

# Ultra V Pro

HALF-CELL N-Type TOPCon  
Glass-Glass BIFACIAL MODULE  
TYPE: STPXXXS-C78/Nsh+

**620-640W** **22.9%**  
POWER OUTPUT MAX EFFICIENCY



### Multi busbar technology

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



### High power output

Zero LID, ultra-low LeTID, better anti-PID performance, low power attenuation, 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)\*

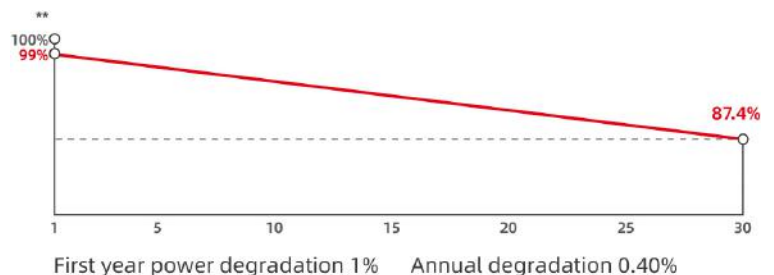


ISO 14001 Environment Management System  
ISO 45001 Occupational Health and Safety  
ISO 9001 Quality Management System  
SA 8000 Social Responsibility Standards  
IEC TS 62941 Guideline for Module Design

IEC 61701 Salt-mist Certification  
IEC 62716 Ammonia Certification  
IEC 60068-2-68 Dust and Sand  
IEC 61730-2 (UL790) Fire Class C



**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.

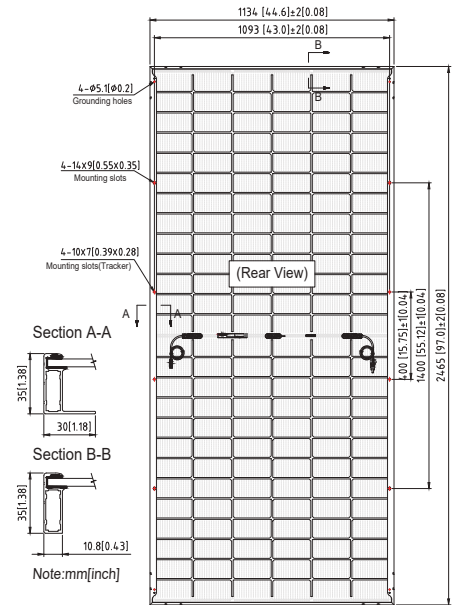
\*\*\* WEEE only for EU market.

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

# Ultra V Pro STPXXS-C78/Nsh+ 620-640W

## Mechanical Characteristics

|                              |  |
|------------------------------|--|
| Solar Cell                   | N-type monocrystalline silicon   |
| No. of Cells                 | 156 (6 × 26)   |
| Dimensions                   | 2465 × 1134 × 35 mm (97 × 44.6 × 1.4 inches)   |
| Weight                       | 35.1 kg (77.4 lbs.)  |
| Front \ Back Glass           | 2.0±2.0 mm (0.079± 0.079inches) semi-tempered glass  |
| Output Cables                | 4.0 mm <sup>2</sup> ,<br>(-) 350 mm and (+) 160 mm in length<br>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 or customized connectors   |
| Maximum Series Fuse Rating   | 30 A   |
| Power Tolerance              | 0/+5 W   |
| Refer. Bifaciality Factor    | (80 ± 5)%  |
| Frame                        | Anodized aluminum alloy frame  |
| Packing Configuration        | 31 pieces per pallet<br>496 pieces per container /40'HC<br>2495×1120×1255mm per pallet 1145kg per pallet |



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

## Electrical Characteristics

| Module Type                       | STP640S-C78/Nsh+ |       | STP635S-C78/Nsh+ |       | STP630S-C78/Nsh+ |       | STP625S-C78/Nsh+ |       | STP620S-C78/Nsh+ |       |
|-----------------------------------|------------------|-------|------------------|-------|------------------|-------|------------------|-------|------------------|-------|
|                                   | STC              | NMOT  | STC              | NMOT  | STC              | NMOT  | STC              | NMOT  | STC              | NMOT  |
| Maximum Power (Pmax/W)            | 640              | 489   | 635              | 486   | 630              | 482   | 625              | 478   | 620              | 474   |
| Optimum Operating Voltage (Vmp/V) | 46.16            | 43.90 | 46.06            | 43.80 | 45.96            | 43.70 | 45.86            | 43.50 | 45.76            | 43.40 |
| Optimum Operating Current (Imp/A) | 13.86            | 11.13 | 13.79            | 11.08 | 13.71            | 11.03 | 13.63            | 10.97 | 13.55            | 10.92 |
| Open Circuit Voltage (Voc/V)      | 56.18            | 53.40 | 56.03            | 53.30 | 55.88            | 53.20 | 55.73            | 53.00 | 55.58            | 52.90 |
| Short Circuit Current (Isc/A)     | 14.54            | 11.72 | 14.47            | 11.67 | 14.40            | 11.61 | 14.33            | 11.55 | 14.26            | 11.50 |
| Module Efficiency (%)             | 22.9             |       | 22.7             |       | 22.5             |       | 22.4             |       | 22.2             |       |

STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, AM=1.5; NMOT: Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, AM=1.5, wind speed 1 m/s; Measuring tolerance is within +/- 3%;

## Different Rearside Power Gain Reference to 630W Front

| Rearside Power Gain               | 5%    | 15%   | 25%   |
|-----------------------------------|-------|-------|-------|
| Maximum Power at STC (Pmax)       | 662   | 725   | 787   |
| Optimum Operating Voltage (Vmp/V) | 45.96 | 45.96 | 46.06 |
| Optimum Operating Current (Imp/A) | 14.40 | 15.77 | 17.14 |
| Open Circuit Voltage (Voc/V)      | 55.88 | 55.88 | 55.98 |
| Short Circuit Current (Isc/A)     | 15.12 | 16.56 | 18.00 |
| Module Efficiency (%)             | 23.6  | 25.9  | 28.1  |

## Temperature Characteristics

|   |           |
|---|-----------|
| Nominal Module Operating Temperature (NMOT) | 42 ± 2 °C |
| 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 (630W)

