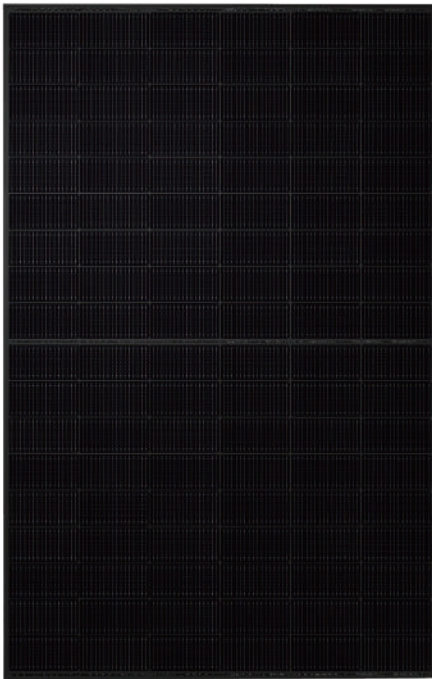


# Ultra T 1.0

HALF-CELL N-TYPE TOPCon  
 BLACK PRO BIFACIAL DOUBLE-GLASS MODULE  
 TYPE: STPXXXS-I54-Nsfb+



**435-455W**     **22.8%**  
 POWER OUTPUT     MAX EFFICIENCY



**Aesthetic appearance design**  
 Elegant design in all-black appearance, harmonious integration with the components of the building to provide an intense aesthetic experience



**Multi busbar technology**  
 Superior optical utilization and current collection capability, effectively improving product power and reliability



**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 \*

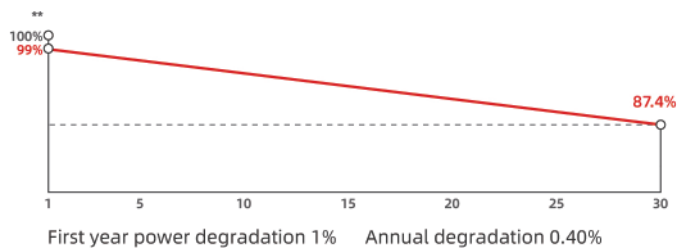


ISO 14001 Environment Management System  
 ISO 45001 Occupational Health and Safety  
 ISO 9001 Quality Management System  
 SA 8000 Social Responsibility Standards  
 IEC TS 62941 Guideline for Module Design

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  
**25** years of product warranty



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

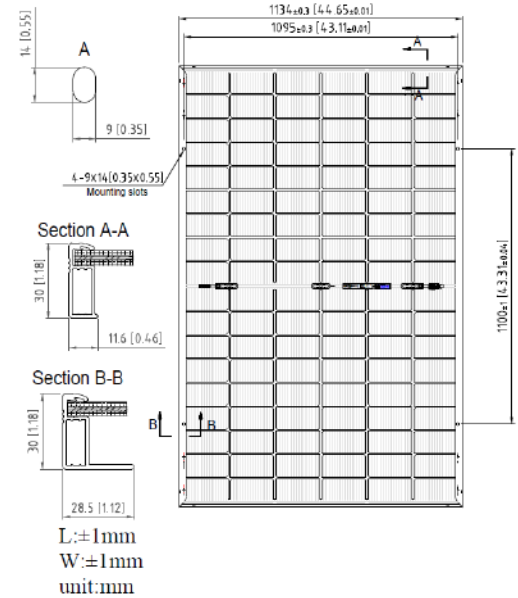
\*\* Please refer to Suntech Limited Warranty for details.

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

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

### Mechanical Characteristics

Solar Cell	N-type Monocrystalline silicon
No. of Cells	108 (6 × 18)
Dimensions	1762 × 1134 × 30 mm (69.37 × 44.6 × 1.2 inches)
Weight	24.5 kg (54.01 lb.)
Front/Back Glass	2.0+2.0 mm (0.079+ 0.079 inches) (rear glass in glazed black)
Output Cables	4.0 mm <sup>2</sup> , (-) 1200 mm and (+) 1200 mm in length or customized length
Junction Box	IP68 rated (3 bypass diodes)
Operating Module Temperature	-40°C - +70°C
Maximum System Voltage	1500 V DC (IEC)
Connectors	STP-XC4(Standard)/MC4 EVO2(Optional)
Maximum Series Fuse Rating	30 A
Power Tolerance	0/+5 W
Refer. Bifaciality Factor	(80 ± 5)%
Frame	Black anodized aluminum alloy frame
Packing Configuration	36 pieces per pallet 936 pieces per container /40'HC 928 kg per pallet



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

### Electrical Characteristics (STC)

Module Type	STP455S-I54-Nsfb+	STP450S-I54-Nsfb+	STP445S-I54-Nsfb+	STP440S-I54-Nsfb+	STP435S-I54-Nsfb+
Maximum Power (Pmax/W)	455	450	445	440	435
Optimum Operating Voltage (Vmp/V)	33.07	32.89	32.71	32.53	32.35
Optimum Operating Current (Imp/A)	13.76	13.67	13.61	13.53	13.45
Open Circuit Voltage (Voc/V)	39.57	39.39	39.19	39.00	38.80
Short Circuit Current (Isc/A)	14.52	14.44	14.36	14.28	14.20
Module Efficiency (%)	22.8	22.5	22.3	22.0	21.8

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

### Electrical Characteristics (BNPI)

Module Type	STP455S-I54-Nsfb+	STP450S-I54-Nsfb+	STP445S-I54-Nsfb+	STP440S-I54-Nsfb+	STP435S-I54-Nsfb+
Maximum Power (Pmax/W)	501	495	490	485	479
Optimum Operating Voltage (Vmp/V)	33.07	32.89	32.71	32.53	32.35
Optimum Operating Current (Imp/A)	15.15	15.05	14.99	14.90	14.81
Open Circuit Voltage (Voc/V)	39.57	39.39	39.19	39.00	38.84
Short Circuit Current (Isc/A)	15.99	15.90	15.81	15.73	15.64

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	-0.29%/°C
Temperature Coefficient of Voc	-0.24%/°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 (450W)

