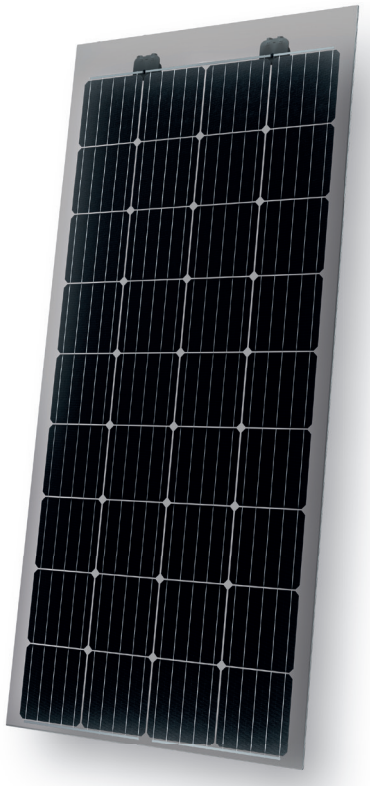
SOLARWATT®

PRODUCT



Vision 36M glass

Glass-Glass module

High yield and transparent

Solarwatt glass-glass modules are robust and resilient. Thanks to their modern design, they deliver the highest long-term yields.

The high-performance 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

- ammonia resistant
- intensive hailstorm resistant
- salt mist resistant
- 100 % plus-sorting
- 100 % PID protected
- National techn. approval (AbZ)

SINCE 1993 MADE IN GERMANY

IN OUR FACTORY AND OFFICES 100% GREEN ENERGY

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
on 87 % of nominal power as per „Warranty conditions for Solarwatt solar modules"

* country-specific deviations apply

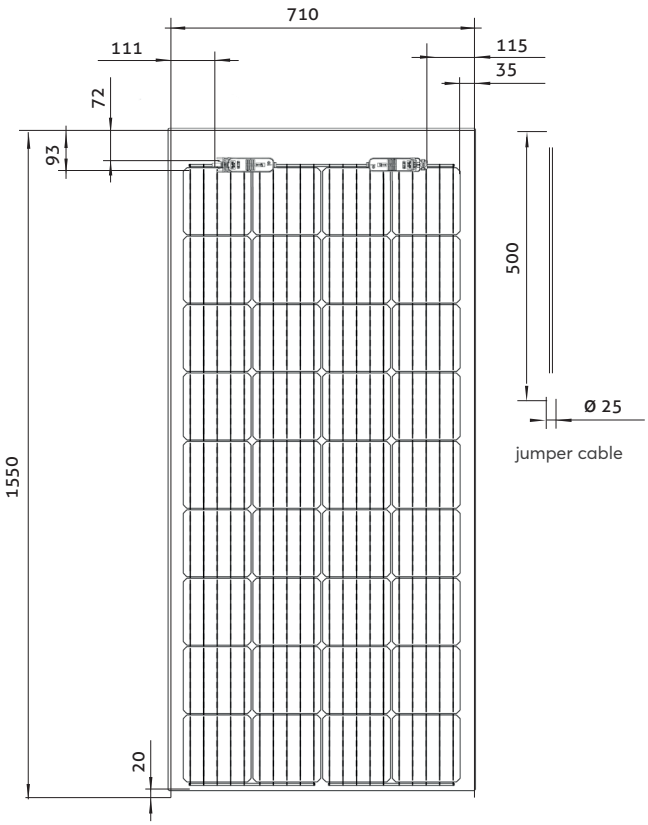
Subject to change | Errors excepted
AZ-TDB-PMS-0475 | This data sheet fullfills the requirements listed in IEC 61215-1-1 | REV 020 | 08/2021 | EN

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

Technical data sheet
Vision 36M glass

SOLARWATT®

DIMENSIONS



GENERAL DATA

Module technology	Glass-glass laminate
Covering material **Encapsulation** **Backing material**	Partially tempered high transparent float glass with anti-reflective finish, 4 mm Solar cells in polymer encapsulation, transparent Partially tempered float glass, 4 mm
Transparent areas	appr. 20 %
Solar cells	36 monocrystalline high power PERC-solar cells
Cell dimensions	157 x 157 mm
L x W x H / Weight	$1{,}550^{\pm 2}$ x $710^{\pm 2}$ x $9^{\pm 1}$ mm (without junction box)/ ca. 25 kg
Height of junction box	22 mm
Connection technology	TE Connectivity PV4-S 2x junction box with connector face (+/-) 1x jumper cable 0,5 m, 4 mm²
Bypass diodes	2
Max. system voltage	1,000 V
IP rating	IP67
Protection class	II (acc. to IEC 61140)
Fire class	C (acc. to IEC 61730), E (acc. to EN 13501)
Certified mechanical ratings as per IEC 61215	Suction load up to 2,400 Pa (test load 3,600 Pa) Pressure load up to 5,400 Pa (test load 8,100 Pa)
Qualifications	IEC 61215 | IEC 61730 | IEC 61701 | IEC 62804 National technical approval (AbZ)

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}	180 Wp	185 Wp	190 Wp
Nominal voltage V_{mp}	20,0 V	20,3 V	20,6 V
Nominal current I_{mp}	9,11 A	9,19 A	9,31 A
Open circuit voltage V_{OC}	24,9 V	24,9 V	25,0 V
Short circuit current I_{SC}	9,63 A	9,69 A	9,76 A
Module efficiency	16,6 %	17,0 %	17,3 %

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 $P_{max\ @NMOT}$	134 W	137 W	141 W
Nominal power $P_{max\ @200\ W/m^2}$	35,9 W	36,9 W	37,9 W

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

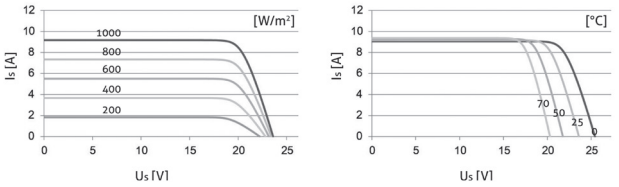
Reduction of module efficiency when irradiance is reduced from 1,000 W/m² to 200 W/m² (at 25 °C): 4 ± 2 % (relative) / −0,6 ± 0,3 % (absolute).

THERMAL FEATURES

Operating temperature range	-40 … +85 °C
Ambient temperature range	-40 … +45 °C
Temperature coefficient P_{max}	-0,38 %/K
Temperature coefficient V_{OC}	-0,31 %/K
Temperature coefficient I_{SC}	0,05 %/K
NMOT	44 °C

CHARACTERISTIC LINES (PERFORMANCE CLASS 180 WP)

Voltage characteristic line at different temperatures and irradiations



TRANSPORT AND PACKAGING

Modules per palette	22
Palette dimensions (gross) L x W x H	1,750 x 800 x 1,050 mm
Gross weight per palette	565 kg
Palettes per truck	22
Modules per truck	484