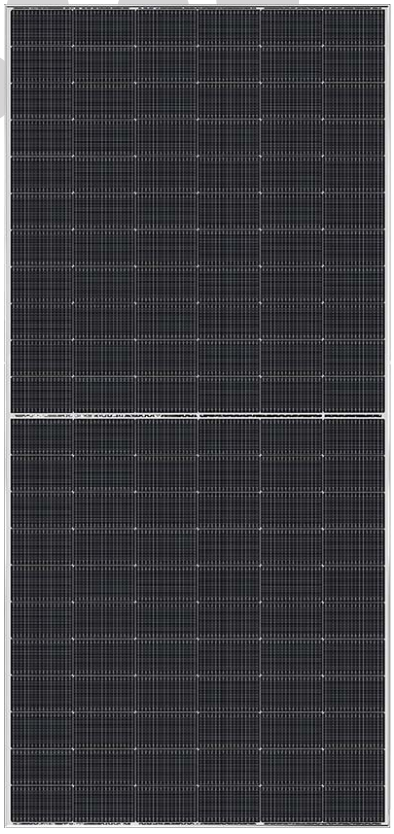
SUNTECH

UltraV Pro

HALF-CELL N-Type TOPCon
Glass-Glass BIFACIAL MODULE
TYPE: STPXXXS-H66-Nsh+



605-625W
POWER OUTPUT

23.1%
MAX EFFICIENCY

High power output
Zero LID, ultra-low LeTID, better anti-PID performance, low power attenuation, high power output

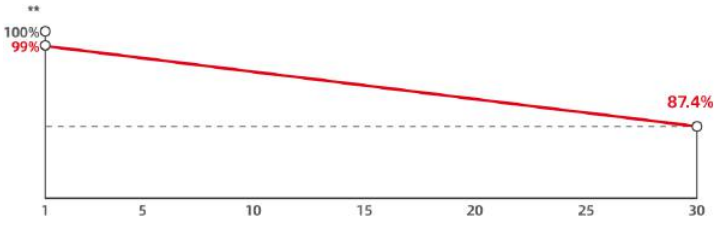
Low risk of hidden cracks
The fine non-destructive cell cutting process avoids the damage of cutting surface effectively and reduces the risk of hidden cracks and hot spots on modules

Withstand harsh environments
Reliable quality that makes module resistant even to high temperatures, salt water and ammonia

Superior load-bearing capability
Module certified to withstand **5400 Pa** front side max static test load and **2400 Pa** rear side max static test load *

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		

Munich RE



First year power degradation 1% Annual degradation 0.40%

30 years of linear warranty

15 years of product warranty

* 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.

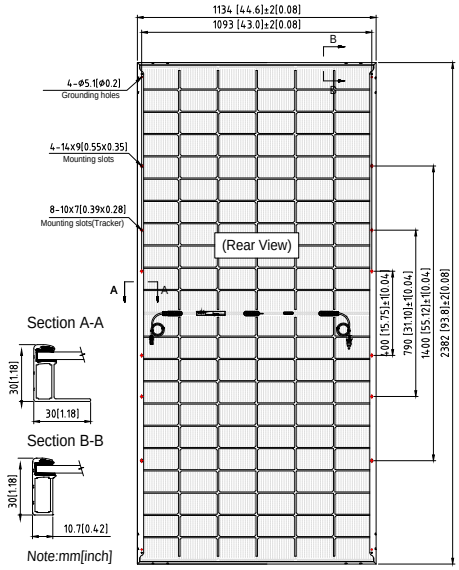
SUNTECH

Ultra V Pro STPXXXS-H66-Nsh+ 605-625W

Mechanical Characteristics

Solar Cell	N-type monocrystalline silicon
No. of Cells	132 (6 × 22)
Dimensions	2382 × 1134 × 30 mm (93.8 × 44.6× 1.2 inches)
Weight	32.5 kg (71.65 lbs.)
Front/Back Glass	2.0+2.0 mm (0.079+ 0.079inches) semi-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 +70°C (T98th)
Maximum System Voltage	1500 V DC (IEC)
Connectors	Wuxi Suntech STP-XC4-4 (Default)/ Staubli PV-KST4-EVO2A/xy (Optional)
Maximum Series Fuse Rating	35 A
Power Tolerance	0/+5 W
Frame	Anodized aluminum alloy frame
Packing Configuration	36 pieces per pallet 720 pieces per container /40'HC 2396×1120×1255mm per pallet 1230kg per pallet

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



Electrical Characteristics (STC)

Module Type	STP625S-H66-Nsh+	STP620S-H66-Nsh+	STP615S-H66-Nsh+	STP610S-H66-Nsh+	STP605S-H66-Nsh+
Maximum Power (Pmax/W)	625	620	615	610	605
Optimum Operating Voltage (Vmp/V)	40.98	40.82	40.65	40.48	40.31
Optimum Operating Current (Imp/A)	15.25	15.19	15.13	15.07	15.01
Open Circuit Voltage (Voc/V)	49.30	49.10	48.90	48.70	48.50
Short Circuit Current (Isc/A)	16.13	16.07	16.01	15.95	15.89
Module Efficiency (%)	23.1	23.0	22.8	22.6	22.4

STC: Irradiance 1000 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)	693	687	681	676	670
Optimum Operating Voltage (Vmp/V)	40.90	40.70	40.50	40.30	40.10
Optimum Operating Current (Imp/A)	16.95	16.88	16.82	16.78	16.71
Open Circuit Voltage (Voc/V)	49.57	49.37	49.16	48.96	48.76
Short Circuit Current (Isc/A)	17.87	17.81	17.74	17.67	17.61

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)	656	651	646	641	635
Optimum Operating Voltage (Vmp/V)	40.98	40.82	40.65	40.48	40.31
Optimum Operating Current (Imp/A)	16.01	15.95	15.89	15.82	15.76
Open Circuit Voltage (Voc/V)	49.30	49.10	48.90	48.70	48.50
Short Circuit Current (Isc/A)	16.94	16.87	16.81	16.75	16.68

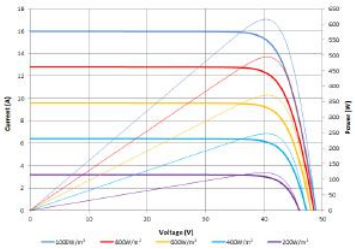
The bifacial gain is the additional gain from the back side of PV. It depends on the mounting method, orientation, tilt angle of the PV module and the albedo of the ground.

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 (615W)



©Copyright 2025 Suntech
Wuxi Suntech Power Co., Ltd.