BlackPearl™ STP250S - 20/Wd+
STP245S - 20/Wd+

SUNTECH
Solar powering a green future™

250 Watt
CRYSTALLINE SILICON SOLAR MODULE



Features

High module conversion efficiency
(up to 15.2%), through superior cell technology and leading manufacturing capability

Positive tolerance
Guaranteed positive tolerance from 0~5% ensures power output reliability

Extended wind load 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)

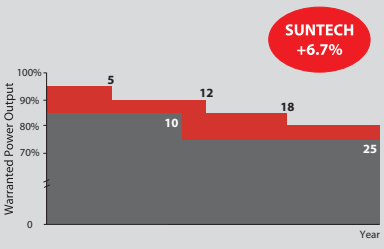
Suntech current sorting process
All Suntech modules sorted and packaged by amperage, maximizing system output by reducing mismatch losses by up to 2%

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

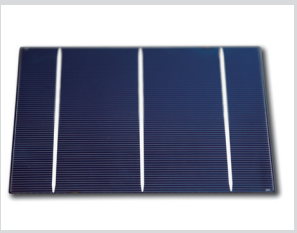
Trust Suntech to Deliver Reliable Performance Over Time

- 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 ISO 17025:2005

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



Suntech's BlackPearl Technology reduces the proportion of oxygen in the cells of the Wd+ module resulting in a stabile energy output from day one. The energy footprint is 33% less than standard cell production process.

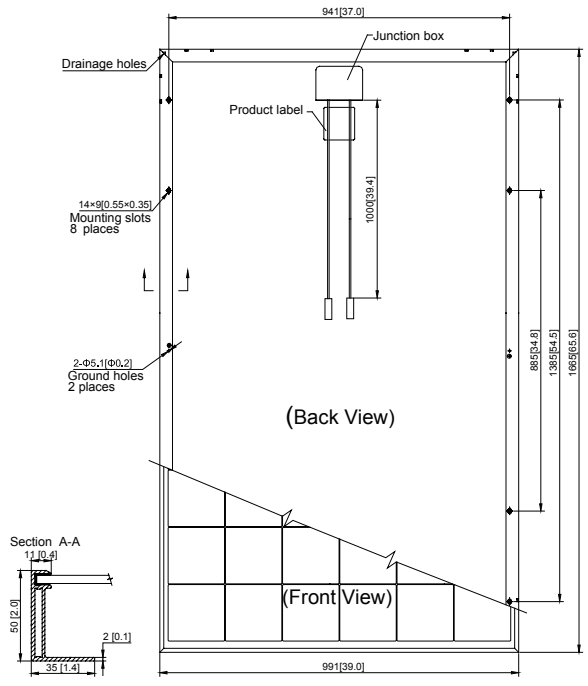


Latest IP67 rated junction box improves module performance stability. Modules can be installed in every orientation. High performance connectors provide low resistance interconnection to ensure the full utilization of module power output.

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

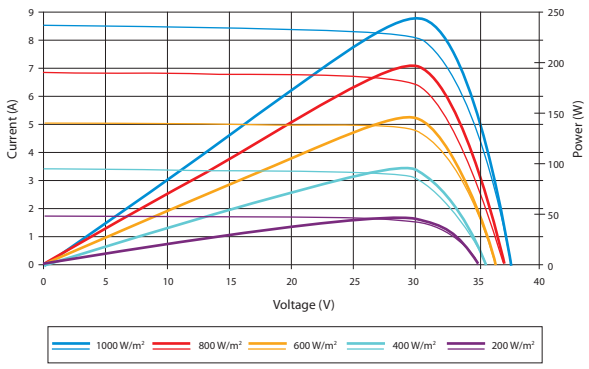
©Copyright 2011 Suntech Power

BlackPearl™ STP250S - 20/Wd+
STP245S - 20/Wd+



Note: mm [inch]

Current-Voltage & Power-Voltage Curve (245S-20)



Exellent 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

Electrical Characteristics

STC	STP250S-20/Wd	STP245S-20/Wd
Optimum Operating Voltage (Vmp)	30.7 V	30.5 V
Optimum Operating Current (Imp)	8.15 A	8.04 A
Open - Circuit Voltage (Voc)	37.4 V	37.3 V
Short - Circuit Current (Isc)	8.63 A	8.52 A
Maximum Power at STC (Pmax)	250 W	245 W
Module Efficiency	15.2%	14.8%
Operating Module Temperature	-40 °C to +85 °C	
Maximum System Voltage	1000 V DC (IEC) / 600 V DC (UL)	
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	STP250S-20/Wd	STP245S-20/Wd
Maximum Power (W)	183 W	180 W
Maximum Power Voltage (V)	28.0 V	27.9 V
Maximum Power Current (A)	6.52 A	6.45 A
Open Circuit Voltage (Voc)	34.4 V	34.3 V
Short Circuit Current (Isc)	6.96 A	6.89 A

NOCT: Irradiance 800 W/m², ambient temperature 20 °C, 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	Crystalline silicon 156 × 156 mm (6 inches)
No. of Cells	60 (6 × 10)
Dimensions	1665 × 991 × 50 mm (65.6 × 39.0 × 2.0 inches)
Weight	19.8 kgs (43.7 lbs.)
Front Glass	3.2 mm (0.13 inches) tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP67 rated
Output Cables	TUV (2Pfg1169:2007), UL 4703, UL 44 4.0 mm² (0.006 inches²), symmetrical lengths (-) 1000 mm (39.4 inches) and (+) 1000 mm (39.4 inches)
Connectors	RADOX® SOLAR integrated twist locking connectors

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

Packing Configuration

Container	20' GP	40' HC
Pieces per pallet	21	21
Pallets per container	6	28
Pieces per container	126	588

Dealer information

Specifications are subject to change without further notification