

Ultra S

144 HALF-CELL BIFACIAL MODULE

430-450W

STPXXXS - B72/Pnhg



Features



High module conversion efficiency

Module efficiency up to 20.7 % achieved through advanced cell technology and manufacturing process



Suntech current sorting process

Up to 2 % power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output



Excellent weak light performance

More power output in weak light condition, such as cloudy, morning and sunset



Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output



Extended wind and snow load tests

Module certified to withstand extreme wind (3800 Pascal) and snow loads (5400 Pascal) *



Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

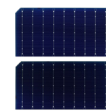
Certifications and standards:
IEC 61215, IEC 61730, conformity to CE



Trust Suntech to Deliver Reliable Performance Over Time

- World-class manufacturer of crystalline silicon photovoltaic modules
- Rigorous quality control meeting the highest international standards: ISO 9001, ISO 14001 and ISO17025
- Regular independently checked production process from international accredited institute/company
- Long-term reliability tests
- 2 x 100% EL inspection ensuring defect-free modules

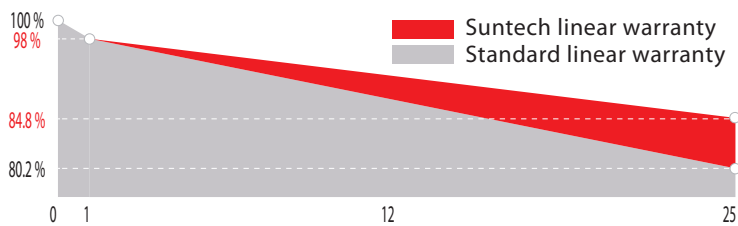
High efficiency Bifacial cell



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By using bifacial cell and transparent backsheets, the frontside power can reach to 450 W, and the module weight is only 24.5 kg.

Industry-leading Warranty based on nominal power



-2.0% First year power degradation
-0.55% Annual degradation
12 Product warranty
25 linear warranty

IP68 Rated Junction Box



The Suntech IP68 rated junction box ensures an outstanding waterproof level, supports installations in all orientations and reduces stress on the cables.

* Please refer to Suntech Standard Module Installation Manual for details. ** Suntech reserves the right to the final interpretation of the warranty by Munich Re.

WEEE only for EU market. * Please refer to Suntech Product Warranty for details. made in China & Vietnam

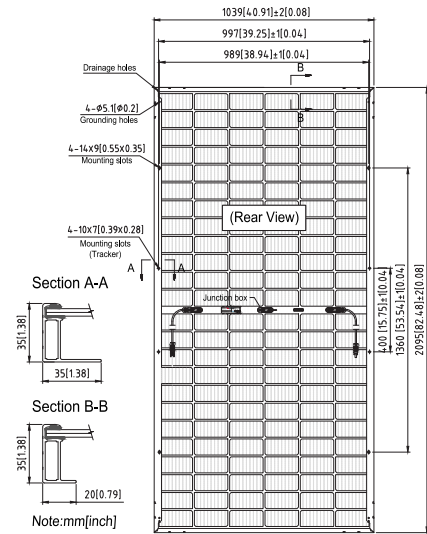
Electrical Characteristics

STC	STPXXXS-B72/Pnhg				
Maximum Power at STC (Pmax)	450 W	445 W	440 W	435 W	430 W
Optimum Operating Voltage (Vmp)	41.4 V	41.2 V	41.0 V	40.8 V	40.6 V
Optimum Operating Current (Imp)	10.87 A	10.81 A	10.74 A	10.67 A	10.60 A
Open Circuit Voltage (Voc)	49.2 V	49.0 V	48.8 V	48.6 V	48.4 V
Short Circuit Current (Isc)	11.61 A	11.54 A	11.47 A	11.40 A	11.32 A
Module Efficiency	20.7%	20.4%	20.2%	20.0%	19.8%
Operating Module Temperature	-40 °C to +85 °C				
Maximum System Voltage	1500 V DC (IEC)				
Maximum Series Fuse Rating	20 A				
Power Tolerance	0/+5 W				

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5;
 Tolerance of Pmax is within +/- 3% and tolerances of Voc and Isc are within +/- 5%.
 For tracker installation, the module could withstand maximum 1600Pa at both front and rear side.

NMOT	STPXXXS-B72/Pnhg				
Maximum Power at NMOT (Pmax)	339.4 W	335.8 W	332.7 W	327.7 W	324.6 W
Optimum Operating Voltage (Vmp)	38.2 V	38.0 V	37.8 V	37.6 V	37.5 V
Optimum Operating Current (Imp)	8.89 A	8.84 A	8.78 A	8.73 A	8.67 A
Open Circuit Voltage (Voc)	46.2 V	46.0 V	45.8 V	45.5 V	45.4 V
Short Circuit Current (Isc)	9.37 A	9.31 A	9.25 A	9.20 A	9.13 A

NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s.



Electrical Characteristics with Different Rearside Power Gain (Reference to 440 W Front)

Rearside Power Gain	5%	15%	25%
Maximum Power at STC (Pmax)	457 W	500 W	544 W
Optimum Operating Voltage (Vmp)	40.8 V	40.8 V	40.9 V
Optimum Operating Current (Imp)	11.20 A	12.27 A	13.34 A
Open Circuit Voltage (Voc)	48.6 V	48.6 V	48.7 V
Short Circuit Current (Isc)	11.97 A	13.11 A	14.25 A
Module Efficiency	21.0%	23.0%	25.0%

Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.36%/°C
Temperature Coefficient of Voc	-0.304%/°C
Temperature Coefficient of Isc	0.050%/°C

Mechanical Characteristics

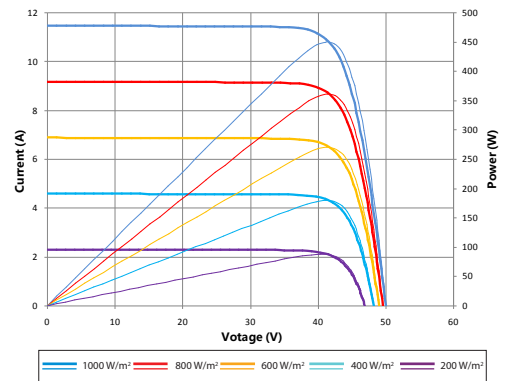
Solar Cell	Monocrystalline silicon 166 mm
No. of Cells	144 (6 × 24)
Dimensions	2095 × 1039 × 35 mm (82.5 × 40.9 × 1.4 inches)
Weight	24.5 kgs (54.0 lbs.)
Front Glass	3.2 mm (0.13 inches) tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68 rated
Output Cables	4.0 mm ² , (-) 350 mm and (+) 160 mm in length or customized length
Connectors	Genuine MC4, TL-Cable01S
Refer. Bifaciality Factor	(70 ± 5)%
Fire Class Rating	C in accordance with UL 790

Packing Configuration

Container	20' GP	40' HC
Pieces per pallet	31	31
Pallets per container	5	22
Pieces per container	155	682
Packaging box dimensions	2125 × 1130 × 1025 mm	
Packaging box weight	812 kg	

Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.

Current-Voltage & Power-Voltage Curve (450S)



Dealer information

