



# Sunmodule<sup>+</sup>™

## SW 220 poly / Version 2.0 and 2.5 Frame

### 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 years linear performance guarantee and extension of product warranty to 10 years

SolarWorld guarantees a maximum performance degradation 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. In addition, SolarWorld is offering a product warranty, which has been extended to 10 years.\*

\*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
- Periodic Inspection



## SW 220 poly / Version 2.0 and 2.5 Frame

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

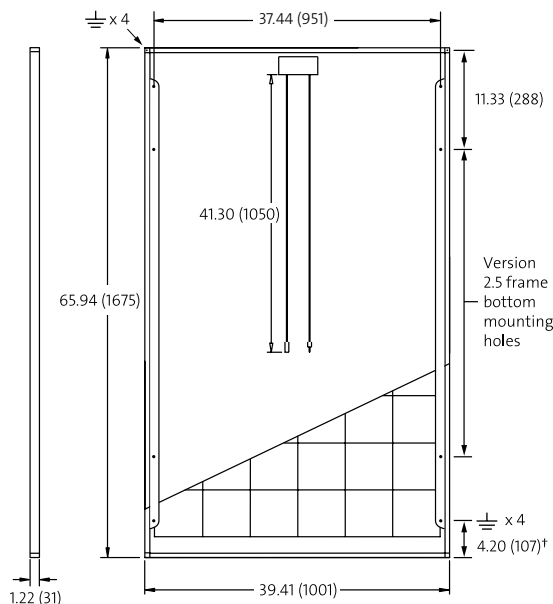
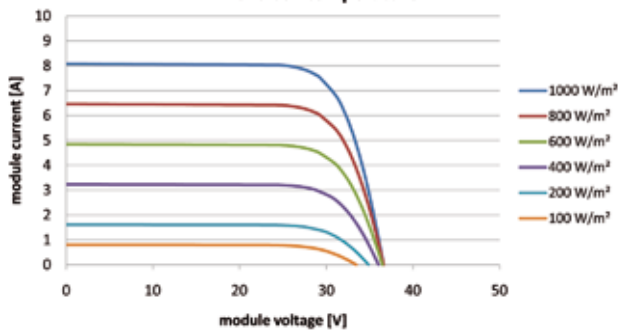
		SW 220
Maximum power	$P_{max}$	220 Wp
Open circuit voltage	$V_{oc}$	36.6 V
Maximum power point voltage	$V_{mpp}$	29.2 V
Short circuit current	$I_{sc}$	8.08 A
Maximum power point current	$I_{mpp}$	7.54 A

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

### THERMAL CHARACTERISTICS

NOCT	46 °C
TC $I_{sc}$	0.081 %/K
TC $V_{oc}$	-0.37 %/K
TC $P_{mpp}$	-0.45 %/K
Operating temperature	-40°C to 85°C

IV-curves for SolarWorld Sunmodule Plus SW 220 poly at 25°C cell temperature



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

		SW 220
Maximum power	$P_{max}$	157.3 Wp
Open circuit voltage	$V_{oc}$	33.1 V
Maximum power point voltage	$V_{mpp}$	26.2 V
Short circuit current	$I_{sc}$	6.68 A
Maximum power point current	$I_{mpp}$	6.01 A

Minor reduction in efficiency under partial load conditions at 25°C: at 200W/m<sup>2</sup>, 95% (+/-3%) of the STC efficiency (1000 W/m<sup>2</sup>) is achieved.

### COMPONENT MATERIALS

Cells per module	60
Cell type	Poly crystalline
Cell dimensions	6.14 in x 6.14 in (156 mm x 156 mm)
Front	tempered glass (EN 12150)
Frame	Clear anodized aluminum
Weight	46.7 lbs (21.2 kg)

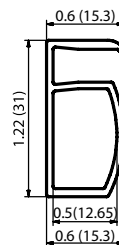
### SYSTEM INTEGRATION PARAMETERS

Maximum system voltage SC II	1000 V
Max. system voltage USA NEC	600 V
Maximum reverse current	16 A
Number of bypass diodes	3
UL Maximum Test Load**	45 psf (2.1 kN/m <sup>2</sup> )
IEC Maximum Snow Test Load**	113 psf (5.4 kN/m <sup>2</sup> )

\*\*Please apply the appropriate factors of safety according to the test standard and local building code requirements when designing a PV system.

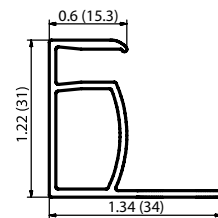
### ADDITIONAL DATA

Power tolerance <sup>2)</sup>	-0 Wp / +5 Wp
J-Box	IP65
Connector	MC4
Module efficiency	13.12 %
Fire rating (UL 790)	Class C



#### VERSION 2.0 FRAME

- Compatible with "Top-Down" mounting methods
- ⚡ Grounding Locations: 4 corners of the frame



#### VERSION 2.5 FRAME

- Compatible with both "Top-Down" and "Bottom" mounting methods
- ⚡ Grounding Locations:
  - 4 corners of the frame
  - 4 locations along the length of the module in the extended flange†

1) Sunmodules dedicated for the United States and Canada are tested to UL 1703 Standard and listed by a third party laboratory. The laboratory may vary by product and region. Check with your SolarWorld representative to confirm which laboratory has a listing for the product.

2) Measuring tolerance traceable to TUV Rheinland: +/- 2% (TUV Power Controlled).

3) All units provided are imperial. SI units provided in parentheses.