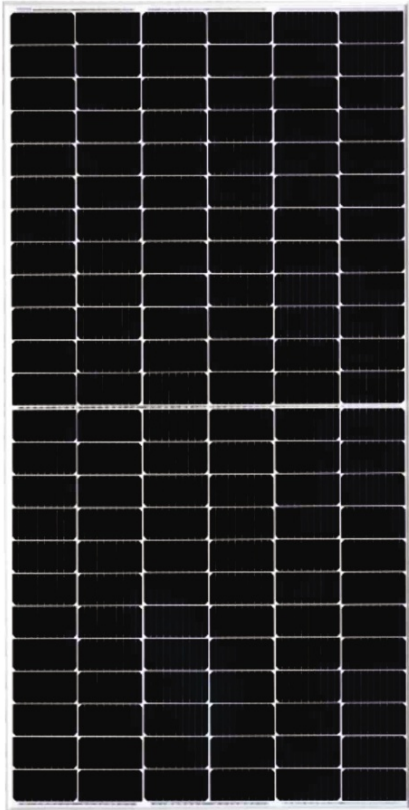


BIFACIAL - N TOPCon












144 CELLS

570Wp - 580Wp

SGE XXX-144 TGG (XXX : 570-580Wp)



Key Features

- 
N-Type with Very Low LID
 Resulting in higher power generation
- 
Positive Tolerance
 Power output is guaranteed with a positive tolerance of 0~+4.99Wp
- 
Excellent performance in low light
 Superior output in low irradiance Increased power production even in low-light environments.
- 
Better Temperature coefficient (-0.30%/°C)
 Higher power generation under higher ambient temperature conditions
- 
Higher Module Efficiency
 Module Eff. Up-to 22.5%
- 
10-30% more power generation
 When compared with the P-type module
- 
Advanced technology
 MBB-Multi Bus-bar (10BB/16BB)
 Half-cut N-TOPCon cell
- 
Extended Wind and snow loads
 Wind Load (2400 Pascal) and
 Snow Load (5400 Pascal)
- 
Withstanding a harsh environment
 Reliable quality leads to better sustainability, even in harsh environments such as deserts, Farms, coastal and the areas with ammonia exposure
- 
Rigorous testing criteria
 100% EL inspection, ensuring defect-free modules
- 
Bifaciality factor 80 ± 5%
 The ratio of the rear efficiency in relation to the front efficiency is subject to the same irradiance.

Certifications & standards

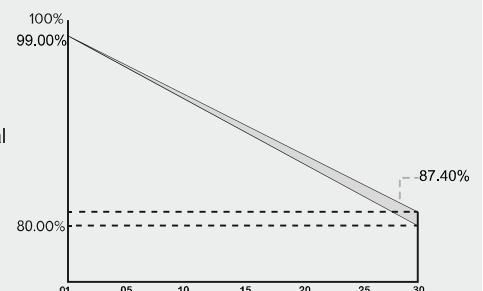
IEC 61215, IEC 61730,
 IEC 61701, UL 61215, UL 61730,
 CEC, IEC 61853-1 lam, IEC
 62804, IEC 62716, IEC 61701,
 IEC 60068-2-68, IEC 61853, IS
 14286

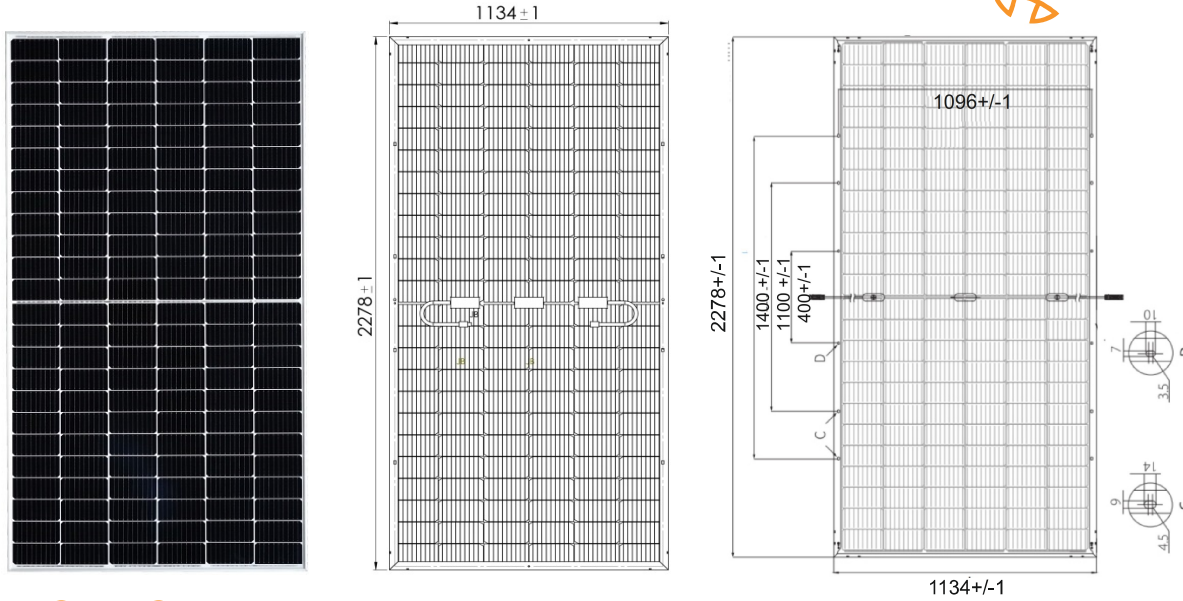
Certifications



Linear Performance Warranty

Product Warranty 12 Years : Material & Processing
 First year Degradation up-to -1.0%
 Linear power output 30 Years: 2-30
 Annual Degradation - 0.40%





ELECTRICAL DATA PERFORMANCE

Conditions	Unit	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power Pmax(0 ~+ 4.99)Wp	Wp	570	429	575	432	580	436
Maximum voltage, Vmpp	V	42.65	39.69	42.82	39.89	42.94	39.98
Maximum current, Impp	A	13.37	10.80	13.43	10.84	13.51	10.91
Open circuit voltage, Voc	V	51.04	48.39	51.22	48.56	51.41	48.74
Short circuit current, Isc	A	14.04	11.34	14.10	11.38	14.19	11.46
Fill Factor	%	80%	78%	80%	78%	80%	78%
Module Efficiency(%)		22.07		22.26		22.45	
Operating Temperature(°C)	-40°C~+85°C	Temperature coefficients of Isc				+ 0.046%/°C	
Maximum system voltage	1500 VDC	Nominal operating cell temperature (NOCT)				45 ± 2 °C	
Maximum series fuse rating	30A	Fire Safety				Type-I	
Power tolerance	0~+3%	Protection Class II				Class-A	
Temperature coefficients of Pmax	-0.30%/°C	Safety Class				Class II	
Temperature coefficients of Voc	-0.26%/°C						

STC: Irradiance 1000W/m² module temperature 25°C, AM =1.5; NOCT: Irradiance 800W/m², ambient temperature 20°C, AM=1.5, Wind Speed 1m/s. Average power reduction of 4.5% at 200W/m² as per IEC 60904- 1. Measuring Uncertainty +/-3% Power gain from the rear side depends on the ground reflectance (Albedo) & Bifaciality factor.

Bifacial Gain	Measurement	Unit	570	575	580
5%	Max. Power (Pmax)	Wp	599	604	609
	Module Efficiency	%	23.17	23.37	23.57
10%	Max. Power	Wp	627	633	638
	Module Efficiency	%	24.27	24.48	24.70
15%	Max. Power	Wp	656	661	667
	Module Efficiency	%	25.37	25.60	25.82

MODULE MECHANICAL DATA

SPECIFICATION	DATA
Cell Type	N-TOPCon, 144 Cells
Dimensions	2278x1134x30 mm
Weight	32 Kgs
Front Cover	2.0 mm
Rear Cover	2.0 mm
Frame Material	"Silver Anodized Aluminum Profile, (Black frame on request)"
J-Box	IP68, 3 diodes
Cable	350 mm, 4 mm ²
Connectors	MC4 Compatible connector IEC/UL certified
Standard Packaging	36 Pieces/Pallet
Module Pieces per Container	720 pieces (40'HQ)

I-V Characteristics at different irradiances

