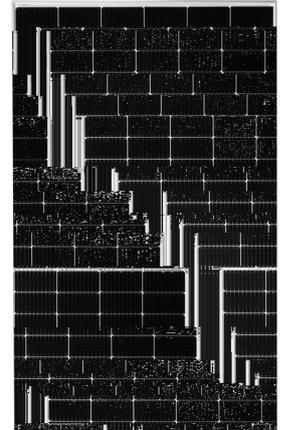


HALF-CELL BIFACIAL MODULE

TYPE: STPXXXS - B72/Pnh+



POWER OUTPUT

435-455W

MAX EFFICIENCY

20.9%

Features



High module conversion efficiency

Module efficiency up to 20.9% achieved through advanced cell technology and manufacturing process



Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output



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



Extended wind and snow load tests

Module certified to withstand extreme wind (2400Pa) and snow loads (5400Pa) *



Excellent weak light performance

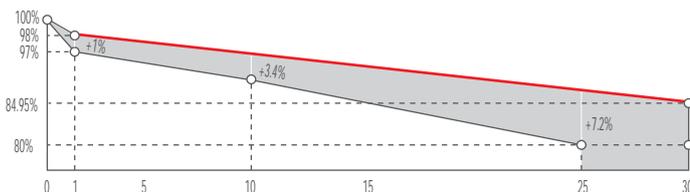
More power output in weak light condition, such as cloudy, morning and sunset



Withstanding harsh environment

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

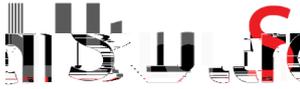
Industry-leading Warranty **



Certifications and Standards

- Social Responsibility Standards
- Quality Management System
- Environment Management System
- Guideline for module design qualification and type approval



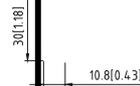


STPXXXS - B72/Pnh+ 435-455W

Mechanical Characteristics

Solar Cell	Monocrystalline silicon 166 mm
No. of Cells	144 (6 × 24)
Dimensions	2096 × 1040 × 30 mm (82.5 × 40.9 × 1.2 inches)
Weight	28.1 kgs (61.9 lbs.)
Front \ Back Glass	2.0+2.0 mm (0.079+ 0.079inches) semi-tempered glass
Output Cables	4.0 mm ² , (-) 350 mm and (+) 160 mm in length or customized length
Junction Box	IP68 rated (3 bypass diodes)
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
Refer. Bifaciality Factor	(70 ± 5)%
Packing Configuration	Packaging box dimensions (mm) : 2125×1130×1205 Packaging box weight (kg): 1067 36 Pieces per pallet 180 Pieces per container / 20' GP 792 Pieces per container / 40' HC

For tracker installation, please turn to Suntech for mechanical load information.



Electrical Characteristics

Module Type	STP ₁	S-B72/Pnh+	STP ₂	S-B72/Pnh+	STP ₃	S-B72/Pnh+	STP ₄	S-B72/Pnh+	STP ₅	S-B72/Pnh+
Testing Condition	STC	NMOT								
Maximum Power (Pmax/W)	455	343.1	450	339.4	445	335.8	440	332.7	435	328.9
Optimum Operating Voltage (Vmp/V)	41.6	38.4	41.4	38.2	41.2	38.0	41.0	37.8	40.8	37.6
Optimum Operating Current (Imp/A)	10.94	8.94	10.87	8.89	10.81	8.84	10.74	8.78	10.67	8.73
Open Circuit Voltage (Voc/V)	49.4	46.3	49.2	46.2	49.0	46.0	48.8	45.8	48.6	45.7
Short Circuit Current (Isc/A)	11.67	9.42	11.61	9.37	11.54	9.31	11.47	9.25	11.40	9.20
Module Efficiency (%)		20.9		20.6		20.4		20.2		20.0

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s; Tolerance of Pmax is within +/- 3%;

Different Rearside Power Gain

Reference to 445S Front

Rearside Power Gain	5%	15%	25%
Maximum Power at STC (Pmax)	467.3	511.8	556.3
Optimum Operating Voltage (Vmp/V)	41.2	41.2	41.3
Optimum Operating Current (Imp/A)	11.35	12.43	13.51
Open Circuit Voltage (Voc/V)	49.0	49.0	49.1
Short Circuit Current (Isc/A)	12.12	13.27	14.43
Module Efficiency (%)	21.4	23.5	25.5

Graphs

Current-Voltage & Power-Voltage (455S)



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

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.