

MONOCRYSTALLINE SOLAR MODULE STP275S / STP270S - 20/Wem



High module conversion efficiency

Module efficiency up to 16.9% achieved through advanced cell technology and manufacturing capabilities



Special 4 busbar design

4 bus bars, the unique design of solar cell, leads tremendous reduction in electrodes resistance.



Positive tolerance

Positive tolerance of up to 5% 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) *



PID resistant

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

WHY CHOOSE SUNTECH

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, 2PFG 1917/05.11, DIN EN 60068-2-68)***

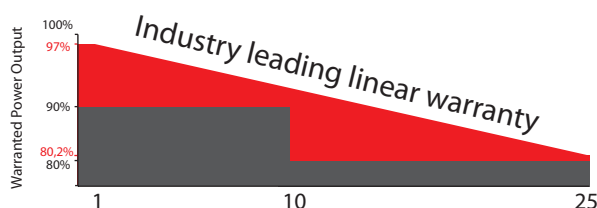


Compact and Durable Frame Design

The new compact frame means more modules per package, so it saves your shipping and inventory cost. The rigid and durable hollow chamber guarantees the same long-term and reliable performance.

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****
- 10-year material and workmanship warranty



IP67 Rated Junction Box

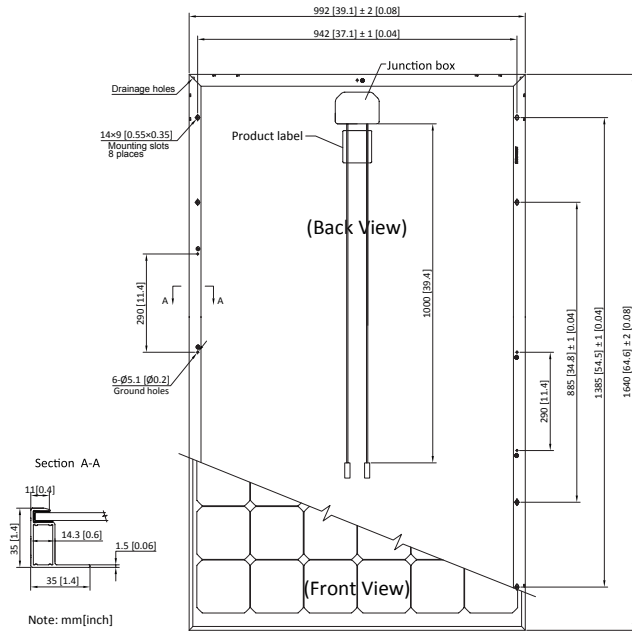
IP67 rated junction box supports installations in multiple orientations. High reliable performance, low resistance connectors ensure maximum output for the highest energy production.

* Please refer to Suntech Standard Module Installation Manual for details.

** PV Cycle only for EU market.

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

**** Please refer to Suntech Product Warranty for details.



Electrical Characteristics

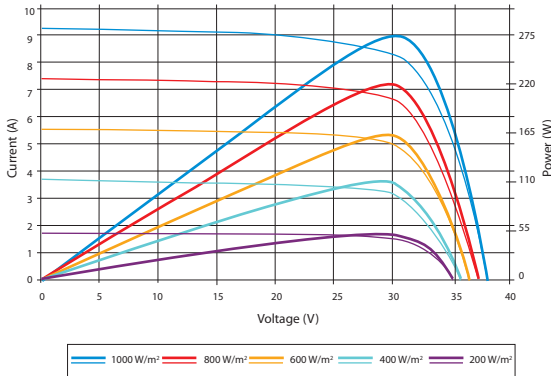
STC	STP275S-20/Wem	STP270S-20/Wem
Maximum Power at STC (Pmax)	275 W	270 W
Optimum Operating Voltage (Vmp)	31.1 V	30.8 V
Optimum Operating Current (Imp)	8.85 A	8.77 A
Open Circuit Voltage (Voc)	38.5 V	38.3 V
Short Circuit Current (Isc)	9.34 A	9.28 A
Module Efficiency	16.9%	16.6%
Operating Module Temperature	-40 °C to +85 °C	
Maximum System Voltage	1000 V DC (IEC)	
Maximum Series Fuse Rating	20 A	
Power Tolerance	0/+5 %	

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/- 3%

NOCT	STP275S-20/Wem	STP270S-20/Wem
Maximum Power at NOCT (Pmax)	202 W	198 W
Optimum Operating Voltage (Vmp)	28.3 V	28.1 V
Optimum Operating Current (Imp)	7.14 A	7.05 A
Open Circuit Voltage (Voc)	35.4 V	35.2 V
Short Circuit Current (Isc)	7.55 A	7.49 A

NOCT: Irradiance 800 W/m², 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 (275S-20)



Excellent performance under weak light conditions: at an irradiance intensity of 200 W/m² (AM 1.5, 25 °C), 95.5% or higher of the STC efficiency (1000 W/m²) is achieved

Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	45±2°C
Temperature Coefficient of Pmax	-0.44 %/°C
Temperature Coefficient of Voc	-0.34 %/°C
Temperature Coefficient of Isc	0.060 %/°C

Mechanical Characteristics

Solar Cell	Monocrystalline silicon 156.75 × 156.75 mm (6 inches)
No. of Cells	60 (6 × 10)
Dimensions	1640 × 992 × 35mm (64.6 × 39.1 × 1.4 inches)
Weight	18.2 kgs (40.1 lbs.)
Front Glass	3.2 mm (0.13 inches) tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP67 rated (3 bypass diodes)
Output Cables	TUV (2Pfg1169:2007) 4.0 mm ² (0.006 inches ²), symmetrical lengths (-) 1000mm (39.4 inches) and (+) 1000 mm (39.4 inches)
Connectors	Original MC4 connectors

Packing Configuration

Container	20' GP	40' HC
Pieces per pallet	30	30
Pallets per container	6	28
Pieces per container	180	840

Dealer information



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.