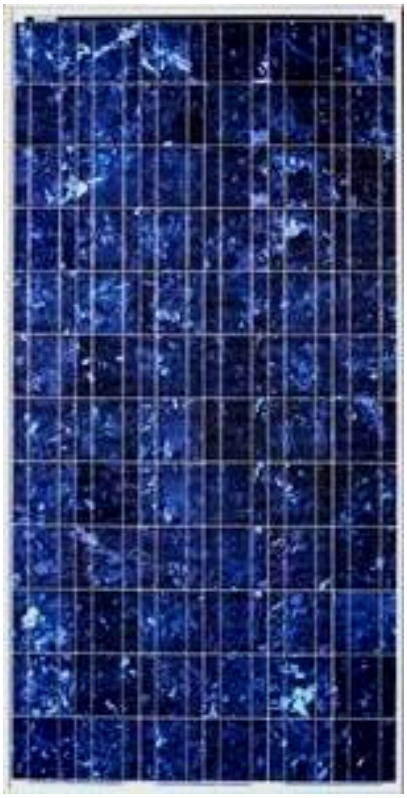
SX 3175

175 Watt Photovoltaic Module

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



Performance

Rated power (P_{max})	175W
Power tolerance	± 9%
Nominal voltage	24V
Limited Warranty[1]	25 years

Configuration

N SX 3175N Clear universal frame with Wirehold J-Box and polarized Multicontact (MC) connectors

Electrical Characteristics[2]	SX 3175	SX 3165
Maximum power (P_{max})[3]	175W	165W
Voltage at Pmax (V_{mp})	36.1V	35.2V
Current at Pmax (I_{mp})	4.85A	4.70A
Warranted minimum P_{max}	159.3W	150.2W
Short-circuit current (I_{sc})	5.3A	5.1A
Open-circuit voltage (V_{oc})	43.6V	43.6V
Temperature coefficient of I_{sc}	(0.065±0.015)%/ °C	
Temperature coefficient of V_{oc}	-(160±20)mV/°C	
Temperature coefficient of power	-(0.5±0.05)%/ °C	
NOCT (Air 20°C; Sun 0.8kW/m^2; wind 1m/s)	47±2°C	
Maximum series fuse rating	15A	
Maximum system voltage	600V (U.S. NEC & IEC 61215 rating)	

Mechanical Characteristics

Dimensions	**N**	Length: 1593mm (62.8")	Width: 790mm (31.1")	Depth: 50mm (1.97")
Weight	**N**	15.4 kg (33.9 pounds)		
Solar Cells	**N**	72 cells (125mm x 125mm) in a 6x12 matrix connected in series		
Output Cables	**N**	RHW-2 AWG# 12 (4mm^2) cable with polarized weatherproof DC rated Multicontact connectors with enhanced clip connection at module end; asymmetrical lengths - 1250mm (-) and 800mm (+)		
Diodes	**N**	***IntegraBus™*** technology includes Schottky by-pass diodes integrated into the printed circuit board bus		
Construction	**N**	Front: High-transmission 3mm (1/8th inch) tempered glass; Back: Polyester Encapsulant: EVA		
Frame	**N**	Clear anodized aluminum alloy type 6063T6 Universal frame; Color: silver		

1. 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.
2. This data represents 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}.

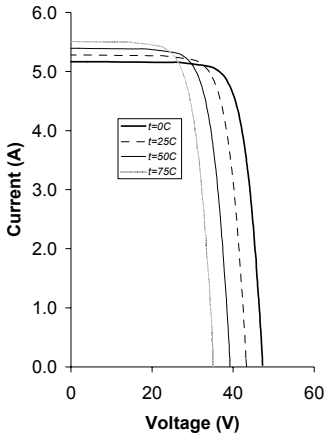
Quality and Safety

ESTI	Module power measurements calibrated to World Radiometric Reference through ESTI
UL	Modules listed by Underwriter's Laboratories for electrical and fire safety (Class C fire rating)

Qualification Test Parameters

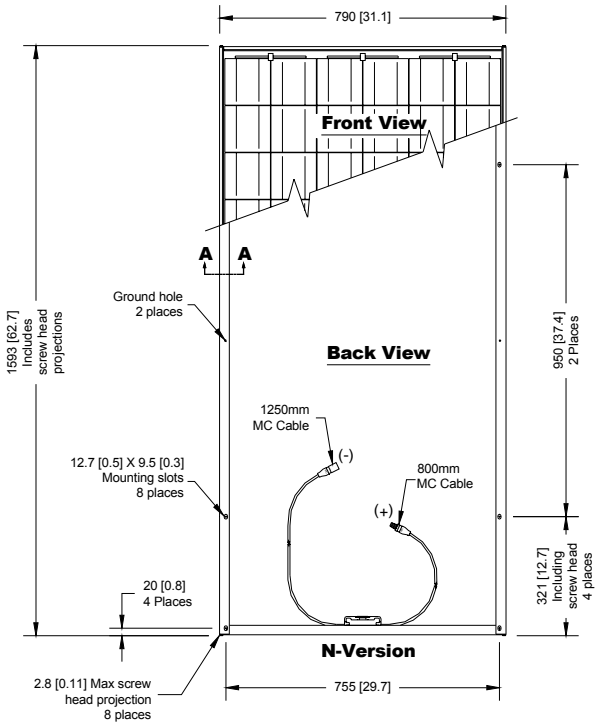
Temperature cycling range	-40°C to +85°C (-40°F to 185°F)
Humidity freeze, damp heat	85% RH
Static load front and back (e.g. wind)	50psf (2400 pascals)
Front loading (e.g. snow)	113psf (5400 pascals)
Hailstone impact	25mm (1 inch) at 23 m/s (52mph)

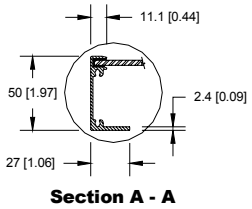
SX 3175 I-V Curves



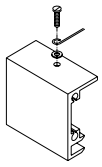
Module Diagram

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





Section A - A



Grounding Detail

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**

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