

Sunmodule[®] Plus

SW 290-310 MONO



TUV Power controlled:
Lowest measuring tolerance in industry



Every component is tested to meet
3 times IEC requirements



Designed to withstand heavy
accumulations of snow and ice



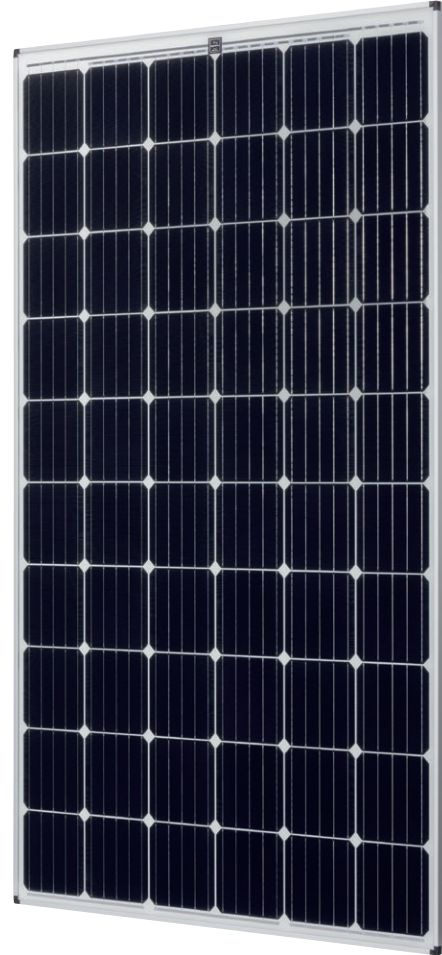
Sunmodule Plus:
Positive performance tolerance



25-year linear performance warranty
and 10-year product warranty



Glass with anti-reflective coating



World-class quality

Fully-automated production lines and seamless monitoring of the process and material ensure the quality that the company sets as its benchmark for its sites worldwide.

SolarWorld Plus-Sorting

Plus-Sorting guarantees highest system efficiency. SolarWorld only delivers modules that have greater than or equal to the nameplate rated power.

25-year linear performance guarantee and extension of product warranty to 10 years

SolarWorld guarantees a maximum performance digression of 0.7% p.a. in the course of 25 years, a significant added value compared to the two-phase warranties common in the industry, along with our industry-first 10-year product warranty.**

* Solar cells manufactured in U.S.A. or Germany. Modules assembled in U.S.A.
**in accordance with the applicable SolarWorld Limited Warranty at purchase.
www.solarworld.com/warranty



- Qualified, IEC 61215
- Safety tested, IEC 61730
- Blowing sand resistance, IEC 60068-2-68
- Ammonia resistance, IEC 62716
- Salt mist corrosion, IEC 61701
- Periodic inspection



- Periodic inspection
- Power controlled



Sunmodule[®] Plus

SW 290-310 MONO



PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)*

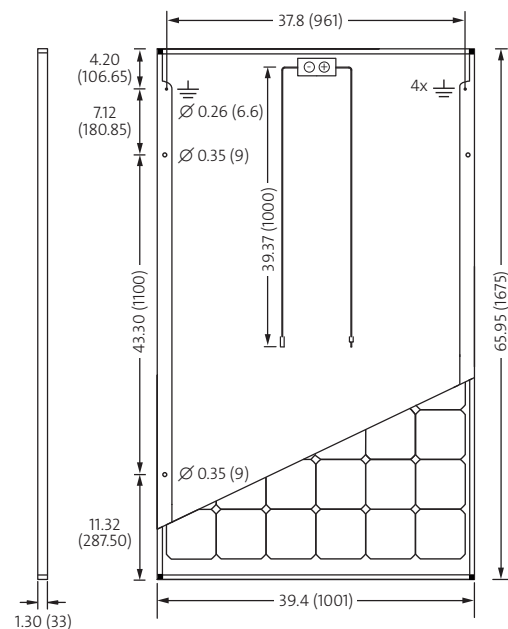
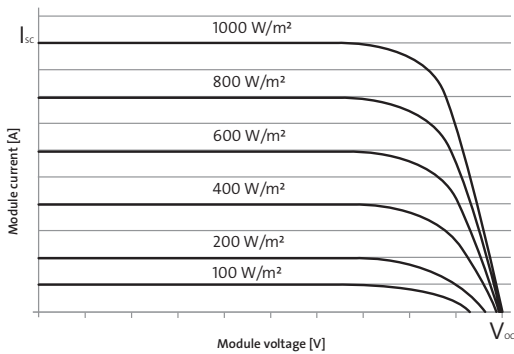
		SW 290	SW 295	SW 300	SW 305	SW 310
Maximum power	P_{max}	290 Wp	295 Wp	300 Wp	305 Wp	310 Wp
Open circuit voltage	V_{oc}	39.9 V	40.0 V	40.1 V	40.2 V	40.3 V
Maximum power point voltage	V_{mpp}	31.4 V	31.5 V	31.6 V	31.7 V	31.8 V
Short circuit current	I_{sc}	9.97 A	10.10 A	10.23 A	10.36 A	10.49 A
Maximum power point current	I_{mpp}	9.33 A	9.45 A	9.57 A	9.68 A	9.81 A
Module efficiency	η_m	17.30 %	17.59 %	17.89 %	18.19 %	18.49 %

*STC: 1000W/m², 25 °C, AM 1.5

PERFORMANCE AT 800 W/M², NOCT, AM 1.5

		SW 290	SW 295	SW 300	SW 305	SW 310
Maximum power	P_{max}	217.1 Wp	220.5 Wp	222.7 Wp	225.9 Wp	229.6 Wp
Open circuit voltage	V_{oc}	36.6 V	36.7 V	36.8 V	36.9 V	37.0 V
Maximum power point voltage	V_{mpp}	28.8 V	28.9 V	29.0 V	29.0 V	29.1 V
Short circuit current	I_{sc}	8.06 A	8.17 A	8.26 A	8.28 A	8.39 A
Maximum power point current	I_{mpp}	7.54 A	7.64 A	7.76 A	7.78 A	7.89 A

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



All units provided are imperial. SI units provided in parentheses.
SolarWorld AG reserves the right to make specification changes without notice.

COMPONENT MATERIALS

Cells per module	60	Front	Low-iron tempered glass with ARC (EN 12150)
Cell type	Monocrystalline 5-busbar	Frame	Clear anodized aluminum
Cell dimensions	6.17 in x 6.17 in (156.75 x 156.75 mm)	Weight	39.7 lbs (18.0 kg)

THERMAL CHARACTERISTICS

NOCT	46 °C
TCI_{sc}	0.04 % / °C
TCV_{oc}	-0.30 % / °C
TCV_{mpp}	-0.41 % / °C
Operating temp	-40 to +85 °C

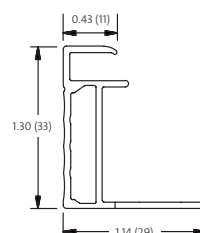
ADDITIONAL DATA

Power sorting	-0 Wp/+5 Wp
J-Box	IP65
Connector	PV wire per UL4703 with H4/UTX connectors
Module fire performance	(UL 1703) Type 1

PARAMETERS FOR OPTIMAL SYSTEM INTEGRATION

Maximum system voltage SC II / NEC	1000 V	
Maximum reverse current	25 A	
Number of bypass diodes	3	
Design loads*	Two rail system	113 psf downward, 64 psf upward
Design loads*	Three rail system	178 psf downward, 64 psf upward
Design loads*	Edge mounting	178 psf downward, 41 psf upward

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



- Compatible with both "Top-Down" and "Bottom" mounting methods
- \perp Grounding Locations:
 - 4 locations along the length of the module in the extended flange.

SW-01-7510US 160907