

175 Watt photovoltaic module

BP 4175T



Scale 1:12

BP Solar is a pioneer in solar technology. With more than 35 years of experience in manufacturing solar wafers, cells and modules, we have optimized the lifetime and electrical performance of our solar power generators.

Our latest generation of 72 cell T-Series products are a result of our expertise in design, quality control and manufacturing and attention to the smallest detail:

▶▶ Real Power

Our power sortation is set to your advantage. All modules are delivered equal or above nominal power. This means extra kWh produced in the field.

▶▶ Greater energy yield

High transmission glass with anti-reflective coating has been proven to deliver up to 4% greater annual energy yield (kWh/ kW_p).

▶▶ Longer lasting

The patented IntegraBus™ diode board ensures a highly reliable electrical cable connection while keeping the diodes cooled. All this leads to higher longevity and improved reliability.

▶▶ Snow load capability

Our strong module frame withstands wind and snow loads and exceeds the snow load requirements of hte IEC 61215 (5400Pa) even when the module is end-mounted.

▶▶ Safer

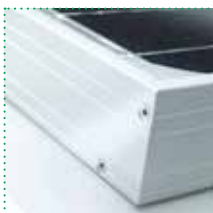
Our laminate has a unique set up of layers to provide higher electrical insulation, mechanical strength and environmental resistance. Latching MC4 connectors ensure the cables can not be accidentally disconnected.

▶▶ Environmentally responsible

Lead free soldering and interconnections, halogen free cables and minimum packaging waste minimize environmental impact.

▶▶ Leading warranty

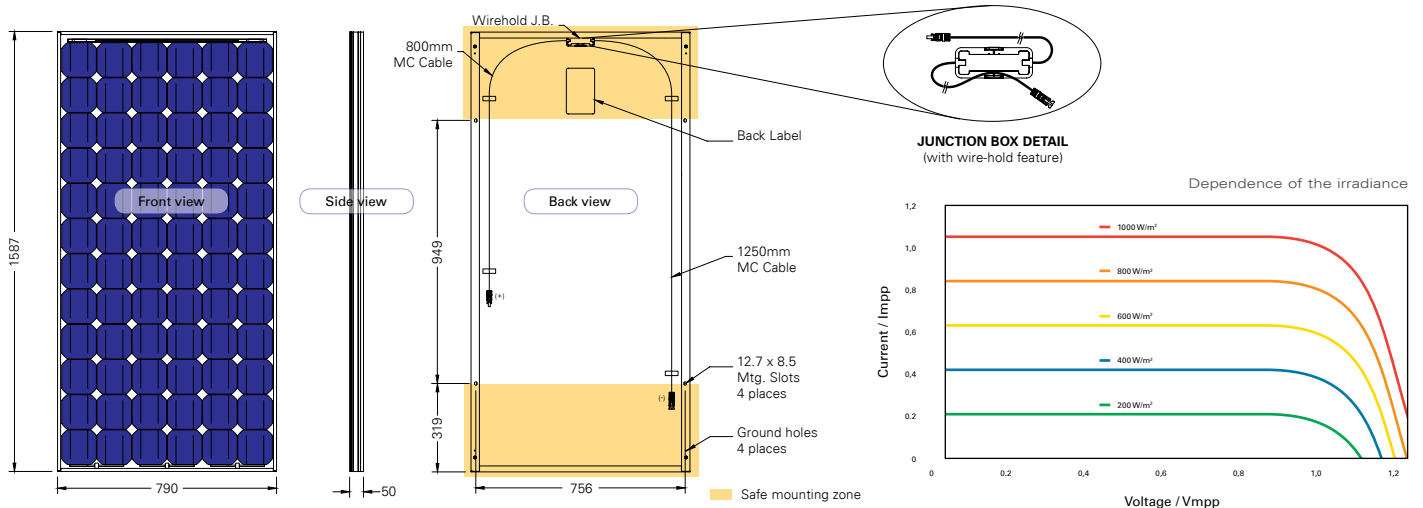
Our detailed knowledge of the real field performance and our extensive in-house reliability testing, which goes far beyond international standards, enable us to offer a 25 year power warranty. All this is backed up by one of the world's largest companies.



175 Watt photovoltaic module

BP 4175T

Module diagram



Mechanical characteristics

Solar cells:	72 Monocrystalline silicon cells connected in series
Front cover:	High transmission 3.2mm ARC glass
Encapsulant:	EVA
Back cover:	White polyester
Frame:	Silver anodised aluminium
Diodes:	Integrabus™ with 3 Schottky diodes protect every 24 cells
Junction Box:	Potted (IP67) ; certified to meet UL 1703 flammability test Dimensions: 40 x 101 x 13 (mm)
Output cables:	4mm² Pg 1167- 2007 certified cable with latching MC 4 connectors
Dimensions:	1587 ± 2 mm x 790 ± 2 mm x 50 mm
Weight:	15.4 kg

Electrical characteristics

Tolerance	-3/+5%
Module efficiency	13.9%
Efficiency reduction @ 200W/m²	< 3% reduction
	13.5%
	*1000W/m² **800W/m²
Maximum power (P_{max}):	175 W 126 W
Voltage at P_{max} (V_{mpp}):	35.4 V 31.5 V
Current at P_{max} (I_{mpp}):	4.9 A 3.9 A
Shortcircuit current (I_{sc}):	5.45 A 4.4 A
Open-circuit voltage (V_{oc}):	44.6 V 39.7 V
Limiting reverse current:	5.45 A
Temperature coefficient of I_{sc}:	(0.065 ± 0.015) %/K
Temperature coefficient of V_{oc}:	-(0.36 ± 0.05) %/K
Temperature coefficient of P_{max}:	-(0.5 ± 0.05) %/K
NOCT:	47 ± 2 °C
Maximum series fuse rating:	20 A
Application class	Class A (1000V)
(according to IEC 61730:2007)	

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

**NOCT: Nominal Operation Cell Temperature: Irradiance 800W/m²; ambient temperature 20°C; wind speed 1m/s.

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.

Warranty and certification

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

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)
 Module electrical measurements are calibrated to World Radiometric Reference via third party international laboratories
 Manufactured in ISO 9001 and ISO 14001 certified factories which are audited annually by VDE

This data sheet complies with the requirements of EN 50380.

This publication summarises product warranty and specifications which are subject to change without notice.



Contact

Your BP Solar partner