

## TOPCON N-TYPE BI-FACIAL BF

144 CELLS    560-590 Wp    182.00 MM

MODULE CODE: SSPXXXX8T-144NT



### TOPCON



#### REVOLUTIONARY EFFICIENCY UP TO 22.84%

**HIEFFICIENCY** technology is a guarantee of the highest performance and power as well as lower BOS cost

#### INNOVATIVE PHOTOVOLTAIC TOPCON CELLS

TOPCON N-TYPE cells feature an additional, ultra-thin silicon layer and even higher efficiency

#### BIFACIAL MEANS UP TO 30% MORE POWER

BiFacial technology uses solar energy reflected from the surface, increasing the power from 10% to 30%

#### EXCELLENT PERFORMANCE IN UNFAVORABLE WEATHER CONDITIONS

Outstanding performance under low sunlight and extreme temperature conditions

#### EXTREME DURABILITY

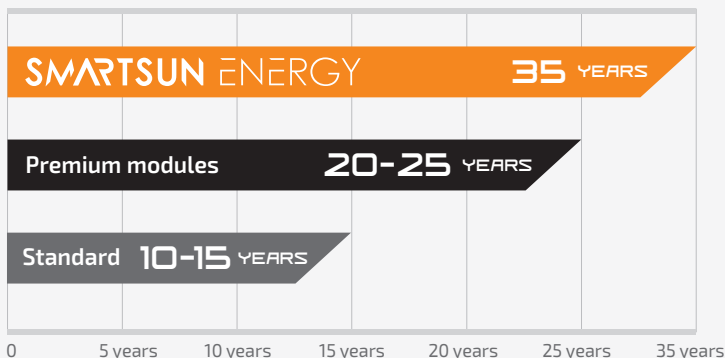
Hurricane wind resistance (2400 Pa) and very high snow loads (5400 Pa)

#### TÜV SÜD CERTIFIED RESISTANCE

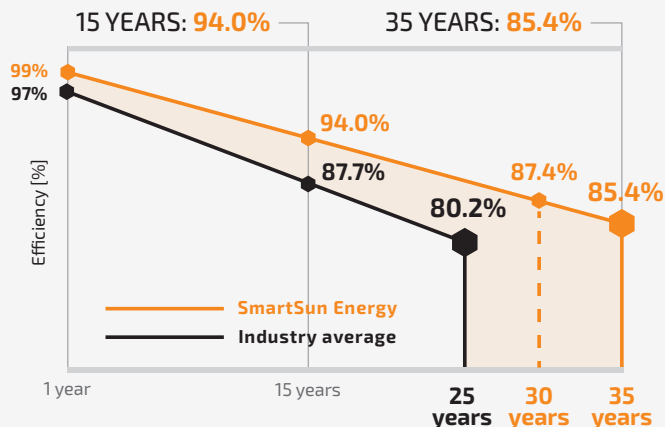
TÜV SÜD certificates confirming salt mist and ammonia resistance as well as PID

#### PRODUCT WARRANTY: 35 YEARS

#### SMARTSUN ENERGY VS OTHER MODULES:



#### LINEAR POWER WARRANTY:



### PRODUCT SPECIFICATION (STC)

MODULE CODE: SSPxxxS8T-144NT

	560 W	565 W	570 W	575 W	580 W	585 W	590 W
Maximum power	560 W	565 W	570 W	575 W	580 W	585 W	590 W
Maximum power voltage	42.20 V	42.40 V	42.60 V	42.80 V	43.00 V	43.20 V	43.40 V
Maximum power current	13.28 A	13.33 A	13.39 A	13.44 A	13.49 A	13.54 A	13.59 A
Open circuit voltage	50.40 V	50.60 V	50.80 V	51.00 V	51.20 V	51.40 V	51.60 V
Short circuit current	14.04 A	14.09 A	14.14 A	14.19 A	14.24 A	14.29 A	14.34 A
Module efficiency	21.68 %	21.87 %	22.07 %	22.26 %	22.45 %	22.65 %	22.84 %
Maximum system voltage	DC 1500 V (TÜV) / DC 1000 V (TÜV)						
Maximum series fuse rating	30 A						

Electrical parameters at standard test conditions (STC: AM=1.5; 1000 W/m<sup>2</sup>; Cells temperature: 25°C)

### PRODUCT SPECIFICATION (NMOT)

	421 W	425 W	429 W	433 W	437 W	441 W	445 W
Maximum power	421 W	425 W	429 W	433 W	437 W	441 W	445 W
Maximum power voltage	39.70 V	39.90 V	40.10 V	40.30 V	40.50 V	40.70 V	40.90 V
Maximum power current	10.61 A	10.66 A	10.70 A	10.75 A	10.80 A	10.85 A	10.90 A
Open circuit voltage	47.90 V	48.10 V	48.30 V	48.50 V	48.70 V	48.90 V	49.10 V
Short circuit current	11.37 A	11.41 A	11.45 A	11.49 A	11.53 A	11.57 A	11.61 A

Electrical parameters at standard test conditions (STC: AM=1.5; 800 W/m<sup>2</sup>; Cells temperature: 20°C, Wind speed: 1 m/s)

### REAR SIDE POWER GAIN (570 W)

	+10%	+15%	+20%	+25%	+30%
Power gain	+10%	+15%	+20%	+25%	+30%
Maximum power	627 W	656 W	684 W	713 W	741 W
Maximum power voltage	42.60 V	42.60 V	42.60 V	42.60 V	42.60 V
Maximum power current	14.72 A	15.40 A	16.06 A	16.74 A	17.40 A
Open circuit voltage	50.08 V	50.08 V	50.08 V	50.08 V	50.08 V
Short circuit current	15.54 A	16.25 A	16.96 A	17.67 A	18.36 A

### MECHANICAL DATA

Dimensions	2278 x 1134 x 35 mm
Weight	32.0 kg
Glass	Double glass; 2.0 mm tempered with AR Coating
Output cables	Length: 2 x 130 cm Section: 4 mm <sup>2</sup>
Connectors	MC4 compatible, IP68
Cell type	N-Type; Monocrystalline; Half-Cell (16 BB) 91.00 x 182.00 mm
Number of cells	144 cells
Frame corners	Mechanically clamped
Frame	Anodized aluminum
Bypass diodes	3 pcs.

### TEST, CERTIFICATIONS AND WARRANTIES

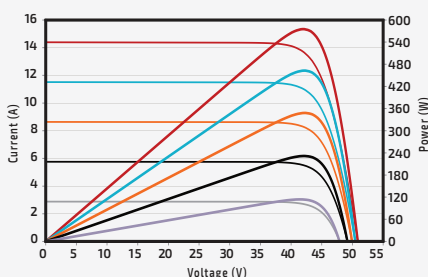
Standard tests	IEC 61215, IEC 61730, IEC 61701 IEC 62716, Utility class „A“ Protection class „II“, LID < 0.5% PPP 58042B
Fire resistance	Class C
System certs	ISO 9001, ISO 14001, ISO 45001
Certifications	TÜV SÜD, CE, WEEE
Extreme wind and snow loads testing	Wind: 2400 Pa Snow: 5400 Pa
Power tolerance	from 0 to +5W
Junction box	IP68
Warranties	35 years product warranty 35 years power warranty (85.4%)

### PACKING CONFIGURATION

Container	40'HQ	Pieces per pallet	37
Pallets per container	20	Pieces per container	740

### TEMPERATURE CHARACTERISTICS

$I_{SC}(T_K I_{SC})$	0.045 %/°C	$V_{OC}(T_K V_{OC})$	-0.25 %/°C
$P_{MPP}(T_K P_{MPP})$	-0.29 %/°C	NMOT	+43 ± 2°C
Operating temperature	from -40 to +85°C		



### DIMENSIONS AND STRUCTURE (MM)

