

# Sunmodule<sup>®</sup> Plus

## SW 280 - 295 mono



### Data Sheet



Quality made by SolarWorld



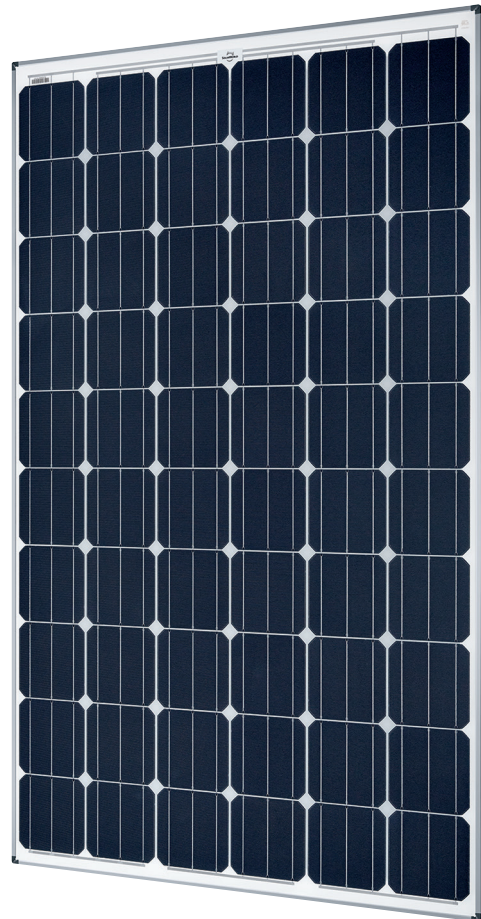
TUV Power controlled:  
Lowest measuring tolerance in industry



Sunmodule Plus:  
Positive performance tolerance



25 year linear performance warranty and  
10 year product warranty



SolarWorld quality standards go far beyond the norm. SolarWorld applies these high standards for product quality at all its production sites. SolarWorld specifications, quality guidelines and tests, and defined quality materials are the same throughout the world.

The TÜV 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 TÜV 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 depression 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.

# Sunmodule<sup>®</sup> Plus

## SW 280 - 295 mono



### 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	$\eta_m$	16.7 %	17 %	17.3 %	17.59 %

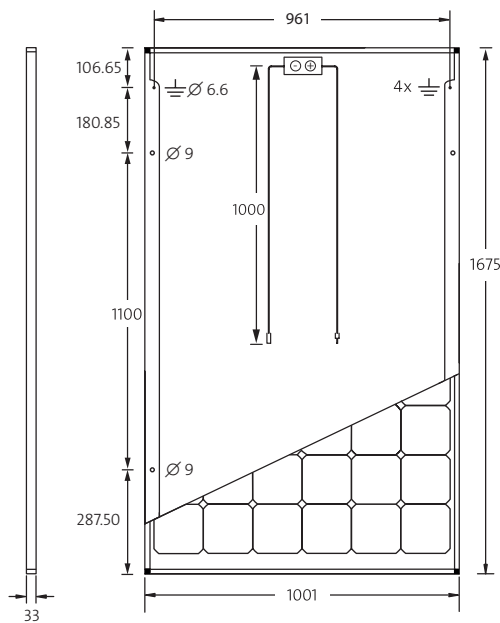
Messtoleranz ( $P_{max}$ ) rückführbar auf TÜV Rheinland: +/- 2% (TÜV Power controlled)

\*STC: 1000W/m<sup>2</sup>, 25°C, AM 1.5

### PERFORMANCE AT 800 W/m<sup>2</sup>, 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/m<sup>2</sup>, 97% (+/-3%) of the STC efficiency (1000 W/m<sup>2</sup>) is achieved.



### 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	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 <sup>2</sup>
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

