

320Watt

MONOCRYSTALLINE BIFACIAL HALF CELL SOLAR MODULE



Features



Higher power output

The power generation can increase up to 25%



High PID resistant

Advanced cell technology and qualified materials lead to high resistance to PID



Distributed junction box

Special distributed junction box design avoids shading on the back side



Positive tolerance

Positive tolerance of up to 5W delivers higher output reliability



Excellent weak light performance

More power output in weak light condition, such as haze, cloudy, and morning



Withstanding harsh environment

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

Certifications and standards:
 IEC 61215, IEC 61730, conformity to CE



Trust Suntech to Deliver Reliable Performance Over Time

- World-class manufacturer of crystalline silicon photovoltaic modules
- Unrivaled manufacturing capacity and world-class technology
- Rigorous quality control meeting the highest international standards: ISO 9001: 2008, ISO 14001: 2004 and ISO17025: 2005
- 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



High efficiency Bifacial PERC half cell

By using bifacial PERC half cell and double glass technology, the frontside power can reach to 320W, and the backside power generation can increase up to 25%.

Industry-leading Warranty based on nominal power



- 97.5% in the first year, thereafter, for years two (2) through thirty (30), 0.5% maximum decrease from MODULE's nominal power output per year, ending with the 83% in the 30th year after the defined WARRANTY STARTING DATE.***
- 12-year product warranty
- 30-year linear performance warranty



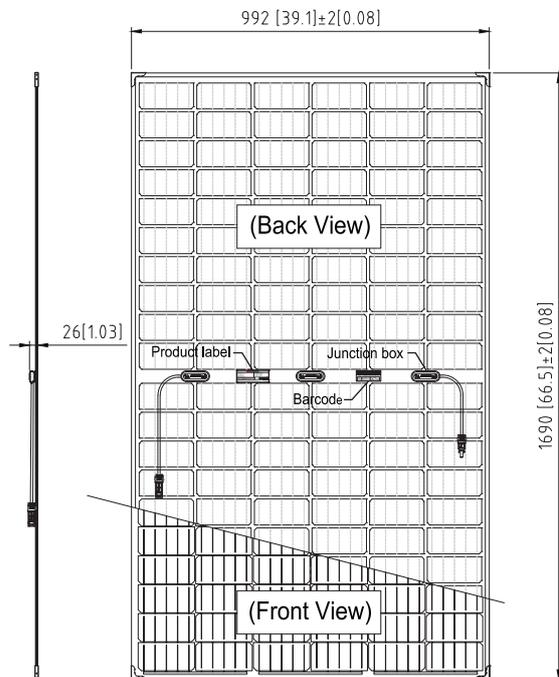
IP68 Rated Junction Box

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.

*WEEE only for EU market.

** Please refer to Suntech Product Near-coast Installation Manual for details. *** Please refer to Suntech Product Warranty for details.

HyPro STP320S - 60/Pfh STP315S - 60/Pfh STP310S - 60/Pfh



Electrical Characteristics

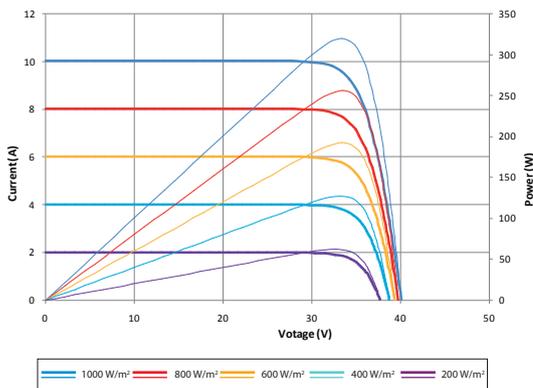
| STC | STP320S-60/ Pfh | STP315S-60/ Pfh | STP310S-60/ Pfh |
|---------------------------------|--------------------|--------------------|--------------------|
| Maximum Power at STC (Pmax) | 320 W | 315 W | 310 W |
| Optimum Operating Voltage (Vmp) | 33.3 V | 33.1 V | 32.9 V |
| Optimum Operating Current (Imp) | 9.61 A | 9.52 A | 9.43 A |
| Open Circuit Voltage (Voc) | 40.1 V | 39.9 V | 39.7 V |
| Short Circuit Current (Isc) | 10.04 A | 9.96 A | 9.88 A |
| Module Efficiency | 19.1% | 18.8% | 18.5% |
| Operating Module Temperature | -40 °C to +85 °C | | |
| Maximum System Voltage | 1500 V DC (IEC) | | |
| Maximum Series Fuse Rating | 20 A | | |
| Power Tolerance | 0/+5W | | |

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5;
Tolerances of Pmax, Voc and Isc are all within +/- 5%.

| NMOT | STP320S-60/ Pfh | STP315S-60/ Pfh | STP310S-60/ Pfh |
|---------------------------------|--------------------|--------------------|--------------------|
| Maximum Power at NMOT (Pmax) | 239.6 W | 236.0 W | 232.3 W |
| Optimum Operating Voltage (Vmp) | 31.1 V | 30.8 V | 30.6 V |
| Optimum Operating Current (Imp) | 7.72 A | 7.65 A | 7.58 A |
| Open Circuit Voltage (Voc) | 37.5 V | 37.3 V | 37.1 V |
| Short Circuit Current (Isc) | 8.11 A | 8.05 A | 7.98 A |

NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s;

Current-Voltage & Power-Voltage Curve (320S)



Temperature Characteristics

| | |
|---|------------|
| Nominal Module Operating Temperature (NMOT) | 42±2°C |
| Temperature Coefficient of Pmax | -0.37 %/°C |
| Temperature Coefficient of Voc | -0.34 %/°C |
| Temperature Coefficient of Isc | 0.060 %/°C |

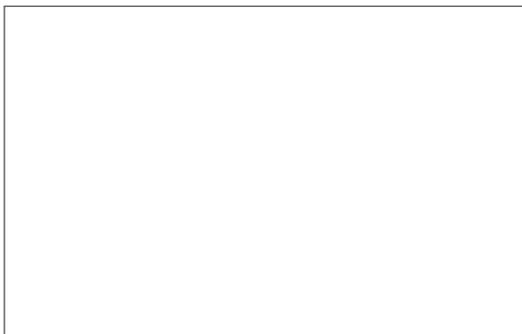
Mechanical Characteristics

| | |
|------------------|--|
| Solar Cell | Monocrystalline silicon 6 inches |
| No. of Cells | 120 (6 × 20) |
| Dimensions | 1690 × 992 × 6mm (66.54 × 39.1 × 0.24 inches) |
| Weight | 24.1 kgs (53.13 lbs.) |
| Front/Back Glass | 2.5 mm (0.098 inches) tempered glass |
| Junction Box | IP68 rated |
| Output Cables | 4.0 mm ² (0.006 inches ²), unsymmetrical lengths (-) 350mm (13.8 inches), (+) 160 mm (6.3 inches) |
| Connectors | MC4 EVO2, Cable01S |

Packing Configuration

| Container | 20' GP | 40' HC |
|-----------------------|--------|--------|
| Pieces per pallet | 33 | 33 |
| Pallets per container | 5 | 24 |
| Pieces per container | 165 | 792 |

Dealer information



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 of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.