

Sunmodule[®] Plus

SW 280 - 290 mono



Data Sheet



Produced in Germany,
the center for solar technology



TUV Power controlled:
Lowest measuring tolerance in industry



Sunmodule Plus:
Positive performance tolerance



25 year linear performance warranty and
10 year product warranty



SolarWorld AG relies on Germany as its technology location, thereby ensuring sustainable product quality.

The TUV Rheinland Power controlled inspection mark guarantees that the nominal power indicated for solar modules is inspected at regular intervals and thus ensured. The deviation to TUV is maximum 2 percent.

The positive power tolerance guarantees utmost system efficiency. Only modules achieving or exceeding the designated nominal power in performance tests are dispatched. The power tolerance ranges between -0 Wp and +5 Wp.

With its linear performance warranty covering a period of 25 years, SolarWorld guarantees a maximum performance degradation of 0.7% p.a., a significant added value compared to the two-phase warranties common in the industry. Therefore, the service certificate offers comprehensive protection for your investment in the long term.

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PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)*

		SW 280	SW 285	SW 290
Maximum power	P_{max}	280 Wp	285 Wp	290 Wp
Open circuit voltage	U_{oc}	39.5 V	39.7 V	39.9 V
Maximum power point voltage	U_{mpp}	31.2 V	31.3 V	31.4 V
Short circuit current	I_{sc}	9.71 A	9.84 A	9.97 A
Maximum power point current	I_{mpp}	9.07 A	9.20 A	9.33 A
Module efficiency	η_m	16.7 %	17 %	17.3 %

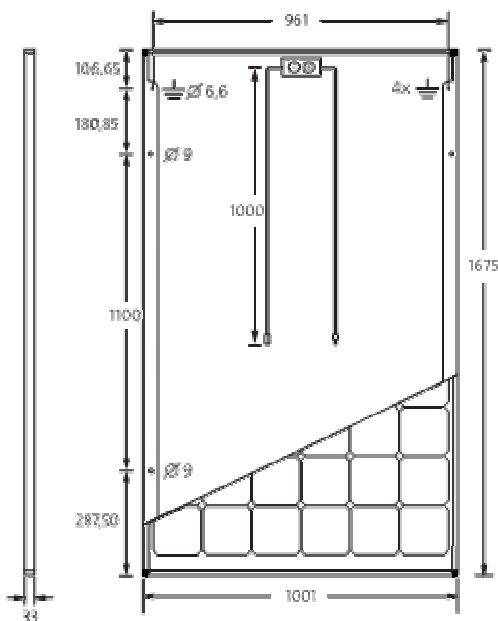
Measuring tolerance (P_{max}) traceable to TUV Rheinland: +/- 2% (TUV Power controlled)

*STC: 1000W/m², 25°C, AM 1.5

PERFORMANCE AT 800 W/m², NOCT, AM 1.5

		SW 280	SW 285	SW 290
Maximum power	P_{max}	209.2 Wp	213.1 Wp	217.1 Wp
Open circuit voltage	U_{oc}	36.1 V	36.4 V	36.6 V
Maximum power point voltage	U_{mpp}	28.5 V	28.7 V	28.8 V
Short circuit current	I_{sc}	7.85 A	7.96 A	8.06 A
Maximum power point current	I_{mpp}	7.33 A	7.43 A	7.54 A

Minor reduction in efficiency under partial load conditions at 25°C: at 200 W/m², 100% (+/-2%) of the STC efficiency (1000 W/m²) is achieved.



DIMENSIONS

Length	1675 mm
Width	1001 mm
Height	33 mm
Frame	Clear anodized aluminum
Weight	18.0 kg

THERMAL CHARACTERISTICS

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

COMPONENT MATERIALS

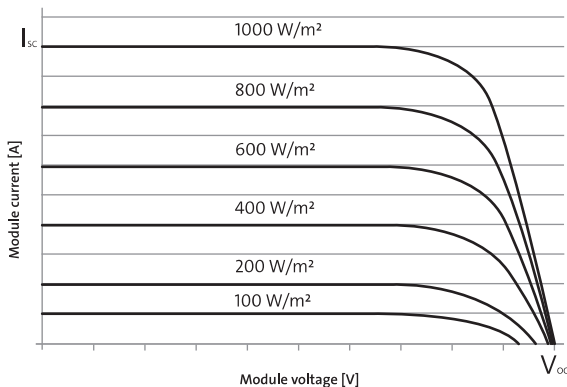
Cells per module	60
Cell type	Mono crystalline
Cell dimensions	156 mm x 156 mm
Front	tempered glass (EN 12150)

ADDITIONAL DATA

Power sorting	-0 Wp / +5 Wp
J-Box	IP65
Connector	H4

PARAMETERS FOR OPTIMAL SYSTEM INTEGRATION

Maximum system voltage SC II	1000 V
Maximum reverse current	25 A
Load / dynamic load	5.4 / 2.4 kN/m ²
Number of bypass diodes	3
Operating range	-40 °C to +85 °C



SolarWorld AG reserves the right to make specification changes without notice.
This data sheet complies with the requirements of EN 50380.

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