

# HyPro STP300S - 20/Wfb STP295S - 20/Wfb STP290S - 20/Wfb



## 300 Watt MONOCRYSTALLINE SOLAR MODULE



### Features



#### High module conversion efficiency

Module efficiency up to 18.3% achieved through advanced cell technology and manufacturing capabilities



#### PID resistant

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



#### Positive tolerance

Positive tolerance of up to 5W delivers higher outputs reliability



#### Suntech current sorting process

System output maximized by reducing mismatch losses up to 2% with modules sorted & packaged by amperage



#### Extended wind and snow load tests

Module certified to withstand extreme wind (3800 Pascal) and snow loads (5400 Pascal) \*



#### Withstanding harsh environment

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

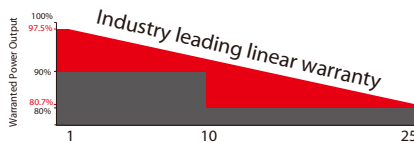
Certifications and standards:  
IEC 61215, IEC 61730, conformity to CE



### 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 modules

### Industry-leading Warranty based on nominal power



- 97.5% 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 80.7% in the 25th year after the defined WARRANTY STARTING DATE.\*\*\*\*
- 12-year product warranty
- 25-year linear performance warranty

### Advanced HyPro Technology



The HyPro cell uses back surface passivation and local BSF technology, which can improve cell efficiency by a large margin.

### 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.

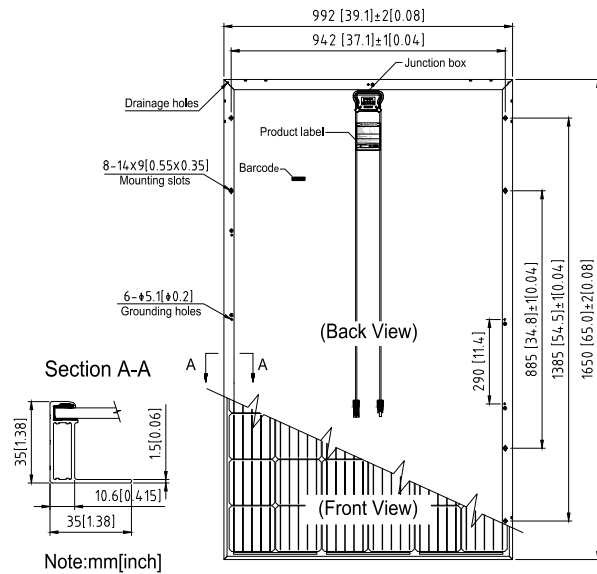
\* Please refer to Suntech Standard Module Installation Manual for details. \*\*WEEE only for EU market.

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

# HyPro STP300S - 20/Wfb

## STP295S - 20/Wfb

## STP290S - 20/Wfb



### Electrical Characteristics

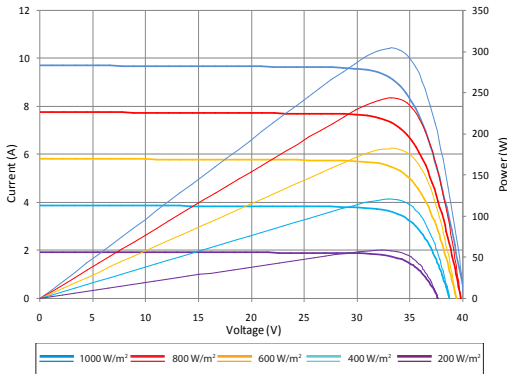
| STC                             | STP300S-20/Wfb   | STP295S-20/Wfb | STP290S-20/Wfb |
|---------------------------------|------------------|----------------|----------------|
| Maximum Power at STC (Pmax)     | 300 W            | 295 W          | 290 W          |
| Optimum Operating Voltage (Vmp) | 32.6 V           | 32.2 V         | 31.7 V         |
| Optimum Operating Current (Imp) | 9.21 A           | 9.17 A         | 9.15 A         |
| Open Circuit Voltage (Voc)      | 39.9 V           | 39.8 V         | 39.8 V         |
| Short Circuit Current (Isc)     | 9.65 A           | 9.59 A         | 9.55 A         |
| Module Efficiency               | 18.3%            | 18.0%          | 17.7%          |
| Operating Module Temperature    | -40 °C to +85 °C |                |                |
| Maximum System Voltage          | 1000 V DC (IEC)  |                |                |
| Maximum Series Fuse Rating      | 20 A             |                |                |
| Power Tolerance                 | 0/+5 W           |                |                |

STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, AM=1.5;  
Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/- 3%

| NOCT                            | STP300S-20/Wfb | STP295S-20/Wfb | STP290S-20/Wfb |
|---------------------------------|----------------|----------------|----------------|
| Maximum Power at NOCT (Pmax)    | 221.7 W        | 218.3 W        | 214.7 W        |
| Optimum Operating Voltage (Vmp) | 30.2 V         | 30.0 V         | 29.6 V         |
| Optimum Operating Current (Imp) | 7.35 A         | 7.29 A         | 7.25 A         |
| Open Circuit Voltage (Voc)      | 36.8 V         | 36.7 V         | 36.7 V         |
| Short Circuit Current (Isc)     | 7.81 A         | 7.76 A         | 7.73 A         |

NOCT: Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, AM=1.5, wind speed 1 m/s;  
Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/- 3%

### Current-Voltage & Power-Voltage Curve (300S-20)



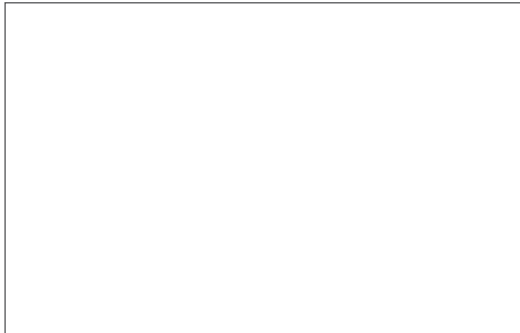
### Temperature Characteristics

|   |            |
|---|------------|
| Nominal Operating Cell Temperature (NOCT) | 45±2°C     |
| Temperature Coefficient of Pmax           | -0.40 %/°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  | 60 (6 × 10)  |
| Dimensions    | 1650 × 992 × 35mm (65.0 × 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 | 4.0 mm <sup>2</sup> (0.006 inches <sup>2</sup> ), symmetrical lengths (-) 1000mm (39.4 inches) and (+) 1000 mm (39.4 inches) |
| Connectors    | MC4 compatible   |

### Dealer information



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