

## 125 watt photovoltaic module

# BP 3125

The BP 3125 is revolutionary in its construction and features IntegraBus™ technology. IntegraBus™ is a printed circuit board with integrated diodes that is especially designed to ensure reliability whilst managing the high current (over 7 amps) produced by our 156mm x 156mm cells. The silicon nitride (SiN) coated multicrystalline cells used in this module are the largest solar cells commercially available today. These new features give the BP 3125 the highest rated power output of any 12V product. It is especially popular for off-grid applications such as telecommunications, water pumping and remote residential systems.

### Performance BP 3125 BP 3115

Performance	BP 3125	BP 3115
Rated power	125W	115W
Power tolerance	5%	5%
Nominal voltage	12V	12V
Warranty	90% of minimum warranted power output over 12 years 80% of minimum warranted power output over 25 years Free from defects in materials and workmanship for 5 years	

### Configuration

BP 3125N	Universal frame, a sealed junction box with output cables and polarised Multicontact (MC) connectors
BP 3125J	Universal frame with an accessible junction box for cable connection

### Qualification test parameters

Temperature cycling range	-40°C to +85°C
Damp heat test	85°C and 85% relative humidity
Front and rear static load test (eg: wind)	2400 Pa
Front load test (eg: snow)	5400 Pa
Hailstone impact test	25mm hail at 23m/s

### Quality and safety

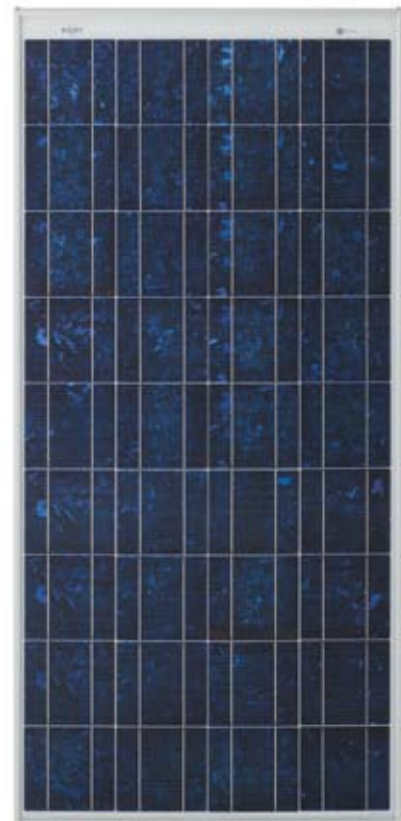
- Manufactured in ISO 9001 and ISO 14001 certified factories
- Conforms to European Community Directive 89/33/EEC, 73/23/EEC, 93/68/EEC
- Certified to IEC 61215

Module power measurements calibrated to World Radiometric Reference through ESTI (European Solar Test Installation at Ispra, Italy)

Framed modules certified by TÜV Rheinland as Safety Class II (IEC 60364) equipment for use in systems up to 1000 VDC

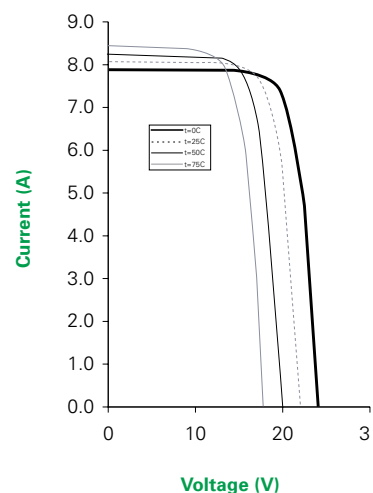
Framed modules listed by Underwriter's Laboratories for electrical and fire safety (Class C fire rating)

Approval by Factory Mutual Research in NEC Class 1, Division 2, Groups C and D hazardous locations (BP####J)



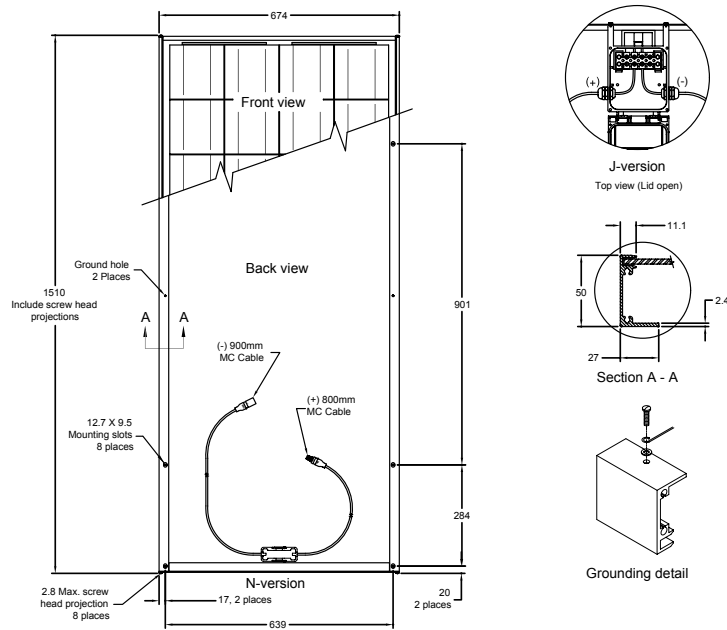
BP 3125

### BP 3125 I-V Curves



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### Module diagram



### Typical electrical characteristics

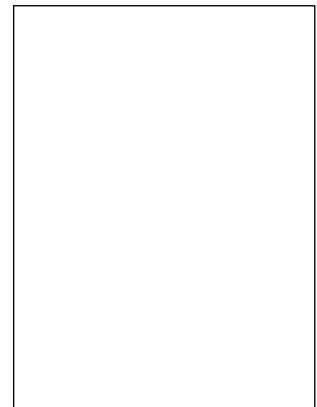
	BP 3125	BP 3115 <sup>3</sup>
Rated power ( $P_{max}$ ) <sup>1</sup>	125W	115W
Warranted minimum power	118.75W	109.2W
Voltage at $P_{max}$ ( $V_{mp}$ )	17.4V	17.1V
Current at $P_{max}$ ( $I_{mp}$ )	7.2A	6.7A
Short circuit current ( $I_{sc}$ )	8.1A	7.5A
Open circuit voltage ( $V_{oc}$ )	22.0V	21.8V
Temperature coefficient of $I_{sc}$	(0.065±0.015)%/°C	
Temperature coefficient of $V_{oc}$	-(80±10)mV/°C	
Temperature coefficient of $P_{max}$	-(0.5±0.05)%/°C	
NOCT <sup>2</sup>	47±2°C	
Maximum series fuse rating	15A (BP 3125N) / 2 (BP 3125J)	
Maximum system voltage	1000V (IEC 61215 rating) 1000V (TÜV Rheinland rating)	

### Mechanical characteristics BP 3125N / BP 3125J<sup>4</sup>

Dimensions (Overall tolerances +/-3mm)	1510 x 674 x 50mm
Weight	12.0kg
Frame	Clear anodised aluminium, alloy type 6063T6. Colour: silver.
Solar cells	36 cells (156mm x 156mm) configured geometrically for a 9 x 4 matrix connected in series.
Output cables (BP 3125N)	RHW AWG# 12 (4mm <sup>2</sup> ) cable with polarized weatherproof DC rated Multicontact (MC) connectors; asymmetrical lengths 900mm (-) and 800mm (+).
Junction box (BP 3125J)	IP65 junction box with four terminal screw connection block, accepts PG 13.5, M20, 13mm conduit, or cable fittings accepting 6-12mm diameter cable. Terminals accept 2.5 - 10mm <sup>2</sup> (8 to 14 AWG) wire.
Diodes	IntegraBus™ technology includes Schottky by-pass diode integrated into the printed circuit board.
Construction	Front: high transmission 3mm tempered glass Rear: white Polyester; encapsulant: EVA.

1. Standard test conditions (STC), irradiance of 1000W/m<sup>2</sup> at an AM1.5G solar spectrum and a cell temperature of 25°C.  
2. Normal operating cell temperature (NOCT) air temperature of 20°C; irradiance 800W/m<sup>2</sup>; wind speed 1m/s.  
3. Power of solar cells varies in the normal course of production; the BP 3115 is assembled using cells of slightly lower power.  
4. The mechanical characteristics of the BP 3115 and BP 3125 are identical.

Your BP Solar Dealer:



[www.bpsolar.com.au](http://www.bpsolar.com.au)