

High-efficiency photovoltaic module using polycrystalline silicon cells
Performance

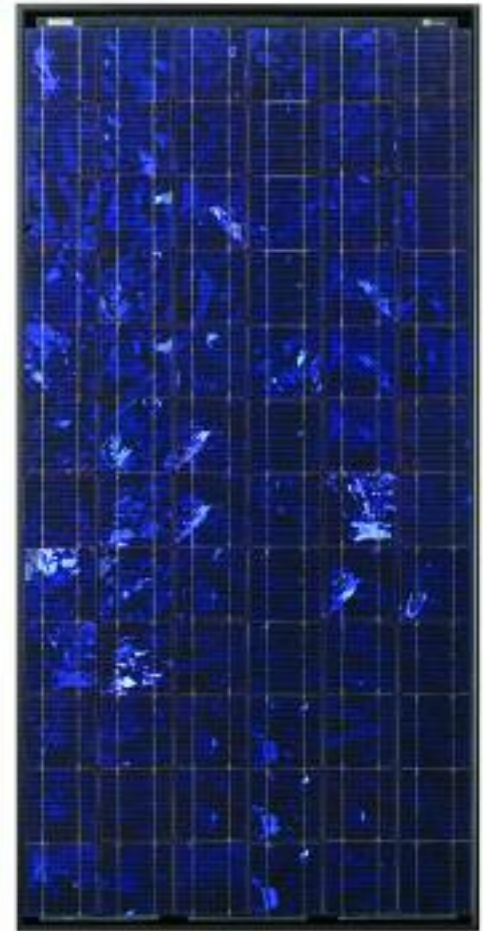
Rated power (P_{max})	175W
Power Tolerance	$\pm 5\%$
Nominal voltage	24V
Limited Warranty ¹	25 years

Configuration

B	Bronze frame with output cables and polarized Multicontact (MC) connectors
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Electrical Characteristics²
BP 175B

Maximum power (P_{max}) ³	175W
Voltage at P_{max} (V_{mp})	35.8V
Current at P_{max} (I_{mp})	4.9A
Warranted minimum P_{max}	166.3W
Short-circuit current (I_{sc})	5.47A
Open-circuit voltage (V_{oc})	43.6V
Temperature coefficient of I_{sc}	$(0.065 \pm 0.015)\%/^{\circ}C$
Temperature coefficient of V_{oc}	$-(160 \pm 20)mV/^{\circ}C$
Temperature coefficient of power	$-(0.5 \pm 0.05)\%/^{\circ}C$
NOCT (Air 20°C; Sun 0.8kW/m ² ; wind 1m/s)	$47 \pm 2^{\circ}C$
Maximum series fuse rating	15A
Maximum system voltage	600V (U.S. NEC rating)


Mechanical Characteristics

Dimensions	Length: 1593mm (62.8")	Width: 790mm (31.1")	Depth: 50mm (1.97")
Weight	15.4 kg (34 pounds)		
Solar Cells	72 cells (125mm x 125mm) in a 6x12 matrix connected in series		
Output Cables	RHW-2 AWG# 12 (4mm ²), cable with polarized weatherproof DC rated Multicontact connectors; asymmetrical lengths — 1250mm(-) and 800mm(+)		
Diodes	IntegraBus™ technology includes Schottky by-pass diodes integrated into the printed circuit board bus		
Construction	Front: High-transmission and anti-reflective 3mm (1/8th in) tempered glass; Back: Black Polyester; Encapsulant: EVA		
Frame	Anodized aluminum Universal frame; Color: Black		

1. Warranty: Power output for 25 years. Freedom from defects in materials and workmanship for 5 years. See our website for full terms of these warranties.
2. This data represents the performance of typical BP Solar products, 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 approximately 1% 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)

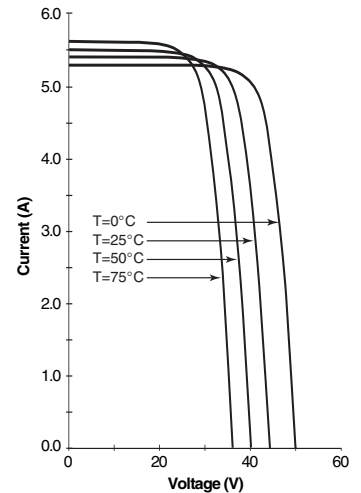


Listed by Underwriter's Laboratories for electrical and fire safety (Class C fire rating)

Qualification Test Parameters

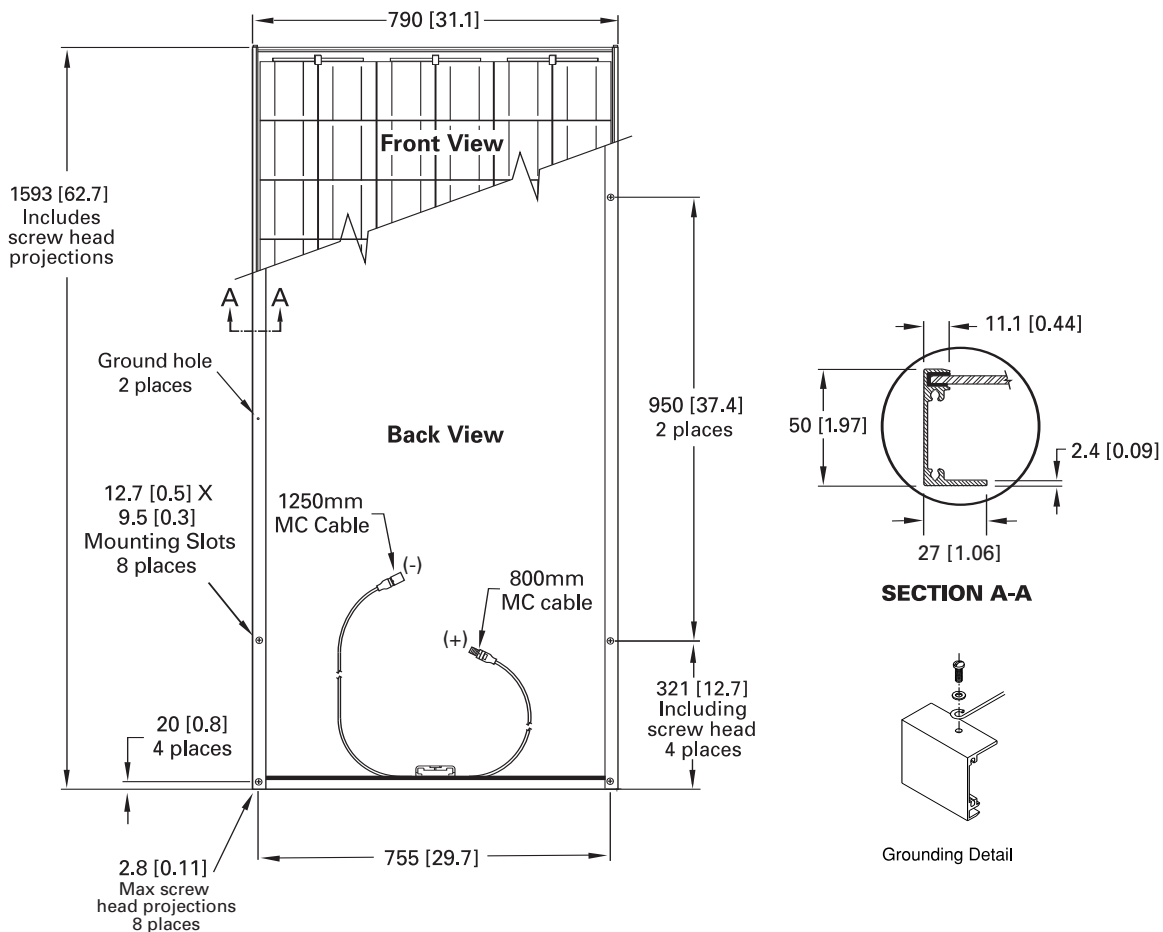
Temperature cycling range	-40°C to +85°C (-40°F to 185°F)
Humidity freeze, damp heat	85% RH
Static load front and back (e.g. wind)	45psf (2160Pa)
Hailstone impact	25mm (1 inch) at 23 m/s (52 mph)

BP 175B 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 documents.

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.us