

# 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 from 0~5% ensures power output reliability



**Suntech's TruPower™**  
Suntech's TruPower™ process neutralizes the initial LID effect



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



**Withstand high wind and snow loads**  
Entire module certified to withstand high wind loads (2400 Pascal) and snow loads (5400 Pascal) \*



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



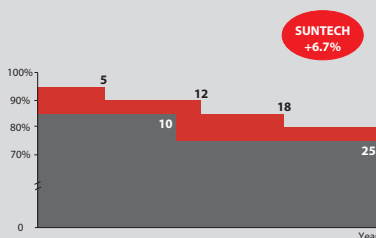
Certifications and standards:  
IEC 61215, IEC 61730, conformity to CE



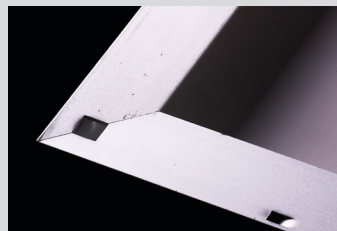
#### Trust Suntech to Deliver Reliable Performance Over Time

- 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 and ISO 14001: 2004

#### Industry-leading warranty



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



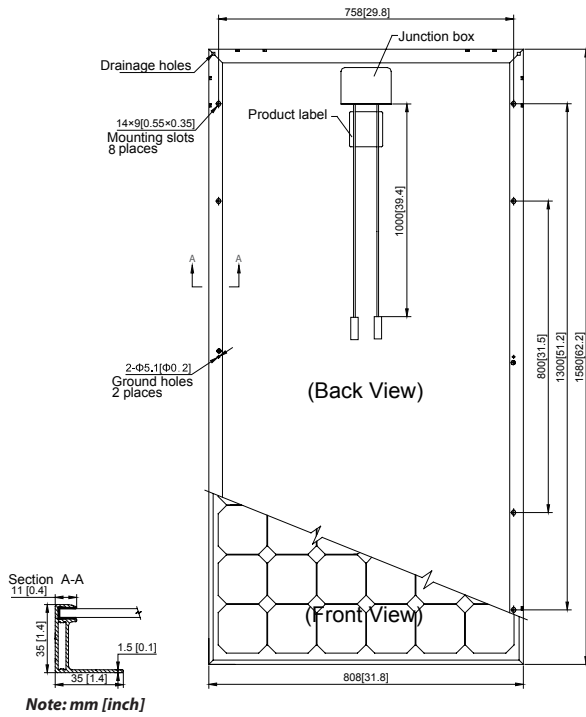
Specially designed drainage holes and rigid construction prevent frame from deforming or breaking due to freezing weather and other forces.



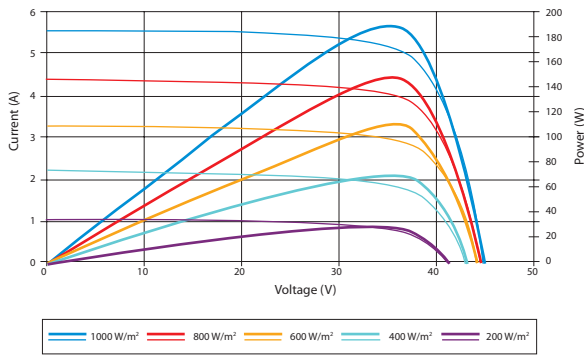
Latest IP67 rated junction box improves module performance stability. High performance connectors provide low resistance interconnection to ensure the full utilization of module power output.

\* 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;  
Power measurement tolerance: ± 3%

NOCT	STP190S-24/Ad+
Maximum Power (W)	139 W
Maximum Power Voltage (V)	33.1 V
Maximum Power Current (A)	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, wind speed 1 m/s;  
Power measurement tolerance: ± 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