

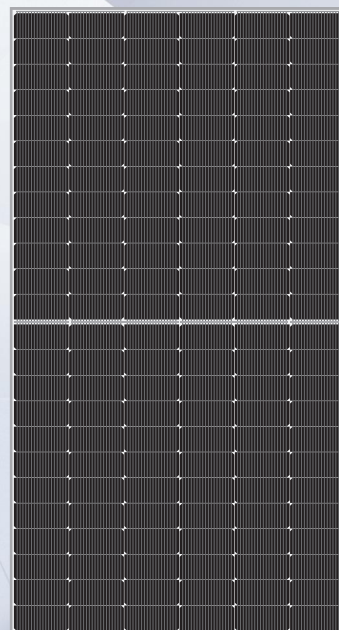
# TOPCon

**Monofacial**

**570~590W**

SN(570~590W)-144MT 18BB ▶

**Mono MBB N-type** large size half cut module



## KEY FEATURES



Sine Energy Topcon solar modules adopts the latest 18 bus bar technology decrease the current transverse propagation path by 50% and improve the efficiency of the modules up to 22%.



5~25w higher than Perc modules with the same size result in lower LCOE and O/M cost.



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



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



Half cut cell and optimized circuit design as well split junction box makes lower 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 ensures highly PID resistant.



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



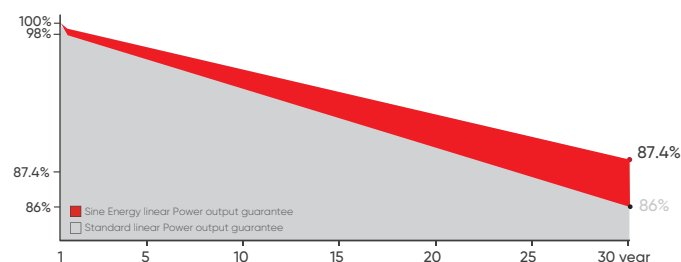
## INDUSTRY LEADING WARRANTY

**12 years**

Guarantee on product material and workmanship

**30 years**

Linear power output warranty



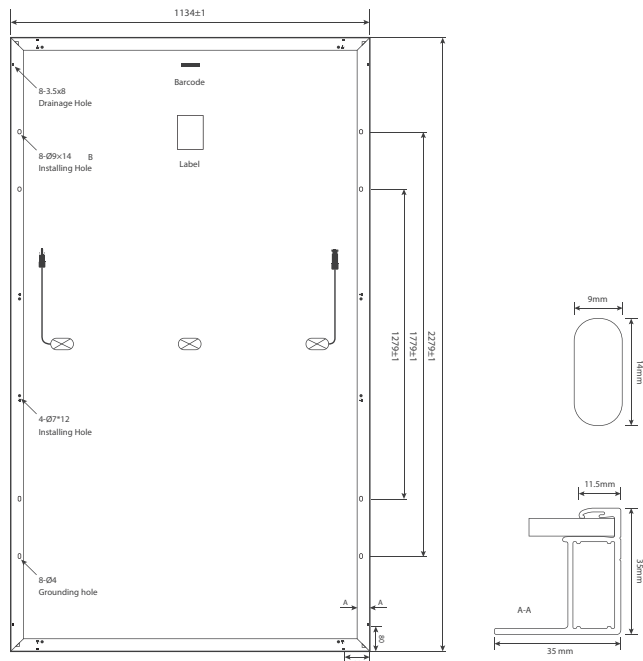
# SN(570~590W)-144MT

Weight  
**26.5kg**

Number of Cells  
**144pcs(24×6)**

Module Size  
**2278×1134×30mm**

Packing  
**36pcs/pallet,720pcs/40HQ**



## MECHANICAL SPECIFICATIONS

|                 |                                                    |
|-----------------|----------------------------------------------------|
| Solar Cell Type | 182×91mm                                           |
| Glass           | 3.2mm tempered, high transmission ART coating      |
| Back Sheet      | White KPF                                          |
| Frame           | Silver Anodized Aluminium Alloy                    |
| Junction Box    | IP68                                               |
| No. of Diodes   | 3pcs                                               |
| Output Cable    | 4.0mm <sup>2</sup> 400/400mm (custmized 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           |

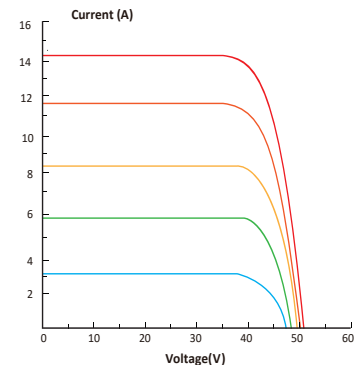
## ELECTRICAL SPECIFICATION (STC)

|                                                               |        |        |        |        |        |
|---------------------------------------------------------------|--------|--------|--------|--------|--------|
| Maximum Power -Pmax(W)                                        | 570W   | 575W   | 580W   | 585W   | 590W   |
| Maximum Power Voltage-Vmp(V)                                  | 42.08V | 42.17V | 42.26V | 42.35V | 42.44V |
| Maximum Power Current-Imp(A)                                  | 13.55A | 13.64A | 13.73A | 13.82A | 13.91A |
| Open Circuit Voltage -Voc(V)                                  | 52.76V | 52.85V | 52.94V | 53.03V | 53.12V |
| Short Circuit Current-Isc(A)                                  | 13.95A | 14.04A | 14.13A | 14.22A | 14.31A |
| Module Efficiency(STC) -ηm(%)                                 | 22.06% | 22.25% | 22.44% | 22.63% | 22.83% |
| Power output tolerance(W)                                     | 0~+5W  |        |        |        |        |
| STC:Irradiance:1000W/m², Module Temperature:25°C,Air Mass:1.5 |        |        |        |        |        |

## Electrical Specification (NOCT)

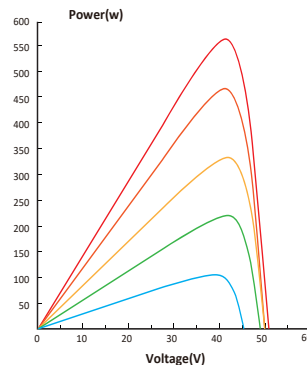
|                                                                                             |             |             |             |             |             |
|---------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Maximum Power -Pmax(W)                                                                      | <b>429W</b> | <b>433W</b> | <b>437W</b> | <b>441W</b> | <b>445W</b> |
| Maximum Power Voltage-Vmp(V)                                                                | 39.52V      | 39.65V      | 39.78V      | 39.91V      | 40.04V      |
| Maximum Power Current-Imp(A)                                                                | 10.86A      | 10.92A      | 10.99A      | 11.05A      | 11.11A      |
| Open Circuit Voltage -Voc(V)                                                                | 48.21V      | 48.34V      | 48.47V      | 48.60V      | 48.73V      |
| Short Circuit Current-Isc(A)                                                                | 11.55A      | 11.62A      | 11.69A      | 11.76A      | 11.83A      |
| NOCT:Irradiance:800W/m <sup>2</sup> , Ambient Temperature:20°C,Air Mass:1.5,Wind Speed:1m/s |             |             |             |             |             |

## I-V Curve



Current-Voltage Curve(570W)

— 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(570W)

— 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>