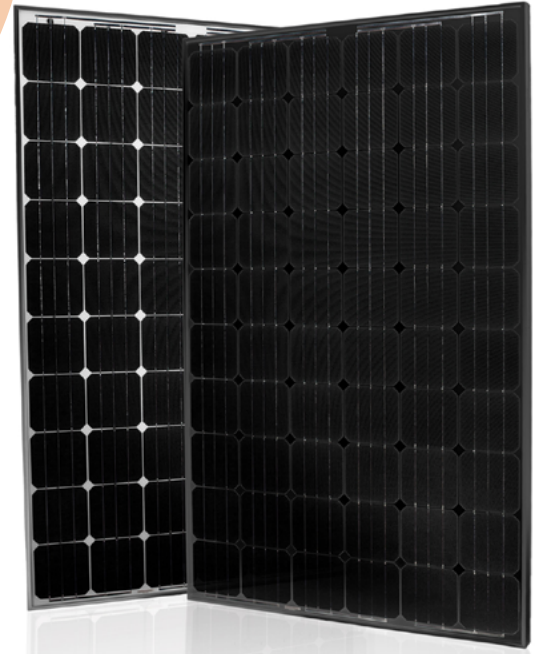


# SILVANTIS® F-SERIES: 260 W TO 280 W

## 60-Cell High Wattage Modules

SunEdison is a recognized authority on silicon technology and manufacturing processes developed through more than 50 years of experience. With our vertically-integrated business model, SunEdison delivers best-in-class solar modules by continuously leveraging new technology and manufacturing techniques that maximize efficiency, minimize cost and extend product lifetime. Our solar module factories are ISO 9001 and ISO 14001 certified. Our products undergo rigorous inspection to ensure the highest possible quality.

Silvantis solar modules continue the tradition of excellence by delivering the highest levels of performance worldwide in an aesthetically pleasing product. The F-series offers a 50 mm frame and PID-free operation allowing use with all inverter types. SunEdison is dedicated to providing local, responsive customer service.



### SILVANTIS ADVANTAGE

- 17.1% module efficiency with positive power tolerance
- PID-free: compatible with transformerless and multi-MPPT inverters
- Tariff-free: not subject to U.S. countervailing or antidumping tariffs
- Higher return on investment with more watts-per-module
- Utility-grade manufacturing: ISO 14001, 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
- Manufactured to AQL 0.4 Level II quality and tested up to 3x beyond IEC standards
- CSA certified to UL 1703 for 1,000 V systems in the US and Canada
- MCS certified by BABT for the UK

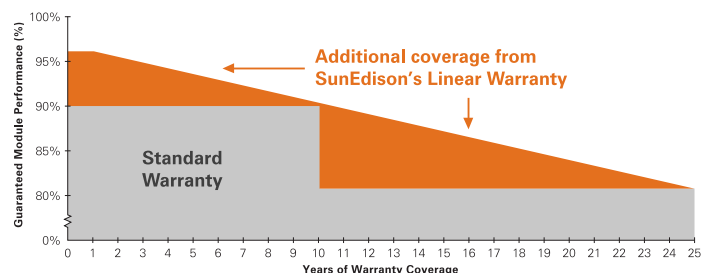


### ROBUST & AESTHETIC DESIGN

- Black anodized corrosion resistant aluminum frame
  - » White back sheet: SE-F2xxCzD-3y
  - » Black back sheet: SE-F2xxKzD-3y
- Low glare anti-reflective coated (ARC) tempered glass
- Reliability tested beyond international standards

### SUNEDISON WARRANTY

- 25-year limited warranty for materials and workmanship for installations ≤ 250 kWDC
- 25-year linear power warranty at STC:
  - » Year 1: ≤ 3.5% of rated power
  - » After year 1: ≤ 0.7% rated power degradation per year





# SILVANTIS F-SERIES: 260 W TO 280 W

## PHYSICAL PARAMETERS

Module Dimensions	1,658 mm x 990 mm x 50 mm
Module Weight	19 kg
Cell Type	Continuous Cz (CCz) monocrystalline
Number of Cells	60
Frame Material	Black Anodized Aluminum
Tempered ARC Glass Thickness	3.2 mm

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

Nominal Operating Cell Temperature (NOCT)	45 C ± 2 C
Temperature Coefficient of Pmax	-0.45 %/C
Temperature Coefficient of Voc	-0.34 %/C
Temperature Coefficient of Isc	+0.06 %/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
Pmax Production Tolerance	0 W to +5 W
Junction Box Rating	IP67
IEC 61730 Application	Class A
Module Fire Performance	Type 1 or Type 2 available <sup>2</sup>
Module Fire Resistance Rating	Class C
Packaging Specifications	20 modules per pallet 520 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>3</sup>

Model # (e.g. F2xxCzD-3y) <sup>4</sup>	F260 CzD	F265 CzD	F270 CzD	F275 CzD	F280 CzD	F260 KzD	F265 KzD	F270 KzD	F275 KzD	F280 KzD
Rated Maximum Power Pmax (W)	260	265	270	275	280	260	265	270	275	280
Open-Circuit Voltage Voc (V)	37.6	37.7	37.8	37.9	38.0	37.6	37.7	37.8	37.9	38.0
Short-Circuit Current Isc (A)	9.30	9.35	9.40	9.45	9.5	9.20	9.25	9.30	9.35	9.4
Module Efficiency (%)	15.8	16.1	16.4	16.8	17.1	15.8	16.1	16.4	16.8	17.1
Maximum Power Point Voltage Vmpp (V)	30.0	30.1	30.2	30.3	30.4	30.0	30.1	30.2	30.3	30.4
Maximum Power Point Current Impp (A)	8.67	8.81	8.94	9.08	9.21	8.67	8.80	8.94	9.08	9.21

## NOCT ELECTRICAL CHARACTERISTICS<sup>5</sup>

Model # (e.g. F2xxCzD-3y) <sup>4</sup>	F260 CzD	F265 CzD	F270 CzD	F275 CzD	F280 CzD	F260 KzD	F265 KzD	F270 KzD	F275 KzD	F280 KzD
Rated Maximum Power Pmax (W)	189.4	193.0	196.6	200.3	203.9	187.7	191.3	194.9	198.5	202.1
Open-Circuit Voltage Voc (V)	34.8	34.8	34.9	34.9	35.0	34.7	34.7	34.8	34.8	34.9
Short-Circuit Current Isc (A)	7.55	7.58	7.61	7.64	7.67	7.35	7.38	7.41	7.44	7.47
Maximum Power Point Voltage Vmpp (V)	27.5	27.5	27.6	27.6	27.7	27.4	27.5	27.5	27.6	27.6
Maximum Power Point Current Impp (A)	6.90	7.02	7.14	7.26	7.36	6.85	6.97	7.09	7.21	7.32

Listed specifications are subject to change without prior notice.

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

<sup>2</sup>Pmax Production Tolerance: factory-measured module performance is warranted to meet or exceed the stated panel STC power rating by 0 W to +5 W

<sup>3</sup>Refer to design package and module label for specific Fire Performance Type

<sup>4</sup>All electrical data at standard test conditions (STC): 1000 W/m<sup>2</sup>, AM 1.5, 25 C; electrical characteristics may vary by ±5% and power measurement tolerance by ±3%

<sup>5</sup>y indicates connector type: -34 = Bizlink S418; -38 = Amphenol Helios H4

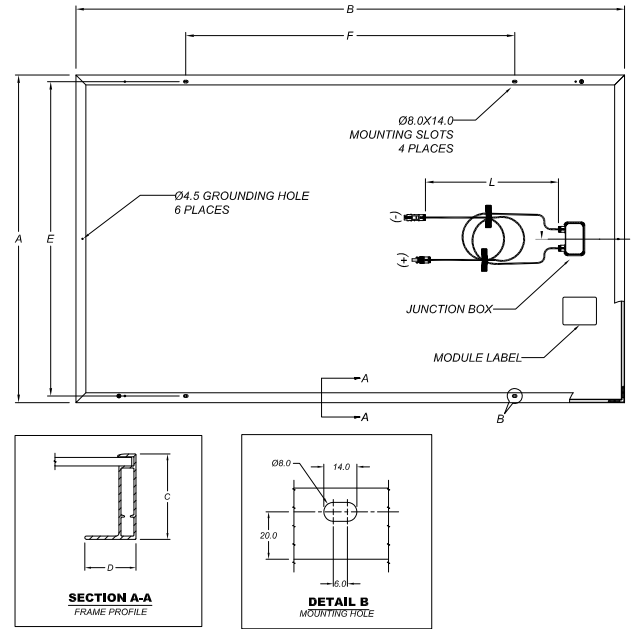
z indicates manufacturing location: M = Malaysia, X = Mexico, K = Korea

<sup>6</sup>NOCT electrical characteristics measured under normal operating conditions of cells: 800 W/m<sup>2</sup>, 20 C, AM 1.5, wind 1 m/s

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

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## F-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]

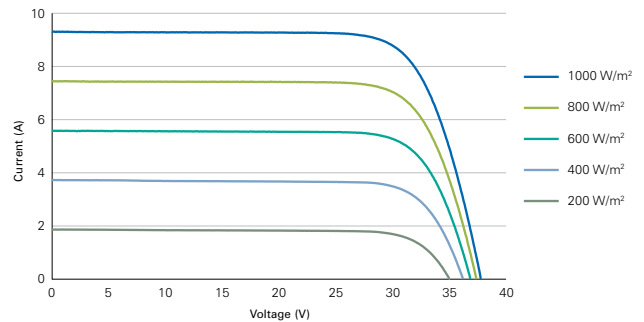
### Mounting Hole Spacing

E – 950 [37.4] F – 994 [39.1]

### Cable Length

L – 1,000 [39.4]

## IV CURVES AT MULTIPLE IRRADIANCES [25 C]



## IV CURVES AT MULTIPLE TEMPERATURES [1000 W/m²]

