

# 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



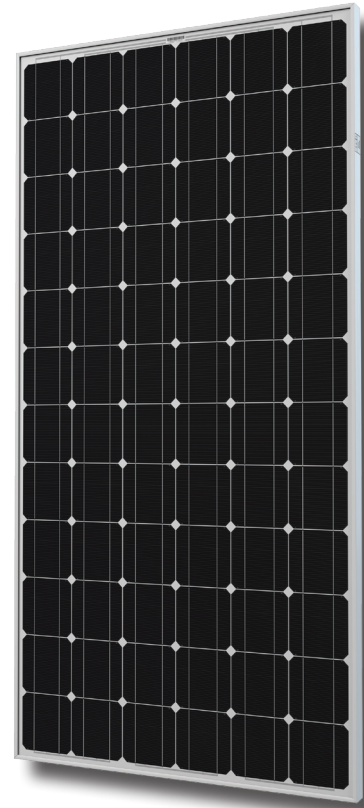
#### Excellent weak light performance

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

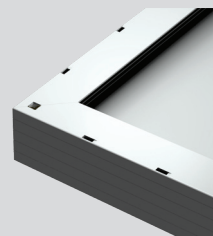
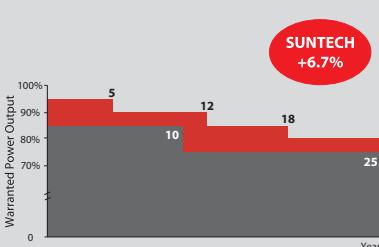


#### Trust Suntech to Deliver Reliable Performance Over Time

- 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.

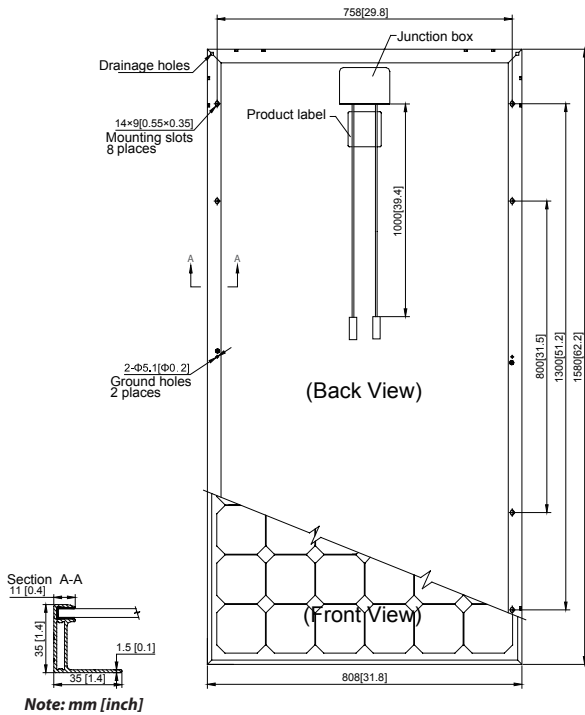


#### Most Modern IP67 Rated Junction Box

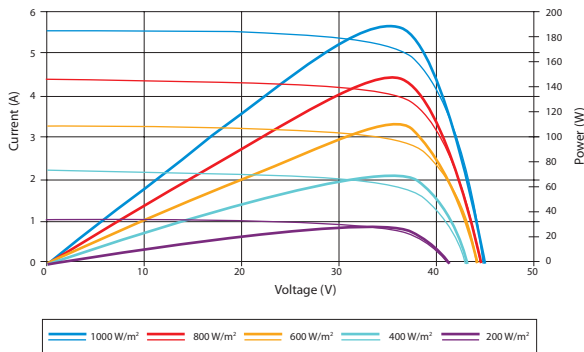
Supports any orientation installation. High performance low resistance connectors ensure maximum module power output for highest energy production.

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

# STP190S - 24/Ad+



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



Excellent performance under weak light conditions: at an irradiance 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	-0.45 %/°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/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	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/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	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 <sup>2</sup> (0.006 inches <sup>2</sup> ), 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

Specifications are subject to change without further notification