

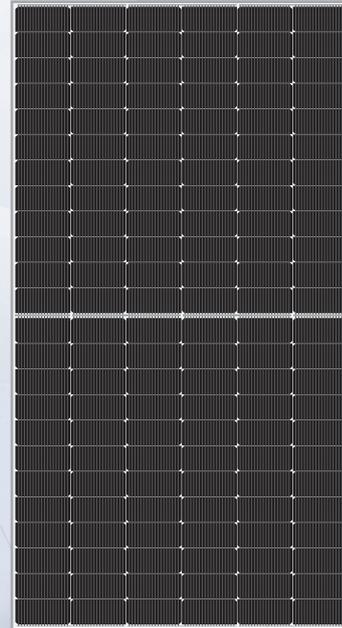
TOPCON

Transparent backsheet

560~590W

SN(560~590W)-144MTB **18BB** ▶

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



KEY FEATURES

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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 conditons
- 

Half cut cell and optimized circuit design as well split junctin box makes lower the power loss caused by shadow and mismatch.
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Lower thermal coefficient for higher power generation at higher temperature.
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Selected encapsulating materials and stringent production process controls ensures highly PID resistant.
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Ideal for usage in residential rooftops, commercial and large-scale plants.

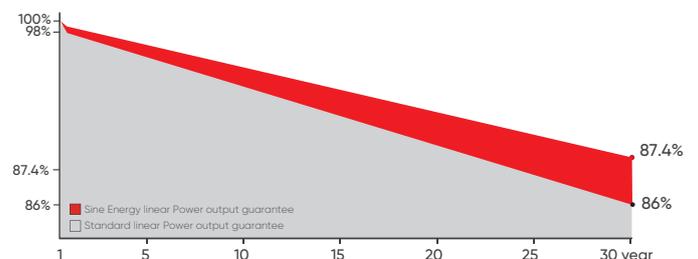
CERTIFICATION

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



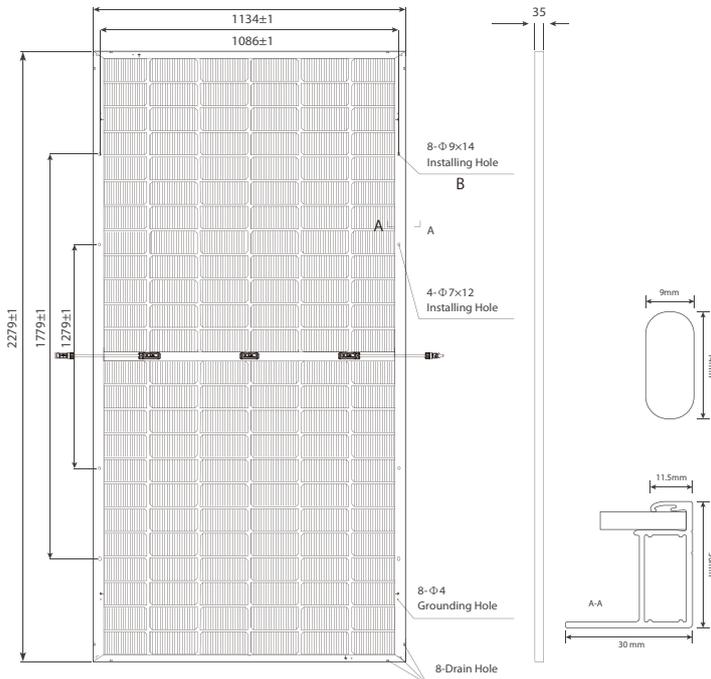
SN(560~590W)-144MTB

Weight
26.5kg

Number of Cells
144pcs(24×6)

Module Size
2279×1134×30mm

Packing
37pcs/pallet,740pcs/40HQ



MECHANICAL SPECIFICATIONS

Solar Cell Type	182×91mm
Glass	3.2mm tempered, high transmission ART coating
Backsheet	KFB high transmission backsheet
Frame	Silver Anodized Aluminium Alloy
Junction Box	IP68
No. of Diodes	3pcs
Output Cable	4.0mm ² 400/400mm (custmized available)MC4
Connector	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

Test conditions	STC	NOCT												
Maximum Power -Pmax(W)	560W	426.3W	565W	430.1W	570W	433.9W	575W	437.7W	580W	441.5W	585W	445.3W	590W	449.1W
Maximum Power Voltage-Vmp(V)	42.82V	40.69V	42.91V	40.78V	43.00V	40.87V	43.11V	40.97V	43.22V	41.07V	43.33V	41.18V	43.44V	41.28V
Maximum Power Current-Imp(A)	13.08A	10.48A	13.17A	10.55A	13.26A	10.62A	13.34A	10.68A	13.42A	10.75A	13.51A	10.82A	13.59A	10.89A
Open Circuit Voltage -Voc(V)	50.99V	48.46V	51.09V	48.55V	51.19V	48.65V	51.30V	48.75V	51.41V	48.86V	51.52V	48.96V	51.64V	49.07V
Short Circuit Current-Isc(A)	13.89A	11.16A	13.97A	11.22A	14.05A	11.29A	14.14A	11.35A	14.22A	11.42A	14.30A	11.48A	14.38A	11.55A
Module Efficiency(STC) -ηm(%)	21.90%		21.86%		22.05%		22.25%		22.44%		22.64%		22.83%	

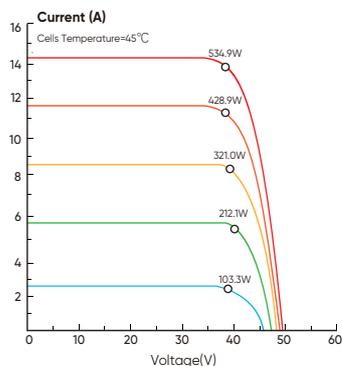
TC:Irradiance:1000W/m², Module Temperature:25°C,Air Mass:1.5

NOCT:Irradiance:800W/m², Ambient Temperature:20°C,Air Mass:1.5,Wind Speed:1m/s

Bifacial Output-Rearside Power Gain

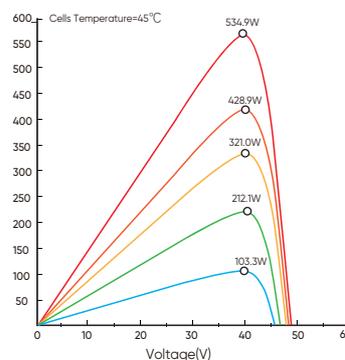
%	Parameter	560W		565W		570W		575W		580W		585W		590W	
		Value	Gain	Value	Gain	Value	Gain	Value	Gain	Value	Gain	Value	Gain	Value	Gain
5%	Maximum Power(Pmax)	588W	1.4%	593.25W	1.4%	598.5W	1.4%	603.75W	1.4%	609W	1.4%	614.25W	1.4%	619.5W	1.4%
	Module Efficiency STC(%)	22.75%	0.1%	22.95%	0.1%	23.16%	0.1%	23.36%	0.1%	23.56%	0.1%	23.77%	0.1%	23.96%	0.1%
10%	Maximum Power(Pmax)	644W	1.4%	644.75W	1.4%	627W	1.4%	632.5W	1.4%	638W	1.4%	643.5W	1.4%	649W	1.4%
	Module Efficiency STC(%)	24.92%	0.1%	24.95%	0.1%	24.26%	0.1%	24.47%	0.1%	24.68%	0.1%	24.89%	0.1%	25.11%	0.1%
15%	Maximum Power(Pmax)	700W	1.4%	706.25W	1.4%	655.5W	1.4%	661.5W	1.4%	667W	1.4%	673W	1.4%	678.5W	1.4%
	Module Efficiency STC(%)	27.08%	0.1%	27.33%	0.1%	25.36%	0.1%	25.59%	0.1%	25.81%	0.1%	26.04%	0.1%	26.25%	0.1%

I-V Curve



Current-Voltage Curve(580W)

- 1000W/m²
- 800W/m²
- 600W/m²
- 400W/m²
- 200W/m²



Power-Voltage Curve(580W)

- 1000W/m²
- 800W/m²
- 600W/m²
- 400W/m²
- 200W/m²