

## 180 Watt Maximum Power POLY-CRYSTALLINE SOLAR PANEL

### Features

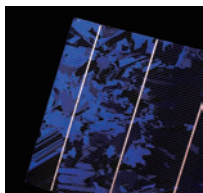
- High conversion efficiency based on leading innovative photovoltaic technologies
- High reliability with guaranteed +/-3% power output tolerance, ensuring return on investment
- Attractive appearance
- Withstands high wind-pressure and snow load, and extreme temperature variations
- Easy to install

### Quality and Safety

- 25-year power output transferable warranty with PICC insurance
- 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
- IEC61215, Safety class II, conformity to CE

### Recommended Applications

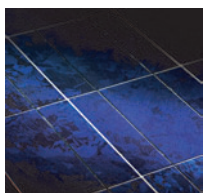
- Residential roof top systems
- On-grid utility systems
- On-grid commercial systems



Suntech'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



Suntech was named Frost and Sullivan's 2008 Solar Energy Development Company of the Year

### Electrical Characteristics

| Characteristics                 | STP180-24/Ac   | STP175-24/Ac   | STP170-24/Ac   |
|---------------------------------|----------------|----------------|----------------|
| Open - Circuit Voltage (Voc)    | 45V            | 44.7V          | 44.4V          |
| Optimum Operating Voltage (Vmp) | 36.2V          | 35.9V          | 35.5V          |
| Short - Circuit Current (Isc)   | 5.26A          | 5.18A          | 5.11A          |
| Optimum Operating Current (Imp) | 4.97A          | 4.87A          | 4.79A          |
| Maximum Power at STC (Pmax)     | 180Wp          | 175Wp          | 170Wp          |
| Operating Temperature           | -40°C to +85°C | -40°C to +85°C | -40°C to +85°C |
| Maximum System Voltage          | 1000V DC       | 1000V DC       | 1000V DC       |
| Maximum Series Fuse Rating      | 15A            | 15A            | 15A            |
| Power Tolerance                 | ±3 %           | ±3 %           | ±3 %           |

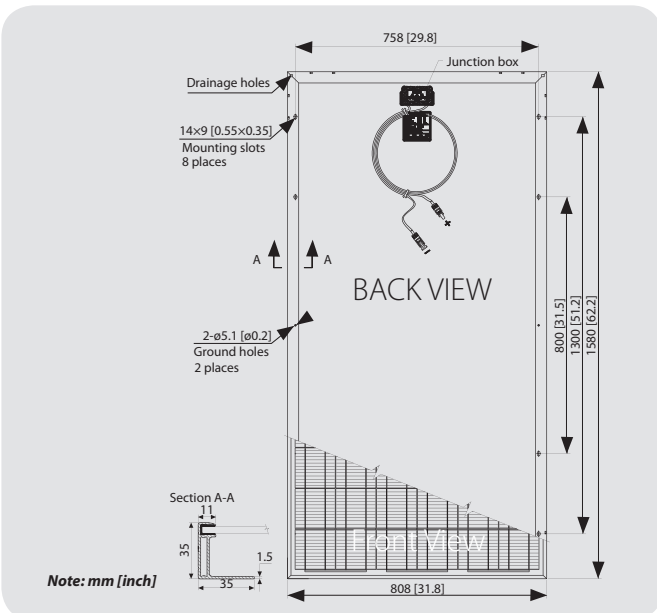
STC: Irradiance 1000W/m<sup>2</sup>, Module temperature 25°C, AM=1.5

### Mechanical Characteristics

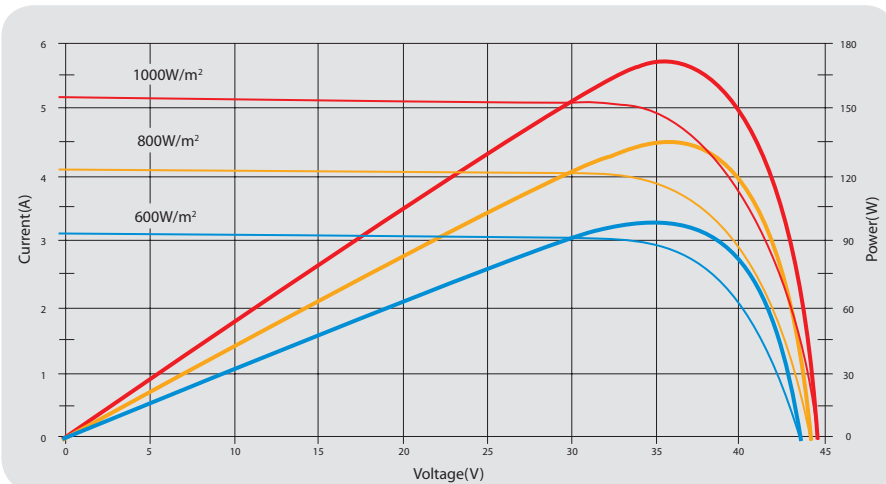
|               |   |
|---------------|---|
| Solar Cell    | Poly-crystalline 125×125mm (5inch)  |
| No. of Cells  | 72 (6×12)   |
| Dimensions    | 1580×808×35mm (62.2×31.8×1.4inch)   |
| Weight        | 15.5kg (34.1lbs.)   |
| Front Glass   | 3.2 mm (0.13inch) tempered glass  |
| Frame         | Anodized aluminium alloy  |
| Junction Box  | IP65 rated  |
| Output Cables | LAPP 4.0mm <sup>2</sup> (0.006inch <sup>2</sup> ), asymmetrical lengths (-) 1200mm(47.2inch) and (+)800mm(31.5inch), MC Plug Type IV connectors |

### Temperature Coefficients

|   |            |
|---|------------|
| Nominal Operating Cell Temperature (NOCT) | 45±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 (175W)



Temperature Dependence of Isc, Voc, Pmax

