





HALF-CELL N-Type TOPCon FULL-BLACK MONOFACIAL MODULE

TYPE: STPXXXS - C54/Nshb

425-445W 22.8%

**POWER OUTPUT** 

MAX EFFICIENCY

IEC 61701 Salt-mist certification

IEC 62716 ammonia certification

IEC 60068-2-68 Dust and Sand

IEC 61730-2 (UL790) fire class C



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



#### Aesthetic appearance design

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



# 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) $^{\star}$ 















ISO 14001

ISO 45001

ISO 9001

SA 8000





IEC TS 62941Guideline for Module Design

**Environment Management System** 

Occupational Health and Safety

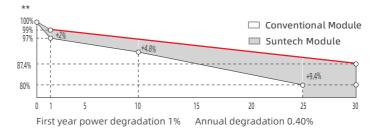
Social Responsibility Standards

Quality Management System



**30** years of linear warranty

**25** years of product warranty



Please refer to Suntech Standard Module Installation Manual for details

<sup>\*\*\*</sup> WEEE only for EU market.

<sup>\*\*</sup> Please refer to Suntech Limited Warranty for details

<sup>\*\*\*\*</sup> Suntech reserves the right to the final.





## **Mechanical Characteristics**

Solar Cell	N-type Monocrystalline silicon 182 mm		1134 [44.65]±2[0.08]	
No. of Cells	108 (6 × 18)		1093 [43.03]±1[0.04]	-
Dimensions	1722 × 1134 × 30 mm (67.8 × 44.6 × 1.2 inches)		<b>.</b>	<u> </u>
Weight	21.0 kgs (46.3 lbs.)	4-Ø5.1[Ø0.2]	Product label —	Ħ Ī
Front Glass	3.2 mm (0.126 inches) fully tempered glass	Grounding holes		
Output Cables	4.0 mm², (-) 350 mm (+) 160 mm in length or customized length	- 8-14x9[0.55x0.35] Mounting slots	Barcode	
Junction Box	IP68 rated (3 bypass diodes)		(Rear View)	-  -  -  -  -  -  -  -  -  -  -  -  -
Operating Module Temperature	-40 °C to +85 °C	A ,	Junction box	±1[0.04] ±1[0.04] ±2[0.08]
Maximum System Voltage	1500 V DC (IEC)	_	6 - 3	
Connectors	Wuxi Suntech STP-XC4-4 (Default)/ Staubli PV-KST4-EVO2A/2	, , ,		990 [38: 1300 [51. 1722[67:8
Maximum Series Fuse Rating	25 A	Section A-A		
Power Tolerance	0/+5 W	# F		
Frame	Anodized aluminum alloy frame		•	<del>'</del>
Packing Configuration	36 Pieces per pallet 936 Pieces per container /40'HC 1755×1120×1255mm 794kg	Note:mm[inch]		

## **Electrical Characteristics**

Module Type	STP445S-	C54/Nshb	STP440S-	C54/Nshb	STP435S-	C54/Nshb	STP430S-	C54/Nshb	STP425S-0	C54/Nshb
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	445	341	440	337	435	333	430	329	425	326
Optimum Operating Voltage (Vmp/V)	32.87	30.70	32.69	30.50	32.51	30.40	32.33	30.20	32.15	30.10
Optimum Operating Current (Imp/A)	13.54	11.11	13.46	11.04	13.38	10.96	13.30	10.89	13.22	10.82
Open Circuit Voltage (Voc/V)	39.11	37.10	38.98	37.00	38.85	36.90	38.72	36.80	38.59	36.70
Short Circuit Current(Isc/A)	14.49	11.68	14.41	11.62	14.33	11.55	14.25	11.49	14.17	11.42
Module Efficiency(%)	22	.8	22	.5	22	3	22	.0	21	.8

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 of Pmax, Voc, Isc is within +/- 3%;

# **Temperature Characteristics**

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
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 Curve (435W)

