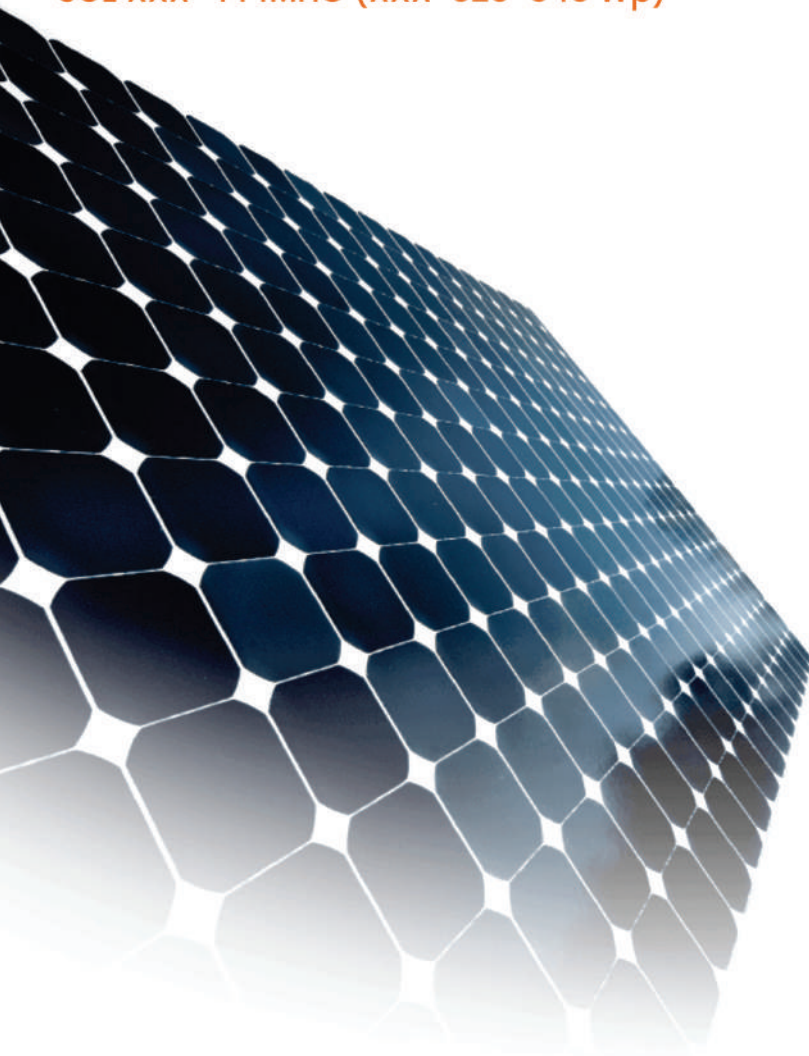




## Bifacial - MONO PERC - 144 Cells

525 Wp | 530 Wp | 535 Wp | 540 Wp | 545 Wp  
SGE XXX-144MHC (XXX-525-545 Wp)



## Key Features

- 
**High Module Conversion Efficiency**  
Module efficiency up to 21.0 % achieved through advanced cell technology and manufacturing process.
- 
**Advanced Technology**  
MBB- Multi Busbar (10BB) / Halfcut MONOPERC cells / Ga Doped Wafers
- 
**Positive Tolerance Cell Output**  
Guaranteed 0~+4.99 Wp positive tolerance to ensure power output
- 
**Excellent Weak Light Performance**  
Advanced glass and surface texturing allow for excellent performance in low-light environment.
- 
**Extended Wind and Snow load Tests**  
Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).
- 
**Excellent PID Resistance**  
Excellent Anti-PID performance guarantee limited power degradation and certified for up-to 288 Hrs.
- 
**Withstanding Harsh Environment**  
Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline, ammonia.
- 
**Rigorous Testing Criteria**  
100% EL inspection ensuring defect-free modules.
- 
**Current Sorting**  
To minimize the current mismatch losses to maximize system power output.
- 
**Bifaciality Factor  $70 \pm 5\%$**   
The ratio of rear efficiency in relation to the front efficiency subject to the same irradiance

## Linear Performance Warranty

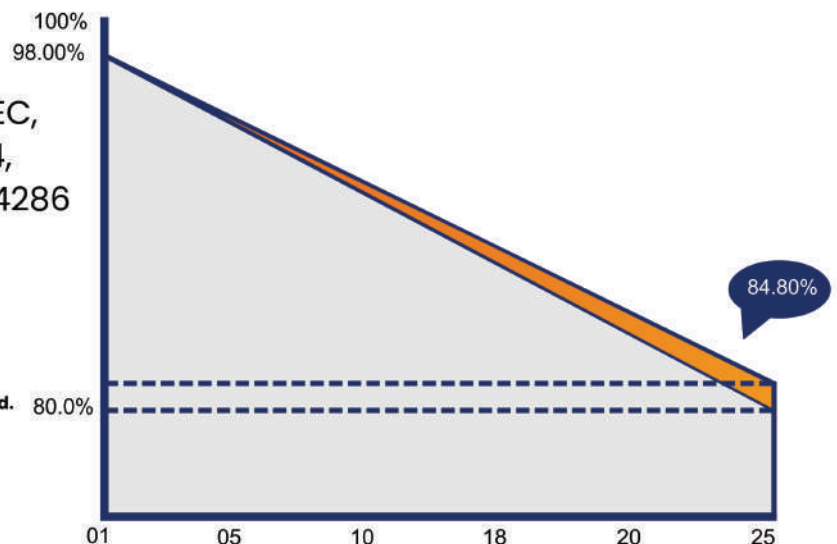
Product Warranty 12 Years: Material & Processing.  
First year Degradation Upto -2%  
Linear Power output 25 : 2-25 Annual degradation -0.55%

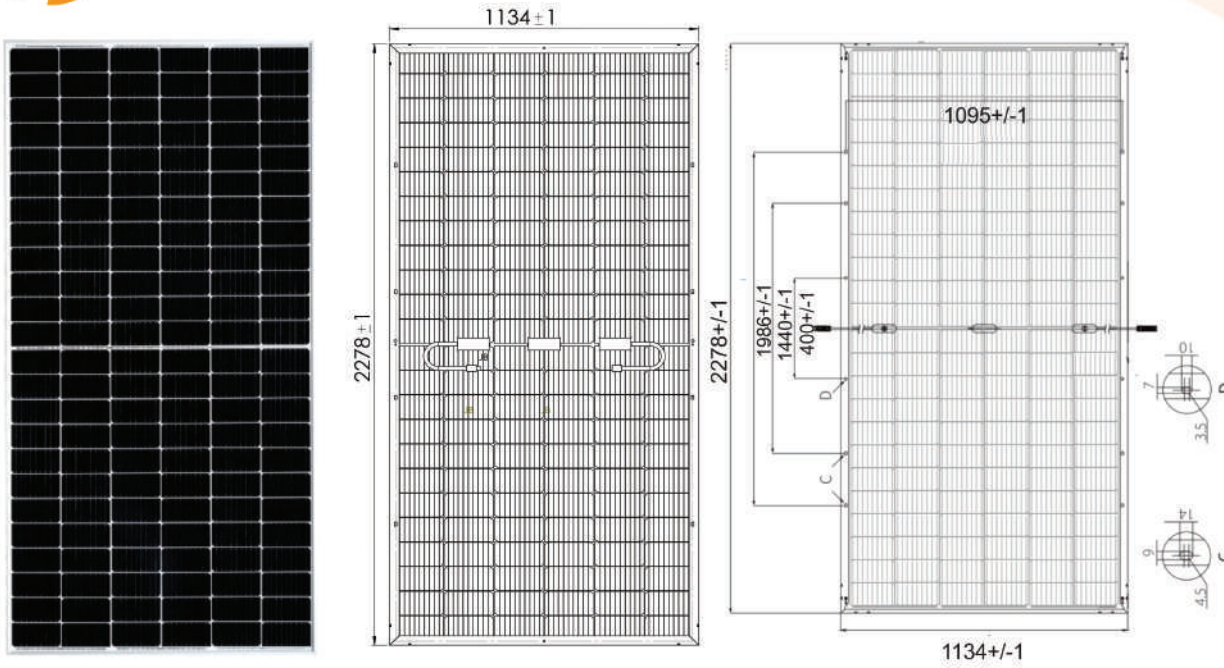
## Certifications and standards

IEC 61215, IEC 61730, IEC 61701, UL 61730 \*CEC,  
\*CEC-Aus, IEC 62716, IEC 62759, IEC 62804,  
IEC 62782, IEC 60068-2-68, IEC 61853, IS 14286



\*Certification are under progress





## Electrical Data Performance

| Conditions                       | Unit | STC          | NOCT  | STC                                       | NOCT   | STC          | NOCT   | STC          | NOCT  | STC          | NOCT  |
|----------------------------------|------|--------------|-------|---|--------|--------------|--------|--------------|-------|--------------|-------|
| Peak Power Pmax(0 ~+ 4.99)       | Wp   | 525          | 393.2 | 530                                       | 397.5  | 535          | 401.3  | 540          | 405.0 | 545          | 408.8 |
| Maximum voltage                  | Vmpp | 41.34        | 38.29 | 41.5                                      | 38.48  | 41.65        | 38.68  | 41.8         | 38.79 | 42.08        | 38.8  |
| Maximum current                  | Impp | 12.71        | 10.27 | 12.78                                     | 10.33  | 12.86        | 10.39  | 12.94        | 10.46 | 13.03        | 10.46 |
| Open circuit voltage,            | Voc  | 49.60        | 45.94 | 49.80                                     | 46.176 | 49.98        | 46.416 | 50.16        | 46.54 | 50.49        | 46.56 |
| Short circuit current,           | Isc  | 13.35        | 10.78 | 13.42                                     | 10.85  | 13.50        | 10.91  | 13.59        | 10.98 | 13.66        | 11.03 |
| <b>Module Efficiency(%)</b>      |      | <b>20.34</b> |       | <b>20.54</b>                              |        | <b>20.70</b> |        | <b>20.90</b> |       | <b>21.10</b> |       |
| Operating Temperature(C)         |      | -40°C~+85°C  |       | Temperature coefficients of Isc           |        |              |        | 0.048%/°C    |       |              |       |
| Maximum system voltage           |      | 1500 VDC     |       | Nominal operating cell temperature (NOCT) |        |              |        | 45 ± 2 °C    |       |              |       |
| Maximum series fuse rating       |      | 25A          |       | Fire Safety                               |        |              |        | Class-C      |       |              |       |
| Power tolerance                  |      | 0~+3%        |       | Application                               |        |              |        | Class-A      |       |              |       |
| Temperature coefficients of Pmax |      | -0.34%/°C    |       | Safety Class                              |        |              |        | Class II     |       |              |       |
| Temperature coefficients of Voc  |      | -0.28%/°C    |       |   |        |              |        |              |       |              |       |

| Bifacial Gain | Measurement         | Unit | 525   | 530   | 535   | 540   | 545   |
|---------------|---------------------|------|-------|-------|-------|-------|-------|
| 5%            | Maximum Power(Pmax) | Wp   | 550   | 555   | 560   | 565   | 570   |
|               | Module Efficiency   | %    | 21.29 | 21.48 | 21.68 | 21.87 | 22.07 |
| 10%           | Maximum Power(Pmax) | Wp   | 575   | 580   | 585   | 590   | 595   |
|               | Module Efficiency   | %    | 22.26 | 22.45 | 22.65 | 22.84 | 23.03 |
| 15%           | Maximum Power(Pmax) | Wp   | 600   | 605   | 610   | 615   | 620   |
|               | Module Efficiency   | %    | 23.23 | 23.42 | 23.61 | 23.81 | 24.00 |

\*\*STC: Irradiance 1000 W/m<sup>2</sup> module temperature 25° C, Am=1.5; NOCT: Irradiance 800 W/m<sup>2</sup>, ambient temperature 20°C, Am=1.5, Wind speed 1m/s. Average power reduction of 4.5% at 200 W/m<sup>2</sup> as per IEC 60904-1. Measuring Uncertainty +/- 3%  
 \*\*Power gain from rear side depends upon the ground reflectance (Albedo) & Bifaciality factor.

## MODULE MECHANICAL DATA

| SPECIFICATION               | DATA  |
|-----------------------------|---|
| Cell Type                   | Half Cut- PERC Monocrystalline, 144 Cells                   |
| Dimensions                  | 2278X1134X35mm  |
| Weight                      | 28 kgs  |
| Front Cover                 | 3.2 mm Tempered Glass                                       |
| Backsheet                   | Transparent Backsheet                                       |
| Frame Material              | Silver Anodized Aluminium Profile, (black frame on request) |
| J-Box                       | IP68, 3 diodes  |
| Cable                       | 350mm, 4mm <sup>2</sup>                                     |
| Connectors                  | MC4 Compatible Connector IEC/UL Certified                   |
| Standard Packaging          | 30Pieces/Pallet   |
| Module Pieces per Container | 600 pieces (40* HQ)   |

## I-V Characteristics At Different Irradiations

