

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})	0.69A
Open-circuit voltage (V_{oc})	21.0V
Temperature coefficient of I_{sc}	(0.065 \pm 0.015)%/ °C
Temperature coefficient of V_{oc}	-(80 \pm 10)mV/°C
Temperature coefficient of power	-(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 (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 10mm ² (8 to 14 AWG) wire.
--------------	---

Output Cables	M 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	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} .

