

SYMN156TBD

N-TYPE DOUBLE GLASS BIFACIAL MODULE

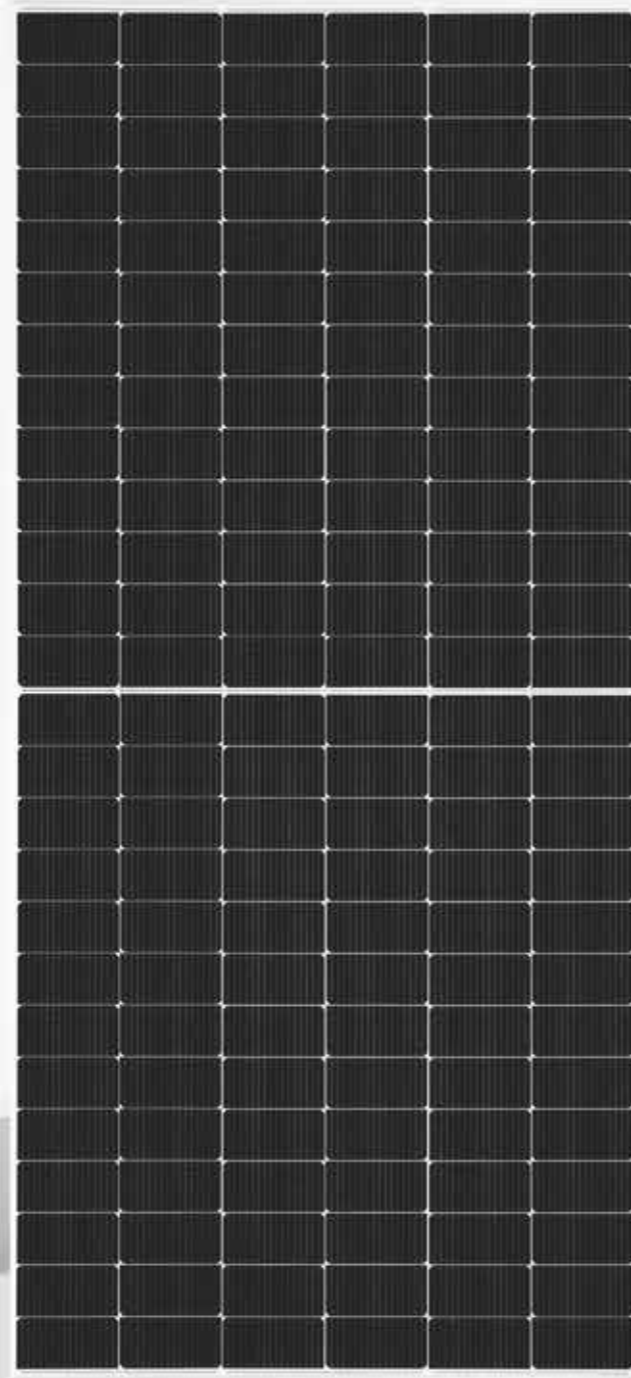


635_W
Maximum Power Output

22.72%
Maximum Module Efficiency

80%
Bifaciality

0~+3%
Power Tolerance



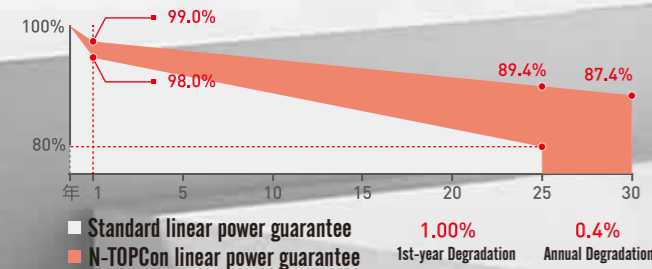
Lower LCOE
N-TOPCon bifacial technology: lower degradation, higher bifaciality, >= 30 years life and lower BOS cost.

Better Temperature Coefficient
Lower temperature coefficient and higher power generation under high-temperature conditions.

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.

Enhanced Mechanical Load
Heavy snow load up to 5400Pa, wind load up to 2400Pa.



12 Years Product Material & Workmanship 30 Years Linear Performance Warranty

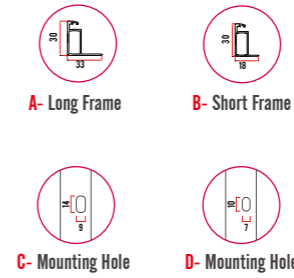
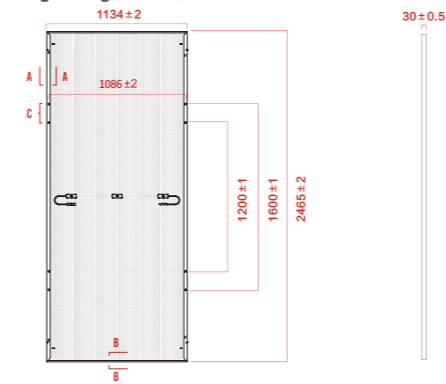


The TUV certificate holder is Sany Silicon Energy (Zhuzhou) Co., Ltd. Made in China

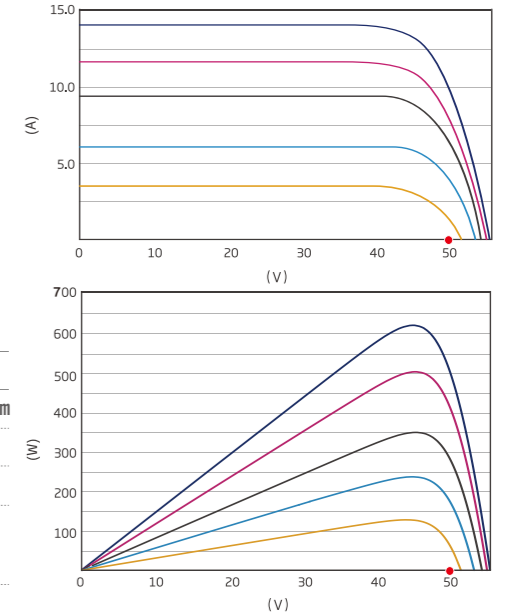
Version: SYMN202311 Specifications included in this manual are subject to change without notice.

SYMN156TBD

Engineering Drawing (unit: mm)



Characteristic Curves (SYMN156TBD-635W)



Mechanical Properties

Cell Size	182.00mm*91.00mm	Front Glass/Back Glass	Heat-strengthened glass 2mm/2mm
Number of Cells	156 (2*78)	Frame	Anodized Aluminium Alloy
Module Dimension	2465mm*1134mm*30mm (97.05in*44.65in*1.18in)	Junction Box	IP68
Weight	34.6kg(76.28 lbs)	Connector	QC4.10-cds from QC Solar PV-XT101.2 from Suzhou XTong
Length of Cable	TUV 1×4.0mm ² (+): 410mm (-): 290mm (Or Customized Length)		
Fire rating (According to UL 790)	Class A		

SPECIFICATIONS	STC*					NOCT*				
	Front Side					Front Side				
Testing Condition										
(Pmax) (W) Peak Power(Pmax)(W)	615	620	625	630	635	462	466	470	474	477
MPP Voltage(Vmp)(V)	46.80	46.97	47.14	47.30	47.47	43.42	43.53	43.64	43.74	43.85
MPP Current(Imp)(A)	13.14	13.20	13.26	13.32	13.38	10.65	10.71	10.77	10.82	10.88
Open Circuit Voltage(Voc)(V)	55.53	55.67	55.81	55.95	56.09	52.75	52.88	53.02	53.14	53.28
Short Circuit Current(Isc)(A)	13.72	13.78	13.84	13.90	13.96	11.07	11.12	11.17	11.22	11.27
Module Efficiency(%)	22.00%	22.18%	22.36%	22.54%	22.72%	*STC: Irradiance 1000 W/m ² , Cell Temperature 25°C, AM1.5 *NOCT: Irradiance 800 W/m ² , Ambient Temperature 20°C, Wind Speed 1 m/s				

BIFACIAL OUTPUT-REAR SIDE POWER GAIN

		646	651	656	662	667
5%	Maximum Power (Pmax)					
	Module Efficiency STC (%)	23.10%	23.29%	23.48%	23.67%	23.85%
15%	Maximum Power (Pmax)	707	713	719	725	730
	Module Efficiency STC (%)	25.30%	25.51%	25.72%	25.93%	26.12%
25%	Maximum Power (Pmax)	769	775	781	788	794
	Module Efficiency STC (%)	27.50%	27.72%	27.95%	28.18%	28.40%

Operating Properties	Temperature Coefficient	Packaging Configuration
Operating Temperature (C)	-40°C~+85°C	Temperature Coefficient of Pmax
Maximum System Voltage (V)	1500V (IEC)	Temperature Coefficient of Voc
Maximum Series Fuse Rating (A)	30A	Temperature Coefficient of Isc
Power Sorting	0~+4.99W	Nominal Operating Cell Temperature (NOCT)
Bifaciality*	80±5%	

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

Temperature Coefficient	Packaging Configuration
Temperature Coefficient of Pmax	-0.30%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	+0.046%/°C
Nominal Operating Cell Temperature (NOCT)	45±2°C

Packaging Configuration	
Packing Type	40'HQ Container
Pcs/Pallet	36 pcs
Pallet/Container	Pa16 trayslet/container
Pcs/Container	576 pcs