SUNTECH

Ultra T 1.0

HALF-CELL N-TYPE TOPCon
SILVER FRAME BIFACIAL DOUBLE-GLASS MODULE
TYPE: STPXXXS-C72/Nsh+

580-600W
POWER OUTPUT

23.2%
MAX EFFICIENCY

Multi busbar technology
Superior optical utilization and current collection capability, effectively improving product power and reliability

High power output
Low power attenuation, stable power generation throughout long-term operation, and consistent high-power output

Double-sided power generation
The gain of double-sided power generation increases up to max. 25% with the light on the back side, and significantly reduce LCOE

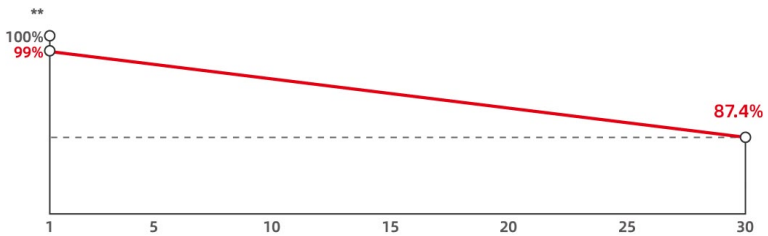
Extended wind and snow load tests
Module certified to withstand extreme wind (**2400** Pascal) and snow loads (**5400** Pascal)*

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 61730-2 (UL790)	Fire Class C

Munich RE

30 years of linear warranty

15 years of product warranty



First year power degradation 1% Annual degradation 0.40%

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

** Linear Power Output Warranty: Front-side performance only. Please refer to Suntech Limited Warranty for details.

*** WEEE only for EU market.

**** Suntech reserves the right to the final.

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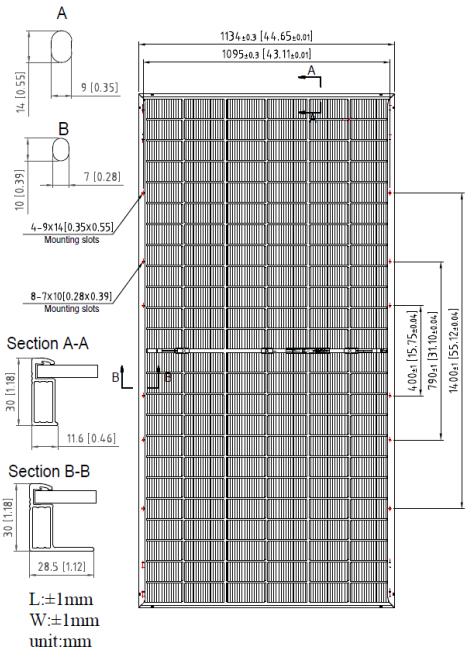
Ultra T 1.0 STPXXXS-C72/Nsh+ 580-600W

Mechanical Characteristics

Solar Cell	N-type monocrystalline silicon
No. of Cells	144 (6 × 24)
Dimensions	2278 × 1134 × 30 mm (89.7 × 44.6 × 1.2 inches)
Weight	32.0 kg (70.5 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 - +70 °C (T98th)
Maximum System Voltage	1500 V DC (IEC)
Connectors	Wuxi Suntech STP-XC4-4 (Default) Stäubli PV-KST4-EVO2A/xy, PV-KBT4- EVO2A/xy (Optional)
Maximum Series Fuse Rating	25 A
Power Tolerance	0 ~ + 3%
Frame	Anodized aluminum alloy frame
Packing Configuration	36 pieces per pallet 720 pieces per container / 40'HC 2310 × 1120 × 1255 mm per pallet 1202 kg per pallet

For tracker installation, please turn to Suntech for mechanical load information.



Electrical Characteristics (STC)

Module Type	STP600S-C72/Nsh+	STP595S-C72/Nsh+	STP590S-C72/Nsh+	STP585S-C72/Nsh+	STP580S-C72/Nsh+
Maximum Power (Pmax/W)	600	595	590	585	580
Optimum Operating Voltage (Vmp/V)	43.13	43.02	42.91	42.79	42.68
Optimum Operating Current (Imp/A)	13.91	13.83	13.75	13.67	13.59
Open Circuit Voltage (Voc/V)	51.94	51.81	51.68	51.55	51.42
Short Circuit Current (Isc/A)	14.64	14.56	14.48	14.40	14.32
Short Circuit Current at BSI (Isc/A)	18.15	18.05	17.96	17.86	17.76
Module Efficiency (%)	23.2	23.0	22.8	22.6	22.5

STC: Irradiance 1000 W/m2, module temperature 25 °C, AM=1.5; BSI: Front irradiance 1000 W/m², rear irradiance 300 W/m², module temperature 25 °C, AM=1.5; Measuring tolerance of Pmax, Voc, Isc is within +/- 3%;

Electrical Characteristics (BNPI)

Maximum Power (Pmax/W)	664	659	654	648	643
Short Circuit Current (Isc/A)	16.22	16.13	16.04	15.96	15.87
Open Circuit Voltage (Voc/V)	52.22	52.09	51.96	51.83	51.70

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)	630	625	620	614	609
Optimum Operating Voltage (Vmp/V)	43.13	43.02	42.91	42.79	42.68
Optimum Operating Current (Imp/A)	14.61	14.52	14.44	14.35	14.27
Short Circuit Current (Isc/A)	15.37	15.29	15.20	15.12	15.04
Open Circuit Voltage (Voc/V)	51.94	51.81	51.68	51.55	51.42

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

Temperature Coefficient of Pmax	-0.29%/°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 (585W)