

# Ultra T 3.0

QUARTER-CUT N-TYPE TOPCon  
BLACK THRU BIFACIAL DOUBLE-GLASS MODULE  
TYPE: STP-NT11/48QGDF



**465-485W** **24.3%**  
POWER OUTPUT MAX EFFICIENCY



## TOPCon 3.0

The advanced cell technology with edge passivation and polyfinger, etc, leads to ultra-high power output and efficiency



## Multi-cut design

Drastically reduces the internal current of the cell, ensuring lower power loss and minimized hot spot risk



## Withstand harsh environments

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



## Superior load-bearing capability

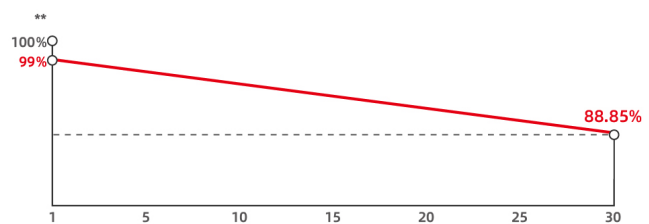
Module certified to withstand **5400 Pa** front side max static test load and **2400 Pa** rear side max static test load \*



**30** years of linear warranty  
**25** years of product warranty

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



First year power degradation 1% Annual degradation 0.35%

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

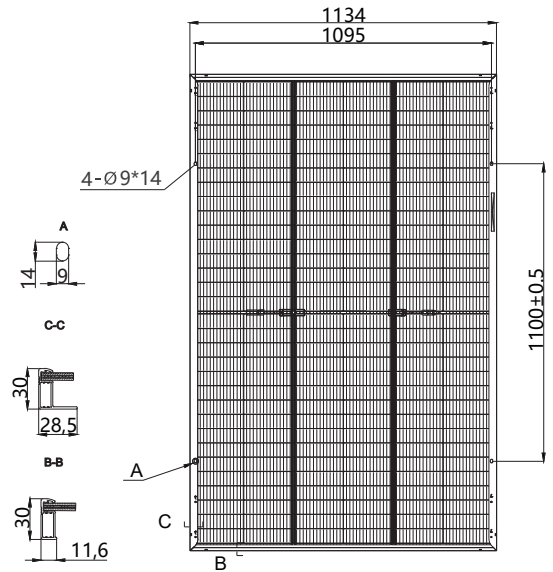
\*\*\* WEEE only for EU market.

\*\* Please refer to Suntech Limited Warranty for details.

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

### Mechanical Characteristics

|                              |                                                                                                               |
|------------------------------|---------------------------------------------------------------------------------------------------------------|
| Solar Cell                   | N-type monocrystalline silicon                                                                                |
| No. of Cells                 | 192 (6 × 32)                                                                                                  |
| Dimensions                   | 1762 × 1134 × 30 mm (69.4 × 44.6 × 1.2 inches)                                                                |
| Weight                       | 21.0 kg (46.30 lbs.)                                                                                          |
| Front Glass                  | 1.6 mm (0.063 inches), anti-reflective coating                                                                |
| Back Glass                   | 1.6 mm (0.063 inches), heat strengthened glass                                                                |
| Output Cables                | 4.0 mm <sup>2</sup> ,<br>(-) 1300 mm (+) 1300 mm in length<br>or customized length                            |
| Junction Box                 | IP68 rated (3 bypass diodes)                                                                                  |
| Operating Module Temperature | -40 °C to +70 °C                                                                                              |
| Maximum System Voltage       | 1500 V DC (IEC)                                                                                               |
| Connectors                   | STP-XC4 (Standard)/MC4-EVO2A (Optional)                                                                       |
| Maximum Series Fuse Rating   | 35 A                                                                                                          |
| Power Tolerance              | 0 ~ + 3%                                                                                                      |
| Refer. Bifaciality Factor    | (85 ± 5)%                                                                                                     |
| Frame                        | Anodized aluminum alloy frame                                                                                 |
| Packing Configuration        | 36 pieces per pallet<br>936 pieces per container /40'HC<br>1790 × 1120 × 1260 mm per pallet 802 kg per pallet |



### Electrical Characteristics (STC)

|                                   |       |       |       |       |       |
|-----------------------------------|-------|-------|-------|-------|-------|
| Maximum Power (Pmax/W)            | 485   | 480   | 475   | 470   | 465   |
| Optimum Operating Voltage (Vmp/V) | 30.78 | 30.60 | 30.43 | 30.26 | 30.08 |
| Optimum Operating Current (Imp/A) | 15.76 | 15.69 | 15.62 | 15.55 | 15.47 |
| Open Circuit Voltage (Voc/V)      | 36.63 | 36.58 | 36.53 | 36.48 | 36.43 |
| Short Circuit Current (Isc/A)     | 16.57 | 16.50 | 16.43 | 16.36 | 16.29 |
| Module Efficiency (%)             | 24.3  | 24.0  | 23.8  | 23.5  | 23.3  |

STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, AM=1.5; Measuring tolerance is within +/- 3%;

### Electrical Characteristics (BNPI)

|                                   |       |       |       |       |       |
|-----------------------------------|-------|-------|-------|-------|-------|
| Maximum Power (Pmax/W)            | 539   | 533   | 528   | 523   | 517   |
| Optimum Operating Voltage (Vmp/V) | 30.78 | 30.60 | 30.43 | 30.26 | 30.08 |
| Optimum Operating Current (Imp/A) | 17.51 | 17.43 | 17.35 | 17.28 | 17.19 |
| Open Circuit Voltage (Voc/V)      | 36.63 | 36.58 | 36.53 | 36.48 | 36.43 |
| Short Circuit Current (Isc/A)     | 18.41 | 18.33 | 18.25 | 18.18 | 18.10 |

BNPI: Irradiance front 1000 W/m<sup>2</sup>, rear 135 W/m<sup>2</sup>, module temperature 25 °C, AM=1.5;

### Temperature Characteristics

|                                 |           |
|---------------------------------|-----------|
| Temperature Coefficient of Pmax | -0.26%/°C |
| Temperature Coefficient of Voc  | -0.22%/°C |
| Temperature Coefficient of Isc  | 0.043%/°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 (465W)

