

Glass-Glass-Module: SOLARWATT 60M high power



The innovative glass-glass generation

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

SOLARWATT 60M high power

- Monocrystalline high power solar cells
- 290 Wp – 305 Wp (100 % plus sorting)



*Test requirements: see rear of data sheet

SOLARWATT Service



SOLARWATT Full Coverage
included (up to 1000 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 and 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

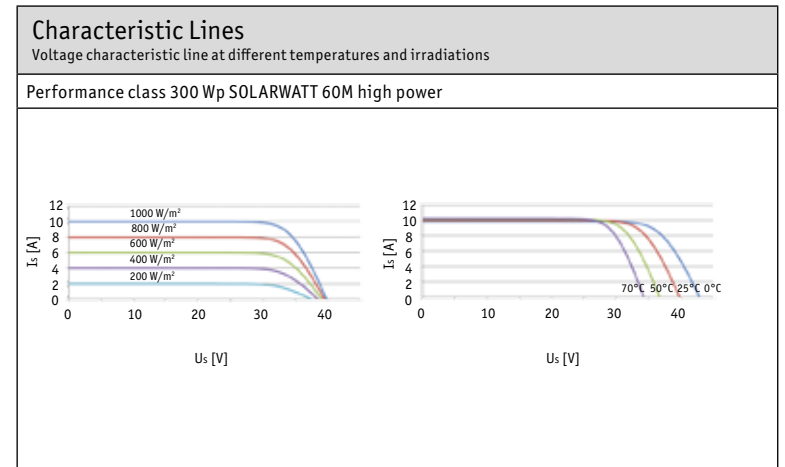
Technical Data Glass-Glass-Module: SOLARWATT 60M high power

| Dimensions | |
|------------------------------|--|
| | |
| LxWxH | 1680 ^{±2} x 990 ^{±2} x 40 ^{±0.3} mm |
| Connection technology | Cables 2 x 1,0 m/4 mm ² , HC4-Connector |
| Weight | appr. 22,8 kg |

| Electrical Data (STC) | | | | |
|--|--------|--------|--------|---------|
| STC: Standard Test Conditions: Irradiation intensity 1000W/m ² , spectral distribution AM 1,5 Temperature 25±2 °C, in accordance to EN 60904-3 | | | | |
| SOLARWATT 60M high power | | | | |
| Nominal power P_N | 290 Wp | 295 Wp | 300 Wp | 305 Wp |
| Nominal voltage U_{MPP} | 31,5 V | 31,7 V | 31,9 V | 32,1 V |
| Nominal current I_{MPP} | 9,30 A | 9,40 A | 9,50 A | 9,60 A |
| Open circuit voltage U_{OC} | 39,4 V | 39,6 V | 39,8 V | 40,0 V |
| Short circuit current I_{SC} | 9,73 A | 9,85 A | 9,97 A | 10,09 A |
| I_R* | 20 A | | | |
| Measurement tolerance in reference to P _{max} ±5%; | | | | |
| Reduction of module efficiency when irradiance is reduced from 1000 W/m ² to 200 W/m ² (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 ² , AM 1,5 Temperature 20 °C, Wind speed 1m/s, open circuit operation | | | | |
| SOLARWATT 60M high power | | | | |
| Nominal power P_N | 214 W | 218 W | 221 W | 225 W |
| Nominal voltage U_{MPP} | 29,1 V | 29,2 V | 29,4 V | 29,6 V |
| Nominal circuit voltage U_{OC} | 37,0 V | 37,1 V | 37,3 V | 37,5 V |
| Short circuit current I_{SC} | 7,86 A | 7,96 A | 8,06 A | 8,15 A |

| General Data | |
|---|--|
| Module technology | Glass-Glass Laminate; aluminum frame, black anodized |
| Covering material | Tempered solar glass with anti-reflective finish, 2 mm |
| Encapsulation | EVA-solar cells-EVA, white |
| Backing material | Solar glass, 2 mm |
| Solar cells | 60 monocrystalline high power solar cells |
| Cell dimensions | 156 x 156 mm |
| Bypass diodes | 3 |
| Application class | A (acc. to IEC 61730) |
| Max. system voltage | 1000 V |
| Mechanical Ratings as per IEC 61215 Ed.2 | Suction load up to 2400 Pa Applied load up to 5400 Pa |
| Approved stress load as per SOLARWATT Installation Instructions | Applied load up to 3500 Pa (when installed crosswise ¹⁾) Test condition: sliding load of 5400 Pa (conditions take into account safety factors for snow overhang and ice load per Eurocode 1.) ¹⁾ Please refer to the specifications in the installation instructions. |
| Qualifications | IEC 61215 Ed.2 IEC 61730 (including Protection Class II) |



| Thermal Features | |
|---|----------------|
| SOLARWATT 60M high power | |
| Operating temperature range | -40 ... +85 °C |
| Ambient temperature range | -40 ... +45 °C |
| Temperature coefficient P_N | -0,39%/K |
| Temperature coefficient U_{OC} | -0,31%/K |
| Temperature coefficient I_{SC} | 0,05%/K |
| NOCT | 45 °C |