

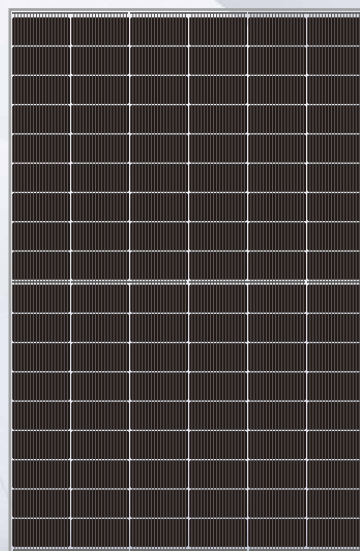
TOPCon

Double Glass Bifacial

425-450W

SN(425~450W)-108MTB **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 23.0%.



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

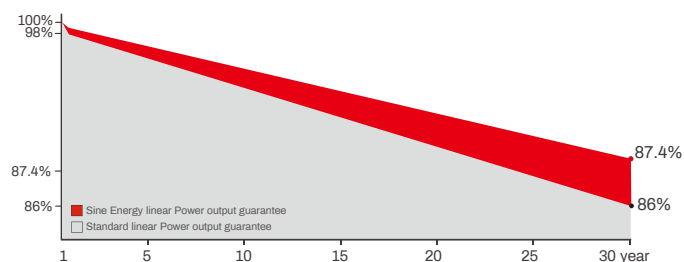
IEC61215 | IEC61730 | IEC 61701 | CE | INMETRO
 ISO 9001
 2015 Quality Management System
 ISO 14001
 2015 Environmental Management System
 ISO45001
 2018 Occupational Health and Safety Management System



INDUSTRY LEADING WARRANTY

12 years Guarantee on product material and workmanship

30 years Linear power output warranty



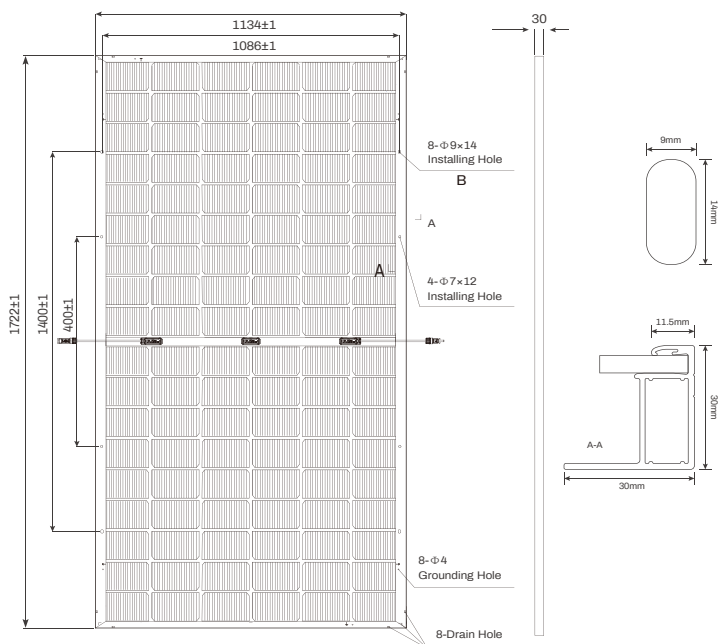
SN(425~450W)-108MTB

Weight
23kg

Number of Cells
108pcs(18×6)

Module Size
1722×1134×30mm

Packing
36pcs/pallet,936pcs/40HQ



MECHANICAL SPECIFICATIONS

Solar Cell Type	182×183mm
Glass	Dual glass, 2.0mm coated tempered glass
Frame	Silver Anodized Aluminium Alloy
Junction Box	IP68
No. of Diodes	3pcs
Output Cable	4.0mm ² 400/400mm (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
Fire Rating	Class C
Protection Class	Class II

STC — Electrical Characteristics

Test conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power -Pmax(W)	425W	320W	430W	324W	435W	328W	440W	332W	445W	336W	450W	340W
Maximum Power Voltage-Vmp(V)	33.14	29.58	33.36	29.65	33.58	29.85	33.79	30.01	33.97	31.17	34.16	30.33
Maximum Power Current-Imp(A)	12.83	10.82	12.89	10.90	12.96	10.99	13.03	11.07	13.10	11.13	13.17	11.21
Open Circuit Voltage -Voc(V)	38.11	36.40	38.29	36.58	38.47	36.76	38.66	36.94	38.86	37.12	39.07	37.30
Short Circuit Current-Isc(A)	13.60	11.27	13.69	11.35	13.78	11.43	13.80	11.52	13.96	11.60	14.04	11.68
Module Efficiency(STC) -ηm(%)	21.76		22.02		22.29		22.55		22.79		23.04	
Power output tolerance(W)	±3%											
STC:AM:1.5, front:1000W/m ² , 25°C. NOCT:AM:1.5, front:800W/m ² , Wind Speed:1m/s, 20°C												

BNPI — Electrical Characteristics

Maximum Power -Pmax(W)	465W	471W	476W	482W	487W	492W
Maximum Power Voltage-Vmp(V)	36.76	36.89	37.02	37.11	37.21	37.31
Maximum Power Current-Imp(A)	12.65	12.77	12.86	12.99	13.09	13.19
Open Circuit Voltage -Voc(V)	38.11	38.29	38.47	38.66	38.86	39.07
Short Circuit Current-Isc(A)	14.89	14.98	15.08	15.10	15.28	15.37
Module Efficiency(STC) -ηm(%)	23.82	24.10	24.39	24.68	24.94	25.22
BNPI: AM:1.5, front:1000W/m ² , rear: 135W/m ² , 25°C.						

I-V Curve

