



## HALF-CELL N-TOPCon BIFACIAL MODULE

TYPE: STPXXXS - C54/Nmhm+

**POWER OUTPUT** 

**MAX EFFICIENCY** 

410-430W

22.0%



### **Features**



#### High module conversion efficiency

Module efficiency up to  $22.0\,\%$  achieved through advanced cell technology and manufacturing process.



#### Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output.



## Zero LID degradation

Zero LID performance with N-type cells which grately enhances module power.



## Extended wind and snow load tests

Module certified to withstand extreme wind (3800 Pascal) and snow loads (6000 Pascal) .\*



## Excellent weak light performance

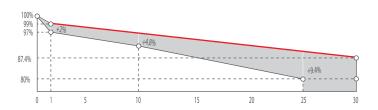
More power output in weak light condition, such as cloudy, morning and sunset.



## Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline.

## Industry-leading Warranty \*\*



- ◆ First year power degradation: 1%
- ◆ Product warranty: 12 years
- ◆ Annual degradation: 0.40%
- ♦ linear warranty: 30 years

CE



qualification and type approval



Certifications and Standards

IEC 61730 IEC 61215 SA 8000 Social Responsibility Standards ISO 9001 Quality Management System ISO 14001 Environment Management System ISO 45001 Occupational Henlth and Safety IEC TS 62941 Guideline for module design







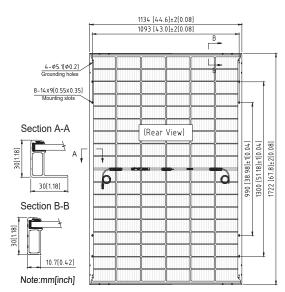
<sup>\*</sup> Please refer to Suntech Standard Module Installation Manual for details. \*\* Please refer to Suntech Limited Warranty for details.



# Ultra V Pro STPXXXS - C54/Nmhm+ 410-430W

## **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	23.8 kgs (52.5 lbs.)			
Front \ Back Glass	2.0 + 2.0 mm (0.079 + 0.079 inches) semi-tempered glass			
Output Cables	4.0 mm², (-) 350 mm and (+) 160 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)			
Maximum Series Fuse Rating	25 A			
Power Tolerance	0/+5 W			
Refer. Bifaciality Factor	(80 ± 5)%			
Packing Configuration	Packaging box dimensions (mm) : 1755×1120×1255 Packaging box weight (kg) : 894 36 Pieces per pallet 936 Pieces per container / 40' HC			



## **Electrical Characteristics**

Module Type	STP <b>430</b> S-C	54/Nmhm+	STP <b>425</b> S-C	54/Nmhm+	STP <b>420</b> S-C	54/Nmhm+	STP <b>415</b> S-C	54/Nmhm+	STP <b>410</b> S-C	54/Nmhm+
Testing Condition	STC	NMOT								
Maximum Power (Pmax/W)	430	328.7	425	325.0	420	321.1	415	317.3	410	313.5
Optimum Operating Voltage (Vmp/V)	32.33	30.2	32.15	30.0	31.96	29.9	31.78	29.7	31.59	29.6
Optimum Operating Current (Imp/A)	13.30	10.89	13.22	10.82	13.14	10.75	13.06	10.68	12.98	10.60
Open Circuit Voltage (Voc/V)	38.72	36.8	38.59	36.6	38.46	36.5	38.33	36.4	38.20	36.3
Short Circuit Current (Isc/A)	14.25	11.49	14.17	11.42	14.09	11.36	14.01	11.30	13.93	11.23
Module Efficiency (%)	22	2.0	2	1.8	2	1.5	2	1.3	21	1.0

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

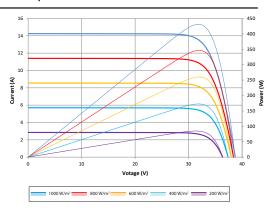
## Different Rearside Power Gain Reference to 4205 Front

Rearside Power Gain	5%	15%	25%
Maximum Power at STC (Pmax)	441.0	483.0	525.0
Optimum Operating Voltage (Vmp/V)	32.0	32.0	32.1
Optimum Operating Current (Imp/A)	13.80	15.11	16.43
Open Circuit Voltage (Voc/V)	38.5	38.5	38.6
Short Circuit Current (Isc/A)	14.79	16.20	17.61
Module Efficiency (%)	22.6	24.7	26.9

## **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

## Graphs Current-Voltage & Power-Voltage (4305)



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.