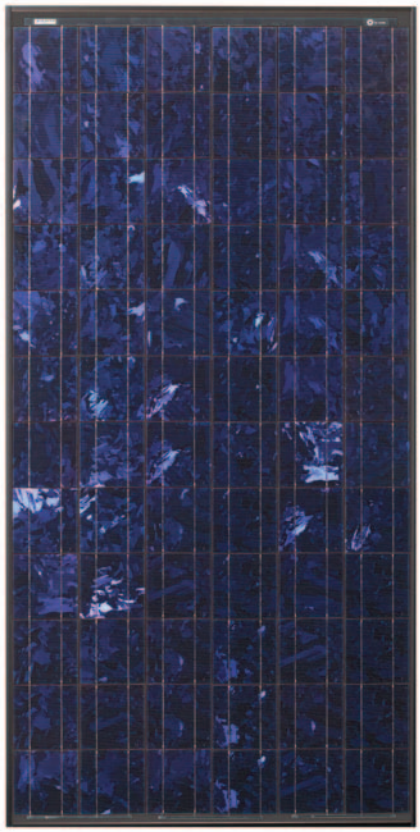
BP 175B

175 Watt Photovoltaic Module

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

Performance

Rated power (P_{max})	175W
Power tolerance	± 5%
Nominal voltage	24V
Limited Warranty[1]	25 years



Configuration

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

Electrical Characteristics[2]

	BP175B
Maximum power (P_{max})[3]	175W
Voltage at Pmax (V_{mp})	35.8V
Current at Pmax (I_{mp})	4.9A
Warranted minimum P_{max}	166.3W
Short-circuit current (I_{sc})	5.4A
Open-circuit voltage (V_{oc})	44.2V
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/m²; wind 1m/s)	47±2°C
Maximum series fuse rating	15A
Maximum system voltage	600V (U.S. NEC & IEC 61215 rating)

Mechanical Characteristics

Dimensions	Length: 1593mm (62.8") Width: 790mm (31.1") Depth: 50mm (1.97")
Weight	15.0 kg (33.1 pounds)
Solar Cells	72 cells (125mm x 125mm) in a 6x12 matrix connected in series
Output Cables	RHW AWG# 12 (4mm²) 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 anti-reflective 3mm (1/8th inch) tempered glass; Back: Gray Charcoal Tedlar; Encapsulant: EVA
Frame	Anodized aluminum alloy type 6063T6 Universal frame; Color: Bronze

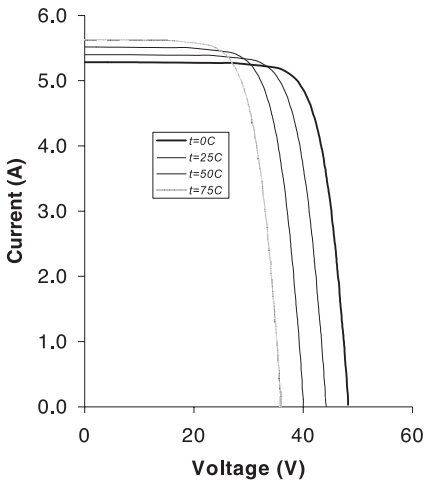
1. Warranty: Power output for 25 years. Freedom from defects in materials and workmanship for 5 years. See our website or your local representative for full terms of these warranties.
2. These data represent the performance of typical BP 175B products, and are based on measurements made in accordance 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 up to 1% from typical P_{max}.

6802.0006-v4 04/06

Quality and Safety

ESTI	Module power measurements calibrated to World Radiometric Reference through ESTI (European Solar Test Installation at Ispra, Italy); Certified to IEC 61215
UL	Listed by Underwriter's Laboratories for electrical and fire safety (Class C fire rating)

BP 175B I-V Curves

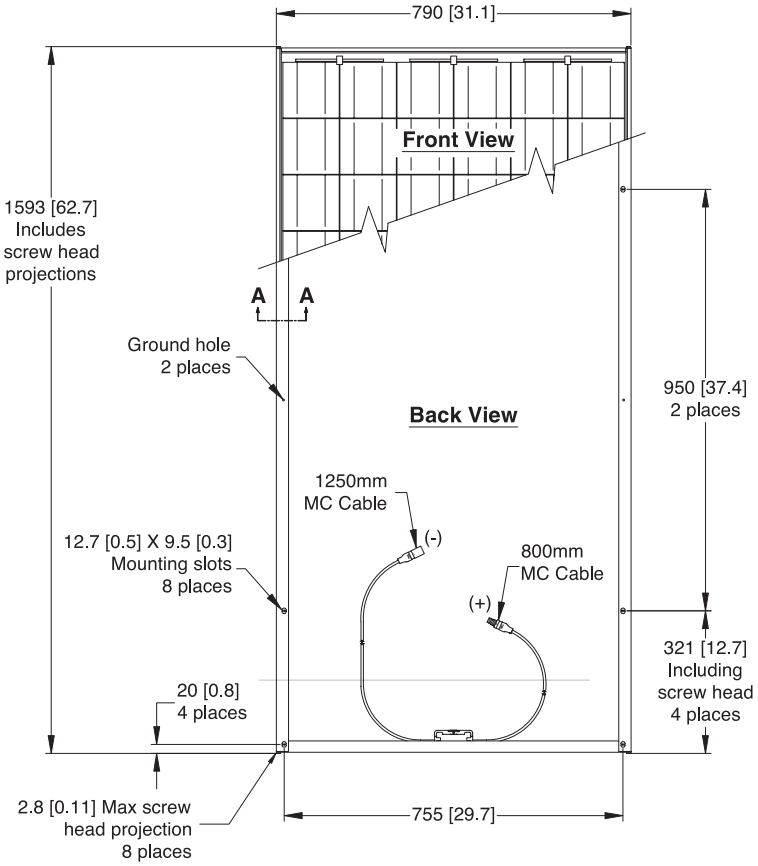


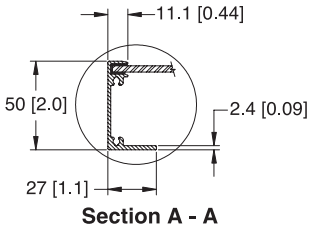
Qualification Test Parameters

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)

Module Diagram

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





Included with each module: self-tapping grounding screws, 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.us**

6802.0006-v4 04/06

bp solar