

# SILVANTIS® SOLAR MODULE

## 60- and 72-Cell High Wattage Modules

SunEdison introduces the next generation of high performance solar modules based on innovative Continuous Cz (CCz) cells. Best-in-class efficiency coupled with durability and superior design elements provide products with maximum long-term investment performance. At the same time SunEdison modules minimize cost incurred throughout the products lifecycle, such as installation expense and overall operation and maintenance.

SunEdison is a leader in utility-scale solar systems with over two and a half-million Silvantis modules deployed in some of the world's harshest climates and most remote locations. This experience, coupled with over 50 years of expertise in silicon technology and innovation enables SunEdison to design and produce highly advanced solar solutions.



TECHNICAL NOTE – INTERACTIVE DATA SHEET



A solar cell indicates interactivity. Mouse over to see!

### SILVANTIS ADVANTAGE

- 18.2% module efficiency with positive power tolerance
- Utility-grade manufacturing: ISO 14001, ISO 9001 and 100% EL inspection
- PID-free: multi-MPPT transformerless inverter compatible
- Higher return on investment with more watts-per-module
- Based on SunEdison's proprietary CCz technology

### QUALITY & SAFETY

- Industry leading PID test conditions:
  - 96 hours, 85 C, 85% relative humidity, -1 kV
- IEC certified by TÜV SÜD:
  - 61215 long-term operation in a variety of climates including snow loading up to 5400 Pa and hail testing
  - 61730 to ensure electrical safety
  - 61701 Level 1 salt mist corrosion resistant for marine regions
  - 62716 ammonia testing for agricultural environments
- CSA listed to UL 1703 for 1,000 V systems in the US and Canada
- MCS certified by BABT for the UK
- Automotive grade TS 16949 & AQL Level II-0.4 manufacturing quality

### ROBUST DESIGN

- Reliability tested beyond international standards
- Proven field performance in harsh environments

### SUNEDISON WARRANTY

- 10-year limited warranty for materials and workmanship
- 25-year linear power warranty at STC:
  - Year 1:  $\leq 3.5\%$  of rated power
  - After year 1:  $\leq 0.7\%$  rated power degradation per year



[sunedison.com](http://sunedison.com)



Application Class A  
Safety Class II

Hover over the certification emblems to learn more!

# SILVANTIS SOLAR MODULE

## PHYSICAL PARAMETERS

Module Dimensions	1,976 mm x 990 mm x 50 mm
Module Weight	22 kg
Cell-Type	CCz monocrystalline
Number of Cells	72
Frame Material	Anodized aluminum alloy frame
Tempered ARC Glass Thickness	3.2 mm
Connector Types (indicated in model #)	Amphenol H4 (-39); Bizlink S418 (-35)

## TEMPERATURE COEFFICIENTS AND PARAMETERS<sup>1</sup>

Nominal Operating Cell Temperature (NOCT)	45 C ± 2 C
Temperature Coefficient of Pmax	-0.44 %/C
Temperature Coefficient of Voc	-0.30 %/C
Temperature Coefficient of Isc	+0.04 %/C
Operating Temperature	-40 C to +85 C
Maximum System Voltage	1000 V (UL & IEC)
Limiting Reverse Current	9.10 A
Maximum Series Fuse Rating	15 A
Power Selection (Test v. Nameplate)	-0% to +3%
Junction Box Rating	IP67
Application Class	Class A
Packaging Specifications	20 modules per pallet 440 modules per 40' high-cube container
Wind and Snow Front Load	Up to 5,400 Pa
Wind Back Load	2,400 Pa
Reduction of STC efficiency from 1000 W/m <sup>2</sup> to 200 W/m <sup>2</sup> (Relative)	< 4%

## STC ELECTRICAL CHARACTERISTICS<sup>2</sup>

Model # <sup>3</sup>	R330BzC	R335BzC	R340BzC	R345BzC	R350BzC	R355BzC
Rated Maximum Power Pmax (W)	330	335	340	345	350	355
Open-Circuit Voltage Voc (V)	46.2	46.4	46.5	46.6	46.7	46.8
Short-Circuit Current Isc (A)	9.28	9.29	9.40	9.48	9.56	9.64
Module Efficiency (%)	16.9	17.1	17.4	17.7	17.9	18.2
Maximum Power Point Voltage Vmpp (V)	37.7	37.9	38.0	38.1	38.2	38.3
Maximum Power Point Current Impp (A)	8.77	8.85	8.95	9.06	9.16	9.27

## NOCT ELECTRICAL CHARACTERISTICS<sup>4</sup>

Model # <sup>3</sup>	R330BzC	R335BzC	R340BzC	R345BzC	R350BzC	R355BzC
Rated Maximum Power Pmax (W)	235.0	238.0	242.0	245.6	249.0	252.6
Open-Circuit Voltage Voc (V)	42.7	42.8	42.9	43.0	43.1	43.2
Short-Circuit Current Isc (A)	7.60	7.65	7.70	7.75	7.80	7.85
Maximum Power Point Voltage Vmpp (V)	33.4	33.6	33.8	34.0	34.2	34.4
Maximum Power Point Current Impp (A)	7.04	7.08	7.16	7.22	7.28	7.34

Listed specifications are subject to change without prior notice.

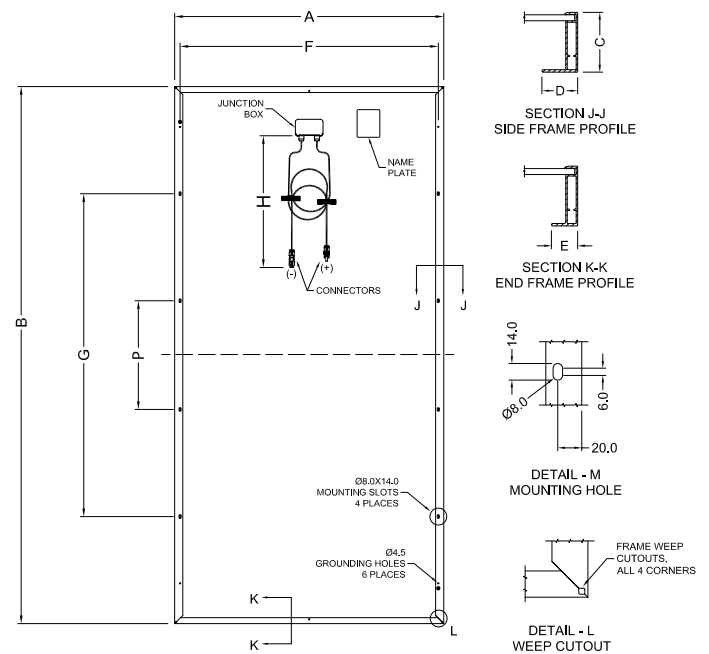
<sup>1</sup> Temperature coefficients may vary by ±10%

<sup>2</sup> All electrical data at standard test conditions (STC): 1000 W/m<sup>2</sup>, 25 C module temperature, AM 1.5; electrical characteristics may vary by ±5% and power by -0% to +3%.

<sup>3</sup> z indicates manufacturing location: M = Malaysia, X = Mexico, P = China, T = Taiwan

<sup>4</sup> Electrical characteristics measured under normal operating conditions of cells: 800/m<sup>2</sup>, 20 C ambient temperature, AM 1.5, wind speed 1 m/s

## R-SERIES SOLAR MODULE DIMENSIONS mm [inch]



**Module Dimensions**  
 A – 990 [39.0] B – 1,976 [77.8] C – 50 [2.0] D – 30 [1.2] E – 22 [0.9]  
**Mounting Hole Spacing**  
 F – 950 [37.4] G – 1,188 [46.8] P – 400 [15.7]

### Cable Length

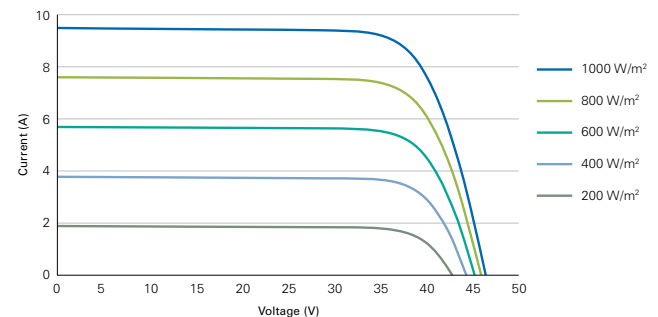
\*H – 1,300 [51.2]

### Junction Box Dimensions

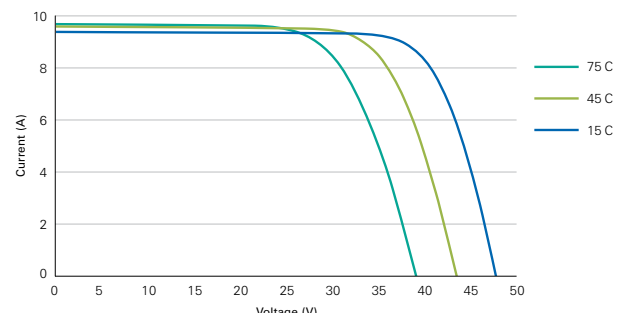
101.5 x 60.0 x 25.5 [3.99 x 2.36 x 1.0]

\*H – Other options available upon request; please contact your local sales representative for more information.

## IV CURVES AT MULTIPLE IRRADIANCES [25 C]



## IV CURVES AT MULTIPLE TEMPERATURES [1000 W/m<sup>2</sup>]



For more information about SunEdison's Silvantis modules, please visit [www.sunedison.com](http://www.sunedison.com)