



The BP 2150S PV module is part of BP Solar's new series of 72-cell modules designed specifically for large PV systems. With the strongest frame in the industry, time-tested monocrystalline silicon solar cells, integral bypass diodes, and installation-speeding polarized connectors, it provides cost-effective power for DC loads or, with an inverter, AC loads. Its 72-cell series string charges 24V batteries (or multiples of 24V) efficiently in virtually any climate. With 150 watts of nominal maximum power, the BP 2150S is primarily used in utility grid-supplemental systems, telecommunication systems, pumping and irrigation, cathodic protection, remote villages and homes, and land-based navigation aids.

**Proven Materials and Construction**

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

- 72 monocrystalline silicon solar cells in series;
- 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.



**Clear Anodized Universal Frame**

**Limited Warranties**

- Power output for 25 years;
- Freedom from defects in materials and workmanship for 2 years.

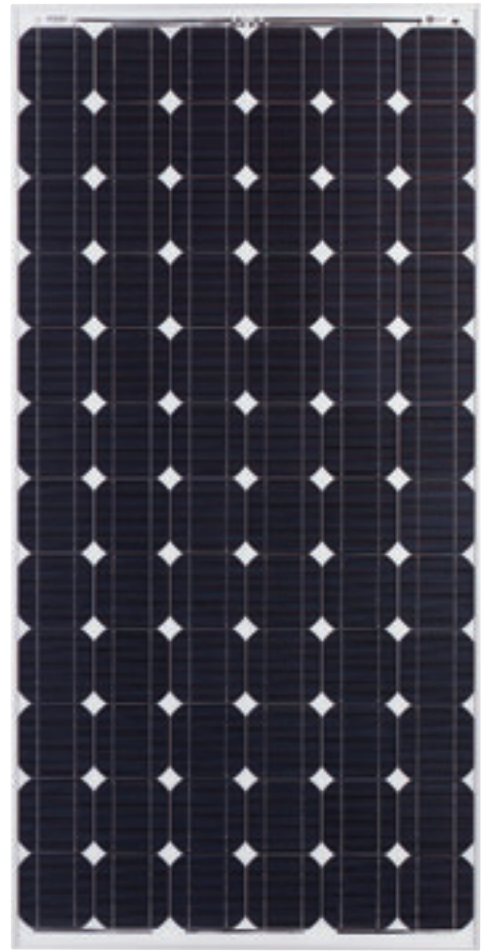
See our website or your local representative for full terms of these warranties.



**Weatherproof Connectors**

**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 2150S**



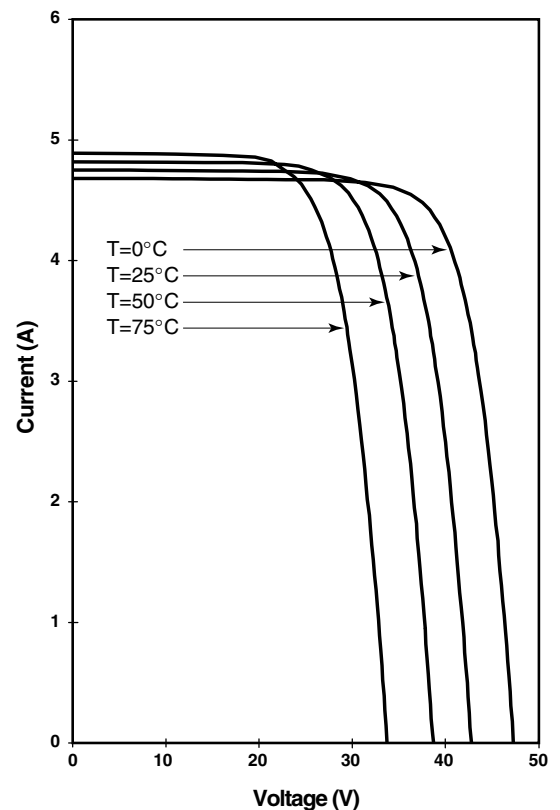
## Electrical Characteristics<sup>1</sup>

	BP 2150S	BP 2140S <sup>4</sup>
Maximum power ( $P_{max}$ ) <sup>2</sup>	150W	140W
Voltage at $P_{max}$ ( $V_{mp}$ )	34.0V	34.0V
Current at $P_{max}$ ( $I_{mp}$ )	4.45A	4.16A
Minimum $P_{max}$	140W	130W
Short-circuit current ( $I_{sc}$ )	4.75A	4.48A
Open-circuit voltage ( $V_{oc}$ )	42.8V	42.8V
Temperature coefficient of $I_{sc}$	(0.065±0.015)%/°C	
Temperature coefficient of voltage	-(160±20)mV/°C	
Temperature coefficient of power	-(0.5±0.05)%/°C	
NOCT <sup>3</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 2140S and BP 2150S 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.
- During the stabilization process which occurs during the first few months of deployment, module power may decrease approximately 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.
- The power of solar cells varies in the normal course of production; the BP 2140S is assembled using cells of slightly lower power than the BP 2150S.

## BP 2150 I-V Curves



## Mechanical Characteristics

### Weight

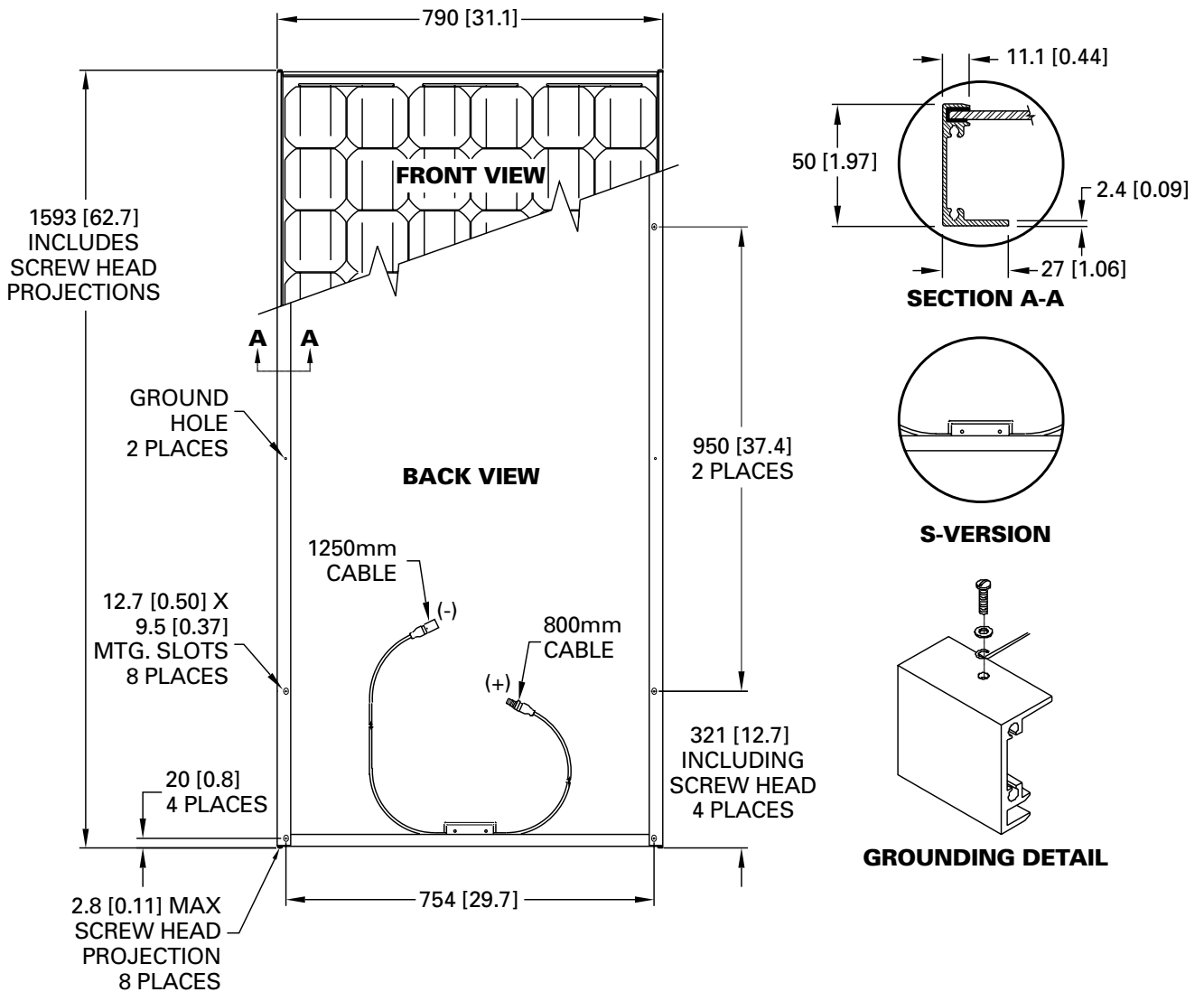
BP 2150S 15.4 kg (34 pounds)

### Dimensions

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

### Output

Asymmetrical RHW, AWG #12 (3.3mm<sup>2</sup>) 2-conductor cable with weatherproof polarized connectors



**BP 2150S, BP 2140S**



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.



Printed on recycled paper with vegetable based inks.