





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** Occupational Health and Safety ISO 45001 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







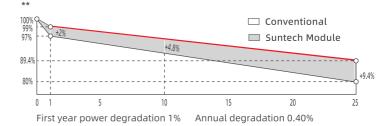




25 years of linear warranty

**15** years of product warranty

(25 years optionally)



<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	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)	Drainage holes
Weight	21.0 kgs (46.3 lbs.)	4-Ø5.1[Ø0.2] Product label—
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	8-14.x9(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 Junction Pox 13306 [51:18]+110.04]
Maximum System Voltage	1500 V DC (IEC)	
Connectors	MC4-EVO2	
Maximum Series Fuse Rating	25 A	Section A-A
Power Tolerance	0/+5 W	301.8
Frame	Anodized aluminum alloy frame	
Packing Configuration	36 Pieces per pallet 936 Pieces per container /40'HC 1755×1120×1255 794kg	30(1.18) Note:mm[inch]

# **Electrical Characteristics**

Module Type	STP440S-0	54/Nshm	STP435S-	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 (%)	22.5%		22.3%		22.0%		21.8%		21.5%	

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; Tolerance of Pmax is within +/- 3%;

# **Temperature Characteristics**

Nominal Module Operating Temperature (NMOT)	42 ± 2 ℃
Temperature Coefficient of Pmax	-0.30%/°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 (440S)

