SUNTECH

Ultra S

HALF-CELL MONOFACIAL MODULE

TYPE: STPXXXS - B72/Vnh

POWER OUTPUT	MAX EFFICIENCY
440-460W	21.1%

Features

High module conversion efficiency
Module efficiency up to **21.1%** achieved through advanced cell technology and manufacturing process

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

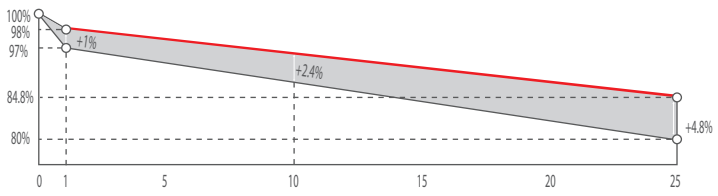
Suntech current sorting process
Up to **2%** power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output

Extended wind and snow load tests
Module certified to withstand extreme wind (3800 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: 0.55%
- Product warranty: 12 years
- linear warranty: 25 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 approvel

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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.

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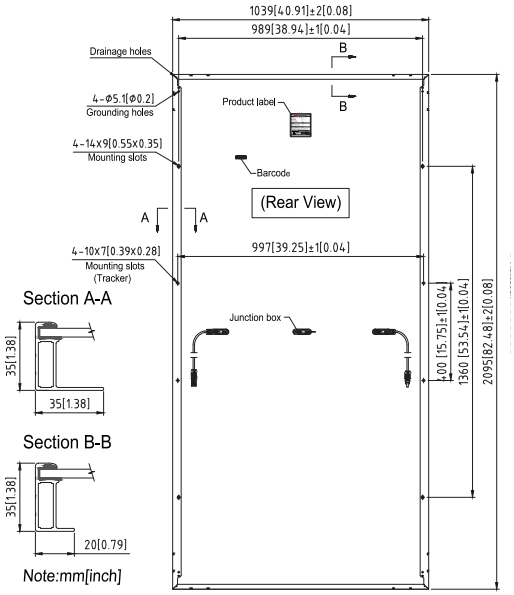
Ultra S STPXXXS - B72/Vnh 440-460W

Mechanical Characteristics

Solar Cell	Monocrystalline silicon 166 mm
No. of Cells	144 (6 × 20)
Dimensions	2095 × 1039 × 35 mm (82.5 × 40.9 × 1.4 inches)
Weight	24.5 kgs (54.0 lbs.)
Front Glass	3.2 mm (0.126 inches) fully tempered glass
Output Cables	4.0 mm², (-) 350 mm (+) 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	MC4 EVO2, Cable01S, STP-XC4
Maximum Series Fuse Rating	20 A
Power Tolerance	0/+5 W

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



Electrical Characteristics

Module Type	STP**460**S-B72/Vnh		STP**455**S-B72/Vnh		STP**450**S-B72/Vnh		STP**445**S-B72/Vnh		STP**440**S-B72/Vnh	
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	460	346.9	455	343.1	450	339.4	445	335.8	440	332.7
Optimum Operating Voltage (Vmp/V)	41.8	38.5	41.6	38.4	41.4	38.2	41.2	38.0	41.0	37.8
Optimum Operating Current (Imp/A)	11.01	9.00	10.94	8.94	10.87	8.89	10.81	8.84	10.74	8.78
Open Circuit Voltage (Voc/V)	49.6	46.5	49.4	46.3	49.2	46.2	49.0	46.0	48.8	45.8
Short Circuit Current (Isc/A)	11.74	9.47	11.67	9.42	11.61	9.37	11.54	9.31	11.47	9.25
Module Efficiency (%)	21.1		20.9		20.7		20.4		20.2	

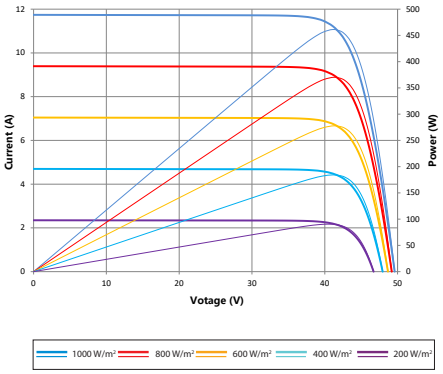
STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; NMOT: Irradiance 800 W/m², ambient temperature 20 °C, AM=1.5, wind speed 1 m/s; Tolerance of Pmax is within +/- 3%;

Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.36%/°C
Temperature Coefficient of Voc	-0.304%/°C
Temperature Coefficient of Isc	0.050%/°C

Graphs

Current-Voltage & Power-Voltage Curve (460S)



Packing Configuration

Container	20 'GP	40 'HC
Pieces per pallet	31	31
Pallets per container	5	22
Pieces per container	155	682
Packaging box dimensions	2125×1130×1205 mm	
Packaging box weight	814 kg	

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.