

280W Photovoltaic module

BP 3280T

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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 optimize module life and electrical energy production is to attend to every detail in the design and manufacture of our products, our process controls and testing methods. BP Solar's latest generation of 144 half-cells, Polycrystalline T Series solar modules offers the following benefits:



Outstanding operation

Operates at lower temperatures than equivalent full cell design, providing better energy yield and longer lifetime through increased reliability. Excellent application for hot and sunny climates.



Designed to minimize system costs

Sized to minimize handling and installation activities, while optimizing use of mounting structure or tracker.



More energy production

Half cell technology maximizes the energy production by reducing internal losses. This means more kWh produced and better return for your investment.



Exceptional shading tolerance

More by-pass diodes per cell means you will be getting more energy from the module even in partial shading.

Backed by our enhanced warranty offer

BP Solar launched an industry leading warranty offer, with lower degradation rates on our modules manufactured beginning January 1st, 2010. Our innovative offer is backed by internal testing standards that go well beyond international requirements.

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Electrical characteristics

	⁽¹⁾ STC 1000W/m ²	⁽²⁾ NOCT 800W/m ²
Maximum power (P _{max})	280W	201.6W
Voltage at P _{max} (V _{mpp})	36.3V	32.3V
Current at P _{max} (I _{mpp})	7.71A	6.17A
Short circuit current (I _{sc})	8.46A	6.85A
Open circuit voltage (V _{oc})	44.3V	40.3V
Module efficiency	14.1%	
Tolerance	±5%	
Nominal voltage	24V	
Efficiency reduction at 200W/m ²	<5% reduction (efficiency 13.4%)	
Limiting reverse current	8.46A	
Temperature coefficient of I _{sc}	0.105%/°C	
Temperature coefficient of V _{oc}	-0.360%/°C	
Temperature coefficient of P _{max}	-0.45%/°C	
⁽³⁾ NOCT	47±2°C	
Maximum series fuse rating	20A	
Application class (according to IEC 61730:2007)	Class A	
Maximum system voltage	600V (U.S. NEC rating): 1000V (IEC 61730:2007)	

1: Values at Standard Test Conditions (STC): 1000W/m² irradiance, AM1.5 solar spectrum and 25°C module temperature
 2: Values at 800W/m² irradiance, Nominal Operation Cell Temperature (NOCT) and AM1.5 solar spectrum
 3: Nominal Operation Cell Temperature: Module operation temperature at 800W/m² 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	144 polycrystalline silicon cells (78x156mm/3x6in) in series
Front cover	High transmission 3.2mm (1/8th in) glass
Encapsulant	EVA
Back cover	White polyester
Frame	Silver anodized aluminum (Universal II)
Diodes	IntegraBus™ with 6 Schottky diodes
Junction box	Potted (IP 67); certified to meet UL 1703 flammability test
Output cables	4mm ² cable with latching MC4 connectors Symmetrical cable lengths: (-)1200mm (47.24in) / (+)1200mm (47.24in)
Dimensions	1986x1000x50mm / 78.2x39.4x2.0in
Weight	22.1kg / 48.72lbs

All dimensional tolerances within ±0.1% unless otherwise stated.

Warranty

- Free from defects in materials and workmanship for 5 years
- 93% power output over 12 years
- 85% power output over 25 years

Certification

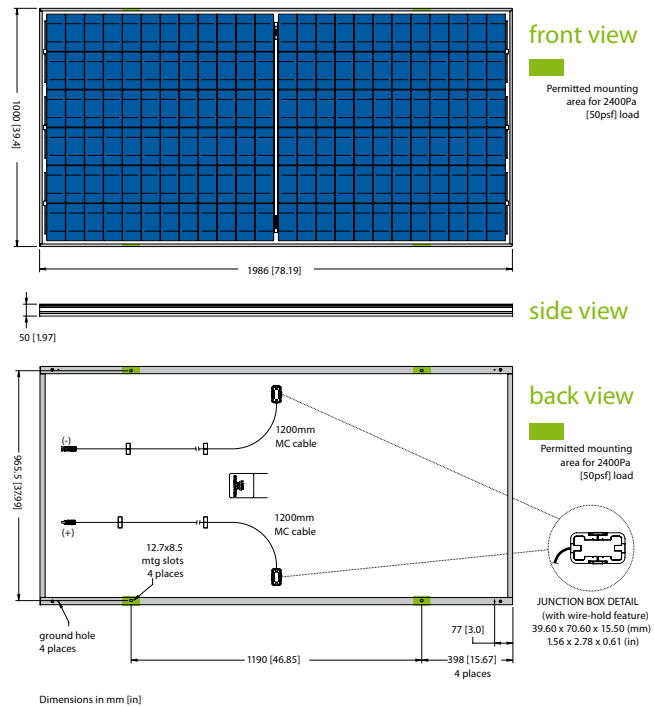
Certified according to the extended version of the IEC 61215:2005 (Crystalline silicon terrestrial photovoltaic modules - Design qualification and type approval)

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

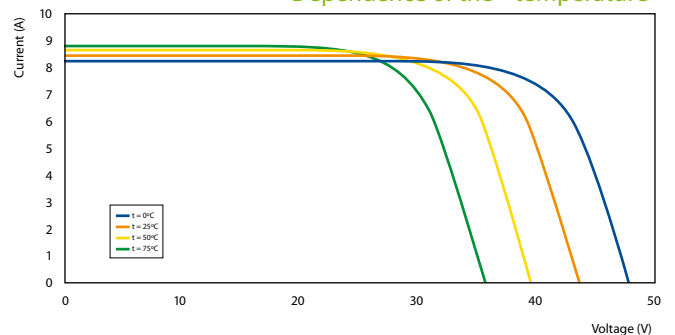
Listed to UL 1703 Standard for Safety by Intertek ETL (Class C fire rating)

Manufactured in ISO 9001 and ISO 14001 certified factories

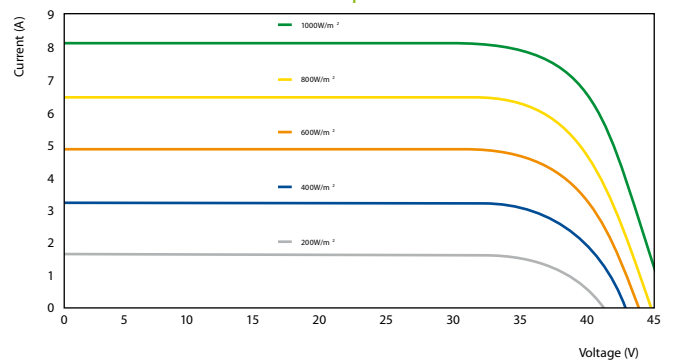
Module electrical measurements are calibrated to World radiometric reference via third party international laboratories



Dependence of the temperature



Dependence of the irradiance



Contact:

Your BP Solar partner

This data sheet complies with the EN 50380 requirements. This publication summarises product warranty and specifications which are subject to change without notice.