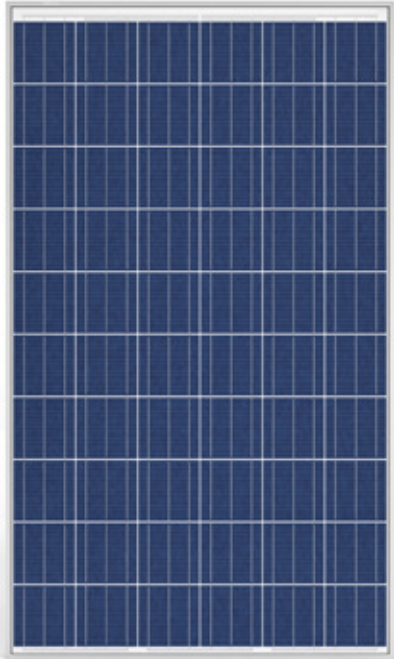


# Glass-Glass-Module: SOLARWATT 60P



## The innovative glass-glass generation

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

## SOLARWATT 60P

- Polycrystalline solar cells
- 255 Wp – 265 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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Tel. +49 351 8895-0 | Fax +49 351 8895-111 | www.solarwatt.de  
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

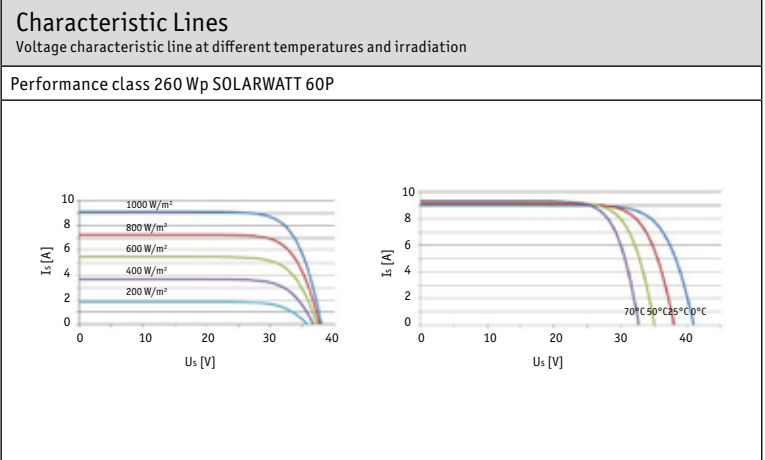
## Technical Data Glass-Glass-Module: SOLARWATT 60P

Dimensions	
<p>Detail view - mounting bore hole</p> <p>Detail view - grounding bore hole</p> <p>1680 ±2</p> <p>840</p> <p>990 ±2</p> <p>1000</p> <p>340</p>	
<p>* Approved stress loads (as per SOLARWATT Installation Instructions) for product version with additional feature „crossrail“: Applied load up to 5.500 Pa                      Test conditions: sliding load of 9.000 Pa                      (conditions take into account safety factors for snow overhang and ice load as per Eurocode 1)</p>	
<b>L x B x D</b>	1680 x 990 x 40 mm (+/-2 mm)
<b>Connection technology</b>	Cabels 2 x 1,0 m/4 mm <sup>2</sup> , HC4 - Connector
<b>Weight</b>	22,8 kg
	24 kg with additional feature „crossrail“

Electrical Data (STC)			
STC: Standard Test   Conditions: Irradiation intensity 1000 W/m <sup>2</sup> , spectral distribution AM 1,5   Temperature 25±2 °C, in accordance EN 60904-3			
	SOLARWATT 60 P		
<b>Nominal power P<sub>N</sub></b>	255 Wp	260 Wp	265 Wp
<b>Nominal voltage U<sub>mpp</sub></b>	30,7 V	30,9 V	31,1 V
<b>Nominal current I<sub>mpp</sub></b>	8,40 A	8,51 A	8,61 A
<b>Open circuit voltage U<sub>oc</sub></b>	37,8 V	38,0 V	38,2 V
<b>Short circuit current I<sub>sc</sub></b>	9,01 A	9,12 A	9,22 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   Temperature 20 °C, Wind speed 1m/s, open circuit operation			
	SOLARWATT 60 P		
<b>Nominal power P<sub>N</sub></b>	187 W	191 W	195 W
<b>Nominal voltage U<sub>mpp</sub></b>	28,4 V	28,5 V	28,7 V
<b>Nominal circuit voltage U<sub>oc</sub></b>	35,5 V	35,6 V	35,8 V
<b>Short circuit current I<sub>sc</sub></b>	7,28 A	7,37 A	7,45 A

General Data	
<b>Module technology</b>	Glass- glass laminate, aluminum frame
<b>Covering material</b>	Tempered solar glass with anti-reflective finish, 2 mm
<b>Encapsulation</b>	EVA-solar cells-EVA, white
<b>Backing material</b>	Solar glass, 2 mm
<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>	1000 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)



Thermal Features	
	SOLARWATT 60 P
<b>Operating temperature range</b>	-40 ... +85 °C
<b>Ambient temperature range</b>	-40 ... +45 °C
<b>Temperature coefficient P<sub>N</sub></b>	-0,41%/K
<b>Temperature coefficient U<sub>oc</sub></b>	-0,31%/K
<b>Temperature coefficient I<sub>sc</sub></b>	0,05%/K
<b>NOCT</b>	45 °C