HyPro STP310S - 20/Wfb
STP305S - 20/Wfb
STP300S - 20/Wfb

SUNTECH

310 Watt
MONOCRYSTALLINE SOLAR MODULE



Features

High module conversion efficiency
Module efficiency up to 18.9% 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 reliablity

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

Extended load tests
Module certified to withstand front side maximum static test load (5400 Pascal) and rear side maximum static test loads (3800 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

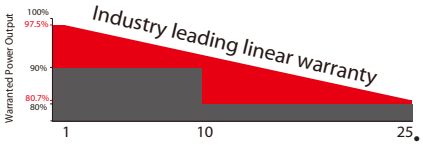
- World-class manufacturer of crystalline silicon photovoltaic modules
- Unrivaled manufacturing capacity and world-class technology
- Rigorous quality control meeting the highest international standards: ISO 9001: 2008, ISO 14001: 2004 and ISO17025: 2005
- Regular independently checked production process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



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.

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

IP68 Rated Junction Box

IP68

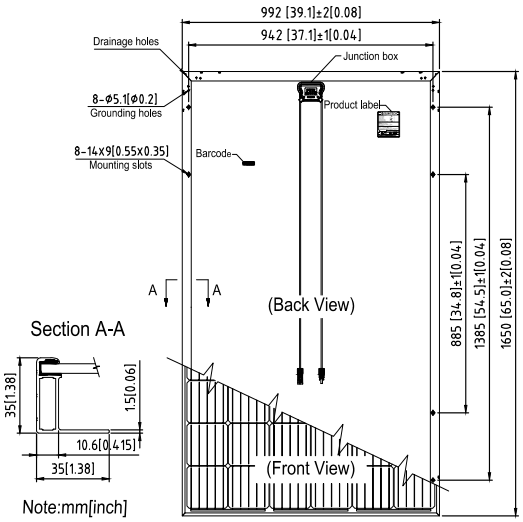
The Suntech IP68 rated junction box ensures an outstanding waterproof level, supports installations in all orientations and reduces stress on the cables. High reliable performance, low resistance connectors ensure maximum output for the highest energy production.

* 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.

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Electrical Characteristics

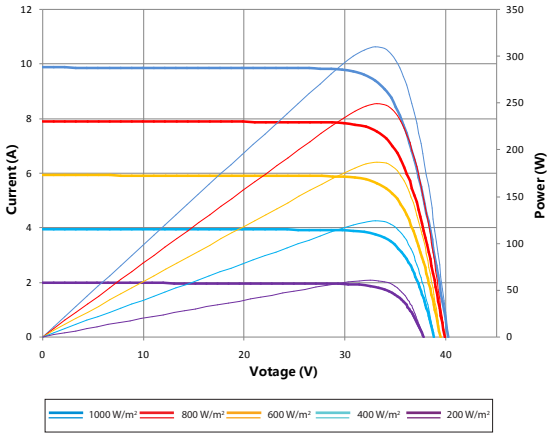
STC	STP310S-20/Wfb	STP305S-20/Wfb	STP300S-20/Wfb
Maximum Power at STC (Pmax)	310 W	305 W	300 W
Optimum Operating Voltage (Vmp)	33.1 V	32.8 V	32.5 V
Optimum Operating Current (Imp)	9.37 A	9.30 A	9.23 A
Open Circuit Voltage (Voc)	40.2 V	39.8 V	39.6 V
Short Circuit Current (Isc)	9.87 A	9.80 A	9.72 A
Module Efficiency	18.9%	18.6%	18.3%
Operating Module Temperature	-40 °C to +85 °C		
Maximum System Voltage	1000V DC (UL)		
Maximum Series Fuse Rating	20 A		
Power Tolerance	0/+5 W		

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

NMOT	STP310S-20/Wfb	STP305S-20/Wfb	STP300S-20/Wfb
Maximum Power at NMOT (Pmax)	232.6 W	228.3 W	225.0 W
Optimum Operating Voltage (Vmp)	30.8 V	30.5 V	30.3 V
Optimum Operating Current (Imp)	7.55 A	7.49 A	7.43 A
Open Circuit Voltage (Voc)	37.6 V	37.1 V	37.0 V
Short Circuit Current (Isc)	7.97 A	7.92 A	7.85 A

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

Current-Voltage & Power-Voltage Curve (310S)



Temperature Characteristics

Nominal Module Operating Temperature (**NMOT**)	42±2°C
Temperature Coefficient of Pmax	-0.37 %/°C
Temperature Coefficient of Voc	-0.304 %/°C
Temperature Coefficient of Isc	0.050 %/°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 mm² (0.006 inches²), 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.

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