

SYMN108TBDB

N-TYPE DOUBLE GLASS BIFACIAL MODULE



440W

Maximum Power Output

22.53%

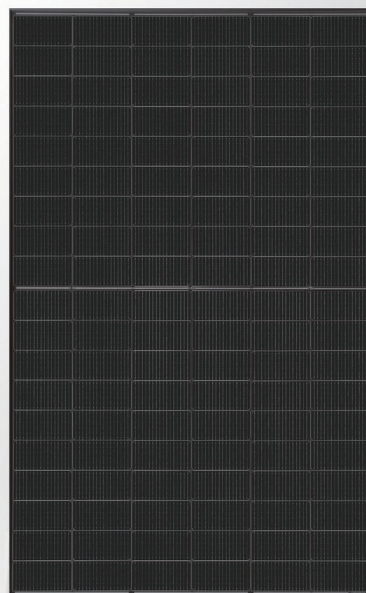
Maximum Module Efficiency

80%

Bifaciality

0~5W

Pmax Tolerance



Lower LCOE

N-TOPCon bifacial technology: lower degradation, higher bifaciality, ≥30 year service life and lower BOS



Lower Temperature Coefficient

lower temperature coefficient and higher power generation under high-temperature conditions.



PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



ZERO LID (Light Induced Degradation)

N-type solar cell has no LID naturally which can increase power generation.



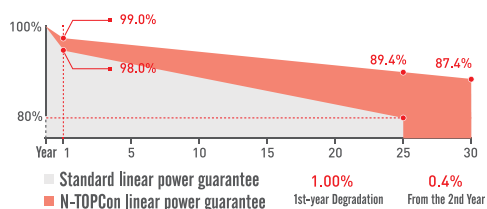
Better Low Light Performance

Higher power output even under low-light environments like on cloudy or foggy days.



Mechanical Load Enhanced

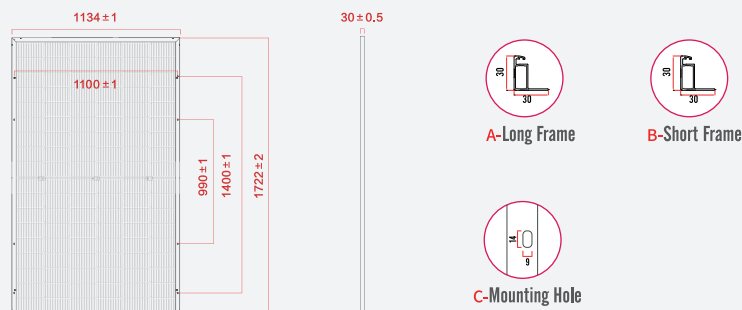
Certified to withstand: 5400 Pa front side max static test load and 2400 Pa rear side max static test load.



12 Years Product Material & Workmanship
30 Years Linear Performance Warranty

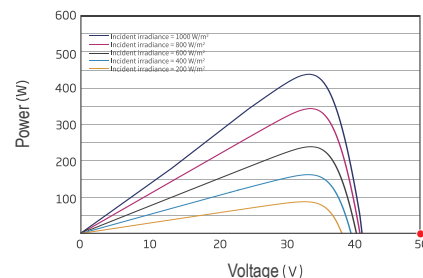
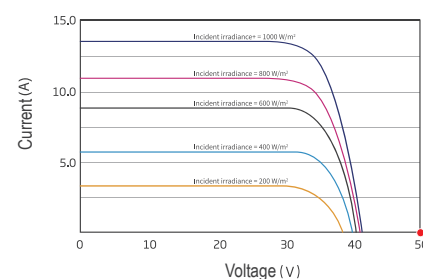
TÜVRheinland®
Precisely Right.





Engineering Drawing(unit: mm)

Characteristic Curves (SYMN108TBDB-440W)



MECHANICAL PROPERTIES

Cell Size	182mm*183mm series	Front Glass/Back Glass	Heat-strengthened Glass 1.6mm/1.6mm
Number of Cells	108 (2*54)	Frame	Anodized Aluminium Alloy
Module Dimension	1722mm×1134mm×30mm	Junction Box	IP68
Weight	21kg	Connector	MC4 Compatible Connector
Length of Cable	TUV 1×4.0mm² (+): 300mm,(-):200mm(Or Customized Length)		

SPECIFICATIONS

Testing Condition	STC*					
	Front Side					
Maximum Power (Pmax/W)	415	420	425	430	435	440
Peak Power Voltage (Vmp/V)	32.72	32.92	33.12	33.32	33.52	33.72
Peak Power Current (Imp/A)	12.69	12.76	12.83	12.90	12.97	13.04
Open Circuit Voltage (Voc/V)	38.74	38.94	39.14	39.34	39.54	39.74
Short Circuit Current (Isc/A)	13.37	13.43	13.49	13.55	13.61	13.67
Module Efficiency(%)	21.26%	21.51%	21.76%	22.01%	22.26%	22.52%

The above data is for reference only, the actual data is subject to the actual test

*STC: Irradiance 1000 W/m², Cell Temperature 25°C, AM1.5

BIFACIAL OUTPUT-REAR SIDE POWER GAIN

5%	Maximum Power (Pmax)	436	441	446	451	456	462
	Module Efficiency STC (%)	22.33%	22.59%	22.85%	23.11%	23.38%	23.64%
15%	Maximum Power (Pmax)	477	483	489	494	500	506
	Module Efficiency STC (%)	24.45%	24.74%	25.02%	25.31%	25.60%	25.90%
25%	Maximum Power (Pmax)	519	525	531	537	543	550
	Module Efficiency STC (%)	26.58%	26.89%	27.20%	27.51%	27.83%	28.15%

OPERATING PROPERTIES

OPERATING PROPERTIES		TEMPERATURE COEFFICIENT		PACKAGING CONFIGURATION	
Operating Temperature (°C)	-40°C~+85°C	Temperature Coefficient of Pmax	-0.29%/°C	Packing Type	40'HQ Container
Maximum System Voltage (V)	DC1500V (IEC)	Temperature Coefficient of Voc	-0.25%/°C	Pcs/Pallet	37 pcs
Maximum Series Fuse Rating (A)	30	Temperature Coefficient of Isc	+0.045%/°C	Pallet/Container	26 pallets
Pmax Tolerance (W)	0~+5W	Nominal Operating Cell Temperature (NOCT)	45±2°C	Pcs/Container	962 pcs
Bifaciality	80±5%				

*Bifaciality=Pmaxrear (STC)/Pmaxfront (STC)

