

High-efficiency photovoltaic module using silicon nitride multicrystalline silicon cells.

Performance

Rated power (P_{max})	4.5W
Power tolerance	$\pm 10\%$
Nominal voltage	12V
Limited Warranty ¹	12 years

Configuration

M Multimount frame with lo-pro J-Box and output cable.

Electrical Characteristics²

SX305

Maximum power (P_{max}) ³	4.5W
Voltage at Pmax (V_{mp})	16.5V
Current at Pmax (I_{mp})	0.27A
Warranted minimum P_{max}	4W
Short-circuit current (I_{sc})	0.3A
Open-circuit voltage (V_{oc})	20.5V
Temperature coefficient of I_{sc}	(0.065 \pm 0.015)%/ °C
Temperature coefficient of V_{oc}	-(80 \pm 10)mV/°C
Temperature coefficient of P	-(0.5 \pm 0.05)%/ °C
NOCT (Air 20°C; Sun 0.8kW/m ² ; wind 1m/s)	47 \pm 2°C
Maximum series fuse rating	1A
Maximum system voltage	50V (US NEC rating)



Mechanical Characteristics

Dimensions	Length: 251mm (9.9")	Width: 269mm (10.6")	Depth: 23mm (0.9")
Weight	0.8 kg (1.76 pounds)		
Solar Cells	36 cells (19mm x 57mm) in a 4x9 matrix connected in series		
Output Cables	AWG# 18 (0.75mm ²) 2 core ITC/PLTC; length - 4572mm		
Construction	Front: High-transmission 3mm (1/8 th inch) tempered glass; Back: Polyester; Encapsulant: EVA		
Frame	Clear anodized aluminum alloy type 6063T6 Multimount frame; Color: silver		

1. Module Warranty: 12-year limited warranty of 90% power output; 2-year limited warranty of materials and workmanship. See your local representative for full terms of these warranties.
2. These data represent the performance of typical BP modules, and are based on measurements made in accordance with ASTM E1036 corrected to SRC (STC.)
3. During the stabilization process that occurs during the first few months of deployment, module power may decrease by approx. 1% from typical P_{max} .

Quality and Safety



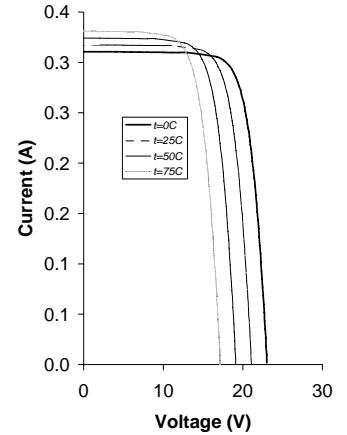
Listed to UL 1703 Standard for safety by Intertek ETL (Class C fire rating)

Approved by Intertek ETL for use in NEC Class 1, Division 2, Groups A to D hazardous locations.

Qualification Test Parameters

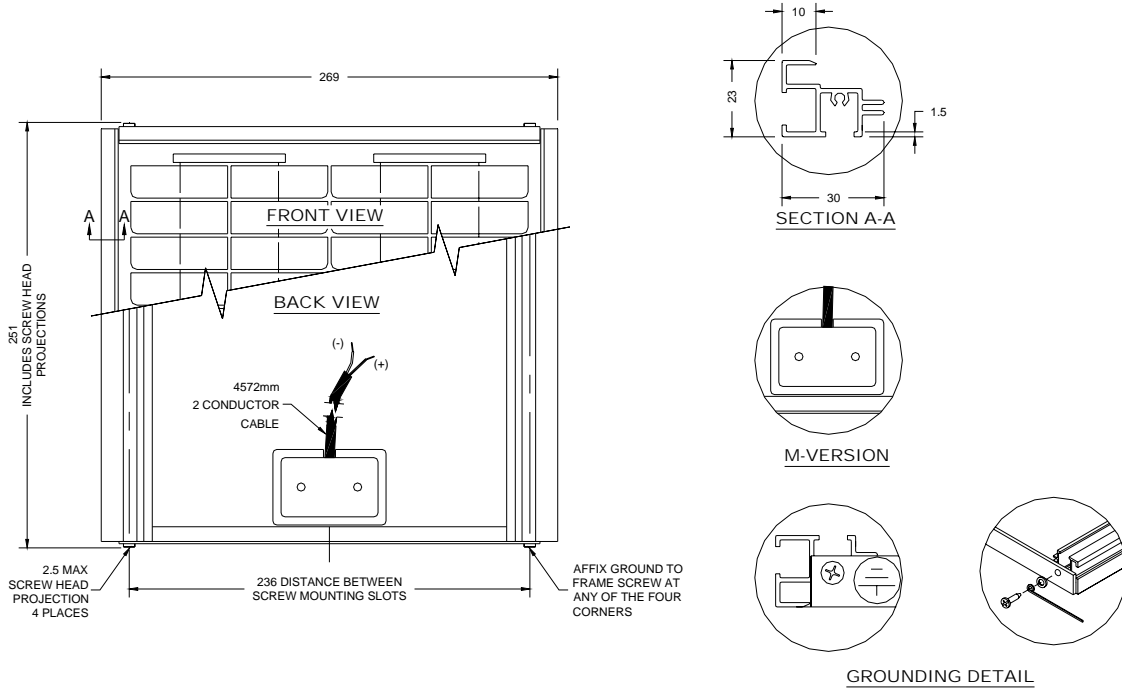
Temperature cycling range	-40°C to +85°C (-40°F to 185°F)
Humidity freeze, damp heat	85% RH
Static load front and back (e.g. wind)	2,400 pa (50psf)
Front loading (e.g. snow)	5,400 pa (113psf)
Hailstone impact	25mm Ø (1 inch) at 23 m/s (52mph)

SX305 I-V Curves



Module Diagram

Dimensions in brackets are in inches. Un-bracketed dimensions are in millimeters.
Overall tolerances ±3mm (1/8")



Included with each module: Instruction sheet, and warranty document.

Note: This publication summarizes product warranty and specifications, which are subject to change without notice.
Additional information may be found on our web site: www.bpsolar.com

