bp solar

230 Watt Photovoltaic Module of Poly 3-Series

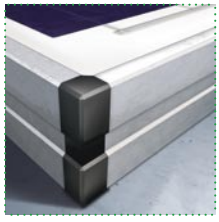
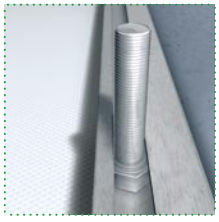
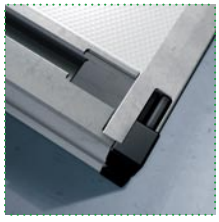
BP 3230 N

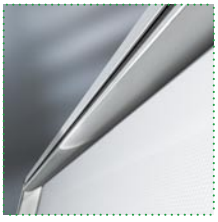
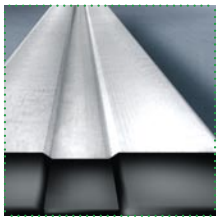
The BP 3230 N is a high performance 230 W_p Poly 3-Series module. 60 high current cells, power classification that includes the LID effect and antireflective glass ensure excellent energy yields for grid connected systems. This product comes with our latest technological innovations such as: The new high strength frame developed with Porsche Engineering to withstand over 6 m of fresh snow – over 900 kg! In most modern mounting structures (clamp, inlay or bolt mounting) this load can actually be surpassed. Shock absorbing corners and a thick polyester backsheet protect the module against rough handling. The best in class weight per Watt ratio of 84 g/W makes it easier to handle. All these features make the installation safer, whilst reducing installation time and saving costs.

CE TÜV UL

Generation Endura

- High strength tubular frame developed with Porsche Engineering
- Fast and flexible mounting using clamps, end channels or bolts
- Robust corners with square drainage holes for safe handling and better drainage of condense water
- Potted junction box with redundant electrical connection
- Improved IntegraBus™ with 6 long-lasting diodes embedded in thick, durable back sheet
- Round profiles for highest stability and better handling
- Modern design according to haptic handling requirements

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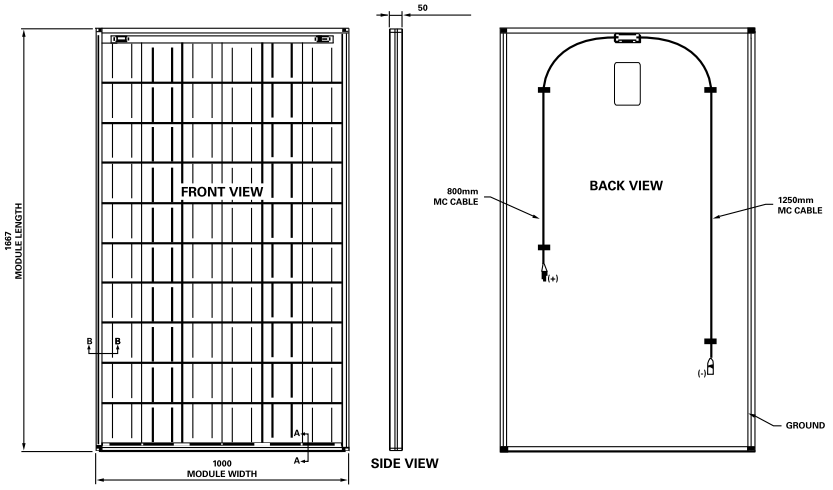
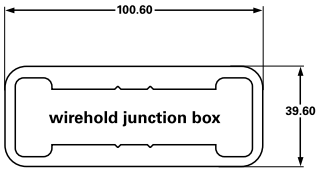
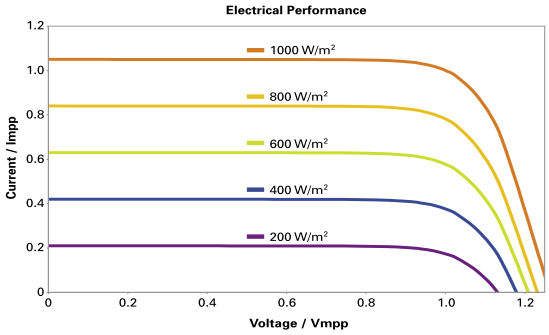
Module Diagram







Mechanical Characteristics

Solar cells:	60 polycrystalline silicon cells (156 mm x 156 mm) in series using low loss interconnects
Front cover:	High transmission 3.2 mm ARC glass
Encapsulant:	EVA
Back cover:	White polyester
Frame:	Silver anodised aluminium
Diodes:	IntegraBus™ with 6 Schottky diodes
Junction Box:	Potted; certified to meet UL1703 flammability test
Output cables:	3.3 mm² cable with weatherproof Multi-Contact III connectors. Asymmetrical cable lengths 1250 mm (-) and 800 mm (+).
Dimensions:	1667 mm x 1000 mm x 50 mm
Weight:	19.4 kg

Electrical Module Performance

Maximum Power (P_{max}):	230 W	
Tolerance:	+/-3 %	
Module efficiency:	13.8 %	
Efficiency reduction @ 200 W/m²:	97 % +/-3 %	
	STC	800 W/m² NOCT
Voltage at P_{max} (V_{mpp}):	29.2 V	26.0 V
Current at P_{max} (I_{mpp}):	7.9 A	6.3 A
Short circuit current (I_{sc}):	8.7 A	7.0 A
Open circuit voltage (V_{oc}):	36.4 V	33.1 V
Limiting reverse current:	8.7A	
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:	15 A	
Maximum system voltage:	1000 V TÜV SC II	
	1000 V IEC 61215	
Maximum parallel strings w/o fuse:	1 string	

Values in accordance with EN 60904-3 (STC).
All solar modules are individually tested prior to shipment, the typical power degradation during the first few days of deployment (LID effect), is incorporated in our factory measurement. All values are in accordance with EN 50380.

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.**

IEC 61215 extended wind load 2400 Pa and 5400 Pa snow load in endmounting, hailstone impact test, damp heat test.

According IEC 61730-1 and IEC 61730-2 May 07
TÜV Rheinland as Safety Class II (IEC 60364) equipment for use in systems up to 1000 V.

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

Manufactured in ISO 9001 and ISO 14001 certified factories.

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 distributor

Find more information under: www.bpsolar.com