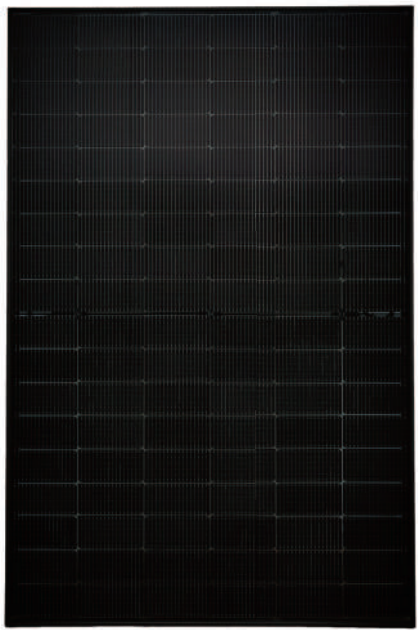
SUNTECH

Ultra V Pro mini

HALF-CELL N-Type TOPCon
Glass-Glass Transparent Black BIFACIAL MODULE
TYPE: STPXXXS - C54/Nshtb+



425-445W
POWER OUTPUT

22.8%
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)*

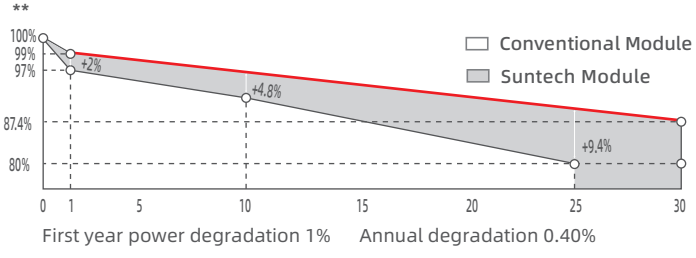
EUPD RESEARCH TOP BRAND PV MODULES 2024

Tier1 Bloomberg NEW ENERGY FINANCE

ISO 14001	Environment Management System
ISO 45001	Occupational Health and Safety
ISO 9001	Quality Management System
SA 8000	Social Responsibility Standards
IEC TS 62941	Guideline 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



First year power degradation 1% Annual degradation 0.40%

* 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.

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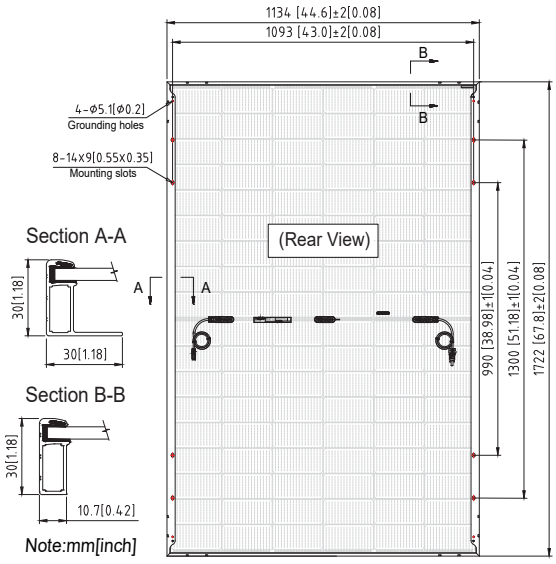
Ultra V Pro STPXXXS - C54/Nshtb+ 425-445W

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	Wuxi Suntech STP-XC4-4 (Default)/ Staubli PV-KST4-EVO2A/xy (Optional)
Maximum Series Fuse Rating	25 A
Power Tolerance	0/+5 W
Frame	Anodized aluminum alloy frame
Packing Configuration	36 Pieces per pallet 936 Pieces per container /40'HC 1755×1120×1255mm 798kg



Electrical Characteristics

Module Type	STP445S-C54/Nshtb+		STP440S-C54/Nshtb+		STP435S-C54/Nshtb+		STP430S-C54/Nshtb+		STP425S-C54/Nshtb+	
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	445	341	440	337	435	333	430	329	425	326
Optimum Operating Voltage (Vmp/V)	32.87	30.70	32.69	30.50	32.51	30.40	32.33	30.20	32.15	30.10
Optimum Operating Current (Imp/A)	13.54	11.11	13.46	11.04	13.38	10.96	13.30	10.89	13.22	10.82
Open Circuit Voltage (Voc/V)	39.11	37.10	38.98	37.00	38.85	36.90	38.72	36.80	38.59	36.70
Short Circuit Current(Isc/A)	14.49	11.68	14.41	11.62	14.33	11.55	14.25	11.49	14.17	11.42
Module Efficiency(%)	22.8		22.5		22.3		22.0		21.8	

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 of Pmax, Voc, Isc is within +/- 3%;

Specifications BNPI

Maximum Power (Pmax/W)	493	488	482	476	471
Short Circuit Current (Isc/A)	16.05	15.97	15.88	15.79	15.70
Open Circuit Voltage (Voc/V)	39.32	39.19	39.06	38.93	38.80

BNPI: Irradiance frontside 1000 W/m², backside 135 W/m², module temperature 25 °C, AM=1.5; Bifaciality coefficient (±5%): ϕPmax=80%, ϕVoc=99%, ϕIsc=80%.

Bifacial Gain with 5%

Maximum Power (Pmax/W)	467	462	457	452	446
Optimum Operating Voltage (Vmp/V)	32.87	32.69	32.51	32.33	32.15
Optimum Operating Current (Imp/A)	14.22	14.13	14.05	13.97	13.88
Short Circuit Current (Isc/A)	15.21	15.13	15.05	14.96	14.88
Open Circuit Voltage (Voc/V)	39.11	38.98	38.85	38.72	38.59

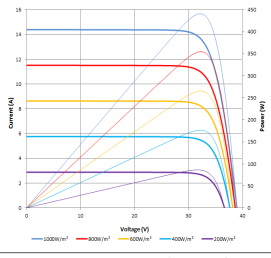
The bifacial gain is the additional gain from the back side of PV. It depends on the mounting method, orientation, tilt angle of the PV module and the albedo of the ground.

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 (435W)



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.