

N-type TOPCon Mono

500-520W

AS500-520G12R-108 Bifacial

Bifacial Half-Cell PV Module



N-TYPE TOPCON module could increase power generation by 3%+ per watt compared with PERC



HIGHER power output
Bifacial module back-side power increase 5-25%



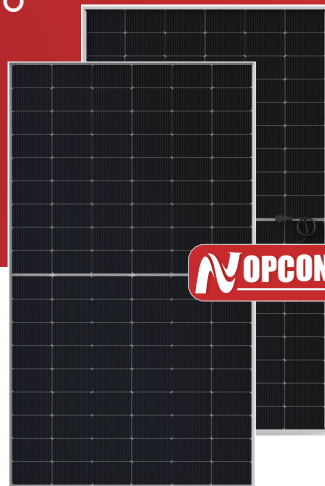
COMPATIBLE with mainstream trackers
effective product for utility power plant



Lower degradation rate, **BETTER** shading tolerance
First-year $\leq 1\%$, 2-30 year $\leq 0.4\%$



LOWER Temp. COEFFICIENT
More power generation under high-temperature



TOPCON

30 Year

Warranty for Substrate
Power Output

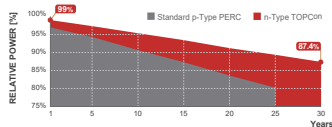
15 Year

Warranty for Materials
and Processing

0.4%

Annual degradation

LINEAR PERFORMANCE WARRANTY



AS500-520G12R-108 Bifacial Half-Cell PV Module

MECHANICAL SPECIFICATION

Cell	N-type TOPCon Mono
No. of cells	108(12x9)
Cable Length	300mm(+/-300mm)(-)
Cable Cross Section Size	4mm ² (IEC)
Junction Box	IP68
Connector	MC4 Compatible
Weight	27.4kg $\pm 3\%$
Cells Type	Mono 182x105mm
Dimension(LxWxT)	1962x22mmx1134x2mmx30x1mm
Packaging	37pcs/pallet ; 814pcs/40HQ(30mm)



Remark: customized frame color and cable length available upon request

ELECTRICAL CHARACTERISTICS

STC:AM1.5 1000W/m² 25°C NOCT:AM1.5 800W/m² 20°C 1m/s Test uncertainty for Pmax $\pm 3\%$

Module Type	AS500G12R-108		AS505G12R-108		AS510G12R-108		AS515G12R-108		AS520G12R-108	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power(Pmax/W)	500	379	505	382	510	386	515	390	520	394
Open Circuit Voltage(Voc/V)	39.83	37.68	40.08	37.92	40.32	38.14	40.58	38.39	40.81	38.61
Short Circuit Current(Isc/A)	15.98	12.74	16.05	12.81	16.14	12.87	16.22	12.93	16.30	12.99
Voltage at Maximum Power(Vmp/V)	33.11	31.32	33.28	31.48	33.44	31.63	33.62	31.80	33.79	31.97
Current at Maximum Power(Imp/A)	15.10	12.08	15.17	12.14	15.25	12.20	15.32	12.26	15.39	12.31
Module Efficiency(%)	22.47		22.70		22.92		23.15		23.37	

ELECTRICAL CHARACTERISTICS

OPERATING PARAMETERS

5%	Maximum power (W)	525.00	530.25	535.50	540.75	546.00	Maximum System Voltage	1500VDC
	Module efficiency STC (%)	23.59%	23.84%	24.07%	24.31%	24.54%	Operating Temperature	-40°C ~ +85°C
15%	Maximum power (Total)	575.00	580.75	586.50	592.25	598.00	Maximum Series Fuse	30A
	Module efficiency STC (%)	25.84%	26.11%	26.36%	26.62%	26.88%	Maximum StaticLoad,Front	5400Pa(112lb/ft ²)
25%	Maximum power (Total)	625.00	631.25	637.50	643.75	650.00	Maximum StaticLoad,Back	2400Pa(50lb/ft ²)
	Module efficiency STC (%)	28.09%	28.38%	28.65%	28.94%	29.21%	Safety Class	Class II

OPERATING PARAMETERS

Nominal Operating Cell Temperature(NOCT)	45 ± 2 °C
Temperature Coefficient of Isc	+0.045%/°C
Temperature Coefficient of Voc	-0.025%/°C
Temperature Coefficient of Pmax	-0.29%/°C

*Specs are subject to change without further notification

I-V CURVE(AS500-520G12R-108)

