

SILVANTIS® R-SERIES: 275W TO 290W

60-Cell High Wattage Modules

SunEdison introduces the next generation of high performance solar modules based on innovative Continuous Cz (CCz) monocrystalline cells with PERC technology. The Silvantis R-Series delivers the highest levels of efficiency and durability; providing homeowners with the same quality and performance SunEdison's utility customers enjoy, while optimising roof fit, overall system size and installer productivity.

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 residential solar solutions.



25
year
MODULE
WARRANTY

SILVANTIS ADVANTAGE

- 17.7% module efficiency with positive power tolerance
- PID-free: compatible with transformerless and multi-MPPT inverters
- Higher return on investment with more watts-per-module
- Reliability tested beyond international standards
- Utility-grade manufacturing: ISO 1400, ISO 9001 and 100% EL inspection

QUALITY & SAFETY

- Industry leading PID test conditions:
 - » 96 hours, 85° C, 85% relative humidity, -1kV
- IEC certified by TÜV SÜD:
 - » 61730 to ensure electrical safety
 - » 61215 long-term operation in a variety of climates including snow loading up to 5400 Pa and hail testing
 - » 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
- TS16949 & AQL Level II-0.4 manufacturing quality
- MCS certified for the UK

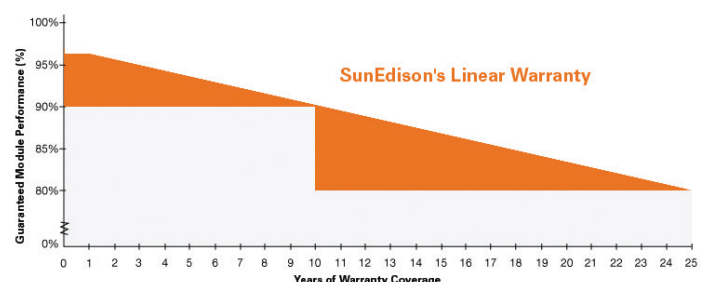
ROBUST & AESTHETIC DESIGN

- Black anodised corrosion resistant aluminum frame
 - » White back sheet: SE-R2xxCzC-3y
 - » Black back sheet: SE-R2xxKzC-3y
- Low glare anti-reflection coated (ARC) tempered glass

SUNEDISON WARRANTY

- 25-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

* Subject to SunEdison's Warranty terms & conditions found at www.sunedison.co.uk



SILVANTIS R-SERIES: 275W TO 290W

PHYSICAL PARAMETERS

Module Dimensions	1,658 mm x 990 mm x 50 mm
Module Weight	19.3 kg
Wafer / Cell-Type	PERC on CCz monocrystalline
Number of Cells	60
Frame Material	Black Anodised Aluminum
Tempered ARC Glass Thickness	3.2 mm

TEMPERATURE COEFFICIENTS AND PARAMETERS¹

Nominal Operating Cell Temperature (NOCT)	45° C ± 2° C
Temperature Coefficient of Pmax	-0.44 %/°C
Temperature Coefficient of Voc	-0.32 %/°C
Temperature Coefficient of Isc	+0.05 %/°C
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1000 V (UL & IEC)
Limiting Reverse Current	9.20 A
Maximum Series Fuse Rating	15 A
Power Selection	-0 W to +5 W
Junction Box Rating	IP67
IEC 61730 Application	Class A
Wind and Snow Front Load	Up to 5,400 Pa
Wind Back Load	2,400 Pa
Reduction of STC efficiency from 1000 W/m ² to 200 W/m ² (Relative)	< 4%

STC ELECTRICAL CHARACTERISTICS²

Model # (e.g. R2xxCzC-3y) ³	R280 CzC	R285 CzC	R290 CzC	R275 KzC	R280 KzC	R285 KzC
Rated Maximum Power Pmax (W)	280	285	290	275	280	285
Open-Circuit Voltage Voc (V)	39.2	39.3	39.3	38.6	38.6	38.7
Short-Circuit Current Isc (A)	9.45	9.50	9.55	9.20	9.30	9.40
Module Efficiency (%)	17.1	17.4	17.7	16.8	17.1	17.4
Maximum Power Point Voltage Vmpp (V)	31.7	31.9	31.9	31.6	31.6	31.7
Maximum Power Point Current Imp (A)	8.84	8.95	9.14	8.72	8.86	9.00

NOCT ELECTRICAL CHARACTERISTICS⁴

Model # (e.g. R2xxCzC-3y) ³	R280 CzC	R285 CzC	R290 CzC	R275 KzC	R280 KzC	R285 KzC
Rated Maximum Power Pmax (W)	204.6	208.2	211.8	196.7	200.3	203.9
Open-Circuit Voltage Voc (V)	35.7	35.8	35.9	35.5	35.6	35.7
Short-Circuit Current Isc (A)	7.47	7.49	7.51	7.32	7.35	7.38
Maximum Power Point Voltage Vmpp (V)	29.1	29.4	29.6	28.6	28.9	29.2
Maximum Power Point Current Imp (A)	7.03	7.09	7.15	6.88	6.93	6.99

Listed specifications are subject to change without prior notice.

¹Temperature coefficients may vary by ±10%

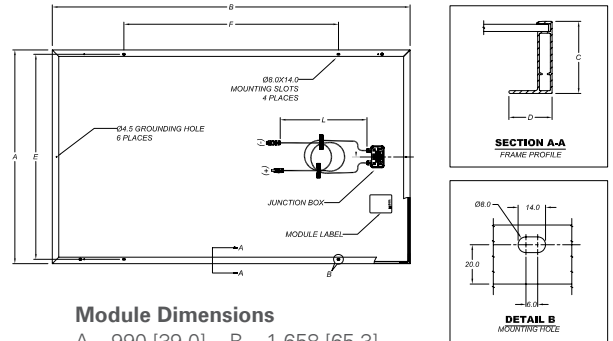
²All electrical data at standard test conditions (STC): 1000 W/m², AM 1.5, 25°C. Electrical characteristics may vary by ±5% and power by -0 W to +5 W

³y indicates connector type: -34 = Bizlink S418; -38 = Amphenol Helios H4

z indicates manufacturing location: M = Malaysia

⁴NOCT electrical characteristics measured under normal operating conditions of cells: 800 W/m², 20°C, AM 1.5, wind 1 m/s

R-SERIES SOLAR MODULE DIMENSIONS mm [inch]



Module Dimensions

A – 990 [39.0] B – 1,658 [65.3]
 C – 50 [2.0] D – 30 [1.18]

Mounting Hole Spacing

E – 950 [37.4] F – 994 [39.1]

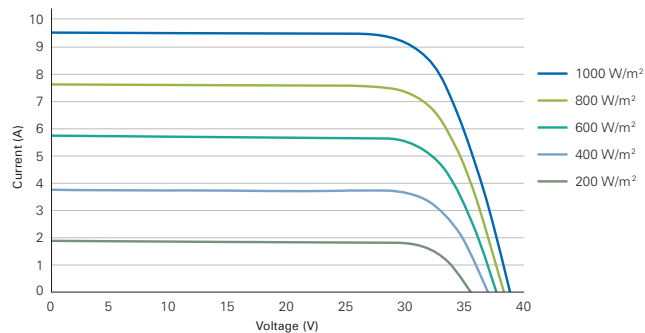
Cable Length

L – 1,000 [39.4]

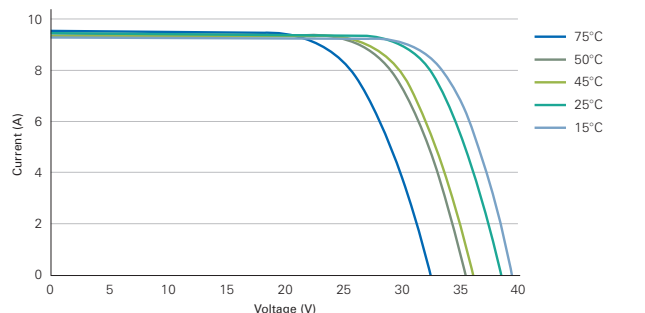
Junction Box Dimensions

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

IV CURVES AT MULTIPLE IRRADIANCES [25°C]⁵



IV CURVES AT MULTIPLE TEMPERATURES [1000 W/m²]



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For more information about SunEdison's Silvantis modules, please visit www.sunedison.co.uk