



HALF-CELL N-Type TOPCon Glass-Glass Transparent Black BIFACIAL MODULE

TYPE: STPXXXS - C54/Nshtb+

420-440W 22.5%

POWER OUTPUT

MAX EFFICIENCY



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 (3800 Pascal) and snow loads (6000 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 25 years of product warranty

[☐] Conventional ■ Suntech Module 15 25 0 1 10 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

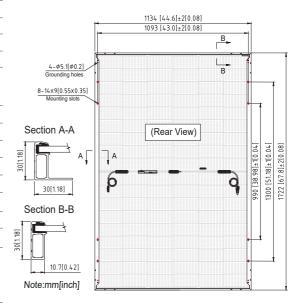
^{****} Suntech reserves the right to the final.





Mechanical Characteristics

Solar Cell	N-type Monocrystalline silicon 182 mm
No. of Cells	108 (6 × 18)
Dimensions	1722 × 1134 × 30 mm (67.8 × 44.6 × 1.2 inches)
Weight	21.0 kg (46.3 lbs.)
Front/Back Glass	1.6+1.6 mm (0.063+ 0.063inches) semi-tempered glass
Output Cables	4.0 mm², (-) 1400 mm (+) 1400 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)
Connectors	STP-XC4 (Standard)/ MC4-EVO2(Optional)
Maximum Series Fuse Rating	25 A
Power Tolerance	0/+5 W
Refer. Bifaciality Factor	(80 ± 5)%
Frame	Anodized aluminum alloy frame
Packing Configuration	36 Pieces per pallet 936 Pieces per container /40'HC 1755×1120×1255 798kg



Electrical Characteristics

Module Type	STP440S-	C54/Nshtb+	STP435S-	C54/Nshtb+	STP430S-	C54/Nshtb+	STP425S-	C54/Nshtb+	STP420S-	C54/Nshtb+
Testing Condition	STC	NMOT								
Maximum Power (Pmax/W)	440	337.1	435	333.1	430	329.3	425	325.5	420	321.6
Optimum Operating Voltage (Vmp/V)	32.69	30.5	32.51	30.4	32.33	30.2	32.15	30.1	31.96	29.9
Optimum Operating Current (Imp/A)	13.46	11.04	13.38	10.96	13.30	10.89	13.22	10.82	13.14	10.75
Open Circuit Voltage (Voc/V)	38.98	37.1	38.85	36.9	38.72	36.8	38.59	36.7	38.46	36.6
Short Circuit Current (Isc/A)	14.41	11.62	14.33	11.55	14.25	11.49	14.17	11.42	14.09	11.36
Module Efficiency (%)	22	2.5	22	2.3	22	2.0	2	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%;

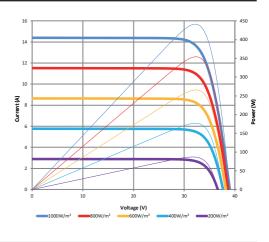
Different Rearside Power Gain Reference to 440W Front

Rearside Power Gain	5%	15%	25%
Maximum Power at STC (Pmax)	462.0	506.0	550.0
Optimum Operating Voltage (Vmp/V)	32.7	32.7	32.8
Optimum Operating Current (Imp/A)	14.13	15.48	16.83
Open Circuit Voltage (Voc/V)	39.0	39.0	39.1
Short Circuit Current (Isc/A)	15.13	16.57	18.01
Module Efficiency (%)	23.6	25.9	28.1

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

Graphs Current-Voltage & Power-Voltage (440W)



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.