

# PWSOLAR

## 650W N Type Bifacial

### MONOCRYSTALLINE MODULE



#### ADVANCED PERFORMANCE & PROVEN ADVANTAGES

- High module conversion efficiency up to 23.25% by using innovative Half-cell design and Multi-busbar(MBB) cell technology.
- Low temperature coefficient and excellent performance under high temperature and low light conditions.
- Robust aluminum frame ensures the modules to withstand wind loads up to 2400Pa and snow loads up to 5400Pa.
- High reliability against extreme environmental conditions (passing salt mist, ammonia and hail tests).
- Potential induced degradation (PID) resistance.
- Power tolerance of  $\pm 3\%$ .

#### ELECTRICAL CHARACTERISTICS AT STC

Model	PWDG650Wp-156M
Maximum Power ( $P_{max}$ )	650W
Power Tolerance	$\pm 3\%$
Open Circuit Voltage (VOC)	57.60V
Short Circuit Current (ISC)	14.10A
Voltage at Nominal Power ( $V_{mp}$ )	48.33V
Current at Nominal Power ( $I_{mp}$ )	13.45A
Size of Module	2465 x 1134 x 30mm
Standard Test condition	Irradiance:1000W/M2 Temp: 25°C , & AM :1.5G spectrum
Maximum system voltage	1000VDC/1500VDC
Operating temperature	- 40°C to +85°C
Module Efficiency	23.25%

#### ELECTRICAL CHARACTERISTICS AT STC

NOCT	45 $\pm$ 2°C
Voltage temperature coefficient( $V_{oc}$ )	-0.33%/°C
Current temperature coefficient ( $I_{sc}$ )	+0.058%/°C
Power temperature coefficient( $P_{mpp}$ )	-0.400%/°C
Minimum power tolerance	$\pm$ 10%
NOCT	45 $\pm$ 2°C



Room 101, No. 5 Building, No. 9 Haikou Road, Shinan District, Qingdao, China 266000



0086 532 85872070



0086 155 6392 6558



0086 138 6421 6496



sales@pwsolarpower.com



info@pwsolarpower.com



www.pwsolarpower.com

MECHANICAL CHARACTERISTICS

Cell Type	Monocrystalline
Number of cell	156pcs ( 78 x 2)
Size of Module	2465 x 1134 x 30mm
Weight	About 34.00kgs
Front Cover	3.2mm tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction Box	IP68, 3 diodes
Cable	4mm <sup>2</sup> (0.006inches <sup>2</sup> ), (+): 400mm (-): 200mm/Customized
Connector	MC4 or MC4 compatible

MODULE WARRANTY

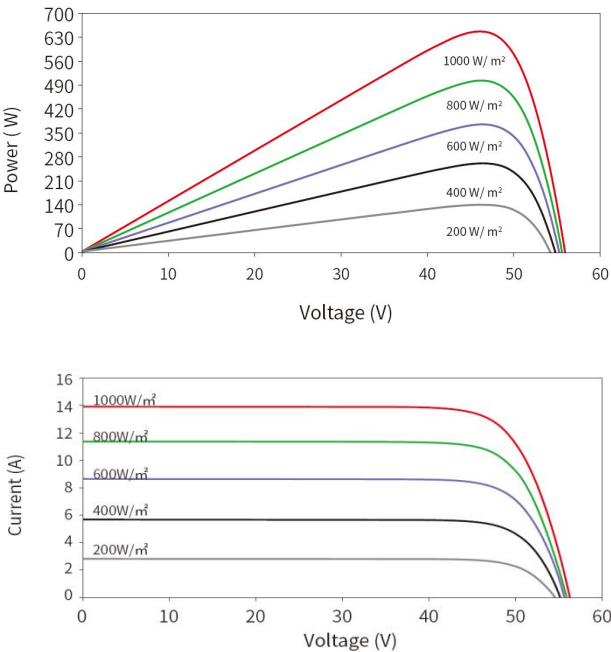
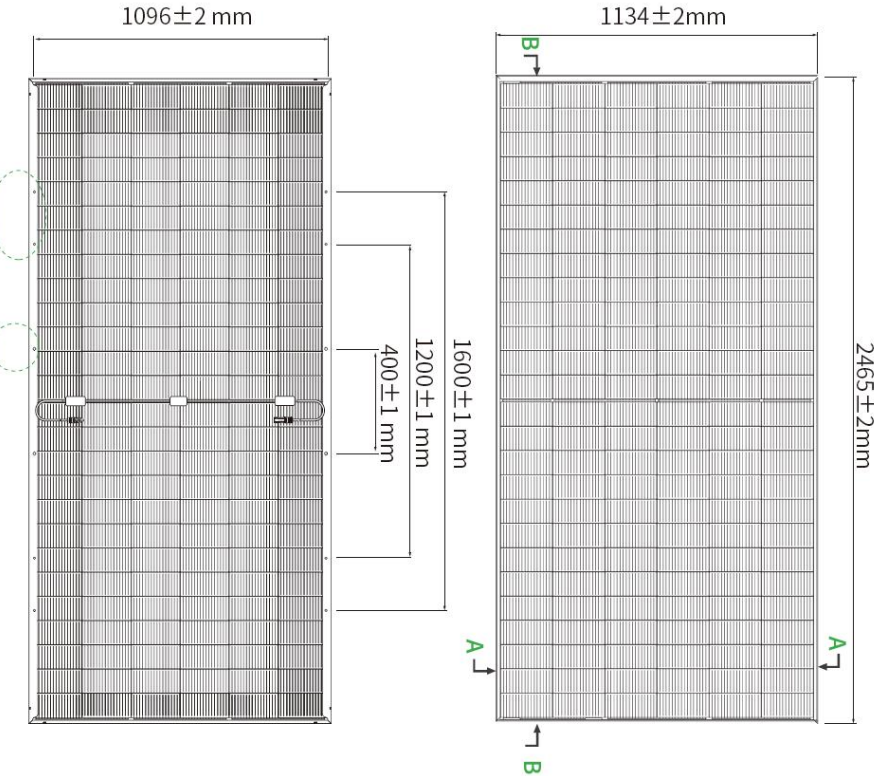
30-year limited warranty of 80% power output; 10-year limited warranty of 90% power output; 12-year limited warranty of materials and workmanship.

PACKING

Standard Packing: 36pcs/Pallet      Module Quantity of 20' container: 180pcs      Module Quantity of 40' container: 576pcs

ENGINEERING DRAWING

IV CURVES



Room 101, No. 5 Building, No. 9 Haikou Road, Shinan District, Qingdao, China 266000  
0086 532 85872070      0086 155 6392 6558      0086 138 6421 6496  
sales@pwsolarpower.com      info@pwsolarpower.com      www.pwsolarpower.com

Specifications in this data sheet are subject to change without prior notice