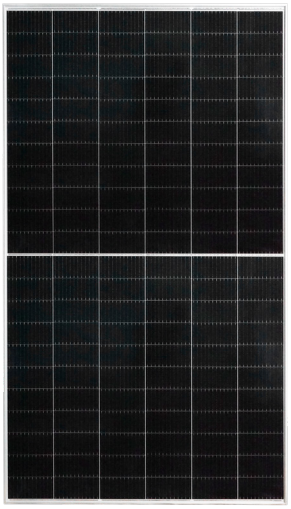
SUNTECH

Ultra X Plus

HALF-CELL BIFACIAL MODULE

TYPE: STPXXXS - D66/Pmh+



POWER OUTPUT
650-670W

MAX EFFICIENCY
21.6%

Features

High module conversion efficiency
Module efficiency up to **21.6%** achieved through advanced cell technology and manufacturing process

Lower operating temperature
Lower operating temperature and temperature coefficient increases the power output

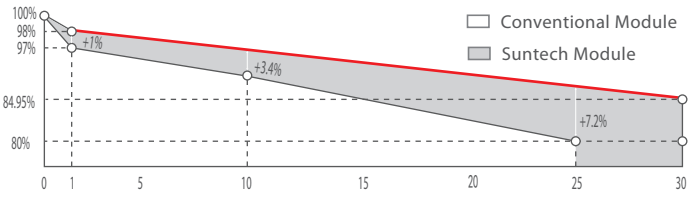
Suntech current sorting process
Up to **2%** power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output

Extended wind and snow load tests
Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 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: 2%
- Annual degradation: 0.45%
- 30 years of linear warranty
- 12 years of product warranty

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 Health and Safety
IEC TS 62941 Guideline for Module Design
Qualification and Type Approval

*** ****

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.

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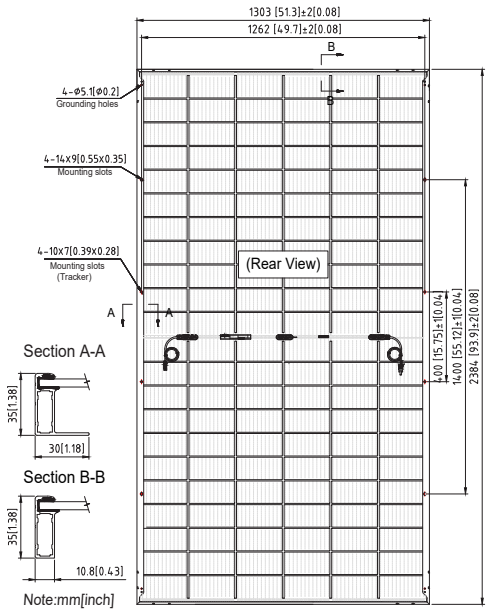
Ultra X STPXXXS - D66/Pmh+ 650-670W

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	39.9 kgs (88.0 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)%
Packing Configuration	Packaging box dimensions (mm) : 1325×1120×2500 Packaging box weight (kg) : 1275 31 Pieces per pallet 558 Pieces per container / 40 ' HC



Electrical Characteristics

Module Type	STP**670**S-D66/Pmh+		STP**665**S-D66/Pmh+		STP**660**S-D66/Pmh+		STP**655**S-D66/Pmh+		STP**650**S-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%;

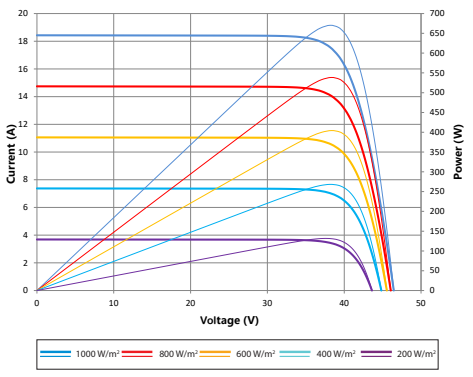
Different Rearside Power Gain

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.