

## 180 Watt MONO-CRYSTALLINE SOLAR PANEL

### Features

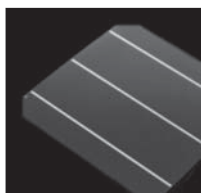
- High conversion efficiency based on innovative photovoltaic technologies
- High reliability with guaranteed +/-3% power output tolerance
- Withstands high wind-pressure and snow load, and extreme temperature variations

### Quality and Safety

- 25-year power output transferable warranty
- Rigorous quality control meeting the highest international standards
- ISO 9001:2000 (Quality Management System) and ISO 14001:2004 (Environmental Management System) certified factories manufacturing world class products
- UL listings: UL1703, cULus, Class C fire rating, conformity to CE

### Recommended Applications

- Residential roof top systems
- On-grid utility systems
- On-grid commercial systems



Sunny's technology yields improvements to BSF structure and anti-reflective coating to increase conversion efficiency

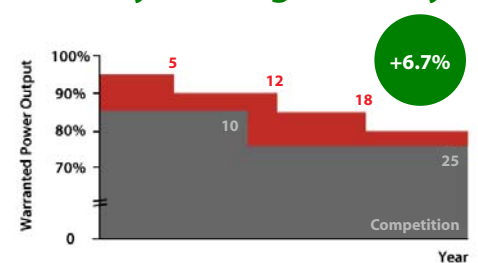


Unique design on drainage holes and rigid construction prevents frame from deforming or breaking due to freezing weather and other forces



The panel provides more field power output through an advanced cell texturing and isolation process, which improves low irradiance performance

### Industry-Leading Warranty



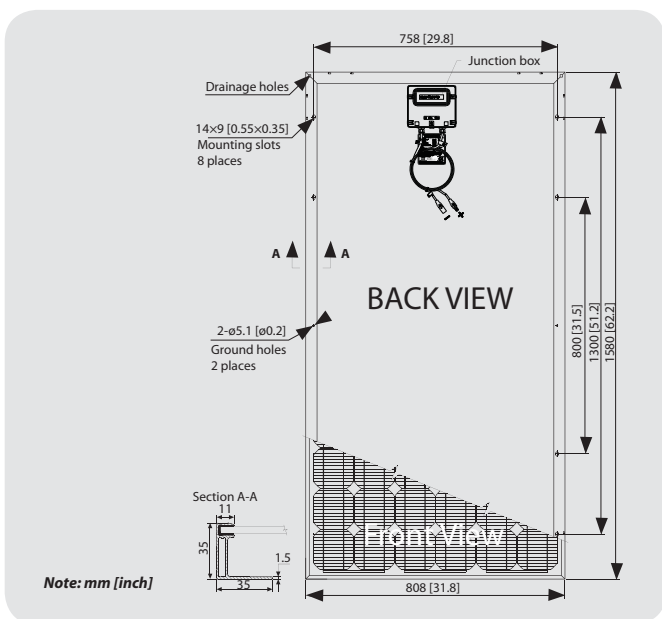
- 25-year, transferable power output warranty: 5 year/95%, 12 year/90%, 18 year/85%, 25 year/80%
- Warrants 6.7% more power than industry standard
- 5 year material and workmanship warranty

Please refer to Sunny Product Warranty for details.

## Electrical Characteristics

Characteristics	SM185C	SM180C	SM175C
Open - Circuit Voltage (Voc)	44.6V	44.4V	44.2V
Optimum Operating Voltage (Vmp)	35.6V	35.6V	35.2V
Short - Circuit Current (Isc)	5.4A	5.4A	5.2A
Optimum Operating Current (Imp)	5.20A	5.05A	4.95A
Maximum Power at STC (Pmax)	185Wp	180Wp	175Wp
Operating Temperature	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Maximum System Voltage	600V DC	600V DC	600V DC
Maximum Series Fuse Rating	15 AMPS	15 AMPS	15 AMPS
Power Tolerance	±3 %	±3 %	±3 %

STC: Irradiance 1000W/m<sup>2</sup>, Module temperature 25°C, AM=1.5



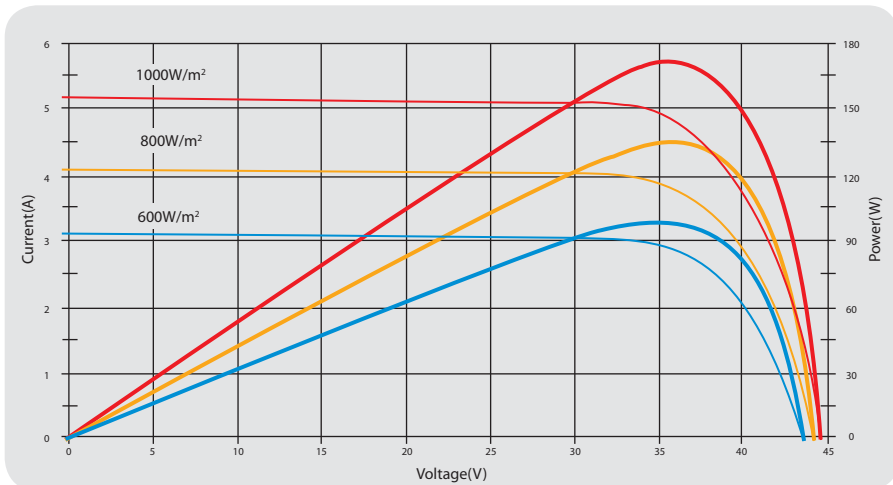
## Mechanical Characteristics

Solar Cell	Mono-crystalline 125x125mm (5inch)
No. of Cells	72 (6x12)
Dimensions	1580x808x35mm (62.2x31.8x1.4inch)
Weight	15.5kg (34.1lbs.)
Front Glass	3.2 mm (0.13inch) tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP65 rated
Output Cables	Asymmetrical lengths (-) 1200mm (47.2inch) and (+) 800mm (31.5inch), MC Plug Type IV connectors

## Temperature Coefficients

Nominal Operating Cell Temperature (NOCT)	45°C±2°C
Temperature Coefficient of Pmax	-0.47 %/°C
Temperature Coefficient of Voc	-0.34 %/°C
Temperature Coefficient of Isc	0.045 %/°C

Current-Voltage & Power-Voltage Curve (170W)



Temperature Dependence of Isc, Voc, Pmax

