Glass-Glass-Module: SOLARWATT **36M glass / XL glass**

SOLARWATT®
Systemintelligenz

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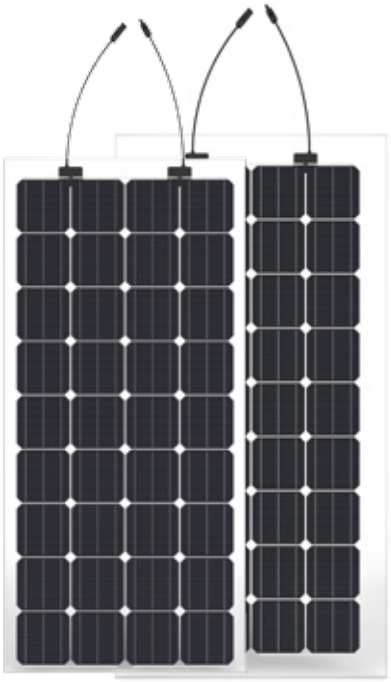
Certified acc. to DIN EN ISO 9001 und 14001 | BS OHSAS 18001:2007



The innovative glass-glass generation

- 19 - 32 % transparency
- Exceptionally reliable yield rates
- Improved mechanical strength
- 100% protection against PID
- Increased fire protection

SOLARWATT 36M glass / XL glass

- Monocristalline solar cells
- 150 - 165 Wp (100 % plus sorting)

MAX 6000 PA* | AbZ Z-70.3-199

*Test requirements: see rear of data sheet

SOLARWATT Service

SOLARWATT Total Protection
included (up to 1.000 kWp)

Take-back service
as per Delivery Terms for SOLARWATT Solar Modules

Country of origin
Quality made in Germany

30 years — **Product-warranty**
as per Special Warranty Conditions for SOLARWATT Solar Modules

30 years — **Performance-warranty**
as per Special Warranty Conditions for SOLARWATT Solar Modules

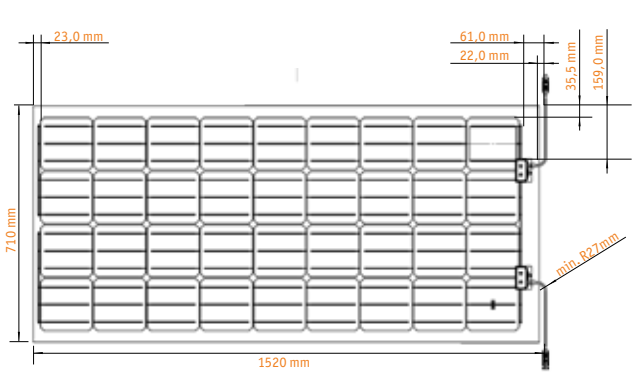
Product Quality

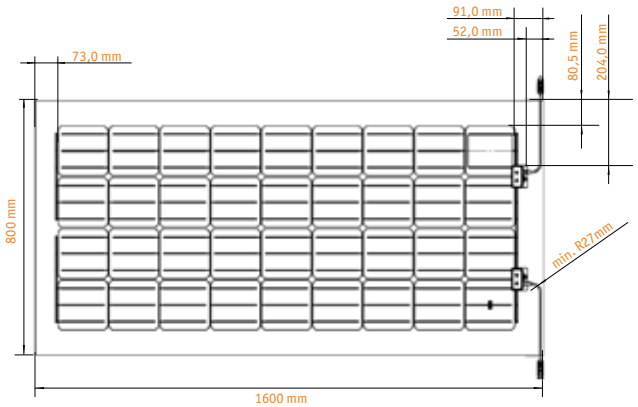
long-lasting	innovative	resistant against ammonia
resilient	low-glare	resistant against hail
high-yield	safe	resistant against salt mist

SOLARWATT Expert Installer

Technical Data *Glass-Glass-Module: SOLARWATT 36M glass/XL glass*

Dimensions





	SOLARWATT 36M glass	SOLARWATT 36M XL glass
Transparency	19 %	32 %
L x B x D	1520±2 x 710±2 x 9±1 mm	1600±2 x 800±2 x 9±1 mm
Weight	appr. 25 kg	appr. 29 kg

Electrical Data (STC)

STC: Standard Test | Conditions: Irradication intensity 1000 W/m², spectral distribution AM 1.5 | temperatur 25±2 °C, in accordance EN 60904-3

	SOLARWATT 36M glass / XL glass			
Nominal power P_N	150 Wp	155 Wp	160 Wp	165 Wp
Nominal voltage U_{mpp}	19,0 V	19,2 V	19,3 V	19,4 V
Nominal current I_{mpp}	7,90 A	8,08 A	8,41 A	8,56 A
Open circuit voltage U_{OC}	22,9 V	23,1 V	23,5 V	23,8 V
Short circuit current I_{SC}	8,31 A	8,50 A	8,87 A	9,06 A
IR*	20 A			

Measurement tolerance in reference to P_{max} ±5 %;
Reduction of module efficiency when irradiance is reduced from 1000 W/m² to 200 W/m² (at 25 °C): 4±2 % (relative) / −0,6±0,3 % (absolute).
* Reverse- current power rating: Operating modules with an external power source is only permissible if using a phase fuse with a tripping current of < 20 A.

Electrical Data (NOCT)

NOCT: Normal Operation Cell Temperature: Irradiation intensity 800 W/m², AM 1,5 | temperatur 20 °C, Wind speed 1m/s, open circuit operation

	SOLARWATT 36M glass / XL glass			
Nominal power P_N	112 W	116 W	122 W	125 W
Nominal voltage U_{mpp}	17,6 V	17,8 V	17,9 V	18,0 V
Nominal circuit voltage U_{OC}	21,3 V	21,4 V	21,8 V	22,1 V
Short circuit current I_{SC}	6,71 A	6,87 A	7,17 A	7,32 V

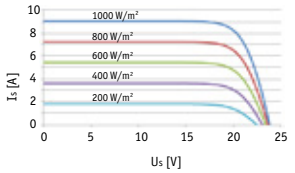
General Data

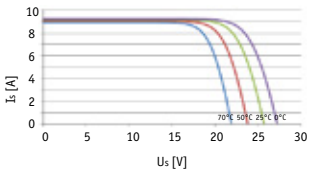
Module technology	Glass-glass-laminate
Covering material **Encapsulation** **Backing material**	High-transparency partially pre-tensioned floating glass, 4 mm EVA-solar cells-EVA Partially pre-tensioned floating glass, 4mm
Solar cells	36 monocrystalline solar cells
Cell dimensions	156 x 156 mm
Bypass diodes	2
Application class	Application class A (acc. to IEC 61730)
Max. system voltage	1000 V
Mechanical Ratings as per IEC 61215 Ed.	Suction load up to 2,400 Pa Applied load up to 6,000 Pa
Connection technology	Cable 2 x 0,4 m/4 mm², MC4-Connector
Qualifications	IEC 61215 Ed.2 | IEC 61730 (including Protection Class II)

Characteristic Lines

Voltage characteristic line at different temperatures and irradiation

Performance class 165 Wp SOLARWATT 36M glass/ XL glass





Thermal Features

	SOLARWATT 36M glass/ XL glass
Operating temperature range	-40 ... +85 °C
Ambient temperature range	-40 ... +45 °C
Temperature coefficient P_N	-0,40 %/K
Temperature coefficient U_{OC}	-0,32 %/K
Temperature coefficient I_{SC}	0,05 %/K
NOCT	45 °C