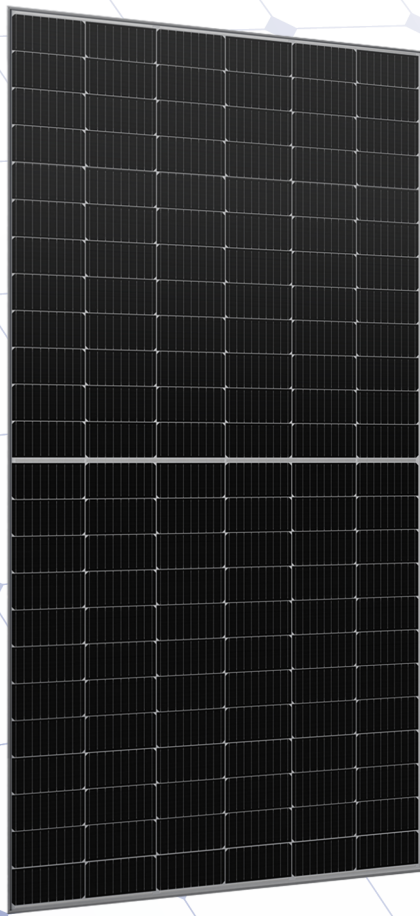




TOPCON Double Glass Bifacial 590~620W

KS(590~620W)-144MBB 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%.



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



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

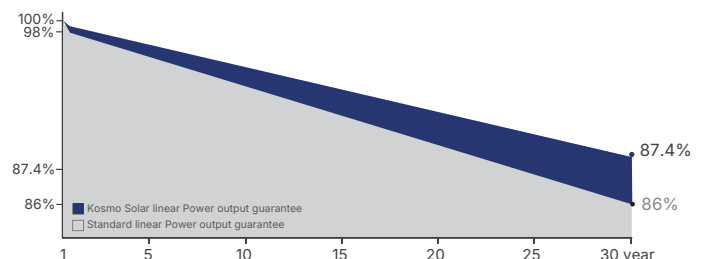
IEC61215 | IEC61730 | IEC 61701 | CE | INMETRO
ISO 9001
2015 Quality Management System
ISO 14001
2015 Environmental Management System
ISO45001
2018 Occupational Health and Safety Management System



INDUSTRY LEADING WARRANTY

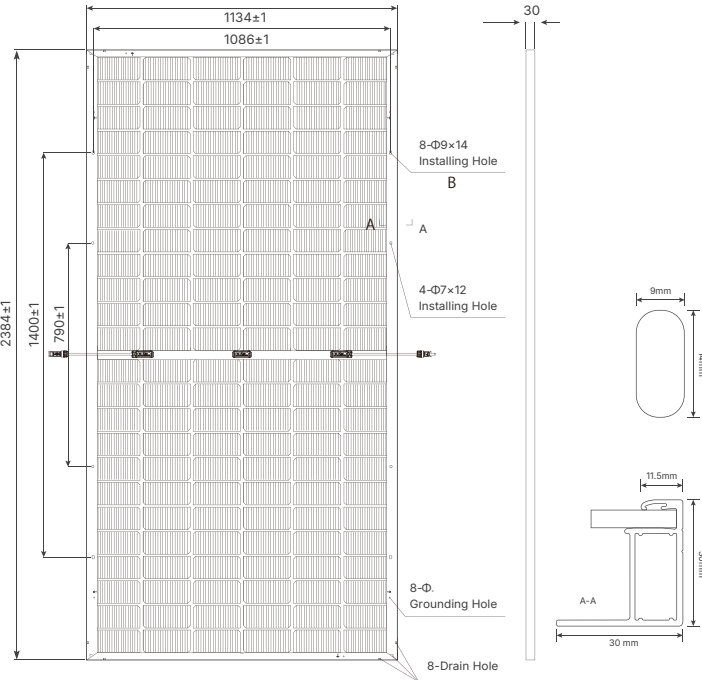
20 years Guarantee on product material and workmanship

30 years Linear power output warranty



KS(590~620W)-144MBB

WEIGHT	NUMBER OF CELLS	MODULE SIZE	PACKING
34kg	144pcs(24×6)	2384×1134×30mm	37pcs/pallet,740pcs/40HQ



MECHANICAL SPECIFICATIONS

Solar Cell Type	182*95.8mm
Glass	Dual glass, 2.0mm semi-templed 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℃
Temperature Coefficient of ISC	0.045%/℃
Temperature Coefficient of VOC	-0.230%/℃
Temperature Coefficient of Pmax	-0.280%/℃
Operational Temperature	-40℃~ +85℃
Maximum System Voltage	1500V DC(IEC)
Maximum Series Fuse Rating	25A

STC — Electrical Characteristics

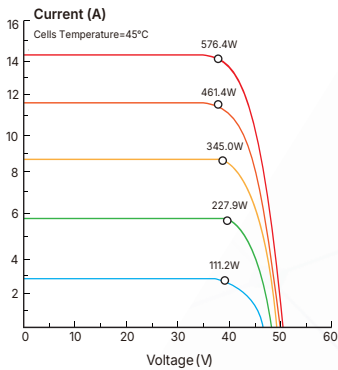
Test conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power -Pmax(W)	600W	456.7W	605W	460.6W	610W	464.4W	615W	468.2W	620W	472.0W
Maximum Power Voltage-Vmp(V)	43.90V	41.72V	44.00V	41.82V	44.11V	41.92V	44.22V	42.03V	44.33V	42.13V
Maximum Power Current-Imp(A)	13.67A	10.95A	13.75A	11.02A	13.83A	11.08A	13.91A	11.14A	13.99A	11.21A
Open Circuit Voltage -Voc(V)	52.34V	49.74V	52.44V	49.84V	52.55V	49.94V	52.66V	50.04V	52.77V	50.15V
Short Circuit Current-Isc(A)	14.53A	11.67A	14.61A	11.74A	14.69A	11.80A	14.77A	11.86A	14.85A	11.92A
Module Efficiency STC-ηm(%)	22.2%		22.4%		22.6%		22.8%		23%	

TC:Irradiance:1000W/m² , Module Temperature:25℃ ,Air Mass:1.5 NOCT:Irradiance:800W/m² , Ambient Temperature:20℃ ,Air Mass:1.5,Wind Speed:1m/s

Bifacial Output-Rearside Power Gain

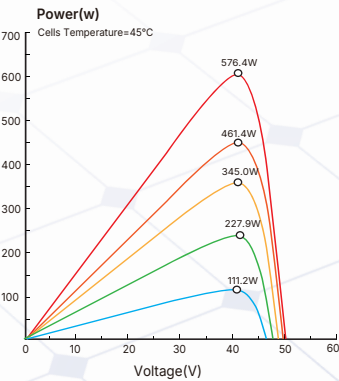
5%	Maximum Power(Pmax)	619.5W	624.75W	630W	635.25W	640.5W	645.75W	651W
	Module Efficiency STC(%)	22.91%	23.11%	23.30%	23.50%	23.69%	23.86%	24.08%
10%	Maximum Power(Pmax)	649W	654.5W	660W	665.5W	671W	676.75W	682W
	Module Efficiency STC(%)	24.01%	24.21%	24.41%	24.62%	24.828%	25.03%	25.23%
15%	Maximum Power(Pmax)	678.5W	684.25W	690W	695.75W	701.5W	707.25W	713W
	Module Efficiency STC(%)	25.10%	25.31%	25.52%	25.73%	25.95%	26.16%	26.37%

I-V Curve



Current-Voltage Curve(610W)

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



Power-Voltage Curve(610W)

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