



# Sunmodule<sup>+</sup>™

## SW 235 mono / Version 2.0

### 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



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SW-02-5004US 07-2012

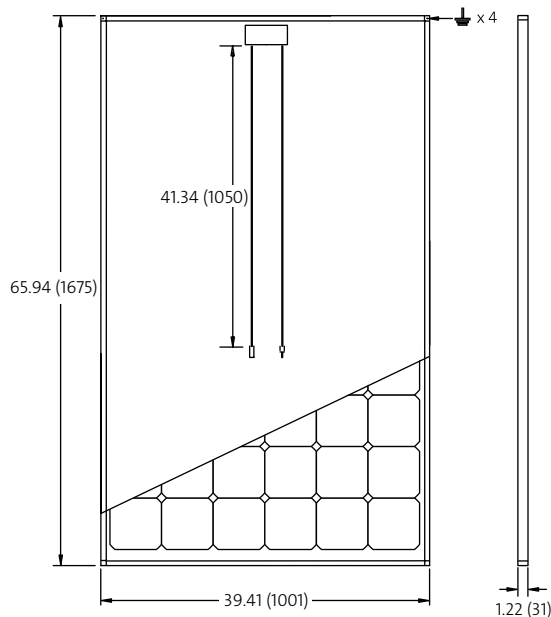
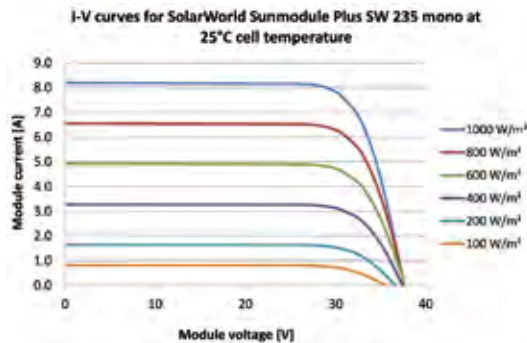
### PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)\*

		SW 235
Maximum power	$P_{max}$	235 Wp
Open circuit voltage	$V_{oc}$	37.5 V
Maximum power point voltage	$V_{mpp}$	30.3 V
Short circuit current	$I_{sc}$	8.19 A
Maximum power point current	$I_{mpp}$	7.77 A

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

### THERMAL CHARACTERISTICS

NOCT	46 °C
TC $I_{sc}$	0.004 %/K
TC $V_{oc}$	-0.30 %/K
TC $P_{mpp}$	-0.45 %/K
Operating temperature	-40°C to 85°C



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

		SW 235
Maximum power	$P_{max}$	170.9 Wp
Open circuit voltage	$V_{oc}$	34.0 V
Maximum power point voltage	$V_{mpp}$	27.5 V
Short circuit current	$I_{sc}$	6.60 A
Maximum power point current	$I_{mpp}$	6.22 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	Mono 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)

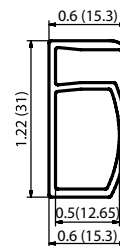
### SYSTEM INTEGRATION PARAMETERS

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 Design Loads*	Two rail system	113 psf downward 64 psf upward
UL Design Loads*	Three rail system	170 psf downward 64 psf upward
IEC Design Loads*	Two rail system	113 psf downward 50 psf upward

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

### ADDITIONAL DATA

Power tolerance <sup>2)</sup>	-0 Wp / +5 Wp
J-Box	IP65
Connector	MC4
Module efficiency	14.02 %
Fire rating (UL 790)	Class C



#### VERSION 2.0 FRAME

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

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.