



ELFO-S144/M10N-BG

**565-590W**

182 mm Half Cell, 144 Cells

TOPCon Bifacial Solar Module

Status: 04/2025

**22.8%**

Module Efficiency

**590W**

Highest Power Output

**15 YEARS**

Product Warranty

**30 YEARS**

Linear Power Warranty

**1.00%** First year power degradation

**0.40%** Annual degradation

## PRODUCT ADVANTAGES



### High module conversion efficiency

Module efficiency up to 22.8% achieved through advanced cell technology and manufacturing process



### Lower operating temperature

Lower operating temperature and temperature coefficient increase the power output



### Excellent weak light performance

More power output in weak light condition ,such as cloudy, morning and sunset



### Extended wind and snow load tests

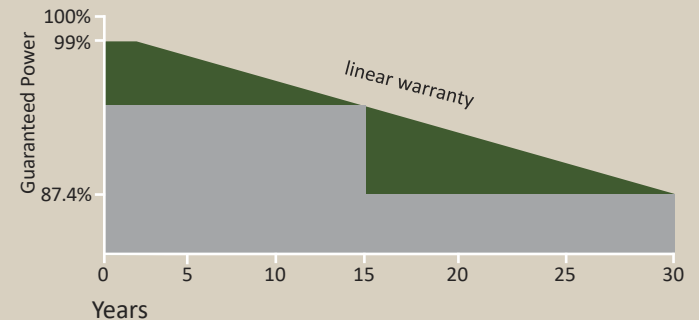
Module certified to withstand extreme wind(2400 Pascal) and snow loads(5400 Pascal)



### IP68 junction box

High waterproof & dustproof level

## PERFORMANCE WARRANTY



## Certifications of Product and Manufacturer



## ELECTRICAL DATA (STC)

Peak Power Watts-P <sub>MAX</sub> (Wp)*	565	570	575	580	585	590
Maximum Power Voltage-V <sub>MP</sub> (V)	42.9	43.1	43.3	43.5	43.7	43.9
Maximum Power Current-I <sub>MP</sub> (A)	13.18	13.23	13.28	13.34	13.39	13.44
Open Circuit Voltage-V <sub>OC</sub> (V)	51.6	51.8	52.0	52.2	52.4	52.6
Short Circuit Current-I <sub>SC</sub> (A)	13.94	14.01	14.08	14.15	14.22	14.29
Module Efficiency η <sub>m</sub> (%)	21.9	22.1	22.2	22.4	22.6	22.8
Power Tolerance-P <sub>MAX</sub> (W)	0~+5					

STC: Irradiance 1000W/m<sup>2</sup>, module temperature 25°C, AM=1.5; \*Measuring tolerance: ±3%

## ELECTRICAL DATA (BNPI)

Peak Power-P <sub>MAX</sub> (Wp)*	620	625	630	635	640	645
Maximum Power Voltage-V <sub>MP</sub> (V)	42.9	43.1	43.3	43.5	43.7	43.9
Maximum Power Current-I <sub>MP</sub> (A)	14.45	14.50	14.55	14.60	14.65	14.69
Open Circuit Voltage-V <sub>OC</sub> (V)	51.6	51.8	52.0	52.2	52.4	52.6
Short Circuit Current-I <sub>SC</sub> (A)	15.35	15.41	15.47	15.54	15.60	15.66

BNPI: Front side irradiance 1000W/m<sup>2</sup>, backside irradiance 135W/m<sup>2</sup>, module temperature 25°C, AM=1.5

## ELECTRICAL DATA (NMOT)

Maximum Power-P <sub>MAX</sub> (Wp)*	430	434	438	442	446	450
Maximum Power Voltage-V <sub>MP</sub> (V)	40.4	40.6	40.8	41.0	41.2	41.4
Maximum Power Current-I <sub>MP</sub> (A)	10.65	10.69	10.74	10.78	10.83	10.87
Open Circuit Voltage-V <sub>OC</sub> (V)	48.9	49.1	49.3	49.5	49.7	49.9
Short Circuit Current-I <sub>SC</sub> (A)	11.21	11.26	11.32	11.38	11.43	11.49

NMOT: Irradiance 800W/m<sup>2</sup>, module temperature 20°C, AM=1.5, wind speed 1m/s

## MECHANICAL DATA

Solar Cells	N-Type TOPCon Monocrystalline Silicon
Cell Orientation	144 cells (6 x 24)
Module Dimensions	2279x1134x30 mm
Weight	33.0 kg
Front Glass	2.0 mm tempered glass
Encapsulant Material	POE/EVA
Back Glass	2.0 mm semi-tempered glass
Frame	30 mm Anodized Aluminium Alloy
Junction Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0 mm <sup>2</sup> Cable length 350 mm or customized length

\*Please refer to regional datasheet for specied connector.

## TEMPERATURE RATINGS

NMOT (Nominal Module Operating Temperature)	42°C (±2°C)
Temperature Coefficient of P <sub>MAX</sub>	-0.29%/°C
Temperature Coefficient of V <sub>OC</sub>	-0.25%/°C
Temperature Coefficient of I <sub>SC</sub>	+0.046%/°C

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

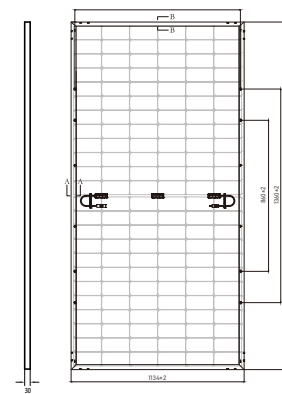
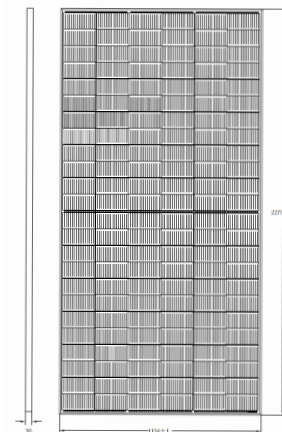
## MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	25 A

## PACKAGING CONFIGURATION

Modules per box	36 pieces
Modules per 40' container	720 pieces

## DIMENSIONS OF PV MODULE (mm)



## I-V CURVE

Current-Voltage & Power-Voltage Curve (570)

