





HALF-CELL N-Type TOPCon MONOFACIAL MODULE

TYPE: STPXXXS - C54/Nshm

420-440W 22.5%

POWER OUTPUT

MAX EFFICIENCY



# High module conversion efficiency Module efficiency up to 22.5% achieved through advanced cell

technology and manufacturing process



#### Multi-grid 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 (3800 Pascal) and snow loads (6000 Pascal)\*











ISO 14001 **Environment Management System** ISO 45001 Occupational Health and Safety ISO 9001 Quality Management System SA 8000 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





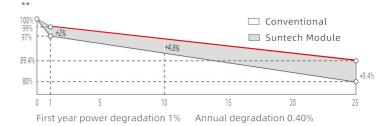








25 years of product warranty



<sup>\*</sup> 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

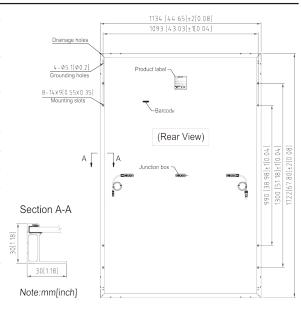
<sup>\*\*\*\*</sup> Suntech reserves the right to the final.





## **Mechanical Characteristics**

Solar Cell	N-type Monocrystalline silicon 182 mm	
No. of Cells	108 (6 × 18)	
Dimensions	1722 × 1134 × 30 mm(67.8 × 44.6 × 1.2 inches)	Drainage holes
Weight	21.0 kgs (46.3 lbs.)	4-Ø5.1[Ø0.2]
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
Junction Box	IP68 rated (3 bypass diodes)	
Operating Module Temperature	-40 °C to +85 °C	Α [
Maximum System Voltage	1500 V DC (IEC)	
Connectors	MC4-EVO2	
Maximum Series Fuse Rating	25 A	Section A-A
Power Tolerance	± 3%	01118
Frame	Anodized aluminum alloy frame	750
	36 Pieces per pallet	30(1.18)
Packing Configuration	936 Pieces per container /40'HC 1755×1120×1255 794kg	Note:mm[inch]



### **Electrical Characteristics**

Module Type	STP440S-0	C54/Nshm	STP435S-0	C54/Nshm	STP430S-0	C54/Nshm	STP425S-	C54/Nshm	STP420S-	C54/Nshm
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	440	336.4	435	332.5	430	328.7	425	324.9	420	321.0
Optimum Operating Voltage (Vmp/V)	32.69	30.5	32.51	30.3	32.33	30.2	32.15	30.0	31.96	29.9
Optimum Operating Current (Imp/A)	13.46	11.03	13.38	10.96	13.30	10.89	13.22	10.82	13.14	10.75
Open Circuit Voltage (Voc/V)	38.98	37.0	38.85	36.9	38.72	36.8	38.59	36.6	38.46	36.5
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%

 $STC: Irradiance\ 1000\ W/m^2, module\ temperature\ 25\ ^{\circ}C,\ AM=1.5;\ NMOT: Irradiance\ 800\ W/m^2, ambient\ temperature\ 20\ ^{\circ}C,\ AM=1.5,\ wind\ speed\ 1\ m/s;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 3\%;\ Tolerance\ of\ Pmax\ is\ within\ +/-\ 2\%;\ Tolerance\ of\ Pmax\ is\ wit$ 

# **Temperature Characteristics**

Nominal Module Operating Temperature(NMOT)	42 ± 2 °C	
Temperature Coefficient of Pmax	-0.30%/°C	
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Temperature Coefficient of Voc	-0.25%/°C	
Temperature Coefficient of Isc	0.046%/°C	
Temperature Coefficient of Voc  Temperature Coefficient of Isc	0125707	

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 (440S)

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