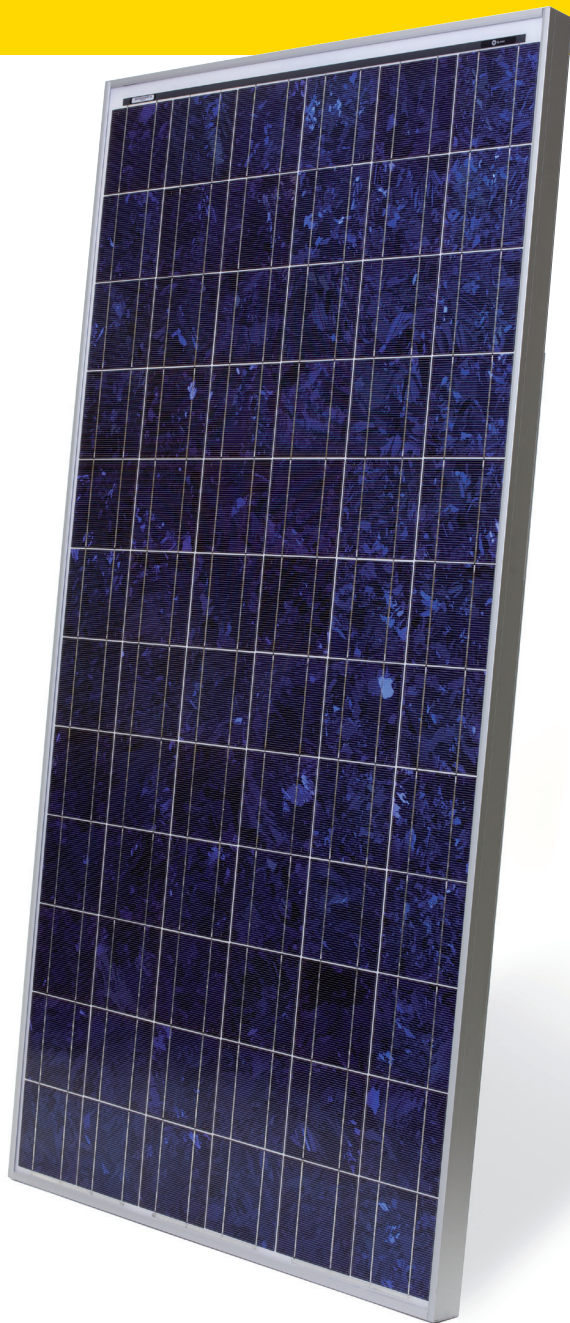


## 180W Photovoltaic module

# BP 3180T

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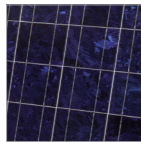


BP Solar has been manufacturing solar wafers, cells and modules for more than 35 years. This experience shows that the best way to optimise module life and electrical energy production is to attend to the minutest details in the design, manufacturing, process controls and testing. BP Solar's latest generation of 72 cell, Polycrystalline T Series solar modules offers the following benefits:



### Long lasting, innovative frame design

Robust aluminium frame with rounded profile for greater handling comfort, nut secure feature for increased theft resistance proven and certified to withstand heavy snow load (5400Pa - 540kg/m<sup>2</sup>) even when end mounted



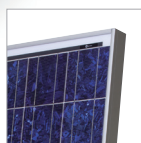
### Increased energy production

High transmission ARC glass and enhanced design push the laminate to the front, maximizing the energy production and reducing dirt accumulation and soiling losses



### Improved reliability with effective cooling

Integrabus™ technology ensures reliable cable management while positioning the bypass diodes and junction box away from the cells ensuring cooler operation and greater energy production



### Environmentally responsible

Lead free soldering and interconnections, halogen free cables complete with latching MC4 connectors and minimal packaging waste

### Guaranteed to last

BP Solar is one of the world's leading solar companies with internal testing standards that go beyond international requirements, backed by a 5-year product workmanship guarantee and 25-year power warranty

# 180W Photovoltaic module

## BP 3180T



### Electrical characteristics

	<sup>(1)</sup> STC 1000W/m <sup>2</sup>	<sup>(2)</sup> NOCT 800W/m <sup>2</sup>
Maximum power (P <sub>max</sub> )	180W	129.6W
Voltage at P <sub>max</sub> (V <sub>mpp</sub> )	35.6V	31.7V
Current at P <sub>max</sub> (I <sub>mp</sub> )	5.05A	4.04A
Short circuit current (I <sub>sc</sub> )	5.58A	4.52A
Open circuit voltage (V <sub>oc</sub> )	43.6V	39.7V
Module efficiency	14.4%	
Tolerance	-3/+5%	
Nominal voltage	24V	
Efficiency reduction at 200W/m <sup>2</sup>	<5% reduction (efficiency 13.6%)	
Limiting reverse current	5.58A	
Temperature coefficient of I <sub>sc</sub>	(0.065±0.015)%/C	
Temperature coefficient of V <sub>oc</sub>	-(0.36±0.05)%/C	
Temperature coefficient of P <sub>max</sub>	-(0.5±0.05)%/C	
<sup>(3)</sup> NOCT	47±2°C	
Maximum series fuse rating	15A	
Application class (according to IEC 61730:2007)	Class A (1000V)	
Maximum system voltage (U.S. NEC rating)	600V	

1: Values at Standard Test Conditions (STC): 1000W/m<sup>2</sup> irradiance, AM1.5 solar spectrum and 25°C module temperature  
 2: Values at 800W/m<sup>2</sup> irradiance, Nominal Operation Cell Temperature (NOCT) and AM1.5 solar spectrum  
 3: Nominal Operation Cell Temperature: Module operation temperature at 800W/m<sup>2</sup> irradiance, 20°C air temperature, 1m/s wind speed

All solar modules are individually tested prior to shipment; an allowance is made within our factory measurement to account for the typical power degradation (LID effect) which occurs during the first few days of deployment.

### Mechanical characteristics

Solar cells	72 polycrystalline 5" silicon cells (125x125mm) in series
Front cover	High transmission 3.2mm (1/8th in) glass
Encapsulant	EVA
Back cover	White polyester
Frame	Silver anodized aluminium (Universal II)
Diodes	Integrabus™ with 3 Schottky diodes
Junction box	Potted (IP 67); certified to meet UL 1703 flammability test
Output cables	4mm <sup>2</sup> cable with latching MC4 connectors Asymmetrical cable lengths: (+)1250mm (49.21in) / (+)800mm (31.50in)
Dimensions	1587x790x50mm / 62.48x31.10x1.97in
Weight	15.4kg / 33.95lbs

All dimensional tolerances within ±0.1% unless otherwise stated.

### Warranty

- Free from defects in materials and workmanship for 5 years
- 90% power output over 12 years
- 80% power output over 25 years

### Certification

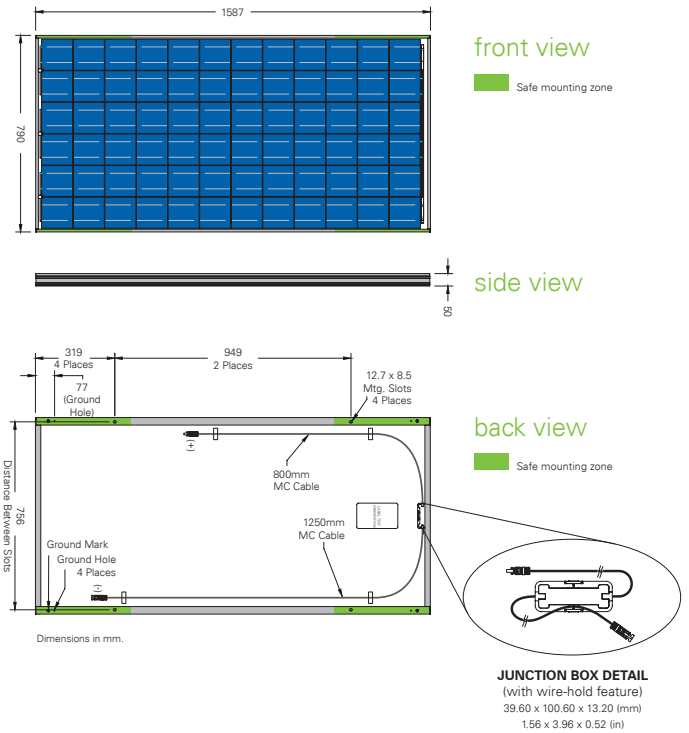
Certified according to the extended version of the IEC 61215:2005 (Crystalline silicon terrestrial photovoltaic modules - Design qualification and type approval)

Certified according to IEC 61730-1 and IEC 61730-2. (Photovoltaic module safety qualification, requirements for construction and testing)

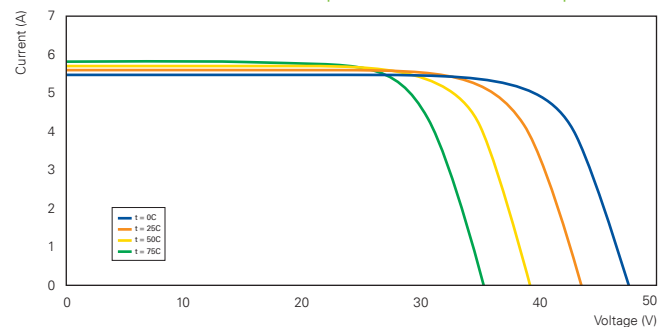
Listed to UL 1703 Standard for Safety by Intertek ETL (Class C fire rating)

Manufactured in ISO 9001 and ISO 14001 certified factories

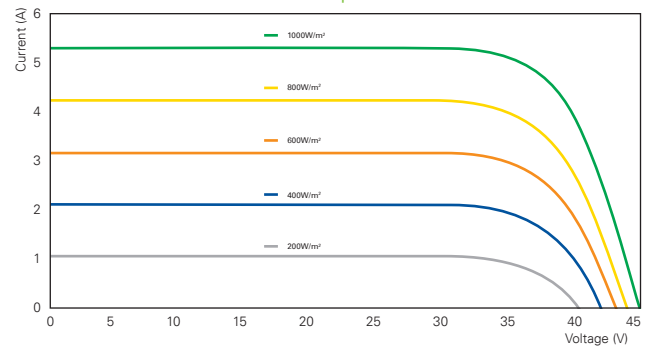
Module electrical measurements are calibrated to World radiometric reference via third party international laboratories



### Dependence of the temperature



### Dependence of the irradiance



### Contact:

Your BP Solar partner