












BIFACIAL - N TOPCon 144 CELLS (DUAL GLASS)

560Wp - 590Wp
SGE XXX-144 TGG (XXX : 560-590Wp)



Key Features

-  **N-Type with Very Low LID**
Resulting in higher power generation
-  **Positive Tolerance**
Power output with a positive tolerance.
-  **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 Efficiency Up-to 22.84%
-  **10-30% more power generation**
When compared with the P-type module
-  **Advanced technology**
MBB-Multi Bus-bar (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% I-V Measurement, HiPOT test and EL inspection, ensures 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

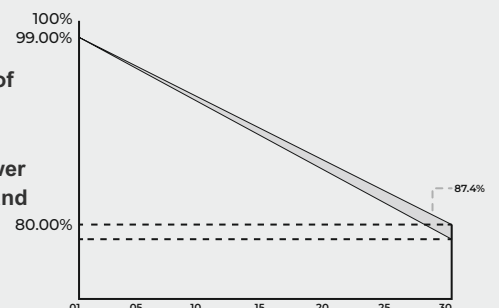
IEC 61215, IEC 61730,
IEC 61701, UL 61215, UL 61730,
IEC 61853-1&2, IEC 62804, IEC 62716,
IS 14286, IEC 60068-2-68

Certifications

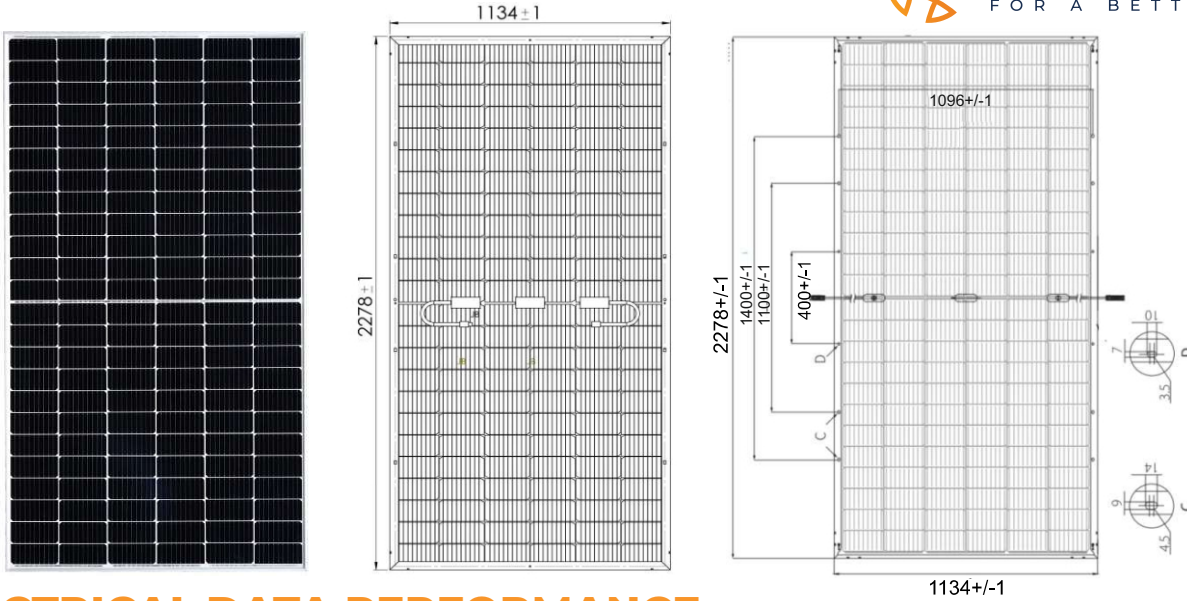


Product Warranty 12 years of product warranty**

Performance Warranty Power degradation <1.0% in first year and <0.40% / year in 2 to 30 years**



Performance Warranty** Please read Saatvik solar warranty documents thoroughly.



ELECTRICAL DATA PERFORMANCE

Module Type		560Wp		565Wp		570Wp		575Wp		580Wp		585Wp		590Wp	
Conditions	Unit	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power, Pmax (Wp)	W	560	421	565	425	570	429	575	432	580	436	585	440	590	444
Voltage at Maximum power, Vmp	V	42.41	40.20	42.53	40.32	42.65	39.69	42.82	39.89	42.94	39.98	43.06	40.82	43.18	40.93
Current at maximum power, Imp	A	13.22	10.47	13.3	10.54	13.37	10.80	13.43	10.84	13.51	10.91	13.59	10.78	13.67	10.84
Open circuit voltage, Voc	V	50.68	48.04	50.86	48.22	51.04	48.39	51.22	48.56	51.41	48.74	51.59	48.91	51.77	49.08
Short circuit current, Isc	A	13.88	11.21	13.96	11.27	14.04	11.34	14.10	11.38	14.19	11.46	14.26	11.51	14.33	11.57
Module Efficiency (%)		21.68%		21.87%		22.07%		22.26%		22.45%		22.65%		22.84%	
Operating Temperature (°C)		-40°C~+85°C				Temperature coefficient of Isc (α)				+0.046%/°C					
Maximum system voltage		1500 VDC				Nominal operating cell temperature (NOCT)				45±2°C					
Maximum series fuse rating		30A				Fire Safety				Class-C					
Power tolerance (Wp)		0~+3%				Protection Class II				Class-A					
Temperature coefficient of Pmax (β)		-0.30%/°C				Safety Class				Class-II					
Temperature coefficient of Voc (β)		-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. Except Pmax, all other parameters have tolerance of +/-5%, measurement uncertainty +/-3%.

BI-FACIAL OUTPUT - BACKSIDE POWER GAIN*

Bifacial Gain	Measurement	Unit	560Wp	565Wp	570Wp	575Wp	580Wp	585Wp	590Wp
5%	Peak Power (Pmax)	W	588	593	599	604	609	614	620
	Module Efficiency	%	22.76	22.97	23.17	23.37	23.57	23.78	23.98
10%	Peak Power (Pmax)	W	616	622	627	633	638	644	649
	Module Efficiency	%	23.85	24.06	24.27	24.48	24.70	24.91	25.12
15%	Peak Power (Pmax)	W	644	650	656	661	667	673	679
	Module Efficiency	%	24.93	25.15	25.37	25.60	25.82	26.04	26.27

*Power gain from the rear side depends on the ground reflectance (Albedo) & Bifaciality factor.

MODULE MECHANICAL DATA

SPECIFICATION DATA

Cell Type	N-TOPCon, 144 Cells
Dimensions	2278x1134x30 mm
Weight	32 Kgs
Front Cover	2.00 mm
Rear Cover	2.00 mm
Frame Material	Silver Anodized Aluminum Profile
J-Box	IP68, 3 diodes
Cable	350 mm, 4 mm ²
Connectors	Mc4 Compatible Connector
Standard Packaging	36 Pieces/Pallet
Module Pieces per Container	720 pieces (40*HQ)

Note: · The specifications included in this datasheet are subject to change without notice.
 · The electrical data given here is for reference purpose only.
 · Please confirm your exact requirements with the sales representative while placing your order.
 · Refer installation Manual instructions & Saatvik warranty statement for terms & conditions.

Few Certifications are under process

I-V Characteristics At Different Irradiations

