

Schott Applied Power Corporation

High Efficiency Multi-Crystal Photovoltaic Module

165W Maximum Power



Schott's photovoltaic module is designed for large electrical power requirements. Based on the technology of crystal silicon solar cells, this module has superb durability to withstand rigorous operating conditions and is suitable for grid connected systems.

sapc 165



SCHOTT
glass made of ideas

PHOTOVOLTAIC MODULE

SPECIFICATIONS

Cell	Multi-crystal silicon solar cells, 125mm square
No. of cells and connections	72 in series
Configuration	Nominal 24V DC Output
Maximum system voltage	DC 600V
Series fuse rating	10A
Maximum/Minimum power	165 W (max.)/148.5 W (Min.)
Dimensions	62" x 32.52" x 1.81"
Weight	37.47 lbs.

ABSOLUTE MAXIMUM RATINGS

Parameters	Rating	Unit
Operating temperature	-40 to +90	°C
Storage Temperature	-40 to +90	°C
Dielectric voltage withstood	2200 max.	

OUTPUT TERMINAL

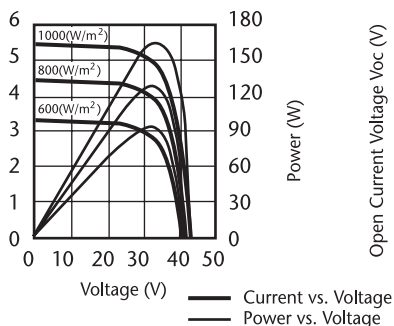
Type of output terminal	Multi-Contact® plug & socket connectors
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ELECTRO-OPTICAL CHARACTERISTICS

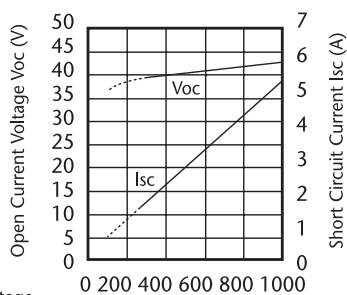
Model	Symbol	Min.	Typ.	Unit	Condition
Open circuit voltage	Voc	----	43.1	V	Irradiance: 1000 W/m ²
Maximum power voltage	Vmp	----	34.6	V	
Short circuit current	Isc	----	5.46	A	
Maximum power current	Imp	----	4.77	A	
Maximum power	Pm	148.5	165.0	W	Module temperature: 25°C
Encapsulated solar cell efficiency	nc	----	14.6	%	
Module efficiency	nm	----	12.7	%	

CHARACTERISTICS

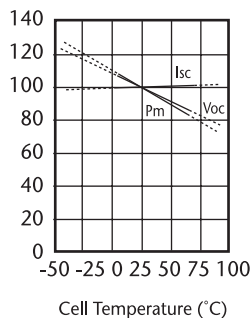
Current, Power vs. Voltage Characteristics (Cell temperature: 25°C)



Open Circuit Voltage, Short Circuit Current vs. Irradiance Characteristics (Cell temperature: 25°C)



Normalized Isc, Voc, Pm vs. Cell Temperature Characteristics



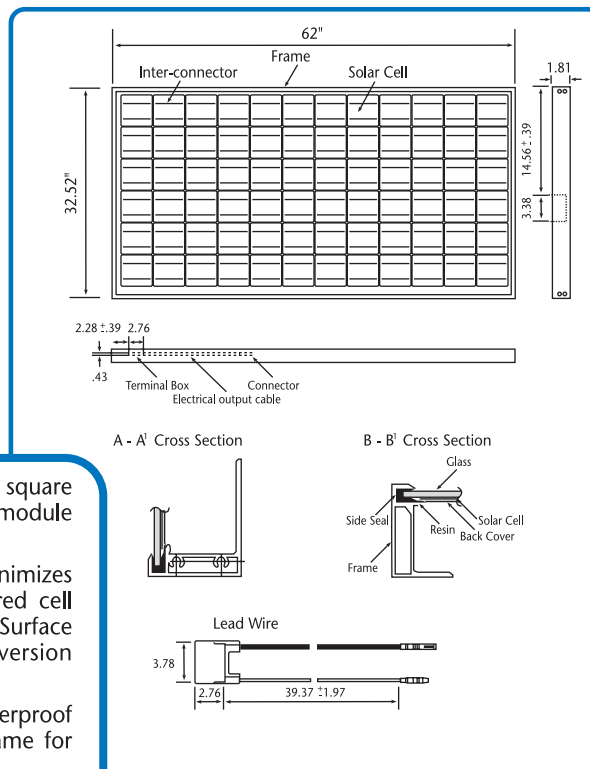
High-power module (165W) using 125mm square multi-crystal silicon solar cells with 12.7% module conversion efficiency.

Photovoltaic module with bypass diode minimizes the power drop caused by shade. Textured cell surface to reduce sunlight reflection. Black Surface Field structure to improve cell conversion efficiency: 14.6%

White tempered glass, EVA resin, and weatherproof film along with an anodized aluminum frame for extended outdoor use.

20 Year Limited Power Output Warranty

OUTLINE DIMENSIONS



GRID CONNECTED RESIDENTIAL SYSTEMS
OFFICE BUILDINGS • SOLAR POWER STATIONS
SOLAR VILLAGES PUMPS • LIGHTING EQUIPMENT
TELECOM SYSTEMS • OFF GRID SYSTEMS

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