

# 280W

## Poly-Crystalline Solar Module

The Solar Semiconductor's family of poly-crystalline 72 cells PV modules ranging from 260WP to 285WP. These modules employ 156 x 156 mm poly crystalline cells and are designed for grid connects as well as off-grid applications. Other custom modules may also be configured.

The 156 mm poly-crystalline cells lay embedded in transparent EVA, behind tempered glass. The glass is inset deep in the frame thereby ensuring maximum protection. The back of the module is sealed with a high-quality backsheet. The junction box has no hollow cavities, is water tight, and is resistant to temperature and UV radiation.

**SOLAR**  
SEMICONDUCTOR  
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SOLUTIONS, PRODUCTS & SERVICES



### HIGH EFFICIENCY

Modules contains high efficiency 2BB/3BB polycrystalline solar cells



### QUALITY

At SSI, quality is not an afterthought; it is designed into our modules and is ensured by automated production with minimal manual intervention.

Each and every module is thoroughly tested for performance.



### CERTIFICATIONS

Certifications to ensure product safety and performance are provided and all modules are backed by a twenty-five year industry leading warranty.

## KEY FEATURES

- Wide range of power with high Watt density
- By pass diodes to avoid effect of partial shading
- Anodized Aluminum alloy
- Frame and tempered glass for rugged protection in hostile environments.
- Manufactured in a state-of-the-art, automated production facility.

## MODULE FAMILY

- 72 cell modules with 2-Busbar and 3-Busbar

## QUALITY & SAFETY

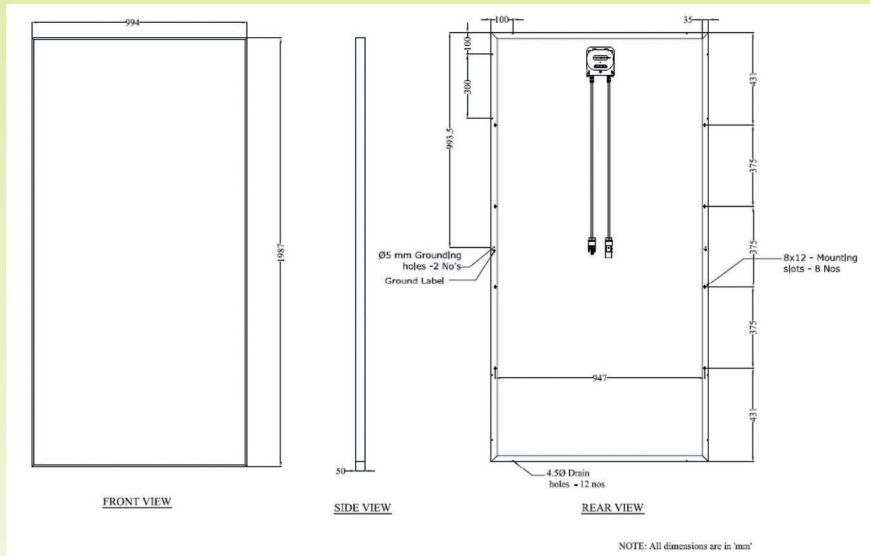
- IEC 61215, IEC 61730, IEC 61701 and CE certified
- UL 1703 certified
- CEC listed
- ISO:9001:2008 Certified Manufacturing Facility.

## WARRANTY INFORMATION

- **PRODUCT WARRANTY**  
5 years
- **POWER WARRANTY**  
90% of minimum rated power till end of first 10 years  
80% of minimum rated power till end of next 15 years

### Performance under Standard Test Conditions (1000W/m<sup>2</sup>, AM 1.5, 25°C)

	SSI-M6-260	SSI-M6-265	SSI-M6-270	SSI-M6-275	SSI-M6-280	SSI-M6-285
	SSI-3M6-260	SSI-3M6-265	SSI-3M6-270	SSI-3M6-275	SSI-3M6-280	SSI-3M6-285
Peak Power (Pmax,W)	260	265	270	275	280	285
Binning (Wp)	-2, +3	-2, +3	-2, +3	-2, +3	-2, +3	-2, +3
Measurement Tolerance (%)	+3	+3	+3	+3	+3	+3
Max Power Voltage (Vmp)	34.62	34.82	35.30	35.48	35.76	35.94
Max Power Current (Imp)	7.52	7.61	7.66	7.76	7.84	7.94
Open Circuit Voltage (Voc)	43.49	43.85	44.06	44.35	44.64	44.93
Short Circuit Current (Isc)	8.00	8.10	8.15	8.25	8.34	8.45
Module Efficiency (%)	13.16	13.42	13.67	13.92	14.18	14.43



72 Cell Solar PV Module Dimensions

#### Operating Conditions

Ambient Temperature (°C)	-40 to +90
Maximum System Voltage (VDC)	600 (US), 1000 (EU)
Hail (23mm Ø) Impact Velocity (M/Sec)	23
Snow load factor	5400Pa

#### Cell Temperature Coefficients

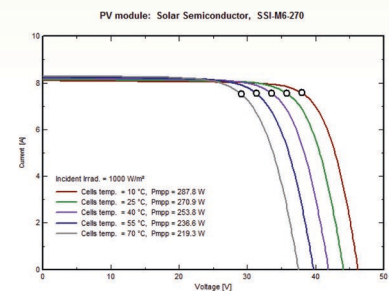
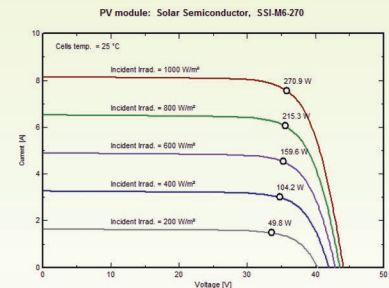
Open Circuit Voltage	-0.36 % / °C
Short Circuit Current	+0.06 % / °C
Nominal Power	-0.43 % / °C

#### Mechanical Characteristics

Cable	No. 12 AWG, 4 mm <sup>2</sup>
PV Connectors	MC4/MC3/Tyco/Bizlink
Frame	Silver Anodized Aluminum Alloy
Junction Box	IP65 Junction box with, 4 terminals
Glass	4 mm thick low iron tempered

#### Physical Parameters

No. of Cells	72
Module Dimensions (mm)	1987 X 994
Module Thickness (mm)	50
Approximate Weight (Kgs)	27



Solar Semiconductor is a pioneer in offering innovative solutions that leverage Sun's energy to address various demands for electricity. With offices in USA, Canada, Dubai and manufacturing operations in Hyderabad, India, Solar Semiconductor is an international organization that offers PV solutions, products and services to worldwide markets including the Americas, Europe, Asia and Africa.



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