

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

## **Performance**

 $\begin{array}{ll} \text{Rated power (P}_{\text{max}}) & 140\text{W} \\ \text{Power tolerance} & \pm 9\% \\ \text{Nominal voltage} & 12\text{V} \\ \text{Limited Warranty}^1 & 25 \text{ years} \end{array}$ 

## Configuration

J SX 3140J Clear universal frame and standard J-Box

Electrical Characteristics <sup>2</sup>	SX3140	SX3130
Maximum power (P <sub>max</sub> ) <sup>3</sup>	140W	130W
Voltage at Pmax (V <sub>mp</sub> )	17.5V	17.3V
Current at Pmax (I <sub>mp</sub> )	8.0A	7.5A
Warranted minimum P <sub>max</sub>	127.4W	118.3W
Short-circuit current (I <sub>sc</sub> )	8.2A	8.2A
Open-circuit voltage (Voc)	22.0V	22.0V
Temperature coefficient of I <sub>sc</sub>	(0.065±0.015)%/°C	
Temperature coefficient of Voc	-(80±10)mV/°C	
Temperature coefficient of power	-(0.5±0.05)%/°C	
NOCT (Air 20°C; Sun 0.8kW/m²; wind 1m/s)	47	7±2°C
Maximum series fuse rating	15A (\$	S); 20A (J)
Maximum system voltage	600V (US	S NEC rating)
	1000V (TÜV	Rheinland rating)
	1000V (IEC	C 61215 rating)



# **Mechanical Characteristics**

Dimensions	Length: 1510mm (59.4") Width: 674mm (26.5") Depth: 50mm (1.97")	
Weight	12.0 kg (26.5 pounds)	
Solar Cells	36 cells (156mm x 156mm) in a 4x9 matrix connected in series	
Junction Box	J-Version junction box with 6-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.	
Diodes	<b>IntegraBus™</b> technology includes Schottky by-pass diodes integrated into the printed circuit board bus	
Construction	Front: High-transmission 3mm (1/8 <sup>th</sup> inch) tempered glass; Back: Polyester; Encapsulant: EVA	
Frame	Clear anodized aluminum alloy type 6063T6 Universal frame; Color: silver	

<sup>1.</sup> Module Warranty: 25-year limited warranty of 80% power output; 12-year limited warranty of 90% power output; 5-year limited warranty of materials and workmanship. See your local representative for full terms of these warranties.

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<sup>2.</sup> These data represent the performance of typical BP modules, and are based on measurements made in accordance with ASTM E1036 corrected to SRC (STC.)

<sup>3.</sup> During the stabilization process that occurs during the first few months of deployment, module power may decrease by approx. 1% from typical P<sub>max</sub>.

# **Quality and Safety**

Module power measurements calibrated to World Radiometric Reference through ESTI (European Solar Test Installation at Ispra, Italy)



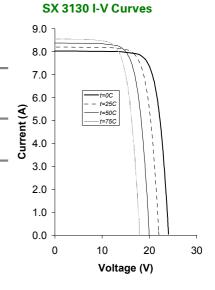
Listed by Underwriter's Laboratories for electrical and fire safety (Class C fire rating)



Approved by Factory Mutual Research in NEC Class 1, Division 2, Groups C & D hazardous locations (U)

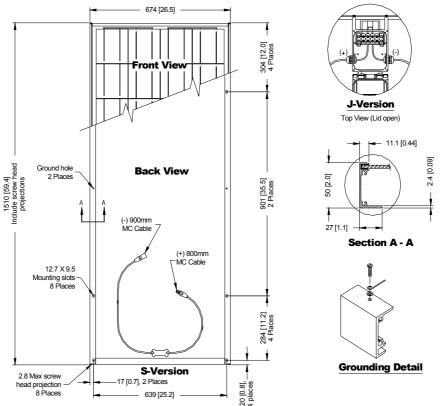
#### **Qualification Test Parameters**

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 ±3mm (1/8")



Included with each module: self-tapping grounding screw, 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: <a href="https://www.bpsolar.com">www.bpsolar.com</a>

