

STP190S - 24/Ad+

SUNTECH

Solar powering a green future™

190 Watt

MONOCRYSTALLINE 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 clean effect

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%



Certifications and standards:

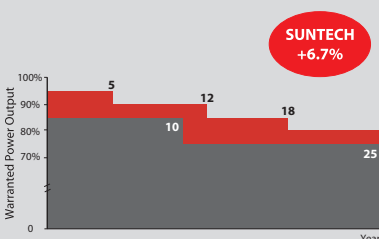
IEC 61215, IEC 61730, conformity to CE



Trust Suntech to Deliver Reliable Performance Over Time

- World's No.1 manufacturer of crystalline silicon photovoltaic modules
- Unrivaled manufacturing capacity and world-class technology
- Rigorous quality control meeting the highest international standards : ISO 9001: 2008, ISO 14001: 2004 and ISO17025: 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 a long term durability.



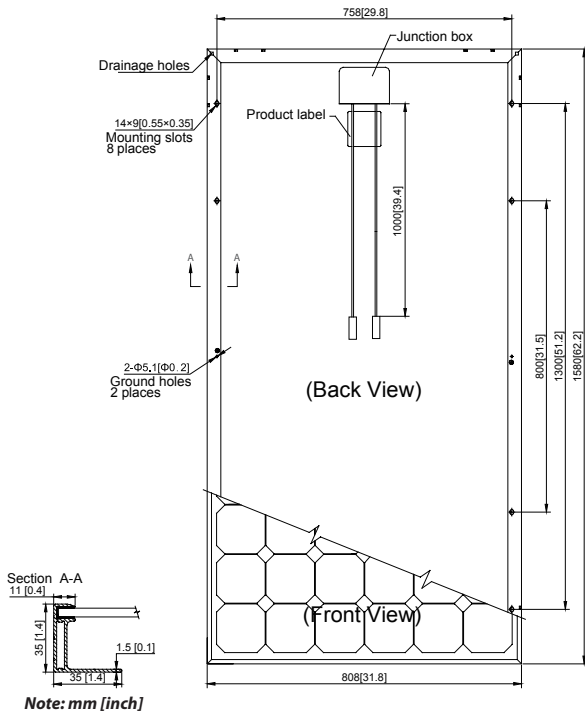
Most Modern IP67 Rated Junction Box

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

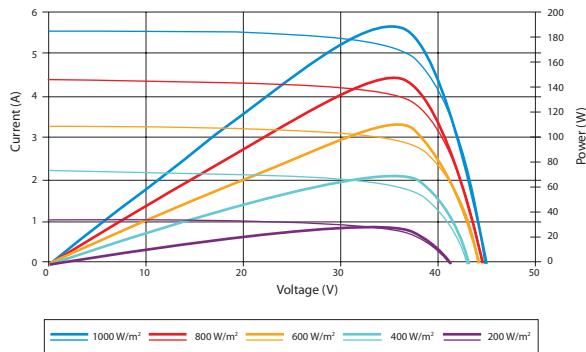
* Please refer to Suntech Standard Module Installation Manual for details.

** Please refer to Suntech Product Warranty for details.

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Current-Voltage & Power-Voltage Curve (190S-24)



Excellent performance under weak light conditions: at an irradiation 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	-0.45 %/°C
Temperature Coefficient of Voc	-0.34 %/°C
Temperature Coefficient of Isc	0.050 %/°C

Electrical Characteristics

STC	STP190S-24/Ad+
Optimum Operating Voltage (Vmp)	36.6 V
Optimum Operating Current (Imp)	5.20 A
Open Circuit Voltage (Voc)	45.2 V
Short Circuit Current (Isc)	5.62 A
Maximum Power at STC (Pmax)	190 W
Module Efficiency	14.9%
Operating Module Temperature	-40 °C to +85 °C
Maximum System Voltage	1000 V DC (IEC) / 600 V DC (UL)
Maximum Series Fuse Rating	15 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	STP190S-24/Ad+
Maximum Power at NOCT (Pmax)	139 W
Optimum Operating Voltage (Vmp)	33.1 V
Optimum Operating Current (Imp)	4.19 A
Open Circuit Voltage (Voc)	41.3 V
Short Circuit Current (Isc)	4.56 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%

Mechanical Characteristics

Solar Cell	Monocrystalline 125 × 125 mm (5 inches)
No. of Cells	72 (6 × 12)
Dimensions	1580 × 808 × 35mm (62.2 × 31.8 × 1.4 inches)
Weight	15.5 kgs (34.1 lbs.)
Front Glass	3.2 mm (0.13 inches) tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP67 rated
	TUV (2Pfg1169:2007), UL 4703, UL 44
Output Cables	4.0 mm ² (0.006 inches ²), symmetrical lengths (-) 1000 mm (39.4 inches) and (+) 1000 mm (39.4 inches)
Connectors	RADOX® SOLAR integrated twist locking connectors

Packing Configuration

Container	20' GP	40' GP
Pieces per pallet	26	26
Pallets per container	12	28
Pieces per container	312	728

Dealer information