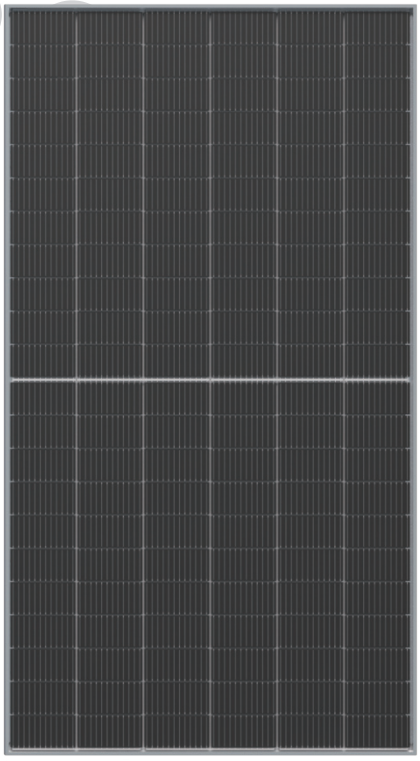
SUNTECH

Ultra X Plus

HALF-CELL BIFACIAL MODULE

TYPE: STPXXXS - D66/Pmh+



650-670W
POWER OUTPUT

21.6%
MAX EFFICIENCY

Higher value for customers
Effectively reduce system BOS cost, achieve lower LCOE, and improve project profitability

Compatible with mainstream trackers
The module design is highly compatible with power plant tracking systems, which offers a cost-effective solution for large power plants

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 (2400 Pascal) and snow loads (5400 Pascal)

EUPD RESEARCH TOP BRAND PV MODULES ITALY 2023
EUPD RESEARCH TOP BRAND PV MODULES PORTUGAL 2023
EUPD RESEARCH TOP BRAND PV MODULES CZECH REPUBLIC 2023
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EUPD RESEARCH TOP BRAND PV MODULES AUSTRALIA 2023

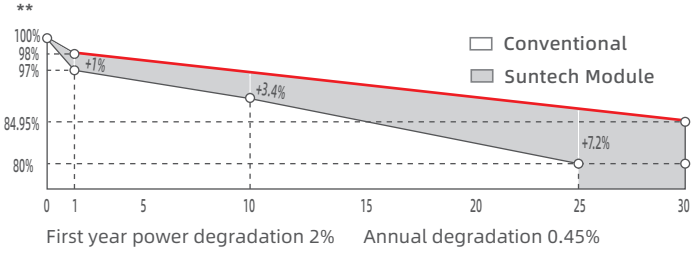
TOP PERFORMER 2022 PVEL PV MODULE RELIABILITY SCORECARD

ISO 14001	Environment Management System	IEC 61701	Salt-mist certification
ISO 45001	Occupational Health and Safety	IEC 62716	ammonia certification
ISO 9001	Quality Management System	IEC 60068-2-68	Dust and Sand
SA 8000	Social Responsibility Standards	IEC 61730-2 (UL790)	fire class C
IEC TS 62941	Guideline for Module Design		

CE VDE *** Munich RE

30 years of linear warranty

15 years of product warranty



First year power degradation 2% Annual degradation 0.45%

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

*** WEEE only for EU market.

** Please refer to Suntech Limited Warranty for details.

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

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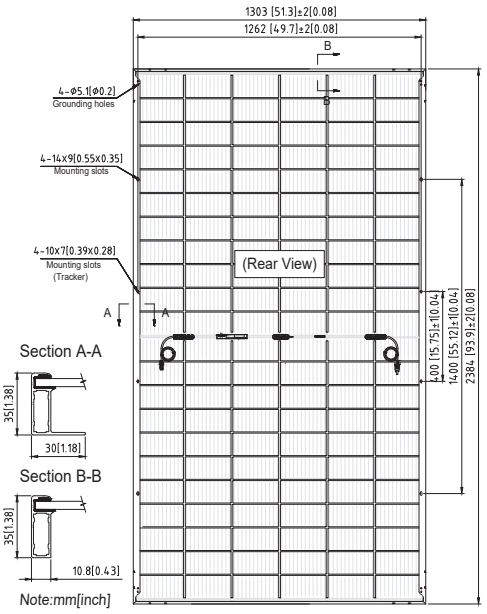
Ultra X STPXXXS - D66/Pmh+ 650-670W

Mechanical Characteristics

Solar Cell	Monocrystalline silicon 210 mm
No. of Cells	132 (6 × 22)
Dimensions	2384 × 1303 × 35 mm (93.9 × 51.3 × 1.4 inches)
Weight	37.5 kgs (82.7 lbs.)
Front \ Back Glass	2.0+2.0 mm (0.079+ 0.079inches) 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)
Connectors	STP-XC4
Maximum Series Fuse Rating	30 A
Power Tolerance	0/+5 W
Refer. Bifaciality Factor	(70 ± 5)%
Frame	Anodized aluminum alloy frame
Packing Configuration	31 Pieces per pallet 558 Pieces per container /40'HC 1325×1120×2510 1196.5kg



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

Electrical Characteristics

Module Type	STP670S-D66/Pmh+		STP665S-D66/Pmh+		STP660S-D66/Pmh+		STP655S-D66/Pmh+		STP650S-D66/Pmh+	
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	670	505.5	665	501.7	660	497.9	655	494.1	650	490.3
Optimum Operating Voltage (Vmp/V)	38.45	35.8	38.25	35.7	38.05	35.6	37.85	35.4	37.65	35.2
Optimum Operating Current (Imp/A)	17.43	14.10	17.39	14.07	17.35	13.99	17.31	13.96	17.27	13.92
Open Circuit Voltage (Voc/V)	46.45	43.7	46.25	43.5	46.05	43.4	45.85	43.2	45.65	43.0
Short Circuit Current (Isc/A)	18.43	14.87	18.39	14.84	18.35	14.76	18.31	14.73	18.27	14.70
Module Efficiency (%)	21.6%		21.4%		21.2%		21.1%		20.9%	

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%;

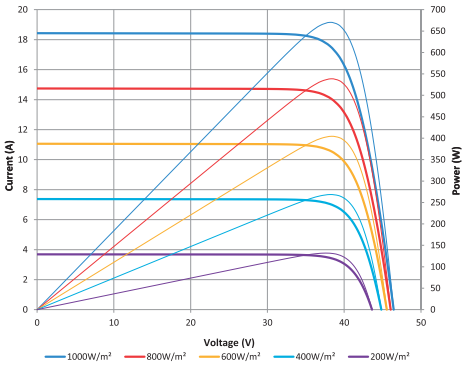
Different Rearside Power Gain

Reference to 660S Front

Rearside Power Gain	5%	15%	25%
Maximum Power at STC (Pmax)	693.0	759.0	825.0
Optimum Operating Voltage (Vmp/V)	38.1	38.1	38.2
Optimum Operating Current (Imp/A)	18.22	19.95	21.69
Open Circuit Voltage (Voc/V)	46.1	46.1	46.2
Short Circuit Current (Isc/A)	19.27	21.10	22.94
Module Efficiency (%)	22.3	24.4	26.6

Graphs

Current-Voltage & Power-Voltage (670S)



Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.34%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	0.050%/°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.