## Sunmodule Plus **SW 275-290 MONO BLACK**





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



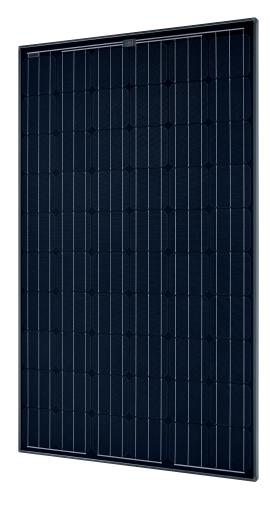
Sunmodule Plus: Positive performance tolerance



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















# Sunmodule\* Plus SW 275-290 MONO BLACK



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

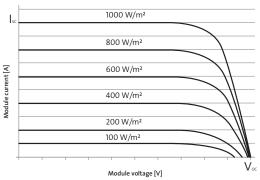
		SW 275	SW 280	SW 285	SW 290
Maximum power	P <sub>max</sub>	275 Wp	280 Wp	285 Wp	290 Wp
Open circuit voltage	V <sub>oc</sub>	39.4 V	39.5 V	39.7 V	39.9 V
Maximum power point voltage	$V_{mpp}$	31.0 V	31.2 V	31.3 V	31.4 V
Short circuit current	I <sub>sc</sub>	9.58 A	9.71 A	9.84 A	9.97 A
Maximum power point current	I <sub>mpp</sub>	8.94 A	9.07 A	9.20 A	9.33 A
Module efficiency	η <sub>m</sub>	16.40 %	16.70 %	17.00 %	17.30 %

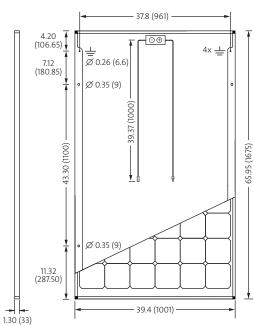
\*STC: 1000W/m<sup>2</sup>, 25°C, AM 1.5

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

		SW 275	SW 280	SW 285	SW 290
Maximum power	P <sub>max</sub>	203.1 Wp	207.2 Wp	211.1 Wp	215 Wp
Open circuit voltage	V <sub>oc</sub>	35.7 V	35.8 V	36.0 V	36.2 V
Maximum power point voltage	$V_{mpp}$	28.1 V	28.3 V	28.4 V	28.5 V
Short circuit current	I <sub>sc</sub>	7.75 A	7.85 A	7.96 A	8.06 A
Maximum power point current	I <sub>mpp</sub>	7.22 A	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% 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 empered glass with ARC (EN 12150)
Cell type	Monocrystalline	Frame	Black 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	48 °C
TCI <sub>sc</sub>	0.044 % / °C
TCV <sub>oc</sub>	-0.31 % / °C
TCP <sub>mpp</sub>	-0.44 % / °C
Operating temp	-40 to +85 °C

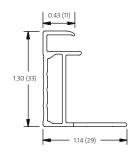
## ADDITIONAL DATA

Power sorting	-0 Wp/+5 Wp
J-Box	IP65
Connector	PV wire per UL470 with H4/UTX connector
Module fire perfor	<i>mance</i> (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

 $<sup>{}^* \</sup>textit{Please refer to the Sunmodule installation instructions for the details associated with these load cases.} \\$ 



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

SW-01-7520US 160324