

Sunmodule® Plus

SW 290 / 300 MONO



Data sheet



HIGH QUALITY ENGINEERING BY SOLARWORLD

More than 40 years of technology expertise, ongoing innovation and continuous optimization create the foundation for the performance of SolarWorld's high-quality modules. All production steps, from silicon to module, are established at our production sites, ensuring the highest quality for our customers every step of the way. Our modules are extremely flexible when it comes to their application and provide optimal solutions for installation and non-stop performance – worldwide.

- » Especially stable, despite its low weight mechanical resilience of up to 8.5 kN/m²
- » Tested in extreme weather conditions – resistance to salt spray, frost and hail-proof, resistance to ammonia, dust and sand
- » PID-resistant and proven hotspot guarantee
- » Highly-efficient cells (mono PERC) for the highest possible yields
- » Harmonized components such as mounting systems, connector cables, inverters and energy storage systems can be delivered as complete system
- » Patented drainage corners for optimized self-cleaning
- » Front glass with an anti-reflective coating
- » Long-term safety and guaranteed top performance – At least 97% of nominal power in the first year – 25-year linear performance warranty 20-year product warranty



Sunmodule[®] Plus

SW 290 / 300 MONO



PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)*

| | | SW 290 | SW 300 |
|-----------------------------|-----------|---------|---------|
| Maximum power | P_{max} | 290 Wp | 300 Wp |
| Open circuit voltage | U_{oc} | 39.9 V | 40.1 V |
| Maximum power point voltage | U_{mpp} | 31.4 V | 31.6 V |
| Short circuit current | I_{sc} | 9.97 A | 10.23 A |
| Maximum power point current | I_{mpp} | 9.33 A | 9.57 A |
| Module efficiency | η_m | 17.30 % | 17.89 % |

Measuring tolerance (P_{max}) traceable to TUV Rheinland: +/- 2% (TUV Power controlled, ID 0000039351)

*STC: 1000W/m², 25°C, AM 1.5

PERFORMANCE AT 800 W/m², NOCT, AM 1.5

| | | SW 290 | SW 300 |
|-----------------------------|-----------|----------|----------|
| Maximum power | P_{max} | 217.1 Wp | 222.7 Wp |
| Open circuit voltage | U_{oc} | 36.6 V | 36.8 V |
| Maximum power point voltage | U_{mpp} | 28.8 V | 28.9 V |
| Short circuit current | I_{sc} | 8.06 A | 8.19 A |
| Maximum power point current | I_{mpp} | 7.54 A | 7.71 A |

Minor reduction in efficiency under partial load conditions at 25°C: at 200 W/m², 97% (+/-3%) of the STC efficiency (1000 W/m²) is achieved.

PARAMETERS FOR OPTIMAL SYSTEM INTEGRATION

| | |
|---|---|
| Power sorting | -0 Wp / +10 Wp |
| Maximum system voltage IEC | 1000 V |
| Maximum reverse current | 25 A |
| Number of bypass diodes | 3 |
| Operating range | -40°C - +85°C |
| Maximum Design Loads (Two rail system)* | +5.4 kN/m ² / -3.1 kN/m ² |
| Maximum Design Loads (Three rail system)* | +8.5 kN/m ² / -3.1 kN/m ² |

*Please refer to the Sunmodule Installation instructions for the details associated with these load cases.

COMPONENT MATERIALS

| | |
|------------------|----------------------------------|
| Cells per module | 60 |
| Cell type | Mono crystalline PERC |
| Cell dimensions | 156 mm x 156 mm |
| Front | Tempered safety glass (EN 12150) |
| Back | Film, white |
| Frame | Clear anodized aluminum |
| J-Box | IP65 |
| Connector | Amphenol H4 UTX |

DIMENSIONS / WEIGHT

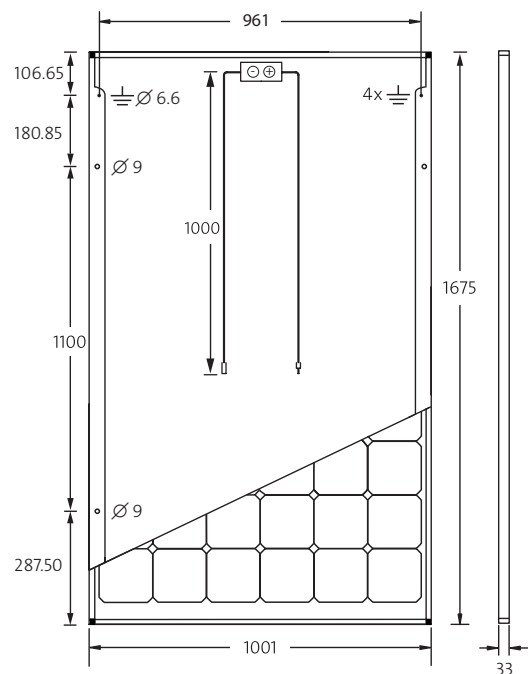
| | |
|--------|---------|
| Length | 1675 mm |
| Width | 1001 mm |
| Height | 33 mm |
| Weight | 18.0 kg |

THERMAL CHARACTERISTICS

| | |
|--------------|-----------|
| NOCT | 46 °C |
| TK I_{sc} | 0.040 %/K |
| TK U_{oc} | -0.30 %/K |
| TK P_{mpp} | -0.41 %/K |

ORDERING INFORMATION

| Order number | Description |
|--------------|----------------------------|
| 82000072 | Sunmodule Plus SW 290 mono |
| 82000076 | Sunmodule Plus SW 300 mono |



CERTIFICATES AND WARRANTIES

| | | | |
|--------------|------------------------------|----------------|-----------|
| Certificates | IEC 61730 | IEC 61215 | UL 1703 |
| | IEC 62716 | IEC 60068-2-68 | IEC 61701 |
| Warranties | Product Warranty | 20 years | |
| | Linear Performance Guarantee | 25 years | |