

SYMN108TBDB

N-TYPE DOUBLE GLASS BIFACIAL MODULE

445W

Maximum Power Output

22.53%

Maximum Module Efficiency

±3%

Power 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.



Mechanical Load Enhanced

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



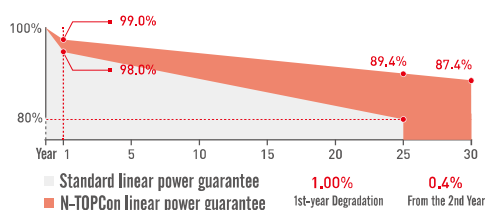
ZERO LID (Light Induced Degradation)

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.



12 Years Product Material & Workmanship

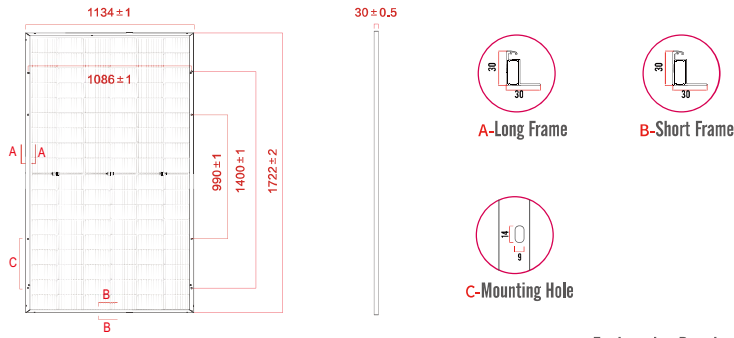
30 Years Linear Performance Warranty

Limited Power Warranty only covers the front side of Bifacial module

TÜVRheinland®
Precisely Right.

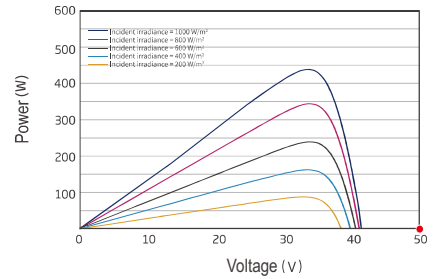
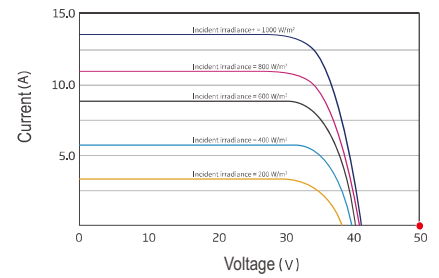
The TÜV certificate holder is Sany Silicon Energy (Zhuzhou) Co., Ltd.
Made in China





Engineering Drawing(unit: mm)

Characteristic Curves (SYMN108TBDB445)



MECHANICAL PROPERTIES			
Cell Size	182.2mm*91.875mm	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	QC4.10-cds from QC Solar PV-XT101.2 from Suzhou Xtong
Length of Cable	TUV 1×4.0mm² (+): 410mm- (-):290mm (Or Customized Length)		
Fire rating(According to UL 790)	Class A		

SPECIFICATIONS	STC*				
Testing Condition Front Side	SYMN108TBDB425	SYMN108TBDB430	SYMN108TBDB435	SYMN108TBDB440	SYMN108TBDB445
(Pmax) (W) Peak Power(Pmax)(W)	425	430	435	440	445
MPP Voltage(Vmp)(V)	33.12	33.32	33.52	33.72	33.92
MPP Current(Imp)(A)	12.83	12.90	12.97	13.04	13.11
Open Circuit Voltage(Voc)(V)	39.14	39.34	39.54	39.74	39.94
Short Circuit Current(Isc)(A)	13.49	13.55	13.61	13.67	13.73
Module Efficiency(%)	21.76%	22.01%	22.26%	22.52%	22.77%

The above data is for reference only, the actual data is subject to the actual test, the power test tolerance ±3%

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

Bifacial output-rearside power gain (10%)					
Maximum Power - Pmax [Wp]	468	473	479	484	490
Maximum Power Voltage - Vmp [V]	33.12	33.32	33.52	33.72	33.92
Maximum Power Current - Imp [A]	14.11	14.19	14.27	14.34	14.42
Open-circuit Voltage - Voc [V]	39.14	39.34	39.54	39.74	39.94
Short-circuit Current - Isc [A]	14.84	14.91	14.97	15.04	15.10

The bifacial gain is the additional gain from the back side of PV. It depends on the mounting method, orientation, tilt angle of the PV module and the albedo of the ground.

Specifications (BNPI)					
Maximum Power - Pmax [Wp]	468	473	479	484	490
Open-circuit Voltage - Voc [V]	39.14	39.34	39.54	39.74	39.94
Short-circuit Current - Isc [A]	14.84	14.91	14.97	15.04	15.10

BNPI: Irradiance: front 1000W/ m², rear 135W/ m², Cell Temperature 25 °C, AM=1.5

The above data is for reference only, the actual data is subject to the actual test, the power test tolerance ±3%

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
Power Sorting (W)	0~+4.99 W	Nominal Operating Cell Temperature (NOCT)	45 ± 2°C	Pcs/Container	962 pcs
Bifaciality	φPmax= 80%±5%, φIsc= 80%±5%, φVoc= 99%±1%		Module(T98)max: 70 °C		

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

