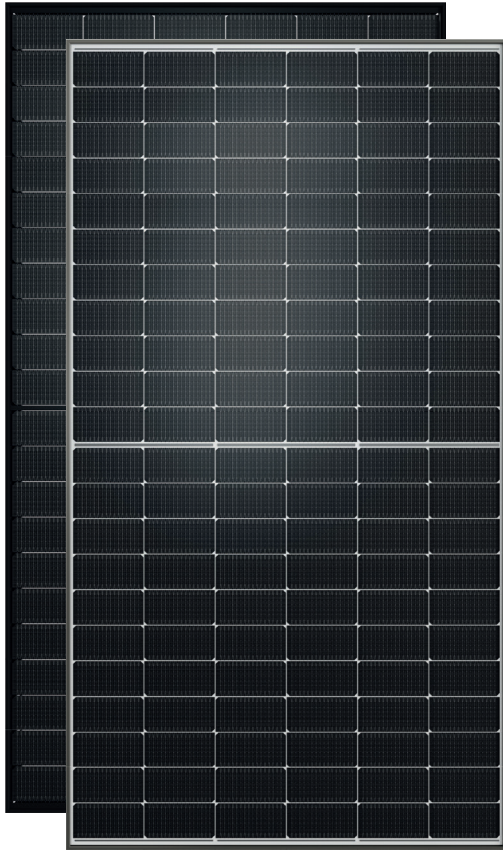


PRODUCT



SOLARWATT Panel

vision XL 5.0 pure vision XL 5.0 style Glass-Glass-Module

Solid quality with high performance

Thanks to their design Solarwatt glass-glass modules deliver the highest long-term yields. They are robust and resilient. Bifacial TOPCon 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.



SUSTAINABILITY



low CO₂ footprint
≤ 330 kg eq CO₂ / Modul*, 50% less CO₂ than standard modules and certified according to PPE2 criteria



fair production conditions
no forced or child labour, fair pay and regular audits by independent auditors



high recycling rate in raw materials
aluminum: 75 %, cell silicium: 45 %
sustainable use through maximum durability and recycling at the end of the product life cycle

* Specification without frame, with frame: < 353 kg eq CO₂/module

PRODUCT QUALITY

- performance: 605 Wp to 615 Wp
- bifacial TOPCon half-cut-cells
- LeTID tested and PID protected
- ammonia resistant
- salt mist resistant

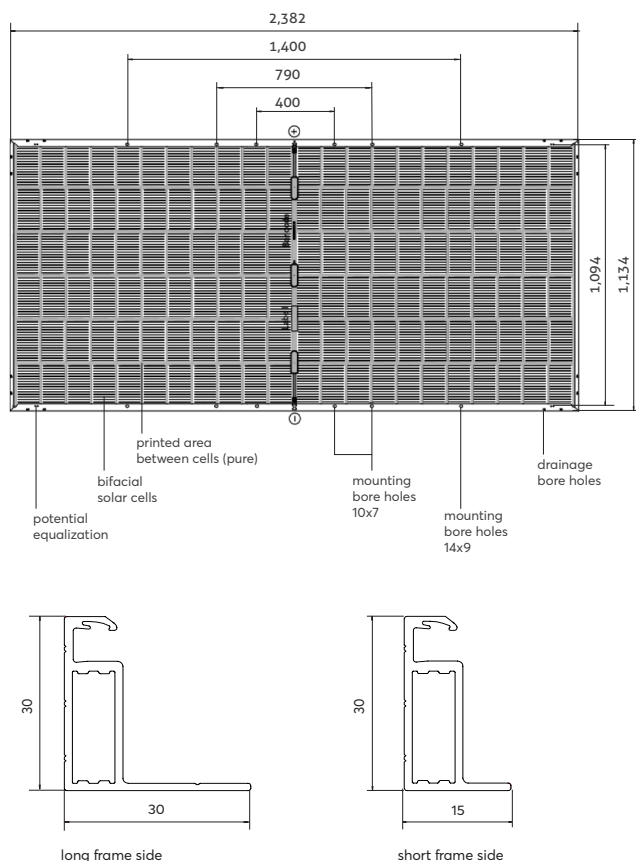
SERVICE

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 returns policy
as per „Delivery terms for Solarwatt solar modules“

DIMENSIONS



GENERAL DATA

Module technology	Glass-glass laminate; aluminum frame black (black) or silver (pure)
Covering material	Tempered solar glass with anti-reflective finish, 2 mm
Encapsulation	Solar cells in POE encapsulation
Backing material	Tempered glass, transparent (style) or printed (spaces between the cells) in white, 2 mm
Solar cells	132 monocrystalline, bifacial, high power TOPCon-solar cells
Cell dimensions	182 x 105 mm
L x W x H / Weight	2,382 ^{±2} x 1,134 ^{±2} x 30 ^{±0.3} mm / 33.4 kg
Connection technology	Cables 2x 1.3 m / 4 mm ² Sunter PV-ZH202B connectors
Bypass diodes	3
Max. system voltage	1,500 V
IP rating	IP68
Protection class	II (acc. to IEC 61140)
Fire class	A (acc. to IEC 61730/UL 790)
Certified mechanical ratings as per IEC 61215	Pressure load up to 3,600 Pa (test load 5,400 Pa) Suction load up to 1,800 Pa (test load 2,700 Pa)
Qualifications	IEC 61215 (incl. LeTID) IEC 61730 PID IEC TS 62804 IEC 61701 IEC 62716

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

Please check the performance class availability!

	605 Wp	610 Wp	615 Wp
Nominal power P_{max}	605 Wp	610 Wp	615 Wp
Nominal voltage V_{mp}	40.3 V	40.5 V	40.7 V
Nominal current I_{mp}	15.0 A	15.1 A	15.2 A
Open circuit voltage V_{oc}	48.5 V	48.7 V	48.9 V
Short circuit current I_{sc}	15.9 A	16.0 A	16.1 A
Module efficiency	22.4 %	22.6 %	22.8 %

Measurement tolerances: P_{max} ± 5 %; V_{OC} ± 3 %; I_{SC} ± 3 %, I_{MP} ± 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.

THERMAL FEATURES

Operating temperature range	-40 ... +85 °C
Ambient temperature range	-40 ... +45 °C
Temperature coefficient P_{max}	-0,29 %/K
Temperature coefficient V_{oc}	-0,25 %/K
Temperature coefficient I_{sc}	0,05 %/K
NMOT	42 °C

ELECTRICAL DATA (WEAK LIGHT AND BNPI)

Weak light conditions: Irradiation intensity 200 W/m², Temperature 25 °C, Wind speed 1 m/s, load operation

BNPI: Bifacial Nameplate Irradiance G = 1000 W/m² + φ * 135 W/m²
φ = MIN (φ_{ISC}, φ_{Pmax}), φ_{ISC} = 80 %, φ_{VOC} = 100 %, φ_{Pmax} = 80 %

	605 W	610 W	615 W
Nominal power P_{max@STC}	605 W	610 W	615 W
Nominal power P_{max@200 W/m²}	118.7 W	119.7 W	120.7 W
Nominal power P_{max@BNPI}	666 W	671 W	677 W
Open circuit voltage V_{OC@BNPI}	48.6 V	48.8 V	49.0 V
Short circuit current I_{SC@BNPI}	17.5 A	17.6 A	17.7 A

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).

TRANSPORT AND PACKAGING

Modules per pallet	36
Pallets per container	20
Stacked pallets/pallets per truck	11/22
Gross weight per pallet	1,264 kg
Gross weight per stacked pallet (max. 2)	2,528 kg
Pallet dimensions (packing size)	2,396 x 1,140 x 1,250