

**STP290 - 24/Vd**  
**STP285 - 24/Vd**

**SUNTECH**

*Solar powering a green future™*

# 290 Watt

## POLYCRYSTALLINE SOLAR MODULE

### Features



#### High module conversion efficiency

Up to 14.9%, through superior cell technology and leading manufacturing capability



#### Positive tolerance

Guaranteed positive tolerance 0/+5% ensures power output reliability



#### Extended wind and snow load tests

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



#### Self-cleaning & anti-reflective

Anti-reflective, hydrophobic layer improves light absorption and reduces surface dust



#### Excellent weak light performance

Excellent performance under low light environments (mornings, evenings, and cloudy days)



#### Suntech current sorting process

All Suntech modules sorted and packaged by amperage, maximizing system output by reducing mismatch losses by up to 2%



*Certification and standards:*

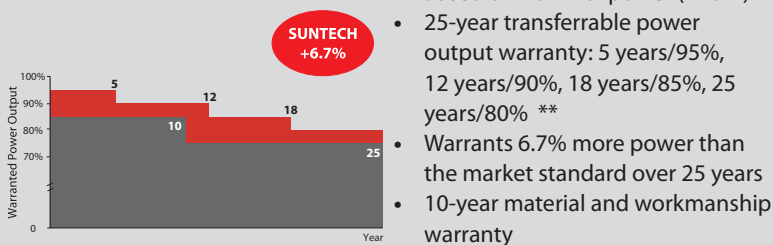
UL 1703, IEC 61215, IEC 61730, conformity to CE



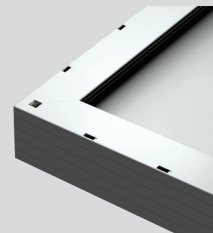
### Trust Suntech to Deliver Reliable Performance Over Time

- World's No.1 manufacturer of crystalline silicon photovoltaic modules
- Unrivalled manufacturing capacity and world-class technology
- Rigorous quality control meeting the highest international standards : ISO 9001: 2008, ISO 14001: 2004 and ISO 17025: 2005

### Industry-leading Warranty based on Pnom



- Based on nominal power (Pnom)
- 25-year transferrable power output warranty: 5 years/95%, 12 years/90%, 18 years/85%, 25 years/80% \*\*
- Warrants 6.7% more power than the market standard over 25 years
- 10-year material and workmanship warranty



#### Superior Frame Design

Specially designed drainage holes and rigid construction prevent frames from deforming. Screwless frame design for long term durability.



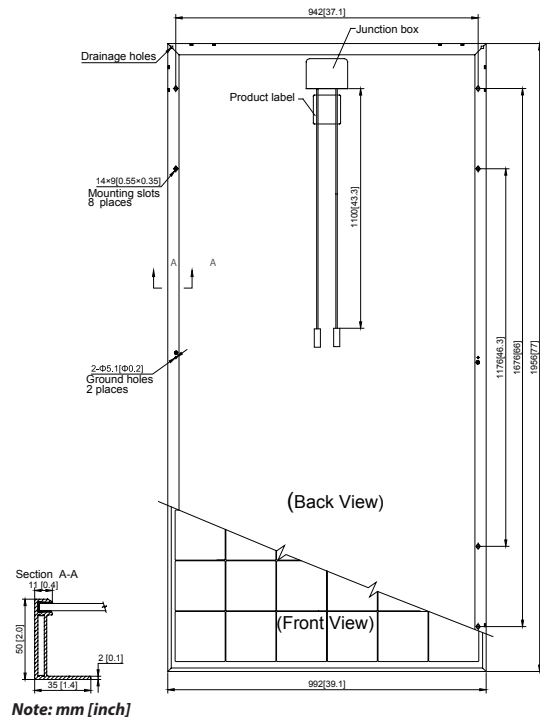
#### Most Modern IP67 Rated Junction Box

Supports any orientation installation. High performance low resistance connectors ensure maximum module power output for highest energy production.

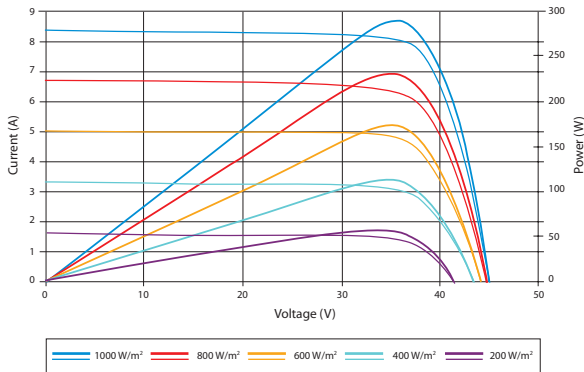
\* Please refer to Suntech Standard Module Installation Manual for details.

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

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### Current-Voltage & Power-Voltage Curve (290-24)



Excellent performance under weak light conditions: at an irradiation intensity of 200 W/m<sup>2</sup> (AM 1.5, 25 °C), 95.5% or higher of the STC efficiency (1000 W/m<sup>2</sup>) is achieved

### Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	45±2°C
Temperature Coefficient of Pmax	-0.44 %/°C
Temperature Coefficient of Voc	-0.33 %/°C
Temperature Coefficient of Isc	0.055 %/°C

### Electrical Characteristics

STC	STP290-24/Vd	STP285-24/Vd
Optimum Operating Voltage (Vmp)	35.6 V	35.4 V
Optimum Operating Current (Imp)	8.15 A	8.06 A
Open Circuit Voltage (Voc)	45.0 V	44.9 V
Short Circuit Current (Isc)	8.42 A	8.37 A
Maximum Power at STC (Pmax)	290 W	285 W
Module Efficiency	14.9%	14.7%
Operating Module Temperature	-40 °C to +85 °C	
Maximum System Voltage	600 V DC (UL)/ 1000 V DC (IEC)	
Maximum Series Fuse Rating	20 A	
Power Tolerance	0/+5 %	

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	STP290-24/Vd	STP285-24/Vd
Maximum Power at NOCT (Pmax)	211 W	208 W
Optimum Operating Voltage (Vmp)	32.2 V	32.1 V
Optimum Operating Current (Imp)	6.56 A	6.48 A
Open Circuit Voltage (Voc)	41.2 V	41.0 V
Short Circuit Current (Isc)	6.80 A	6.77 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%

### Mechanical Characteristics

Solar Cell	Polycrystalline 156 × 156 mm (6 inches)
No. of Cells	72 (6 × 12)
Dimensions	1956 × 992 × 50 mm (77.0 × 39.1 × 2.0 inches)
Weight	27.0 kgs (59.5 lbs.)
Front Glass	4.0 mm (0.16 inches) tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP67 rated UL 4703, TUV (2Pfg1169: 2007)
Output Cables	4.0 mm <sup>2</sup> (0.006 inches <sup>2</sup> ), symmetrical lengths (-) 1100 mm (43.3 inches) and (+) 1100 mm (43.3 inches)
Connectors	H4 connectors (MC4 compatible)

### Packing Configuration

Container	20' GP	40' GP	40' HC
Pieces per pallet	21	21	21
Pallets per container	5	12	24
Pieces per container	105	252	504

#### Dealer information