



The BP 3160 photovoltaic module is designed to provide superior value and performance for general use. With time-tested multicrystalline silicon solar cells and installation-speeding polarized connectors, 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, the BP 3160 is primarily used in utility grid-supplemental systems for residences, commercial buildings, and centralized power generation. Remote applications include telecommunication systems, pumping and irrigation, cathodic protection, remote villages and homes, and land-based navigation aids.

Available versions include: BP 3160S – features the strongest frame in the industry and installation-speeding polarized connectors. BP 3160L – unframed laminate featuring installation-speeding polarized connectors.

Proven Materials and Construction

BP Solar's quarter-century of field experience shows in every aspect of BP 3160 construction and materials:

- 72 multicrystalline silicon solar cells in series, efficiency enhanced by improved cell coating;
- Polarized weatherproof DC-rated plug-and-socket connectors provide reliable low-resistance connections, eliminate wiring errors, and speed installation;
- BP 3160S frame strength exceeds requirements of certifying agencies
- Cells are laminated between sheets of ethylene vinyl acetate (EVA) and high-transmissivity low-iron 3mm tempered glass.

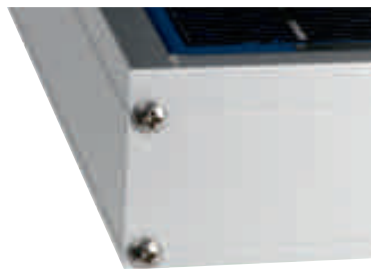


DC Connectors

Limited Warranties

- Power output for 25 years;
- Freedom from defects in materials and workmanship for 3 years.

See our website or your local representative for full terms of these warranties.



Clear-Anodized Universal Frame

Quality and Safety

- Manufactured in ISO 9001-certified factories;
- BP 3160S is listed by Underwriter's Laboratories for electrical and fire safety (Class C fire rating);
- BP 3160S is certified by TÜV Rheinland as Class II equipment and for use in systems with voltage up to 1000 VDC;
- BP 3160S 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 3160S



Mechanical Characteristics

Weight

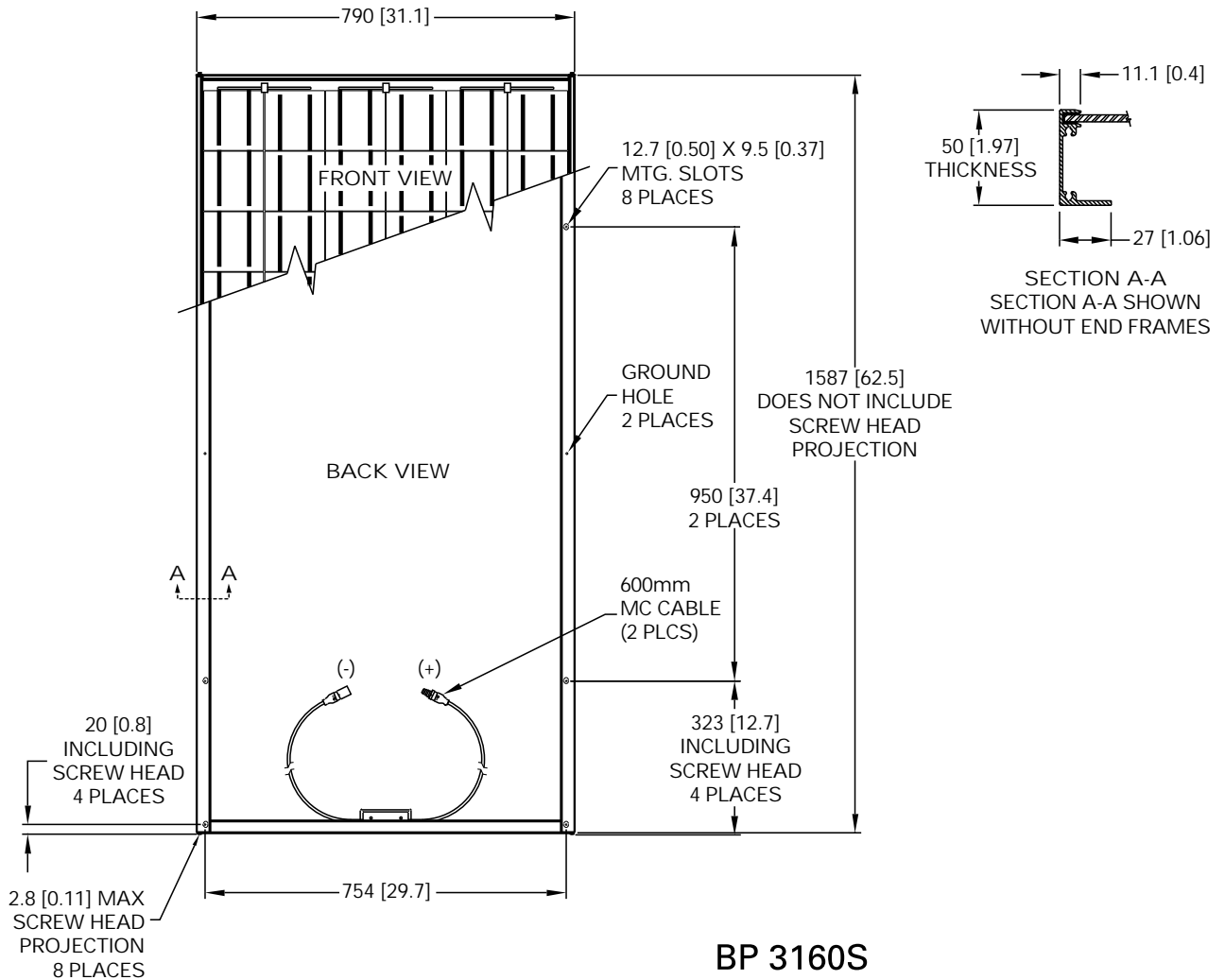
BP 3160S 15.0 kg (33.1 pounds)
 BP 3160L 12.4 kg (27.3 pounds)

Dimensions

BP 3160S: See drawing
 BP 3160L: 1580(62.2) x 783(30.8) x 19(0.75)
 Dimensions in brackets are in inches.
 Unbracketed dimensions are in millimeters
 Overall tolerances $\pm 3\text{mm}$ (1/8")

Output

600mm long RHW, AWG #12 (4mm²) 2-conductor cable with weatherproof polarized connectors



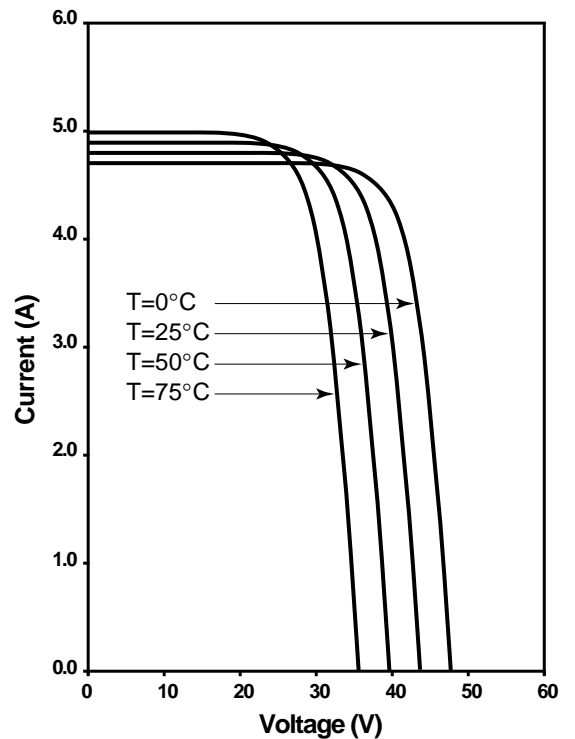
Electrical Characteristics¹

	BP 3160	BP 3150 ²
Maximum power (P_{max}) ³	160W	150W
Voltage at P_{max} (V_{mp})	35.1V	34.5V
Current at P_{max} (I_{mp})	4.55A	4.35A
Warranted minimum P_{max}	150W	140W
Short-circuit current (I_{sc})	4.8A	4.75A
Open-circuit voltage (V_{oc})	44.2V	43.5V
Maximum system voltage ⁴	600V	
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 ⁵	47±2°C	

Notes

- These data represent the performance of typical BP 3160 and BP 3150 modules and laminates 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/m² (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 3150 is assembled using cells of slightly lower power than the BP 3160.
- During the stabilization process which occurs during the first few months of deployment, module power may decrease approximately 3% from typical P_{max} .
- U.S. NEC rating.
- 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/m², and wind speed of 1m/s.

BP 3160 I-V Curves





bp solar

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 or may be obtained from your local representative.



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