

## 170 Watt Photovoltaic Module

# BP 3170

4046E-1 07/06

The BP 3170 is an advanced 170W module that uses cells with anti-reflective SiN coating. The BP 3170 has a tight power tolerance of 3% so a higher average power output is guaranteed. This module is ideally suited for grid-connected applications such as large commercial roofs and free field systems. This module offers a superior price performance ratio due to its 72 advanced polycrystalline cells connected in series.

### Performance

Rated power	170W
Tolerance	+/-3%
Module efficiency	13.5%
Nominal voltage	24V
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 3170S	Clear Universa frame with output cables and Mu ti-Contact connectors
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### 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 load)	2400Pa
Front load test (eg: wind and snow load)	5400Pa
Ha Istone impact test	25mm hail at 23m/s from 1m distance

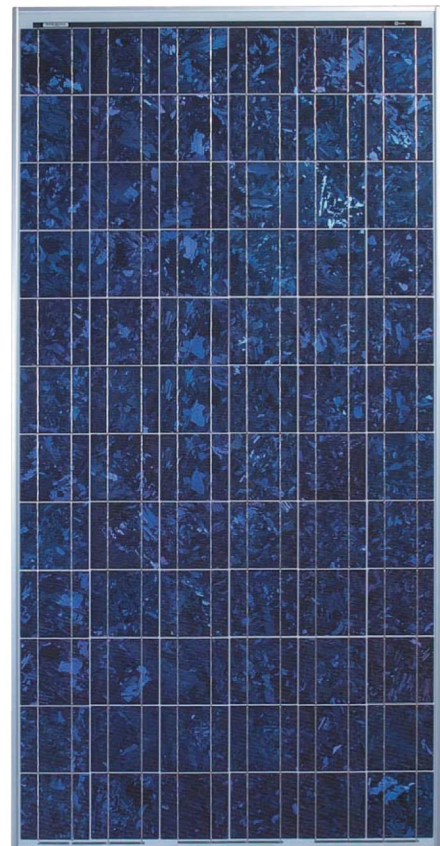
### Quality and Safety

- 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 the World Radiometric Reference from 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 1000V.

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

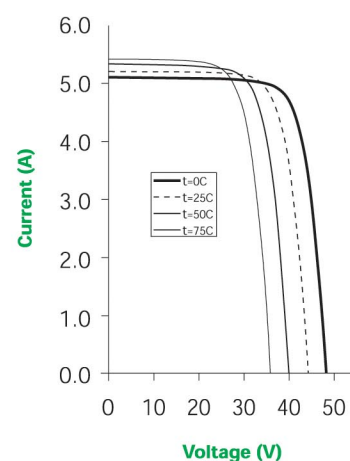


BP 3170S scale 1:14

### Efficiency (%)

9-11 | 11-12 | 12-13 | **13-14** | 14-15

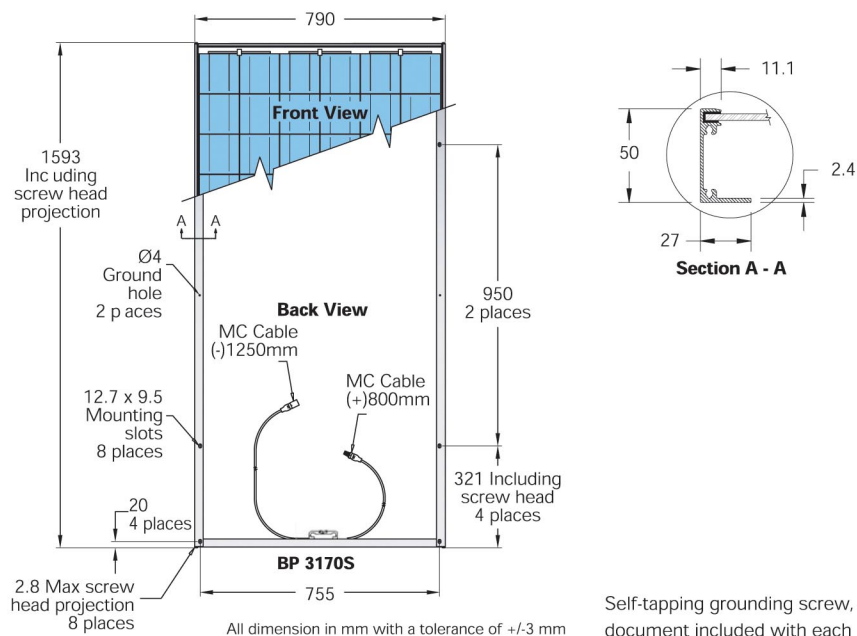
### BP 3170S I-V Curves



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## Module Diagram



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

## Typical Electrical Characteristics

### BP 3170

Nominal power ( $P_{nom}$ )	170W
Voltage at MPP ( $V_{mpp}$ )	35.5V
Current at MPP ( $I_{mpp}$ )	4.8A
Short circuit current ( $I_{sc}$ )	5.2A
Open circuit voltage ( $V_{oc}$ )	44.2V
Temperature coefficient of $I_{sc}$	$(0.065 \pm 0.015)\%/K$
Temperature coefficient of $V_{oc}$	$-(160 \pm 20)mV/K$
Temperature coefficient of P	$-(0.5 \pm 0.05)\%/K$
NOCT (Air 20°C; Sun 800W/m <sup>2</sup> ; wind speed 1m/s)	47±2°C
Maximum series fuse rating	15A
Maximum system voltage	1000V (IEC 61215 rating) 1000V (TÜV Rheinland rating)

Standard test conditions - irradiance of 1000W/m<sup>2</sup> at an AM1.5G solar spectrum and a temperature of 25°C

## Mechanical Characteristics

### BP 3170S

Dimensions (mm) (Overall tolerances +/-3mm)	1593 x 790 x 50
Weight (kg)	15.4
Frame	Clear anodised aluminium alloy type 6063T6. Silver Universal frame
Solar cells	72 cells (125mm x 125mm) configured geometrically for a 6 x 12 matrix connected in series.
Output cables	3.3mm <sup>2</sup> cable with weatherproof Multi-Contact connectors. Asymmetrical cable lengths 1250mm (-) and 800mm (+)
Diodes	IntegraBus® technology includes 3 Schottky bypass diodes - one for every 24 cells - on a printed circuit board
Construction	Front: High transmission 3.2mm tempered glass; Rear: White polyester; encapsulant: EVA

Your BP Solar Distributor:

