

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

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

Configuration

M	Multimount frame with lo-pro J-Box and output cable
J	Clear universal frame and standard J-Box

Electrical Characteristics²
SX310

Maximum power (P_{max}) ³	10W
Voltage at Pmax (V_{mp})	16.8V
Current at Pmax (I_{mp})	0.59A
Warranted minimum P_{max}	9W
Short-circuit current (I_{sc})	0.65A
Open-circuit voltage (V_{oc})	21.0V
Temperature coefficient of I_{sc}	$(0.065 \pm 0.015)\% / ^\circ C$
Temperature coefficient of V_{oc}	$-(80 \pm 10)mV / ^\circ C$
Temperature coefficient of power	$-(0.5 \pm 0.05)\% / ^\circ C$
NOCT (Air 20°C; Sun 0.8kW/m ² ; wind 1m/s)	47 \pm 2°C
Maximum series fuse rating	1A (M/J)
Maximum system voltage	50V (US NEC rating)


Mechanical Characteristics

Dimensions	M	Length: 421mm (16.57")	Width: 269mm (10.59")	Depth: 23mm (0.90")
	J	Length: 425mm (16.73")	Width: 273mm (10.74")	Depth: 50mm (1.97")

Weight	M	1.5 kg (3.3 pounds)
	J	1.9 kg (4.2 pounds)

Solar Cells 36 cells (57mm x 38) in a 4x9 matrix connected in series

Junction Box **J** J-Version junction box with 4-terminal connection block; IP 65, accepts PG 13.5, M20, ½ inch conduit, or cable fittings accepting 6-12mm diameter cable. Terminals accept 2.5 to 10mm² (8 to 14 AWG) wire.

Output Cables **M** AWG# 18 (0.75mm²) 2 core ITC/PLTC; length - 4572mm

Construction Front: High-transmission 3mm (1/8th inch) tempered glass; Back: Polyester; Encapsulant: EVA

Frame **M** Clear anodized aluminum alloy type 6063T6 Multimount frame; Color: silver
J Clear anodized aluminum alloy type 6063T6 Universal 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

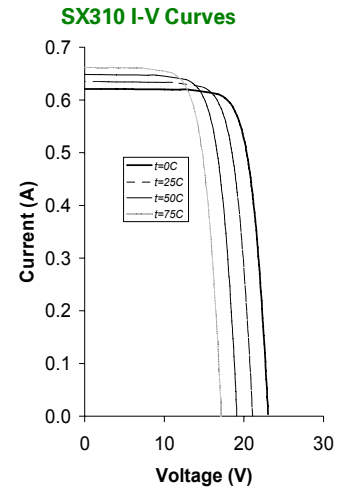


Listed to UL 1703 Standard for safety by Intertek ETL (Class C fire rating)

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

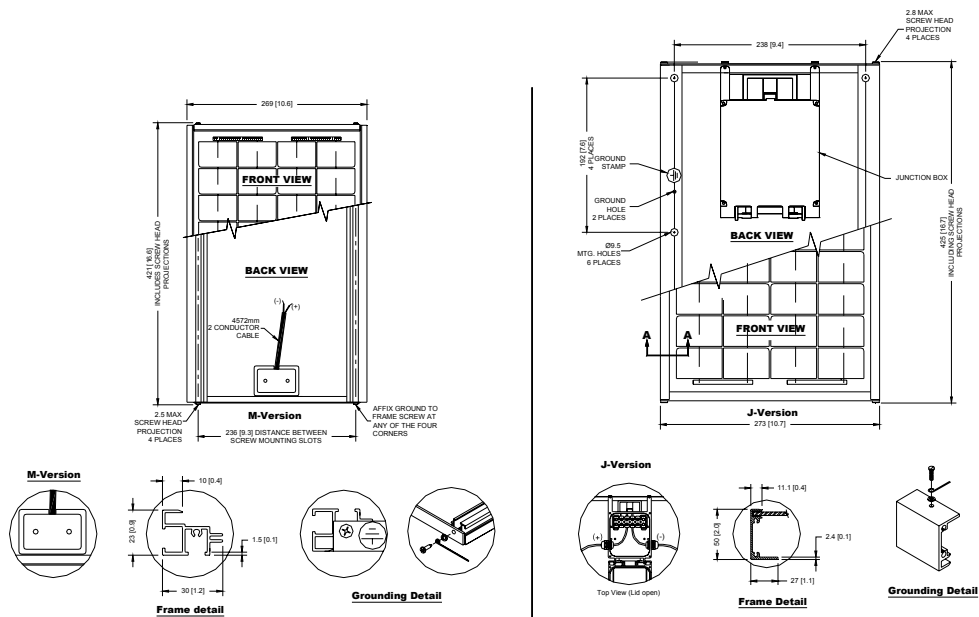
Qualification Test Parameters

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)



Module Diagram

Dimensions in brackets are in inches. Un-bracketed dimensions are in millimeters.
Overall tolerances $\pm 3\text{mm}$ (1/8")



Included with each module: self-tapping grounding screw (J-Version), 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

