





HALF-CELL N-Type TOPCon FULL-BLACK Glass-Glass MONOFACIAL MODULE TYPE: STPXXXS-H48-Nfb+

430-450W 22.5% POWER OUTPUT



Aesthetic appearance design

Elegant design in all-black appearance, harmonious integration with the components of the building to provide an intense aesthetic experience



Lightweight double glass

Lightweight double glass structure which effectively reduces the rate of module breakage. The ideal module size and weight make handling and installation easier



Withstand harsh environments

Reliable quality that makes module resistant even to high temperatures, salt water and ammonia



Extended wind and snow load tests

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















Environment Management System ISO 45001 Occupational Health and Safety ISO 9001 Quality Management System Social Responsibility Standards IEC TS 62941Guideline for Module Design

IEC 61701 Salt-mist Certification IEC 62716 Ammonia Certification

IEC 60068-2-68 Dust and Sand IEC 61730-2 (UL790) Fire Class C

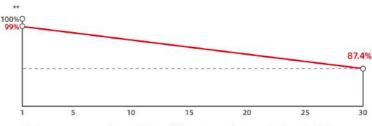








30 years of linear warranty 25 years of product warranty



First year power degradation 1% Annual degradation 0.40%

^{*} Please refer to Suntech Standard Module Installation Manual for details.

^{***} WEEE only for EU market.

^{**} Please refer to Suntech Limited Warranty for details.

^{****} Suntech reserves the right to the final.





Mechanical Characteristics

Solar Cell	N-type monocrystalline silicon			
No. of Cells	96 (6 × 16)		1134 [44.65]±2[0.08]	
Dimensions	1762 × 1134 × 30 mm (69.4 × 44.6× 1.2 inches)		1093 [43:03]±1[0.04]	
Weight	21.5 kg (47.40lbs.)	Drainage holes		
Front/Back Glass	1.6 + 1.6 mm (0.063 + 0.063 inches) semi-tempered glass	- 4-Ø5.1[Ø0.2]		
Output Cables	4.0 mm², (-) 1400 mm (+) 1400 mm in length or customized length	Grounding holes 8-14×9(0.55×0.35) Mounting slots	Product label Barcode	
Junction Box	IP68 rated (3 bypass diodes)			
Operating Module Temperature	-40 °C to +85 °C	_	(Rear View)	200-0 100-0 00-0
Maximum System Voltage	1500 V DC (IEC)	ΑŢ	A	[0.08] [0.08]
Connectors	STP-XC4 (Standard)/ MC4-EVO2 (Optional)	- 7,10	Junction box	990 [39.0]±2[0.08] 1300 [51.2]±2[0.08] 1762 [69.4]±2[0.08]
Maximum Series Fuse Rating	35 A	_	9	990 [39.0]±2[0.08] 1300 [51.2]±2[0.08] 1762 [69.4]±2[0.08]
Power Tolerance	0/+5 W	Section A-A		
Frame	Anodized aluminum alloy frame	TILI THE TILING	4	
Packing Configuration	36 pieces per pallet 936 pieces per container /40'HC 1796×1120×1255 mm per pallet 816 kg per pallet	30[1.18] Note:mm[inch]		

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

Electrical Characteristics

Module Type	STP450S	-H48-Nfb+	STP4455	-H48-Nfb+	STP440S	-H48-Nfb+	STP435S	-H48-Nfb+	STP430S-	H48-Nfb+
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	450	344	445	340	440	336	435	333	430	329
Optimum Operating Voltage (Vmp/V)	29.32	28.00	29.14	27.80	28.97	27.70	28.79	27.50	28.61	27.30
Optimum Operating Current (Imp/A)	15.35	12.29	15.27	12.23	15.19	12.16	15.11	12.10	15.03	12.04
Open Circuit Voltage (Voc/V)	35.71	33.90	35.50	33.80	35.29	33.60	35.08	33.40	34.87	33.20
Short Circuit Current (Isc/A)	16.01	12.91	15.93	12.84	15.85	12.78	15.77	12.72	15.69	12.65
Module Efficiency (%)	2.	2.5	2.	2.3	2.	2.0	21	1.8	2	1.5

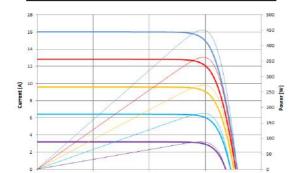
STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s; Measuring tolerance is within +/- 3%;

Temperature Characteristics

Graphs Current-Voltage & Power-Voltage (450W)

Nominal Module Operating Temperature (NMOT)	42 ± 2 ℃
Temperature Coefficient of Pmax	-0.29%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	0.046%/°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.



Voltage (V)