280Watt
MONOCRYSTALLINE SOLAR MODULE

Features

- **High module conversion efficiency**
  Module efficiency up to 17.1% achieved through advanced cell technology and manufacturing capabilities

- **Positive tolerance**
  Positive tolerance of up to 0/+5W delivers higher output reliability

- **Extended wind and snow load tests**
  Module certified to withstand extreme wind (3800 Pascal) and snow loads (5400 Pascal)

- **High PID resistant**
  Advanced cell technology and qualified materials lead to high resistance to PID

- **Suntech current sorting process**
  System output maximized by reducing mismatch losses up to 2% with modules sorted & packaged by amperage

- **Withstanding harsh environment**
  Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

Trust Suntech to Deliver Reliable Performance Over Time

- World-class manufacturer of crystalline silicon photovoltaic modules
- Unrivaled manufacturing capacity and world-class technology
- Regular independently checked production process from international accredited institute/company
- Tested for harsh environments (salt mist, ammonia corrosion and sand blowing testing: IEC 61701, IEC 62716, DIN EN 60068-2-68)
- Long-term reliability tests
- 2 x 100% EL inspection ensuring defect-free

Industry-leading Warranty based on nominal power

- 97% in the first year, thereafter, for years two (2) through twenty-five (25), 0.7% maximum decrease from MODULE’s nominal power output per year, ending with the 80.2% in the 25th year after the defined WARRANTY STARTING DATE.
- 12-year product warranty

Special 5 busbar design

- The unique cell design leads reduction in electrodes resistance, shading area and raise in conversion efficiency. Residual stress distribution can be more even, reducing the micro-cracks risks.

IP68 Rated Junction Box

- The Suntech IP68 rated junction box ensures an outstanding waterproof level, supports installations in all orientations and reduces stress on the cables. High reliable performance, low resistance connectors ensure maximum output for the highest energy production.

* Please refer to Suntech Standard Module Installation Manual for details.
** WEEE only for EU market.
**** Please refer to Suntech Product Warranty for details.

Certifications and standards:
IEC 61215, IEC 61730, conformity to CE
E-mail: sales@suntech-power.com

**STP280S - 20/Wfb**
**STP275S - 20/Wfb**
**STP270S - 20/Wfb**

### Mechanical Characteristics
- **Solar Cell**: Monocrystalline silicon 6 inches
- **No. of Cells**: 60 (6 × 10)
- **Dimensions**: 1650 × 992 × 35mm (64.96 × 39.1 × 1.4 inches)
- **Weight**: 18.3 kgs (40.3 lbs.)
- **Front Glass**: 3.2 mm (0.13 inches) tempered glass
- **Frame**: Anodized aluminium alloy
- **Junction Box**: IP68 rated (3 bypass diodes)
- **Output Cables**: TUV (2Pfg1169:2007)
- **Connectors**: MC4 compatible

### Electrical Characteristics
- **STC**: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5;
- **NOCT**: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s;

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Rated Maximum Power</th>
<th>Output Tolerance</th>
<th>Current at Pmax</th>
<th>Voltage at Pmax</th>
<th>Short-Circuit Current</th>
<th>Open-Circuit Voltage</th>
<th>Nominal Operating Cell Temp.</th>
<th>Weight</th>
<th>Dimension</th>
<th>Maximum System Voltage</th>
<th>Maximum Series Fuse Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>STP280S-20/Wfb</td>
<td>280W</td>
<td>0/+5 W</td>
<td>8.89A</td>
<td>31.5 V</td>
<td>9.41 A</td>
<td>39.4V</td>
<td>45±2°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STP275S-20/Wfb</td>
<td>275 W</td>
<td>0/+5 W</td>
<td>8.85 A</td>
<td>31.1 V</td>
<td>9.34 A</td>
<td>38.5 V</td>
<td>-40 °C to +85 °C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STP270S-20/Wfb</td>
<td>270 W</td>
<td>0/+5 W</td>
<td>8.77 A</td>
<td>30.8 V</td>
<td>9.28 A</td>
<td>38.3 V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Temperature Characteristics
- **Nominal Operating Cell Temperature (NOCT)**: 45±2°C
- **Temperature Coefficient of Pmax**: -0.41 %/°C
- **Temperature Coefficient of Voc**: -0.34 %/°C
- **Temperature Coefficient of Isc**: 0.060 %/°C

### Packing Configuration
- **Container**: 20’ GP 40’ HC
- **Pieces per pallet**: 30 30
- **Pallets per container**: 6 28
- **Pieces per container**: 180 840

Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.