

SYMN156R02TBD

N-TYPE DOUBLE GLASS BIFACIAL MODULE

680w

Maximum Power Output

23.14%

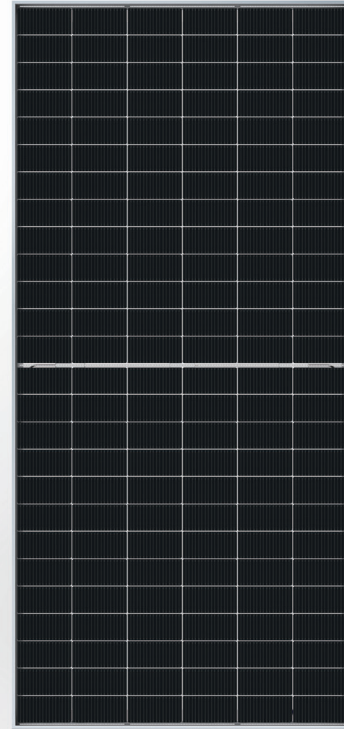
Maximum Module Efficiency

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.



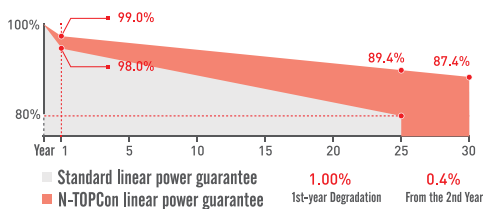
Better Low Light Performance

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



Mechanical Load Enhanced

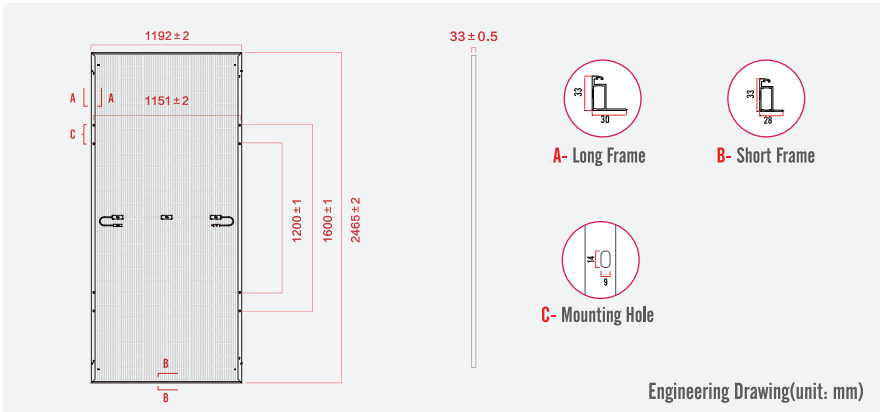
Certified to withstand: 5400 Pa front side max static test load and 2400 Pa rear side max static test load.



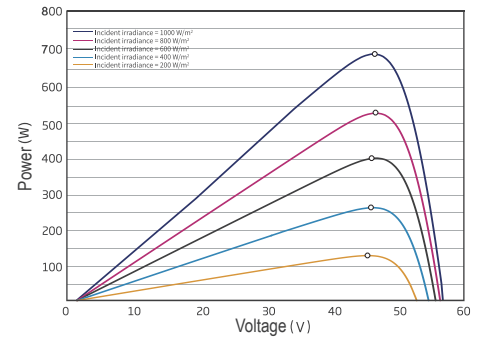
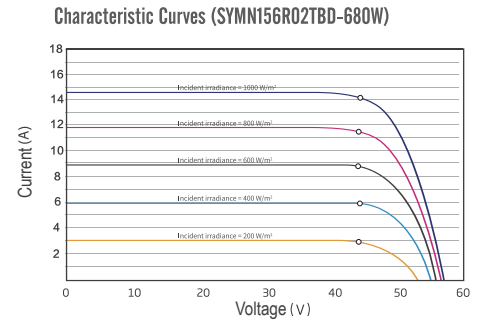
12 Years Product Material & Workmanship
30 Years Linear Performance Warranty

TÜVRheinland®
Precisely Right.





MECHANICAL PROPERTIES			
Cell Size	191mm*182mm series	Front Glass/Back Glass	Heat-strengthened Glass 2mm/2mm
Number of Cells	156 (2*78)	Frame	Anodized Aluminium Alloy
Module Dimension	2465mm×1192mm×33mm	Junction Box	IP68
Weight	36.5kg	Connector	MC4 Compatible Connector
Length of Cable	TUV 1×4.0mm ² (+): 410mm· (-):290mm (Or Customized Length)		



SPECIFICATIONS	STC*						
	Front Side						
Testing Condition							
(Pmax) (W) Peak Power(Pmax)(W)	655	660	665	670	675	680	
MPP Voltage(Vmp)(V)	47.95	48.12	48.29	48.45	48.62	48.78	
MPP Current(Impp)(A)	13.66	13.72	13.78	13.83	13.89	13.94	
Open Circuit Voltage(Voc)(V)	56.91	57.05	57.19	57.33	57.47	57.61	
Short Circuit Current(Isc)(A)	14.27	14.33	14.39	14.45	14.51	14.57	
Module Efficiency(%)	22.29%	22.47%	22.64%	22.81%	22.98%	23.15%	

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)	688	693	698	704	709	714
	Module Efficiency STC (%)	23.41%	23.59%	23.77%	23.95%	24.13%	24.31%
15%	Maximum Power (Pmax)	753	759	765	771	776	782
	Module Efficiency STC (%)	25.64%	25.84%	26.03%	26.23%	26.43%	26.62%
25%	Maximum Power (Pmax)	819	825	831	838	844	850
	Module Efficiency STC (%)	27.87%	28.09%	28.30%	28.51%	28.72%	28.94%

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	33 pcs
Maximum Series Fuse Rating (A)	30	Temperature Coefficient of Isc	+0.045%/°C	Pallet/Container	18 pallets
Pmax Tolerance (W)	0~+5W	Nominal Operating Cell Temperature (NOCT)	45±2°C	Pcs/Container	594 pcs
Bifaciality	80±5%				

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

