

125 Watt Photovoltaic Module

BP 3125

4025E-1 12/03

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 higher 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

Rated power	125W
Module efficiency	12.4%
Nominal voltage	12V
Warranty	90% power output over 12 years 80% power output over 25 years Free from defects in materials and workmanship for 5 years

Configuration

BP 3125S	Clear Universal frame with LoPro junction box and polarized Multicontact (MC) connectors
BP 3125U	Clear Universal frame and robust junction box

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 distance

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)

Approval by Factory Mutual Research in NEC Class 1, Division 2, Groups C & D hazardous locations is pending

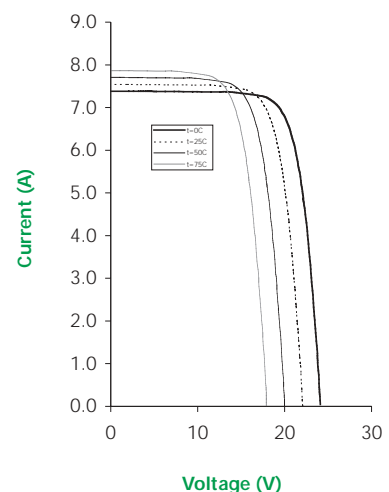


BP 3125S scale 1:14

Efficiency (%)

9-11	11-12	12-13	13-14	14-15
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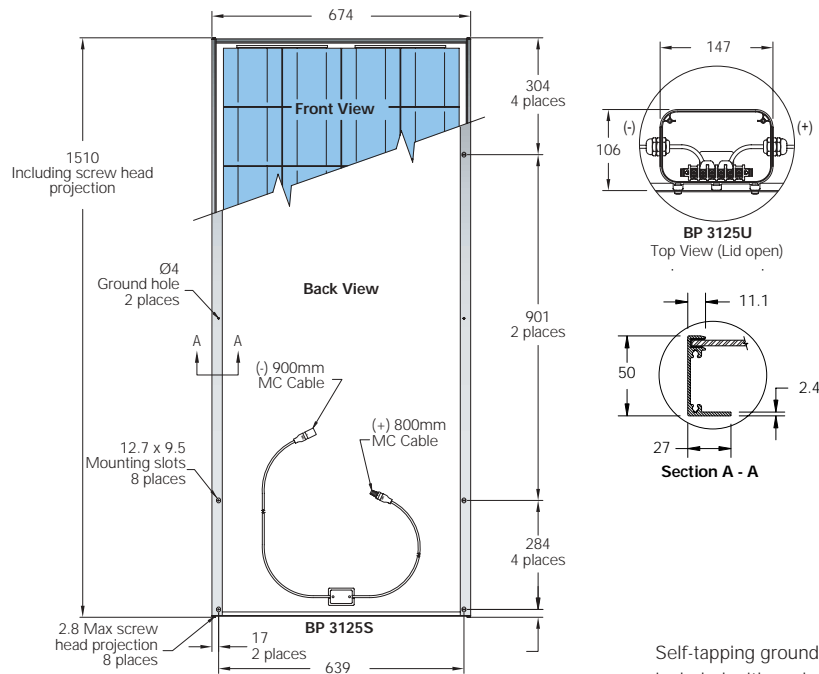
BP 3125 I-V Curves



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Module Diagram



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

Typical Electrical Characteristics

BP 3125

Maximum Power (P_{max})	125W
Warranted minimum power	119W
Voltage at P_{max} (V_{mp})	17.6V
Current at P_{max} (I_{mp})	7.1A
Short circuit current (I_{sc})	7.54A
Open circuit voltage (V_{oc})	22.1V
Temperature coefficient of I_{sc}	$(0.065 \pm 0.015)\%/K$
Temperature coefficient of V_{oc}	$-(80 \pm 10)mV/K$
Temperature coefficient of P_{max}	$-(0.5 \pm 0.05)\%/K$
NOCT (Air 20°C; Sun 0.8kW/m ² ; wind speed 1m/s)	47±2°C
Maximum series fuse rating	15A (BP 3125S) / 20A (BP 3125U)
Maximum system voltage	1000V (IEC 61215 rating) 1000V (TÜV Rheinland rating)

Standard test conditions - irradiance of 1000W/m² at an AM1.5G solar spectrum and a temperature of 25°C.

Mechanical Characteristics BP 3125

Dimensions (mm) (Overall tolerances +/-3mm)	1510 x 674 x 50
Weight (kg)	12.0
Frame	Clear anodised aluminium alloy type 6063T6. Silver Universal frame.
Solar cells	36 cells (157mm x 157mm) configured geometrically for a 4 x 9 matrix connected in series.
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.
Output cables (BP 3125S)	RHW AWG# 12 (4mm ²) cable with polarized weatherproof DC rated Multicontact (MC) connectors; asymmetrical lengths 900mm (-) and 800mm (+).
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:

