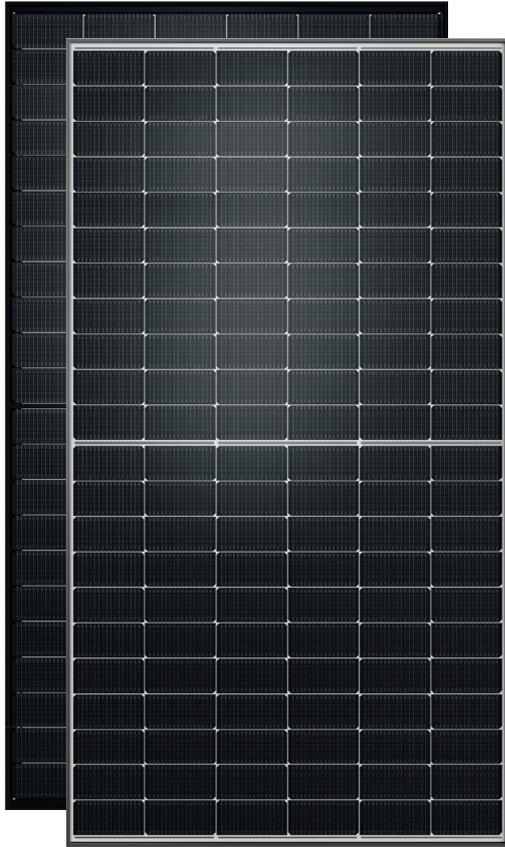


## PRODUCT



# SOLARWATT Panel

## vision XL 5.0 pure vision XL 5.0 style

### 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 15-year warranty on product quality.



## SUSTAINABILITY



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

< 330 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: < 353 kg CO<sub>2</sub> eq per module

## PRODUCT QUALITY

- performance: 620 Wp to 635 Wp
- bifacial TOPCon half-cut-cells
- LeTID tested and PID protected
- ammonia resistant
- salt mist resistant

## SERVICE

#### 15 year product warranty

as per "Warranty conditions for SOLARWATT Panel vision XL"

#### 30 year performance warranty

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

#### Simple and fair returns policy

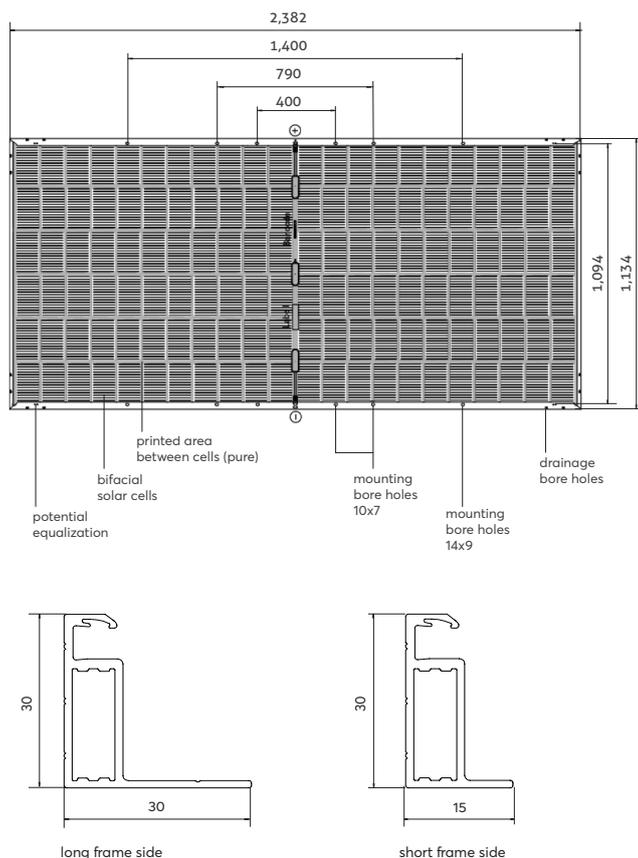
as per "Delivery terms for Solarwatt solar modules"

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 (black) or silver (pure)
<b>Covering material</b>	Tempered solar glass with anti-reflective finish, 2 mm
<b>Encapsulation</b>	Solar cells in POE encapsulation
<b>Backing material</b>	Tempered glass, transparent (style) or printed (spaces between the cells) in white, 2 mm
<b>Solar cells</b>	132 monocrystalline, bifacial, high power TOPCon-solar cells
<b>Cell dimensions</b>	182 x 105 mm
<b>L x W x H / Weight</b>	2,382 <sup>±2</sup> x 1,134 <sup>±2</sup> x 30 <sup>±0.3</sup> mm / 33.4 kg
<b>Connection technology</b>	Cables 2x 1.3 m / 4 mm <sup>2</sup> Sunter PV-ZH202B 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 3,600 Pa (test load 5,400 Pa) Suction load up to 1,600 Pa (test load 2,400 Pa)
<b>Qualifications</b>	IEC 61215 (incl. LeTID)   IEC 61730 PID IEC TS 62804   IEC 61701   IEC 62716

## 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>	36
<b>Pallets per container</b>	20
<b>Stacked pallets/pallets per truck</b>	11/22
<b>Gross weight per pallet</b>	1,264 kg
<b>Gross weight per stacked pallet (max. 2)</b>	2,528 kg
<b>Pallet dimensions (packing size)</b>	2,396 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!

	620 Wp	625 Wp	630 Wp	635 Wp
<b>Nominal power P<sub>max</sub></b>	620 Wp	625 Wp	630 Wp	635 Wp
<b>Nominal voltage V<sub>mp</sub></b>	40.9 V	41.1 V	41.3 V	41.5 V
<b>Nominal current I<sub>mp</sub></b>	15.2 A	15.3 A	15.3 A	15.4 A
<b>Open circuit voltage V<sub>oc</sub></b>	49.1 V	49.3 V	49.5 V	49.7 V
<b>Short circuit current I<sub>sc</sub></b>	16.1 A	16.2 A	16.2 A	16.3 A
<b>Module efficiency</b>	23.0 %	23.1 %	23.3 %	23.5 %
<b>Power per m<sup>2</sup></b>	230 W	231 W	233 W	235 W

## 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  $G = 1000 \text{ W/m}^2 + \varphi * 135 \text{ W/m}^2$   
 $\varphi = \text{MIN}(\varphi_{\text{ISC}}, \varphi_{\text{Pmax}})$ ,  $\varphi_{\text{ISC}} = 80 \%$ ,  $\varphi_{\text{VOC}} = 100 \%$ ,  $\varphi_{\text{Pmax}} = 80 \%$

	620 W	625 W	630 W	635 W
<b>Nominal power P<sub>max@STC</sub></b>	620 W	625 W	630 W	635 W
<b>Nominal power P<sub>max@200 W/m<sup>2</sup></sub></b>	122 W	123 W	124 W	125 W
<b>Nominal power P<sub>max@BNPI</sub></b>	685 W	691 W	696 W	702 W
<b>Open circuit voltage V<sub>oc@BNPI</sub></b>	49.1 V	49.3 V	49.5 V	49.7 V
<b>Short circuit current I<sub>sc@BNPI</sub></b>	17.7 A	17.8 A	17.9 A	17.9 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.