

Sunmodule[®] Plus

SW 280 - 295 mono



Data Sheet



Produced in Germany,
the center for solar technology



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ID 0000039351

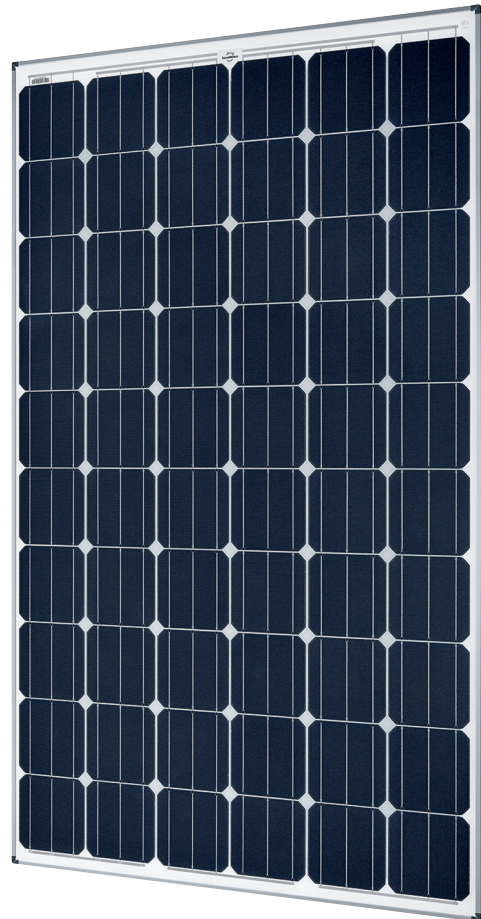
TUV Power controlled:
Lowest measuring tolerance in industry



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	SW 295
Maximum power	P_{max}	280 Wp	285 Wp	290 Wp	295 Wp
Open circuit voltage	U_{oc}	39.5 V	39.7 V	39.9 V	40 V
Maximum power point voltage	U_{mpp}	31.2 V	31.3 V	31.4 V	31.5 V
Short circuit current	I_{sc}	9.71 A	9.84 A	9.97 A	10.1 A
Maximum power point current	I_{mpp}	9.07 A	9.20 A	9.33 A	9.45 A
Module efficiency	η_m	16.7 %	17 %	17.3 %	17.59 %

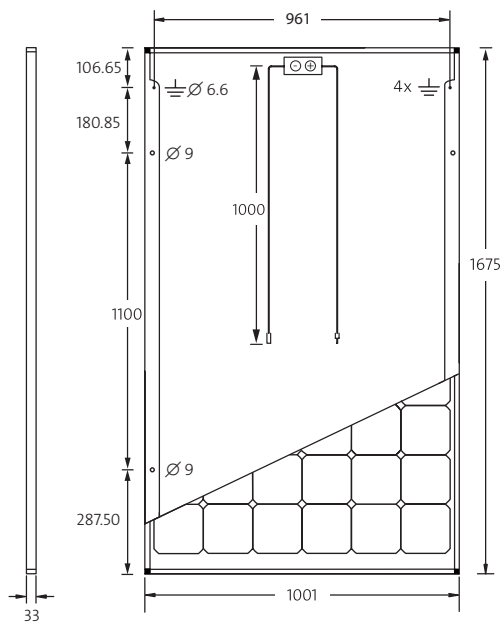
Messtoleranz (P_{max}) rückführbar auf TÜV Rheinland: +/- 2% (TÜV Power controlled)

*STC: 1000W/m², 25°C, AM 1.5

PERFORMANCE AT 800 W/m², NOCT, AM 1.5

		SW 280	SW 285	SW 290	SW 295
Maximum power	P_{max}	209.2 Wp	213.1 Wp	217.1 Wp	220.5 Wp
Open circuit voltage	U_{oc}	36.1 V	36.4 V	36.6 V	36.7 V
Maximum power point voltage	U_{mpp}	28.5 V	28.7 V	28.8 V	28.9 V
Short circuit current	I_{sc}	7.85 A	7.96 A	8.06 A	8.17 A
Maximum power point current	I_{mpp}	7.33 A	7.43 A	7.54 A	7.64 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.



COMPONENT MATERIALS

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

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

PARAMETERS FOR OPTIMAL SYSTEM INTEGRATION

Power sorting	-0 Wp / +5 Wp
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

ORDERING INFORMATION

Order number	Description
82000068	Sunmodule Plus SW 280 mono
82000070	Sunmodule Plus SW 285 mono
82000072	Sunmodule Plus SW 290 mono
82000074	Sunmodule Plus SW 295 mono

