

125 Watt Photovoltaic Module

BP 3125

The BP 3125 is revolutionary in its construction and features our new 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 157mm x 157mm cells. The SiN coated polycrystalline cells used in this module are the largest solar cells commercially available today. These new features make the BP 3125 the solar module with the highest rated power output of any 12V product. It is especially popular for off-grid applications such as telecommunications, water pumping and remote home systems.

Performance	BP 3125	BP 3115
Rated power	125W	115W
Module efficiency	12.3%	11.3%
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 3125S	Universal frame with a LoPro junction box and polarized Multicontact (MC) connectors
BP 3125U	Universal frame with an accessible junction box for cable connection

Qualification Test Parameters

Temperature cycling range	-40°C to +85°C for 200 cycles
Damp heat test	85°C and 85% relative humidity for 1000h
Front & rear static load test (eg: wind)	2400 Pa
Front load test (eg: snow)	5400 Pa
Hailstone impact test	25mm hail at 23m/s from 1m

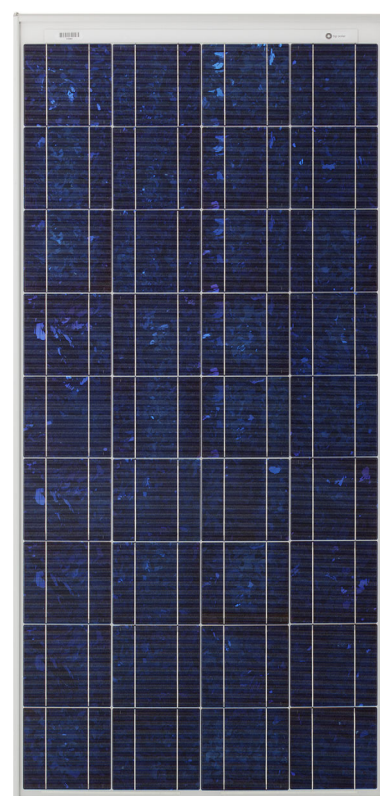
Quality and Safety

- Manufactured in ISO 9001 and ISO 14003 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)

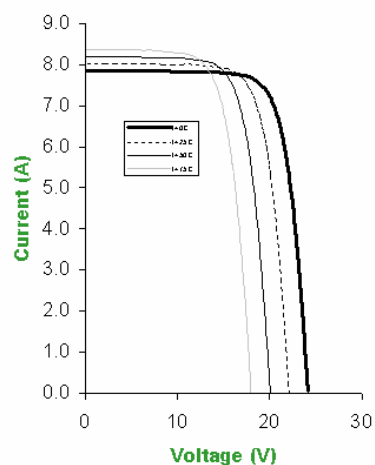


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Efficiency (%)

9-11	11-12	12-13	13-14	14-15
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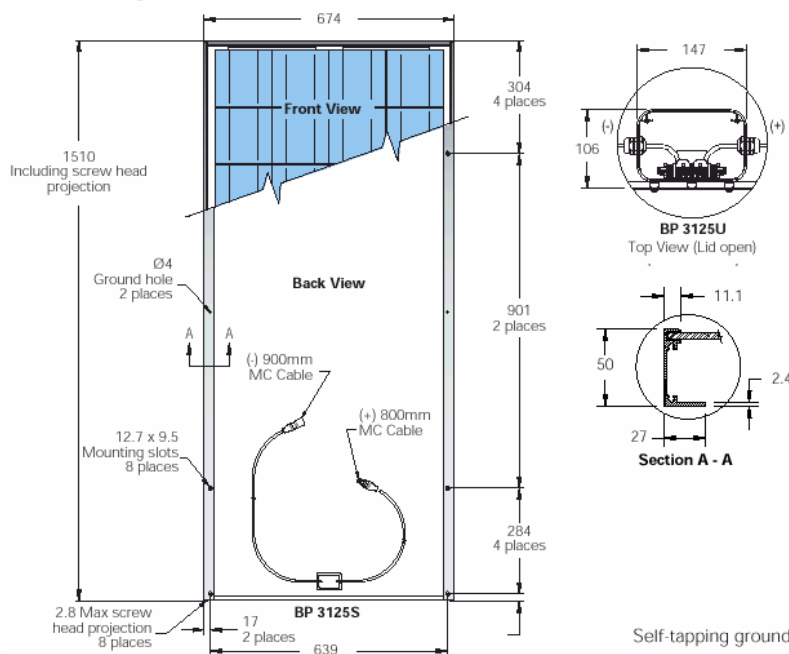
BP3125 I-V Curves



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Module Diagram



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

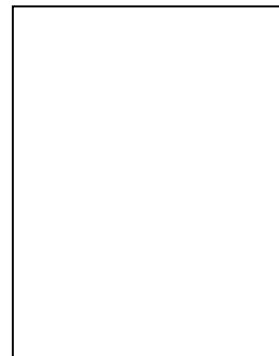
Typical Electrical Characteristics

	BP 3125	BP 3115 ³
Rated Power (P_{max}) ¹	125W	115W
Warranted minimum power	119W	109W
Voltage at P_{max} (V_{mp})	17.3V	17.1V
Current at P_{max} (I_{mp})	7.23A	6.73A
Short circuit current (I_{sc})	8.02A	7.54A
Open circuit voltage (V_{oc})	22.1V	21.75V
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 ²	47±2°C	
Maximum series fuse rating	15A (BP 3125S) / 20A (BP 3125U)	
Maximum system voltage	600V (IEC 61215 rating) 1000V (TÜV Rheinland rating)	

Mechanical Characteristics

	BP 3125S / BP3125U ⁴
Dimensions (mm) (Overall tolerances +/3mm)	1510 x 674 x 50
Weight (kg)	12.0
Frame	Clear anodised aluminium, alloy type 6063T6. Colour: silver.
Solar cells	36 cells (157mm x 157mm) configured geometrically for a 9 x 4 matrix connected in series.
Output cables (BP 3125S)	RHW AWG# 12 (4mm ²) cable with polarized weatherproof DC rated Multicontact (MC) connectors; asymmetrical lengths 900 (-) and 800mm (+).
Junction box (BP 3125U)	IP54 junction box with 6 terminal screw connection block, accepts PG 13.5, M20, 13mm conduit, or cable fittings accepting 6 – 12mm diameter cable. Terminals accept 2.5 – 10mm ² (8 to 14 AWG) wire.
Diodes	IntegraBus™ technology includes for every 18 cells a Schottky by-pass diode integrated into the printed circuit board bus.
Construction	Front: High transmission 3mm tempered glass. Rear: White tedlar; Encapsulant: EVA.

Your BP Solar Distributor:



1. Standard test conditions (STC), irradiance of 1000W/m² 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/m²; 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 than the BP 3125.
 4. The mechanical characteristics of the BP 3115 and BP 3125 are identical.