

Sunmodule[®] Plus

SW 280-290 MONO BLACK (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



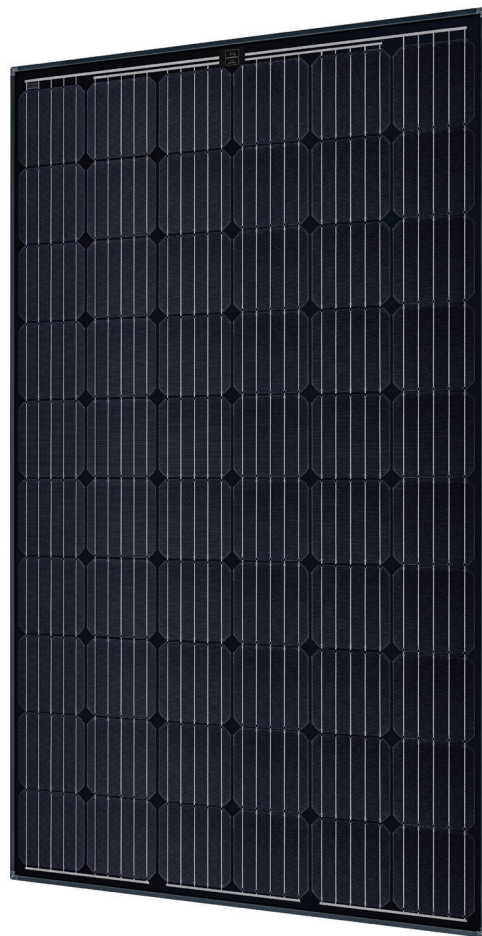
Sunmodule Plus:
Positive performance tolerance



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.*

*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 280-290 MONO BLACK (5-busbar)



PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)*

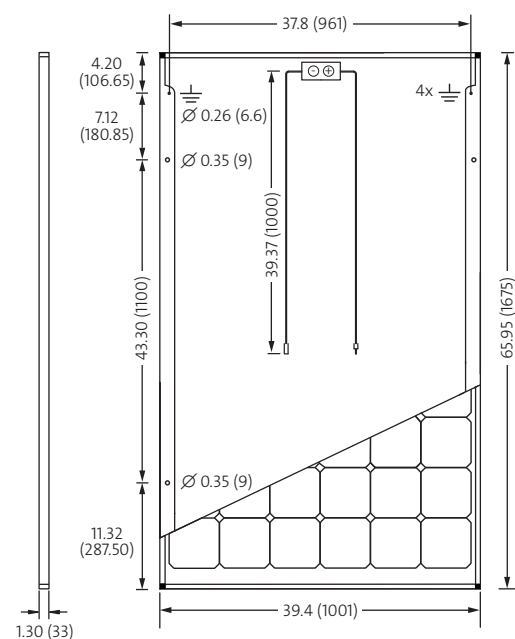
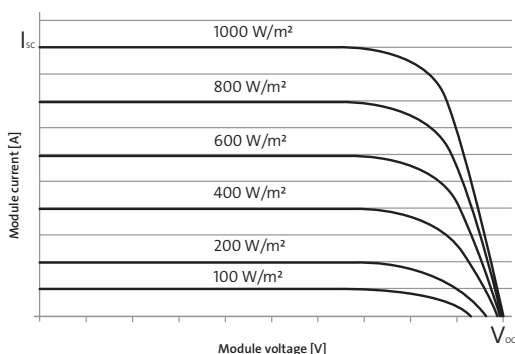
		SW 280	SW 285	SW 290
Maximum power	P_{max}	280 Wp	285 Wp	290 Wp
Open circuit voltage	V_{oc}	39.5 V	39.7 V	39.9 V
Maximum power point voltage	V_{mpp}	31.2 V	31.3 V	31.4 V
Short circuit current	I_{sc}	9.71 A	9.84 A	9.97 A
Maximum power point current	I_{mpp}	9.07 A	9.20 A	9.33 A
Module efficiency	η_m	16.70 %	17.00 %	17.30 %

*STC: 1000W/m², 25°C, AM 1.5

PERFORMANCE AT 800 W/M², NOCT, AM 1.5

		SW 280	SW 285	SW 290
Maximum power	P_{max}	207.2 Wp	211.1 Wp	215 Wp
Open circuit voltage	V_{oc}	35.8 V	36.0 V	36.2 V
Maximum power point voltage	V_{mpp}	28.3 V	28.4 V	28.5 V
Short circuit current	I_{sc}	7.85 A	7.96 A	8.06 A
Maximum power point current	I_{mpp}	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	Mono crystalline 5-busbar	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_{sc}	0.044 %/C
TCV_{oc}	-0.31 %/C
TCp_{mpp}	-0.43 %/C
Operating temp	-40 to +85 °C

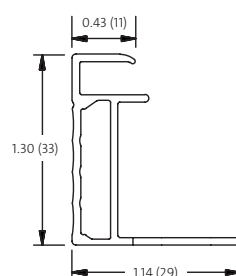
ADDITIONAL DATA

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-01-7515US 160311