





HALF-CELL N-Type TOPCon

Glass-Glass MONOFACIAL MODULE

TYPE: STPXXXS-H54-Nkh+

495-515W 23.2%
POWER OUTPUT AX EFFICIENCY





Module efficiency up to 23.2% achieved through advanced cell technology and manufacturing process



Multi busbar technology

Superior optical utilization and current collection capability, effectively improving product power and reliability



Excellent low light performance

More power output in low light conditions such as cloudy days, mornings and evenings



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 Quality Management System ISO 9001 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

15 years of product warranty

First year power degradation 1% Annual degradation 0.40%

^{87.4%}

^{*} 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	108 (6 × 18)	_	•	1134 [44.6]±2[0.08] 1093 [43.0]±2[0.08]		-
Dimensions	1961 × 1134 × 30 mm (77.2 × 44.6× 1.2 inches)	_		1035 [45.0] 12[0.00]	В	1
Weight	23.5 kg (51.81lb.)				<u> </u>	1
Front/Back Glass	1.6 + 1.6 mm (0.063 + 0.063 inches) semi-tempered glass	4 - Ø5,1 Ø0,2 Grounding holes			В	
Output Cables	4.0 mm², (-) 1400 mm (+) 1400 mm in length or customized length	8-14x9(0.55x0.35) Mounting slots				
Junction Box	IP68 rated (3 bypass diodes)			(Rear View)		
Operating Module Temperature	-40 °C - +85 °C					0.04
Maximum System Voltage	1500 V DC (IEC)	Section A-A A	•			98]±1[0.04] .18]±1[0.04] .2]±2[0.08]
Connectors	STP-XC4 (Standard)/ MC4-EVO2 (Optional)	301.18	_			990 [38.98]±1[0.04] 1300 [51.18]±1[0.04] 1961 [77.2]±2[0.08]
Maximum Series Fuse Rating	35 A		P		4	96 61
Power Tolerance	0/+5 W	28[1.10]				
Frame	Anodized aluminum alloy frame	Section B-B				
Packing Configuration	36 pieces per pallet 792 pieces per container /40'HC 1995×1120×1255mm per pallet 891kg per pallet	10.7[0.42]	*			
For tracker installation, please turn to Suntech for mechanical load information.		Note:mm[inch]	<u></u>			Į.

Electrical Characteristics

Module Type	STP515S-	H54-Nkh+	STP510S-	-H54-Nkh+	STP505S-	H54-Nkh+	STP500S-	-H54-Nkh+	STP495S-	H54-Nkh+
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	515	393	510	390	505	386	500	383	495	379
Optimum Operating Voltage (Vmp/V)	33.90	32.00	33.70	31.80	33.50	31.60	33.30	31.40	33.10	31.20
Optimum Operating Current (Imp/A)	15.19	12.27	15.13	12.24	15.07	12.21	15.02	12.18	14.95	12.14
Open Circuit Voltage (Voc/V)	40.75	38.70	40.54	38.50	40.33	38.30	40.12	38.10	39.91	37.90
Short Circuit Current (Isc/A)	15.99	12.89	15.95	12.86	15.91	12.83	15.87	12.80	15.83	12.76
Module Efficiency (%)	23	3.2	22	2.9	22	2.7	22	2.5	22	3

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

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.

Graphs Current-Voltage & Power-Voltage (505W)

