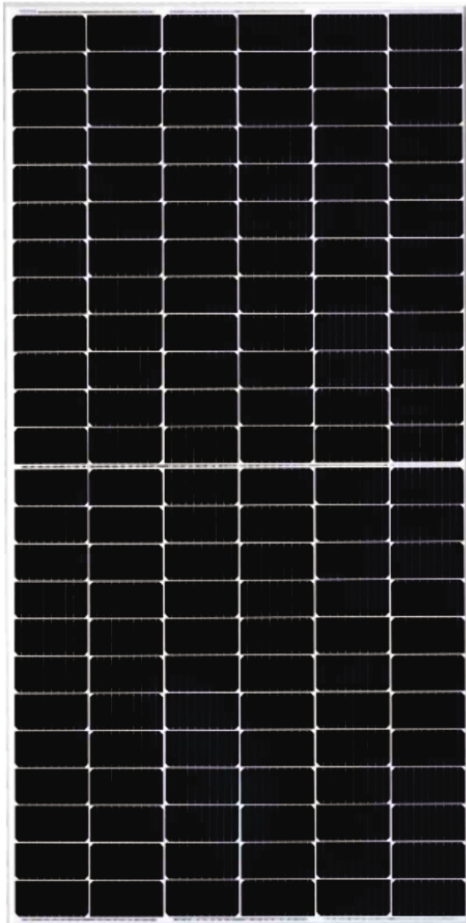













## BIFACIAL - N TOPCon 144 CELLS (DUAL GLASS)

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% IV Measurement, HiPOT test and EL & visual 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

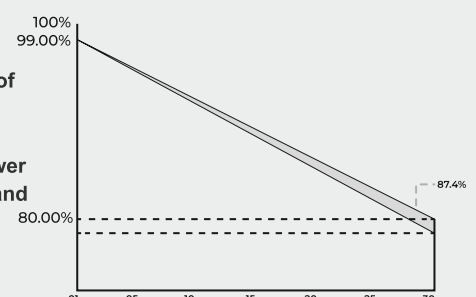
### Certifications

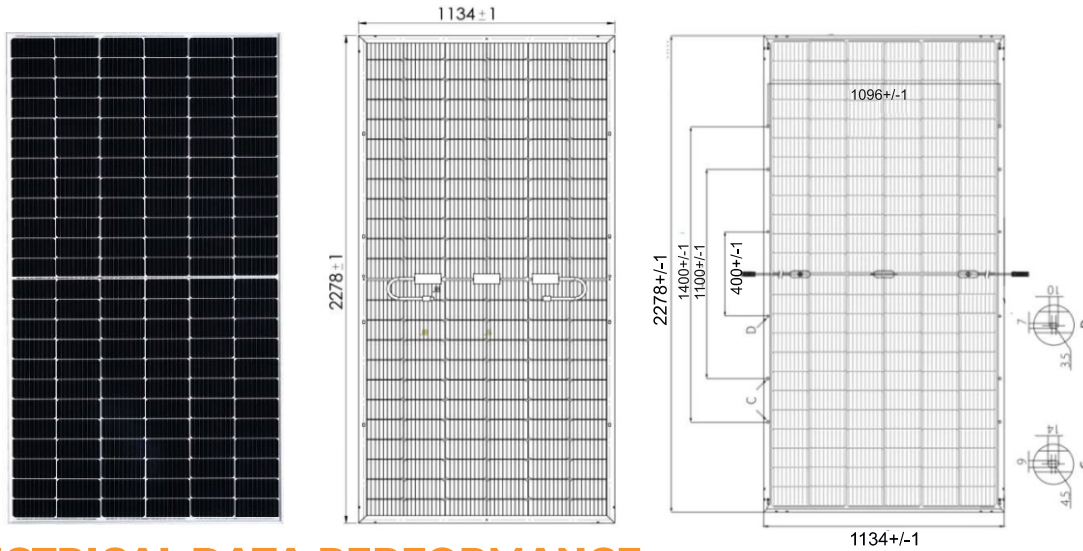


**Performance Warranty\*\*** Please read Saatvik solar warranty documents thoroughly.

**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





## 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 mm²                    |
| 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

