

# Glass-Glass-Module: SOLARWATT 60M style



## The innovative glass-glass generation

- Super lightweight thanks to glass just 2mm thick
- Exceptionally reliable yield rates
- 100% protection against PID
- Increased fire protection

## SOLARWATT 60M style

- Monocrystalline solar cells
- 260 Wp – 275 Wp (100 % plus sorting)



\*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



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



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



**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 60M style

Dimensions	
<b>L x B x D</b>	1,680 x 990 x 40 mm (+/-2 mm)
<b>Connection technology</b>	Cables 2 x 1,00 m/4 mm <sup>2</sup> , PV4-connector
<b>Weight</b>	22,8 kg

Electrical Data (STC)				
STC: Standard Test   Conditions: Irradiation intensity 1000 W/m <sup>2</sup> , spectral distribution AM 1.5   temperatur 25±2 °C, in accordance to EN 60904-3				
	SOLARWATT 60M style			
<b>Nominal power P<sub>N</sub></b>	260 Wp	265 Wp	270 Wp	275 Wp
<b>Nominal voltage U<sub>mpp</sub></b>	31,7 V	31,9 V	32,2 V	32,4 V
<b>Nominal current I<sub>mpp</sub></b>	8,21 A	8,31 A	8,39 A	8,49 A
<b>Open circuit voltage U<sub>oc</sub></b>	38,8 V	39,1 V	39,3 V	39,5 V
<b>Short circuit current I<sub>sc</sub></b>	8,80 A	8,90 A	9,02 A	9,11 A
<b>IR*</b>	20 A			
Measurement tolerance in reference to P <sub>max</sub> ±5% Reduction of module efficiency when irradiance is reduced from 1000 W/m <sup>2</sup> to 200 W/m <sup>2</sup> (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/m <sup>2</sup> , AM 1,5   temperatur 20 °C, Wind speed 1m/s, open circuit operation				
	SOLARWATT 60M style			
<b>Nominal power P<sub>N</sub></b>	191 W	195 W	199 W	202 W
<b>Nominal voltage U<sub>mpp</sub></b>	29,3 V	29,4 V	29,7 V	29,9 V
<b>Nominal circuit voltage U<sub>oc</sub></b>	36,4 V	36,6 V	36,8 V	37,0 V
<b>Short circuit current I<sub>sc</sub></b>	7,11 A	7,19 A	7,28 A	7,36 A

General Data	
<b>Module technology</b>	Glass- glass laminate, black anodized aluminum frame
<b>Covering material</b>	High- transparency solar glass, 2 mm
<b>Encapsulation</b>	EVA-solar cells-EVA
<b>Backing material</b>	High- transparency solar glass, 2mm
<b>Solar cells</b>	60 monocrystalline solar cells
<b>Cell dimensions</b>	156 x 156 mm
<b>Bypass diodes</b>	3
<b>Application class</b>	Application class A (acc. to IEC 61730)
<b>Max. system voltage</b>	1,000 V
<b>Mechanical Ratings</b> as per IEC 61215 Ed.	Suction load up to 2,400 Pa Applied load up to 5,400 Pa
<b>Approved stress load</b> as per SOLARWATT Installation Instructions	Applied load up to 3,500 Pa (when installed crosswise <sup>1)</sup> Test condition: sliding load of 5,400 Pa (conditions take into account safety factors for snow overhang and ice load per Eurocode 1.) <sup>1)</sup> Please refer to the specifications in the installation instructions.
<b>Qualifications</b>	IEC 61215 Ed.2   IEC 61730 (including Protection Class II)

Characteristic Lines	
Voltage characteristic line at different temperatures and irradiation	
Performance class 275 Wp	

Thermal Features	
	SOLARWATT 60M style
<b>Operating temperature range</b>	-40 ... +85 °C
<b>Ambient temperature range</b>	-40 ... +45 °C
<b>Temperature coefficient P<sub>N</sub></b>	-0,40%/K
<b>Temperature coefficient U<sub>oc</sub></b>	-0,32%/K
<b>Temperature coefficient I<sub>sc</sub></b>	0,05%/K
<b>NOCT</b>	45 °C