

# Sunmodule<sup>®</sup> Plus

## SW 285-300 MONO (5-busbar)



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](http://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 285-300 MONO (5-busbar)



### PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)\*

		SW 285	SW 290	SW 295	SW 300
Maximum power	$P_{max}$	285 Wp	290 Wp	295 Wp	300 Wp
Open circuit voltage	$V_{oc}$	39.7 V	39.9 V	40.0 V	40.1 V
Maximum power point voltage	$V_{mpp}$	31.3 V	31.4 V	31.5 V	31.6 V
Short circuit current	$I_{sc}$	9.84 A	9.97 A	10.10 A	10.23 A
Maximum power point current	$I_{mpp}$	9.20 A	9.33 A	9.45 A	9.57 A
Module efficiency	$\eta_m$	17.00 %	17.30 %	17.59 %	17.89 %

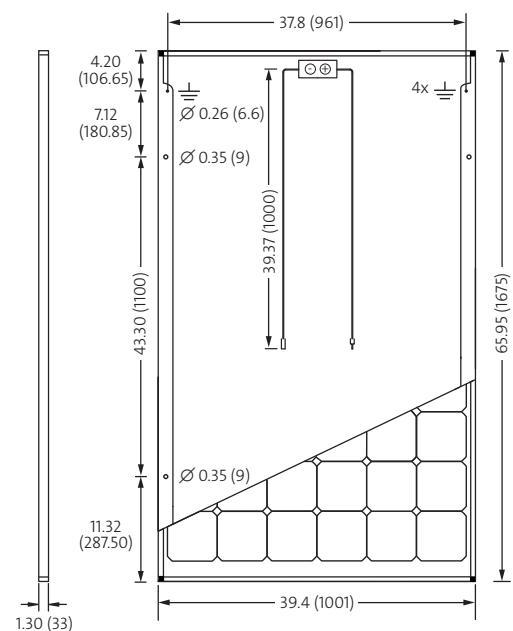
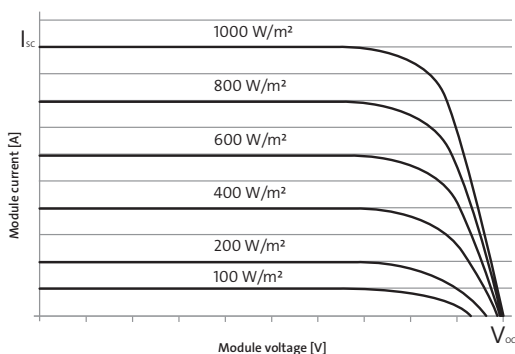
\*STC: 1000W/m<sup>2</sup>, 25 °C, AM 1.5

### PERFORMANCE AT 800 W/M<sup>2</sup>, NOCT, AM 1.5

		SW 285	SW 290	SW 295	SW 300*
Maximum power	$P_{max}$	213.1 Wp	217.1 Wp	220.5 Wp	224.1 Wp
Open circuit voltage	$V_{oc}$	36.4 V	36.6 V	36.7 V	36.9 V
Maximum power point voltage	$V_{mpp}$	28.7 V	28.8 V	28.9 V	31.1 V
Short circuit current	$I_{sc}$	7.96 A	8.06 A	8.17 A	8.27 A
Maximum power point current	$I_{mpp}$	7.43 A	7.54 A	7.64 A	7.75 A

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

\*Preliminary values, subject to change.



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
$TCP_{mpp}$	-0.41 % / °C
Operating temp	-40 to +85 °C

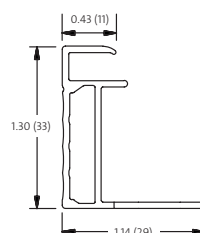
### ADDITIONAL DATA

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

<i>Maximum system voltage SC II / NEC</i>		1000 V
<i>Maximum reverse current</i>		25 A
<i>Number of bypass diodes</i>		3
<i>Design loads*</i>	<i>Two rail system</i>	113 psf downward, 64 psf upward
<i>Design loads*</i>	<i>Three rail system</i>	178 psf downward, 64 psf upward
<i>Design loads*</i>	<i>Edge mounting</i>	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
- Grounding Locations:
  - 4 locations along the length of the module in the extended flange.

SW-01-7510US 160324