

**TOPCON**  
**Double Glass Bifacial**  
**430~450W**

KS(430~450W)-108MSG **18BB** ▶  
 Mono MBB N-type large size half cut module

**KEY FEATURES**



Kosmo Solar Topcon solar modules adopt the latest 18 bus bar technology decrease the current transverse propagation path by 50% and improve the efficiency of the modules up to 22.5%.



Module power increases 5-25% generally, bringing significantly lower LCOE and higher IRR.



N type topcon modules have better reliability in harsh environment and lower LID/LETID.



N type Topcon solar cells make longer life span, lower degradation and better performance in weak light conditions.



Half cut cell and optimized circuit design as well split junction box reduce the power loss caused by shadow and mismatch.



Lower thermal coefficient for higher power generation at higher temperature.



Selected encapsulating materials and stringent production process controls ensure high PID resistance.



Ideal for usage in residential rooftops, commercial and large-scale plants.

**CERTIFICATION**

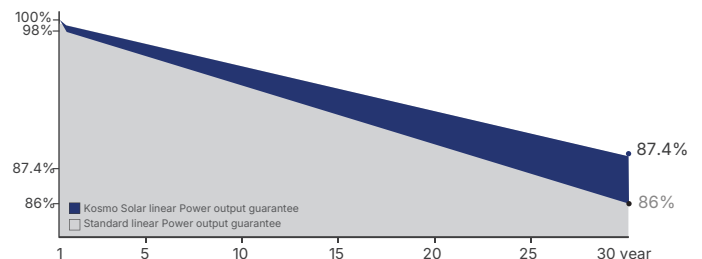
IEC61215 | IEC61730 | IEC 61701 | CE | INMETRO  
 ISO 9001  
 2015 Quality Management System  
 ISO 14001  
 2015 Environmental Management System  
 ISO45001  
 2018 Occupational Health and Safety Management System



**INDUSTRY LEADING WARRANTY**

**20 years** Guarantee on product material and workmanship

**30 years** Linear power output warranty



# KS(430~450W)-108MSG

## WEIGHT

34kg

## NUMBER OF CELLS

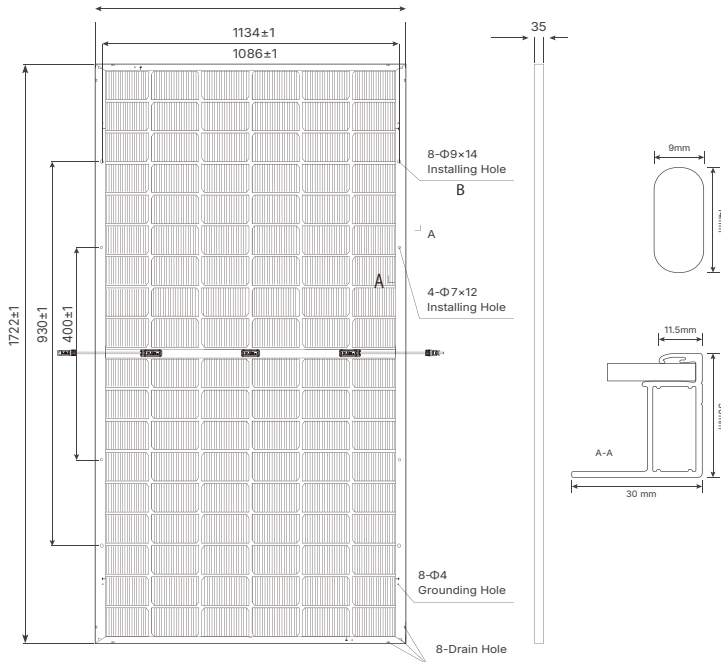
108pcs(18×6)

## MODULE SIZE

1722×1134×35mm

## PACKING

31pcs/pallet,620pcs/40HQ



## MECHANICAL SPECIFICATIONS

|                 |   |
|-----------------|---|
| Solar Cell Type | 182×91 mm   |
| Glass           | Dual glass, 3.2mm+3.2mm coated tempered glass       |
| Frame           | Silver Anodized Aluminium Alloy                     |
| Junction Box    | IP68  |
| No. of Diodes   | 3pcs  |
| Output Cable    | 4.0mm <sup>2</sup> 400/400mm (customized available) |
| Connector       | MC4 Compatible (MC4 Original optional)              |
| Wind/Snow Load  | 2400pa/5400pa                                       |

## TEMPERATURE COEFFICIENT

|                                   |               |
|-----------------------------------|---------------|
| Nominal Operating Cell Temp(NOCT) | 45±2°C        |
| Temperature Coefficient of ISC    | +0.045%/°C    |
| Temperature Coefficient of VOC    | -0.230%/°C    |
| Temperature Coefficient of Pmax   | -0.280%/°C    |
| Operational Temperature           | -40°C~ +85°C  |
| Maximum System Voltage            | 1500V DC(IEC) |
| Maximum Series Fuse Rating        | 25A           |

## STC — Electrical Characteristics

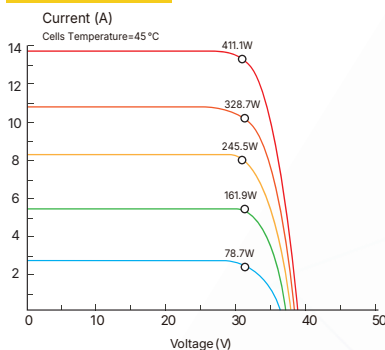
|                              | 430W          | 324W   | 435W          | 328W   | 440W          | 332W   | 445W          | 336W   | 450W          | 340W   |
|------------------------------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|
| Maximum Power -Pmax(W)       | <b>33.36V</b> | 29.65V | <b>33.58V</b> | 29.85V | <b>33.79V</b> | 30.01V | <b>33.96V</b> | 30.17V | <b>34.16V</b> | 30.33V |
| Maximum Power Voltage-Vmp(V) | <b>12.89A</b> | 10.90A | <b>12.96A</b> | 10.99A | <b>13.03A</b> | 11.07A | <b>13.10A</b> | 11.13A | <b>13.17A</b> | 11.21A |
| Maximum Power Current-Imp(A) | <b>38.29V</b> | 36.58V | <b>38.47V</b> | 36.76V | <b>38.66V</b> | 36.94V | <b>38.86V</b> | 37.12V | <b>39.07V</b> | 37.30V |
| Open Circuit Voltage -Voc(V) | <b>13.69A</b> | 11.35A | <b>13.78A</b> | 11.43A | <b>13.80A</b> | 11.52A | <b>13.96A</b> | 11.60A | <b>14.04A</b> | 11.68A |
| Short Circuit Current-Isc(A) |               | 22.02% |               | 22.27% |               | 22.53% |               | 22.78% |               | 23.04% |
| Module Efficiency(STC) ηm(%) |               |        |               |        |               |        |               |        |               |        |
| Power output tolerance(W)    | 0~+5W         |        |               |        |               |        |               |        |               |        |

STC:Irradiance:1000W/m<sup>2</sup>, Module Temperature:25°C,Air Mass:1.5

## Bifacial Output-Rearside Power Gain

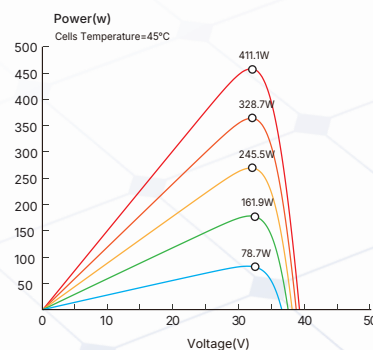
|     |                          | Rearside Power Gain |         |        |         |        |
|-----|--------------------------|---------------------|---------|--------|---------|--------|
|     |                          | 430W                | 435W    | 440W   | 445W    | 450W   |
| 5%  | Maximum Power(Pmax)      | 451.5W              | 456.75W | 462W   | 467.25W | 472.5W |
|     | Module Efficiency STC(%) | 23.12%              | 23.39%  | 22.58% | 23.92%  | 24.20% |
| 10% | Maximum Power(Pmax)      | 473W                | 483.72W | 484W   | 489.5W  | 495W   |
|     | Module Efficiency STC(%) | 24.22%              | 24.77%  | 24.78% | 25.07%  | 25.35% |
| 15% | Maximum Power(Pmax)      | 494.5W              | 505.47W | 506W   | 511.75W | 517.5W |
|     | Module Efficiency STC(%) | 25.32%              | 25.88%  | 25.91% | 26.21%  | 26.50% |

## I-V Curve



Current-Voltage Curve(435W)

- 1000W/m<sup>2</sup>
- 800W/m<sup>2</sup>
- 600W/m<sup>2</sup>
- 400W/m<sup>2</sup>
- 200W/m<sup>2</sup>



Power-Voltage Curve(435W)

- 1000W/m<sup>2</sup>
- 800W/m<sup>2</sup>
- 600W/m<sup>2</sup>
- 400W/m<sup>2</sup>
- 200W/m<sup>2</sup>