SoloPanel® Model SP1

Our SoloPanel SP1 is an innovative photovoltaic module based upon Copper, Indium, Gallium, Selenium ("CIGS") semiconductor material electro-deposited on a flexible stainless steel substrate and encapsulated in a state-of-the-art moisture barrier laminate. It is designed for a wide range of applications.

LOW INSTALLED SYSTEM COST

The flexible, lightweight form factor of the SP1 enables rapid and easy installation as well as low cost system integration with a wide variety of mounting solutions. The SP1 module is optimized for residential and standing seam metal roof integration.

HIGH ENERGY PERFORMANCE

SoloPower® is the market leader in high efficiency flexible modules. Modules are designed for superior performance under all light conditions, including low sun angle, providing excellent energy yield throughout the year.

PROVEN DURABILITY

SoloPower® modules are built to meet or exceed UL 1703, IEC 61646 & IEC 61730 standards. Cells and modules are continually subjected to rigorous environmental and accelerated life cycle testing beyond industry standards.

INNOVATED INTEGRATION

SoloPower Systems Inc. is a US based manufacturer of high-efficiency thin-film photovoltaic modules based on Copper Indium Gallium di Selenide (CIGS). The unique manufacturing process utilizes a low cost, proprietary electro-deposition tool set. The company is headquartered in Portland, Oregon.

KEY FEATURES

+ Sixty (60) series connected, high efficiency, CIGS solar cells optimize panel performance
+ Low weight, non-penetrating mounting solutions take advantage of the lightweight module characteristics
+ Superior low-sun angle and low light performance provide excellent energy yield
+ Low profile bypass diodes allow for maximum performance under shade conditions
+ Weather resistant front sheet, sealed junction box and protective back sheet provide a long life, reliable and durable package
+ Modules are built to meet and/or exceed UL standard 1703, IEC 61646 & IEC 61730 standards
+ Manufactured in a highly automated state-of-the-art facility
+ 5-year limited warranty against defective materials and workmanship
+ 25-year warranty on power output
+ Designed and manufactured in the USA
+ For a complete listing of SoloPower products visit: www.solopower.com

6308 N. Marine Drive, Portland, OR 97203 +1 503-388-3710 www.solopower.com

APPLICATIONS

Segments: Commercial, Industrial, and Residential Rooftops

ELECTRICAL CHARACTERISTICS (STC)[1]

SoloPower SP1		70	75	80	85	90
Rated Power (Pmax)[2]	W	70	75	80	85	90
Voltage at Pmax (Vmp)	V	22.2	21.8	22.7	23.3	24.7
Current at Pmax (Imp)	A	3.4	3.4	3.5	3.6	3.6
Short-circuit current (Isc)	A	4.2	4.3	4.3	4.4	4.3
Open-circuit Voltage (Voc)	V	30.0	30.6	31.8	32.4	33.6
Efficiency[3]	%	8.0	9.9	10.5	11.2	11.9

1. STC standard test conditions: 1000W/m² intensity, Air Mass 1.5, 25°C cell temperature. The power tolerance is -5% / +5% Wp, at STC. The electrical characteristics are within ± 10% unless otherwise specified.
2. Stabilized Power.
3. Aperture Efficiency.

SoloPower SP1					
Temp. Co-efficient of Isc	%/°C	- 0.01	Pmp	- 0.4	%/°C
Temp. Co-efficient of Voc	%/°C	- 0.3			
Max. Series Fuse Rating	A	7			
Maximum DC Voltage					
US	VDC	600			
EU	VDC	1,000			
NOCT	°C	47			

PHYSICAL CHARACTERISTICS

SoloPower SP1	
Length	86.1 in / 2.187 m
Width	15.7 in / 0.399 m
Thickness	0.1 in / 2.0 mm
Weight	4.6 lbs / 2.1 kg
Roof Load From Module	0.49 lbs/ft² / 2.4 kg/m²

QUALIFICATIONS

Certified to Standards: UL 1703, IEC 61646, & IEC 61730.

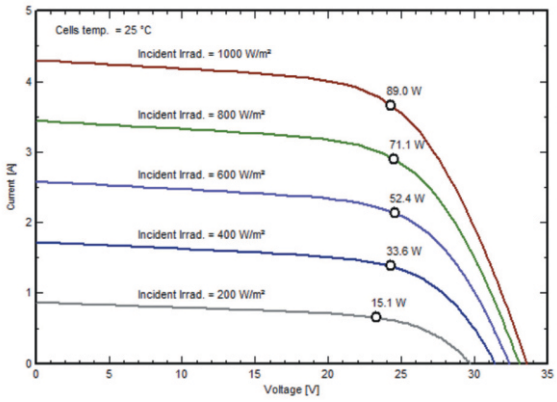
WARRANTY

Limited Warranty

Materials and workmanship: 5 years. Power output: 25 years (90% of nominal rated power for years 1 to 10, 80% of nominal rated power for years 11 to 25). Designed and manufactured in the USA.

Contact sales@solopower.com for complete terms of the limited warranty.

IV CURVES



Current (A) vs. Voltage (V) at various Irradiance levels

MECHANICAL DRAWING