



The BP 3160B photovoltaic module is designed to provide superior value and performance for residential and commercial use. With time-tested multicrystalline silicon solar cells, it provides cost-effective power for DC loads or, with an inverter, AC loads. With 72 enhanced-efficiency cells in series, it charges 24V batteries (or multiples of 24V) efficiently in virtually any climate. With 160 watts of nominal maximum power, it is primarily used in utility grid-supplemental systems for residences, commercial buildings, and centralized power generation.

The BP 3160B features installation-speeding quick-connectors and an attractive bronze-anodized frame.

### Proven Materials and Construction

BP Solar's quarter-century of field experience shows in every aspect of this module's construction and materials:

- 72 multicrystalline silicon solar cells in series, efficiency enhanced by improved cell coating;
- Cells are laminated between sheets of ethylene vinyl acetate (EVA) and high-transmissivity low-iron 3mm tempered glass;
- Weatherproof DC-rated plug-and-socket connectors provide reliable low-resistance connections and eliminate wiring errors;
- Asymmetrical cables enable side-by-side or end-to-end module placement in arrays;
- Frame strength exceeds requirements of certifying agencies.

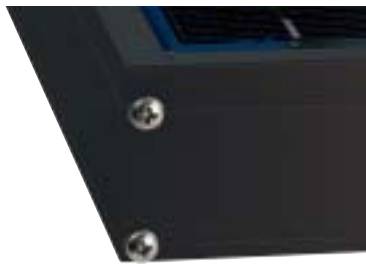


### DC Connectors

### Limited Warranties

- 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.



### Bronze Anodized Universal Frame

### Quality and Safety

- Manufactured in ISO 9001-certified factories;
- Conforms to Directives 89/336/EEC, 73/23/EEC and 93/68/EEC of the European Community;
- Listed by Underwriter's Laboratories for electrical and fire safety (Class C fire rating);
- Certified by TÜV Rheinland as Class II equipment;
- Complies with the requirements of IEC 61215, including:
  - repetitive cycling between 40°C and 85°C at 85% relative humidity;
  - simulated impact of 25mm (one-inch) hail at terminal velocity;
  - 2200 VDC frame/cell string isolation test;
  - static loading, front and back, of 2400 pascals (50 psf); front loading (e.g. snow) of 5400 pascals (113 psf).



BP 3160B



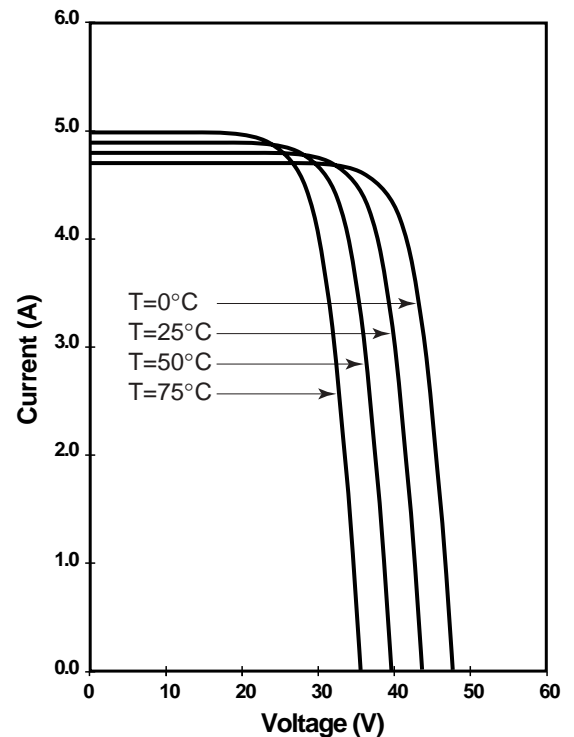
## Electrical Characteristics<sup>1</sup>

	BP 3160B	BP 3150B <sup>2</sup>
Maximum power ( $P_{\max}$ ) <sup>3</sup>	160W	150W
Voltage at $P_{\max}$ ( $V_{\text{mp}}$ )	35.1V	34.5V
Current at $P_{\max}$ ( $I_{\text{mp}}$ )	4.55A	4.35A
Warranted minimum $P_{\max}$	152W	142.5W
Short-circuit current ( $I_{\text{sc}}$ )	4.8A	4.75A
Open-circuit voltage ( $V_{\text{oc}}$ )	44.2V	43.5V
Temperature coefficient of $I_{\text{sc}}$	(0.065±0.015)%/°C	
Temperature coefficient of voltage	-(160±20)mV/°C	
Temperature coefficient of power	-(0.5±0.05)%/°C	
NOCT <sup>4</sup>	47±2°C	
Maximum series fuse rating	15A	
Maximum system voltage	600V (U.S. NEC rating) 1000V (TÜV Rheinland rating)	

## Notes

- These data represent the performance of typical BP 3160B and BP 3150B modules as measured at their output connectors. The data are based on measurements made in accordance with ASTM E1036 corrected to SRC (Standard Reporting Conditions, also known as STC or Standard Test Conditions), which are:
  - illumination of 1 kW/m<sup>2</sup> (1 sun) at spectral distribution of AM 1.5 (ASTM E892 global spectral irradiance);
  - cell temperature of 25°C.
- The power of solar cells varies in the normal course of production; the BP 3150B is assembled using cells of slightly lower power than the BP 3160B.
- During the stabilization process which occurs during the first few months of deployment, module power may decrease up to 3% from typical  $P_{\max}$ .
- The cells in an illuminated module operate hotter than the ambient temperature. NOCT (Nominal Operating Cell Temperature) is an indicator of this temperature differential, and is the cell temperature under Standard Operating Conditions: ambient temperature of 20°C, solar irradiation of 0.8 kW/m<sup>2</sup>, and wind speed of 1m/s.

## BP 3160B I-V Curves



## Mechanical Characteristics

### Weight

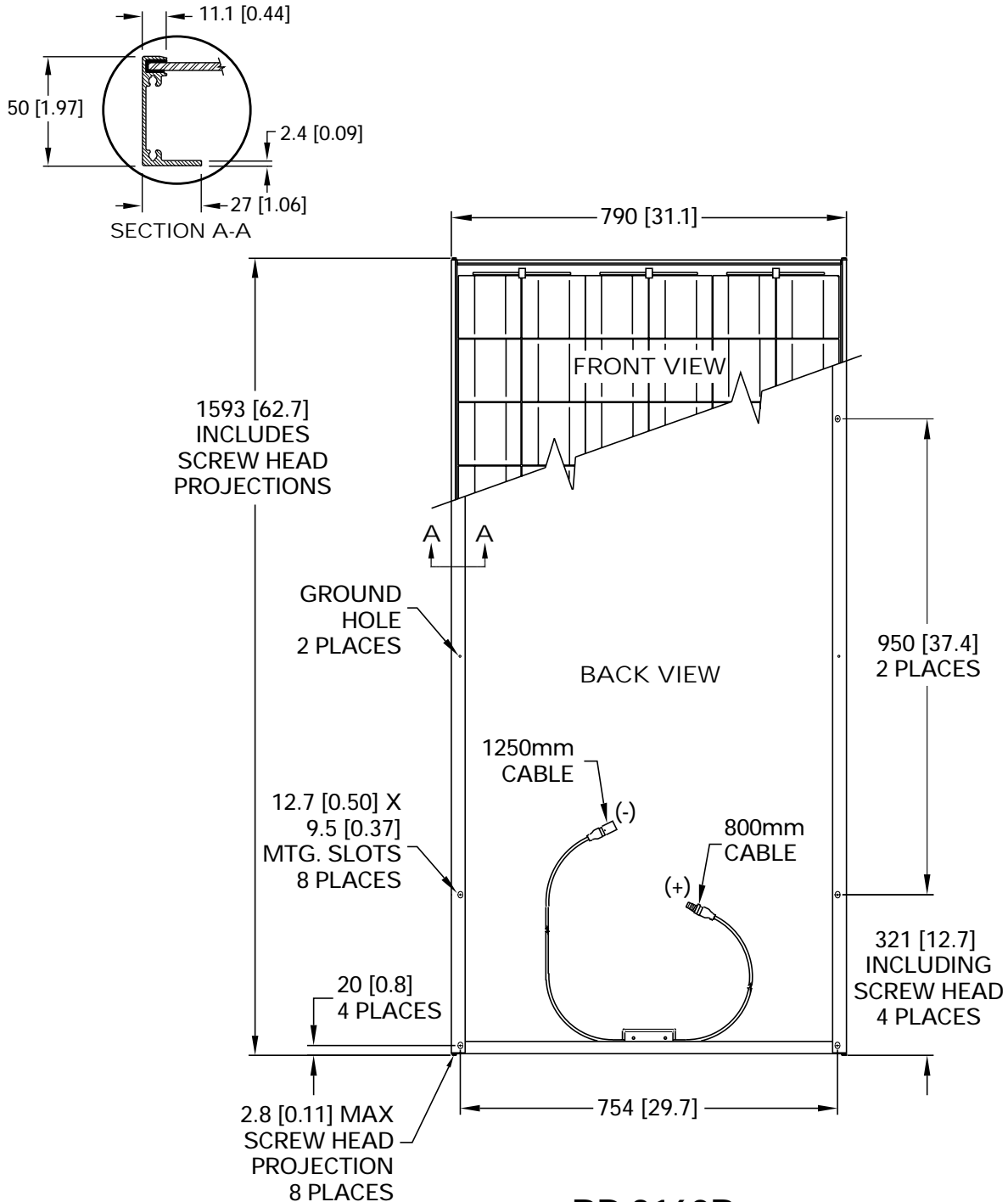
BP 3160B 15.4 kg (34 pounds)

### Dimensions

Dimensions in brackets are in inches.  
Unbracketed dimensions are in millimeters  
Overall tolerances  $\pm 3\text{mm}$  ( $1/8"$ )

### Output Cable

AWG #12 ( $3.3\text{mm}^2$ ), RHW-2



**BP 3160B**



This publication summarizes product warranty and specifications, which are subject to change without notice and should not be used as the definitive source of information for final system design. Additional warranty and technical information may be found on our website [www.bpsolar.com](http://www.bpsolar.com) or may be obtained from your local representative.



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