

**High-efficiency photovoltaic module using silicon nitride monocrystalline silicon cells.**

### Performance

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

### Configuration

BP 4175B	Framed module with output cables and polarized Multicontact (MC) connectors
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### Electrical Characteristics<sup>2</sup>

	<b>BP 4175</b>
Maximum power ( $P_{max}$ ) <sup>3</sup>	175W
Voltage at Pmax ( $V_{mp}$ )	35.7V
Current at Pmax ( $I_{mp}$ )	4.9A
Warranted minimum $P_{max}$	166.5W
Short-circuit current ( $I_{sc}$ )	5.4A
Open-circuit voltage ( $V_{oc}$ )	44.0V
Temperature coefficient of $I_{sc}$	(0.065 $\pm$ 0.015)%/ °C
Temperature coefficient of $V_{oc}$	-(160 $\pm$ 10)mV/°C
Temperature coefficient of power	-(0.5 $\pm$ 0.05)%/ °C
NOCT (Air 20°C; Sun 0.8kW/m <sup>2</sup> ; wind 1m/s)	47 $\pm$ 2°C
Maximum series fuse rating	15A (S, L)
Maximum system voltage	600V (U.S. NEC & IEC 61215 rating)

### Mechanical Characteristics

Dimensions Length: 1595mm (62.8") Width: 790mm (31.1") Depth: 50mm (1.97")

Weight 15.4 kg (34.0 pounds)

Solar Cells 72 cells (125mm x 125mm) in a 6x12 matrix connected in series

Output Cables RHW AWG# 12 (3.3mm) 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 3mm (1/8<sup>th</sup> inch) tempered glass; Back: Tedlar; Encapsulant: EVA

Frame Bronze anodized aluminum alloy type 6063T6 Universal frame

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. These data represent the performance of typical BP 4175 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 3% 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)

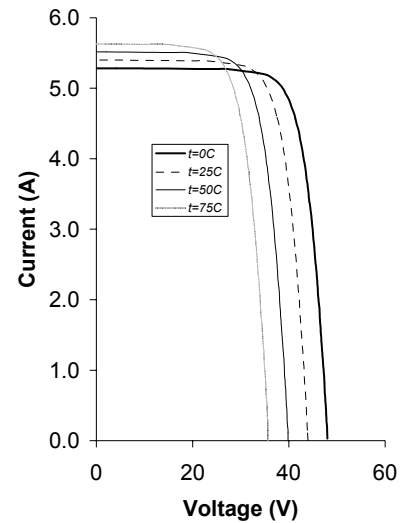


Certified to IEC 61215 standards by ASU/PTL

## Qualification Test Parameters

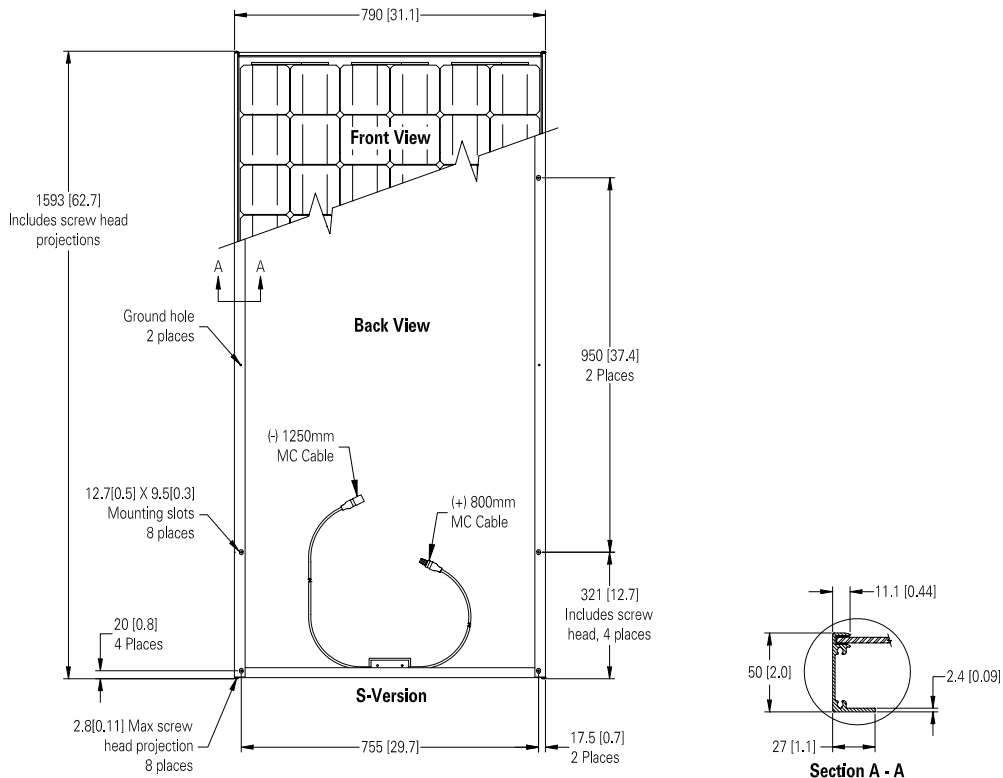
Temperature cycling range	-40°C to +85°C (-40°F to 185°F)
Humidity freeze, damp heat	85% RH
Static load front and back (e.g. wind)	50psf (2400 pascals)
Front loading (e.g. snow)	113psf (5400 pascals)
Hailstone impact	25mm (1 inch) at 23 m/s (52mph)

## BP 4175 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")



Self-tapping grounding screw, instruction sheet, and warranty document included with each module.

**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](http://www.bpsolar.com)