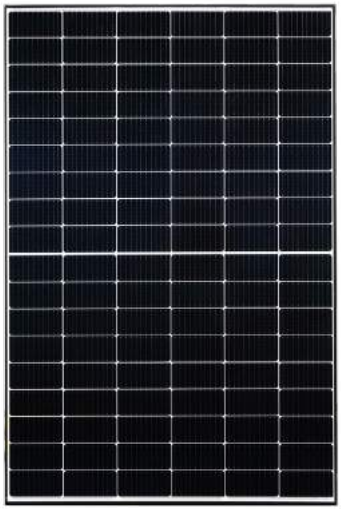
SUNTECH

Ultra V Pro mini

HALF-CELL N-TOPCon BIFACIAL MODULE

TYPE: STPXXXS - C54/Nmhm+



POWER OUTPUT
410-430W

MAX EFFICIENCY
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.

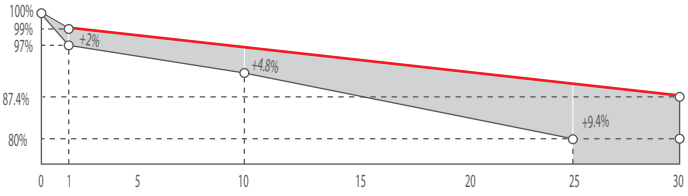
Ultra-low LID degradation
Near-zero LID performance with N-type cells which grately enhances module power.

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%
- Annual degradation: 0.40%
- Product warranty: 12 years
- linear warranty: 30 years

Certifications and Standards

CE 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 qualification and type approval

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Munich RE ****

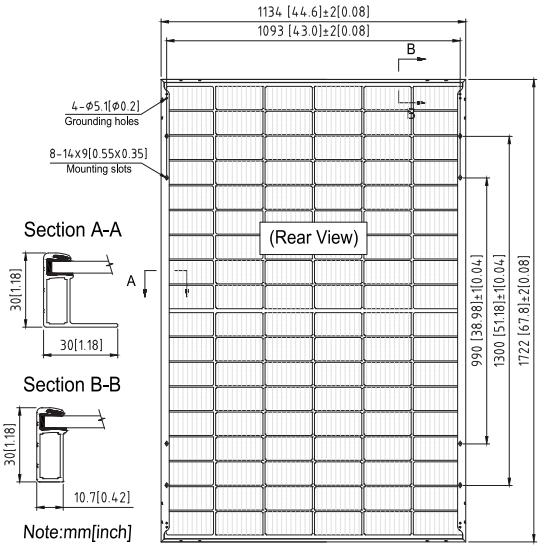
* Please refer to Suntech Standard Module Installation Manual for details.
** Please refer to Suntech Limited Warranty for details.

*** WEEE only for EU market.
**** Suntech reserves the right to the final interpretation of the warranty by Munich Re.

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	25.1 kgs (55.3 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) : 1755×1130×1255 Packaging box weight (kg) : 941 36 Pieces per pallet 936 Pieces per container / 40' HC



Electrical Characteristics

Module Type	STP**430**S-C54/Nmhm+		STP**425**S-C54/Nmhm+		STP**420**S-C54/Nmhm+		STP**415**S-C54/Nmhm+		STP**410**S-C54/Nmhm+	
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	430	327.1	425	323.5	420	320	415	316	410	312.2
Optimum Operating Voltage (Vmp/V)	32.43	30.1	32.25	29.9	32.03	29.7	31.81	29.5	31.59	29.3
Optimum Operating Current (Imp/A)	13.26	10.87	13.18	10.81	13.11	10.76	13.05	10.7	12.98	10.64
Open Circuit Voltage (Voc/V)	38.26	36.2	38.08	36.0	37.86	35.8	37.67	35.6	37.45	35.4
Short Circuit Current (Isc/A)	14.17	11.42	14.10	11.37	14.03	11.31	13.95	11.25	13.88	11.19
Module Efficiency (%)	22.0		21.8		21.5		21.3		21.0	

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%;

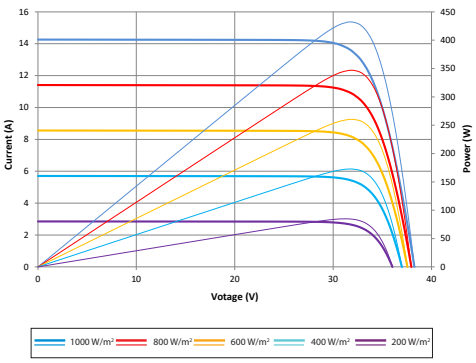
Different Rearside Power Gain

Reference to 420S 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)	13.77	15.08	16.39
Open Circuit Voltage (Voc/V)	37.9	37.9	38.0
Short Circuit Current (Isc/A)	14.73	16.13	17.54
Module Efficiency (%)	22.6	24.7	26.9

Graphs

Current-Voltage & Power-Voltage (430S)



Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
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.