

# Glass-Glass-Module: SOLARWATT 60P 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 60P style

- Polycrystalline solar cells
- 245 Wp – 255 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

## Product Quality



long-lasting



innovative



resistant against ammonia



resilient



low-glare



resistant against hail



high-yield



safe



resistant against salt mist



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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

## SOLARWATT Expert Installer

## Technical Data Glass-Glass-Module: SOLARWATT 60P 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 60P style		
<b>Nominal power P<sub>N</sub></b>	245 Wp	250 Wp	255 Wp
<b>Nominal voltage U<sub>mpp</sub></b>	30,6 V	30,9 V	31,2 V
<b>Nominal current I<sub>mpp</sub></b>	8,01 A	8,10 A	8,18 A
<b>Open circuit voltage U<sub>oc</sub></b>	37,4 V	37,6 V	38,0 V
<b>Short circuit current I<sub>sc</sub></b>	8,55 A	8,67 A	8,73 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 60P style			
<b>Nominal power P<sub>N</sub></b>	179 W	183 W	186 W	190 W
<b>Nominal voltage U<sub>mpp</sub></b>	28,0 V	28,4 V	28,6 V	28,9 V
<b>Nominal circuit voltage U<sub>oc</sub></b>	34,8 V	35,2 V	35,3 V	35,7 V
<b>Short circuit current I<sub>sc</sub></b>	6,87 A	6,92 A	7,02 A	7,07 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 polycrystalline 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 255 Wp SOLARWATT 60P style	

Thermal Features	
	SOLARWATT 60P style
<b>Operating temperature range</b>	-40 ... +80 °C
<b>Ambient temperature range</b>	-40 ... +45 °C
<b>Temperature coefficient P<sub>N</sub></b>	-0,34%/K
<b>Temperature coefficient U<sub>oc</sub></b>	-0,30%/K
<b>Temperature coefficient I<sub>sc</sub></b>	0,06%/K
<b>NOCT</b>	45 °C