

Ultra T 3.0

QUARTER-CUT N-TYPE TOPCon
BIFACIAL DOUBLE-GLASS MODULE

TYPE: STP-NT11/48QGDF-xxx

(xxx = 470-485 in step of 5)

470-485W **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



Excellent low light performance

More power output in low light conditions such as cloudy days, mornings and evenings



Superior load-bearing capability

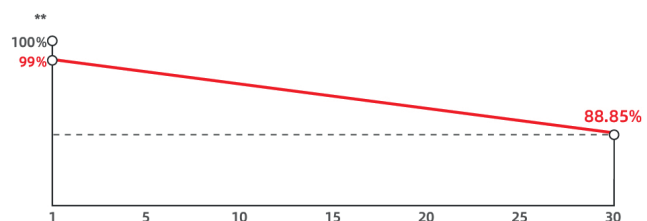
Module certified to withstand **5400 Pa** front side max static test load and **2400 Pa** rear side max static test load *



ISO 14001 Environment Management System
ISO 45001 Occupational Health and Safety
ISO 9001 Quality Management System
SA 8000 Social Responsibility Standards
IEC TS 62941 Guideline for Module Design
IEC 61730-2 (UL790) Fire Class A



30 years of linear warranty
25 years of product warranty



First year power degradation 1% Annual degradation 0.35%

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

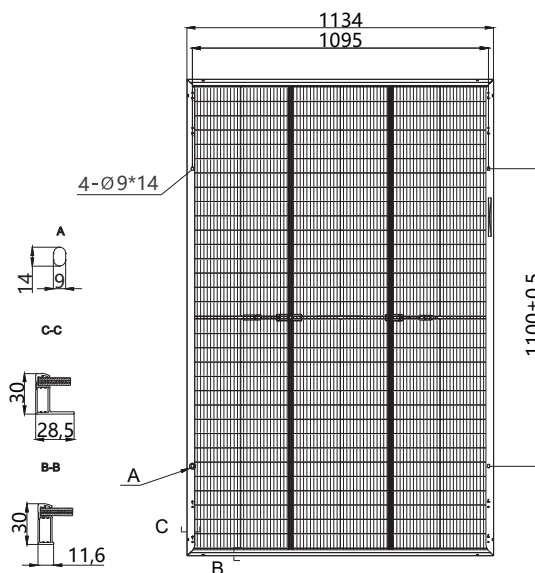
*** WEEE only for EU market.

** 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	21.5 kg (47.40 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 ² , (+) 1300 mm / (-) 1300 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	Staubli PV-KST4-EVO2A/xy; PV-KBT4-EVO2A/xy
Maximum Series Fuse Rating	35 A
Power Tolerance	± 3%
Power Sorting	0 ~ + 5 W
Refer. Bifaciality Factor	(85 ± 10)%
Frame	Anodized aluminum alloy frame
Packing Configuration	36 pieces per pallet 936 pieces per container /40'HC 1790 × 1120 × 1260 mm per pallet 810 kg per pallet



Electrical Characteristics (STC)

Maximum Power (Pmax/W)	485	480	475	470
Optimum Operating Voltage (Vmp/V)	30.78	30.60	30.43	30.26
Optimum Operating Current (Imp/A)	15.76	15.69	15.62	15.55
Open Circuit Voltage (Voc/V)	36.63	36.58	36.53	36.48
Short Circuit Current (Isc/A)	16.57	16.50	16.43	16.36
Short Circuit Current at BSI (Isc/A)	20.71	20.63	20.54	20.45
Module Efficiency (%)	24.3	24.0	23.8	23.5

STC: Irradiance 1000 W/m², module temperature 25 °C, AM=1.5; Measurement tolerance: Pmax ±3%, Voc ±3%, Isc ±4%;

Electrical Characteristics (BNPI)

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

BNPI: Irradiance front 1000 W/m², rear 135 W/m², module temperature 25 °C, AM=1.5; Bifaciality coefficient: φPmax=85±10%, φVoc=100±3%, φIsc=85±10%;

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 (480W)

