

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

Performance

Rated power (P_{max})	195W
Power tolerance	$\pm 9\%$
Nominal voltage	16V
Limited Warranty ¹	25 years

Configuration

- S** Clear universal frame with output cables and polarized Multicontact (MC) connectors
- B** Bronze frame with output cables and polarized Multicontact (MC) connectors

Electrical Characteristics²

	SX3195	SX3190
Maximum power (P_{max}) ³	195W	190W
Voltage at Pmax (V_{mp})	24.4V	24.3V
Current at Pmax (I_{mp})	7.96A	7.82A
Warranted minimum P_{max}	177.5W	172.9W
Short-circuit current (I_{sc})	8.6A	8.5A
Open-circuit voltage (V_{oc})	30.7V	30.6V
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	15A	
Maximum system voltage	600V (US NEC rating)	



Mechanical Characteristics

Dimensions	Length: 1680 (66.14")	Width: 837mm (32.95")	Depth: 50mm (1.97")
Weight	15.4 kg (33.95 pounds)		
Solar Cells	50 cells (156mm x 156mm) in a 5x10 matrix connected in series		
Output Cables	RHW AWG# 12 (4mm ²) cable with polarized weatherproof DC rated Multicontact connectors; asymmetrical lengths - 1250mm (-) and 800mm (+)		
Diodes	IntegraBus TM technology includes Schottky by-pass diodes integrated into the printed circuit board bus		
Construction	Front: High-transmission 3mm (1/8 th inch) tempered glass; Back: Polyester; Encapsulant: EVA		
Frame	S Clear anodized aluminum alloy type 6063T6 Universal frame; Color: silver B Anodized aluminum alloy type 6063T6 Universal frame; Color: bronze		

- 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.
- These data represent the performance of typical BP 3160 products, and are based on measurements made in accordance with ASTM E1036 corrected to SRC (STC.)
- During the stabilization process that occurs during the first few months of deployment, module power may decrease by up to 9% from typical P_{max} .

Quality and Safety

ESTI

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

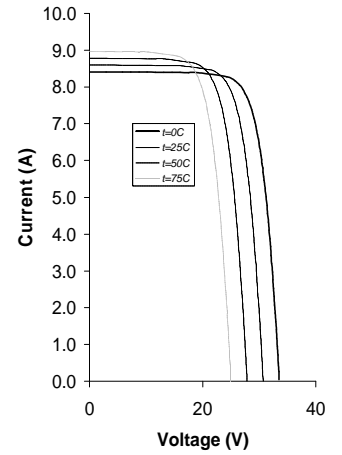


Listed by Underwriter's Laboratories for electrical and fire safety (Class C fire rating)

Qualification Test Parameters

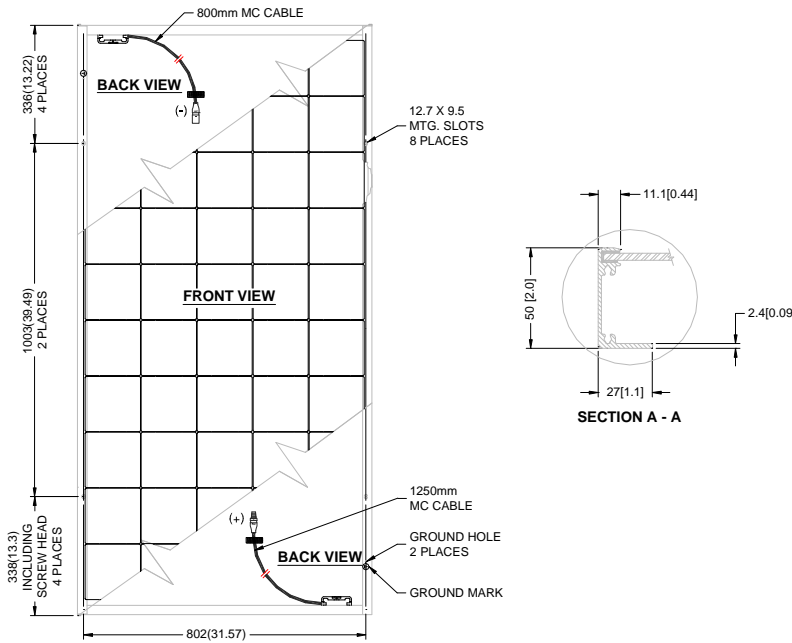
Temperature cycling range	-40°C to +85°C (-40°F to 185°F)
Humidity freeze, damp heat	85% RH
Static load front and back (e.g. wind)	2,400 pa (50psf)
Front loading (e.g. snow)	5,400 pa (113psf)
Hailstone impact	25mm Ø (1 inch) at 23 m/s (52mph)

SX 3195 I-V Curves



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, 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