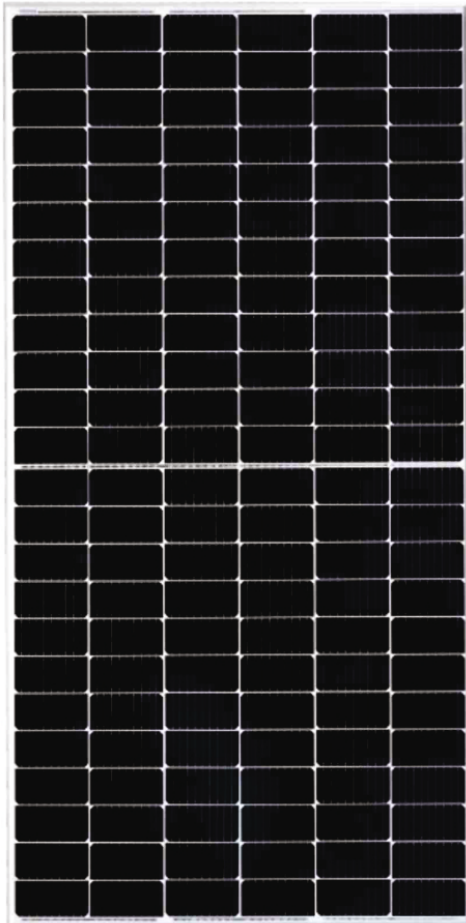











BIFACIAL - MONO PERC - 144 Cells

525 Wp | 530 Wp | 535 Wp | 540 Wp | 545 Wp | 550 Wp
SGE XXX-144 MBHC (XXX-525-550 Wp)



Key Features

- 
High Module Conversion Efficiency
Module efficiency up to 21.29 % achieved through advanced cell technology and manufacturing process.
- 
Advanced Technology
MBB- Multi Busbar (10BB) / Halfcut MONOPERC cells /Ga Doped Wafers.
- 
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.
- 
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 and certified for up-to 288 Hrs
- 
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 $70 \pm 5\%$
The ratio of rear efficiency in relation to the front efficiency subject to the same irradiance

Certifications & Standards

IEC 61215, IEC 61730, IEC 61701,
UL 61215, UL 61730, IS 14286,
IEC 62716, IEC 62804, IEC 62782,
IEC 60068-2-68, IEC 61853-1&2

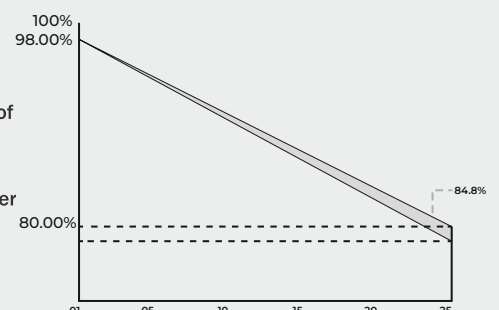
Certifications

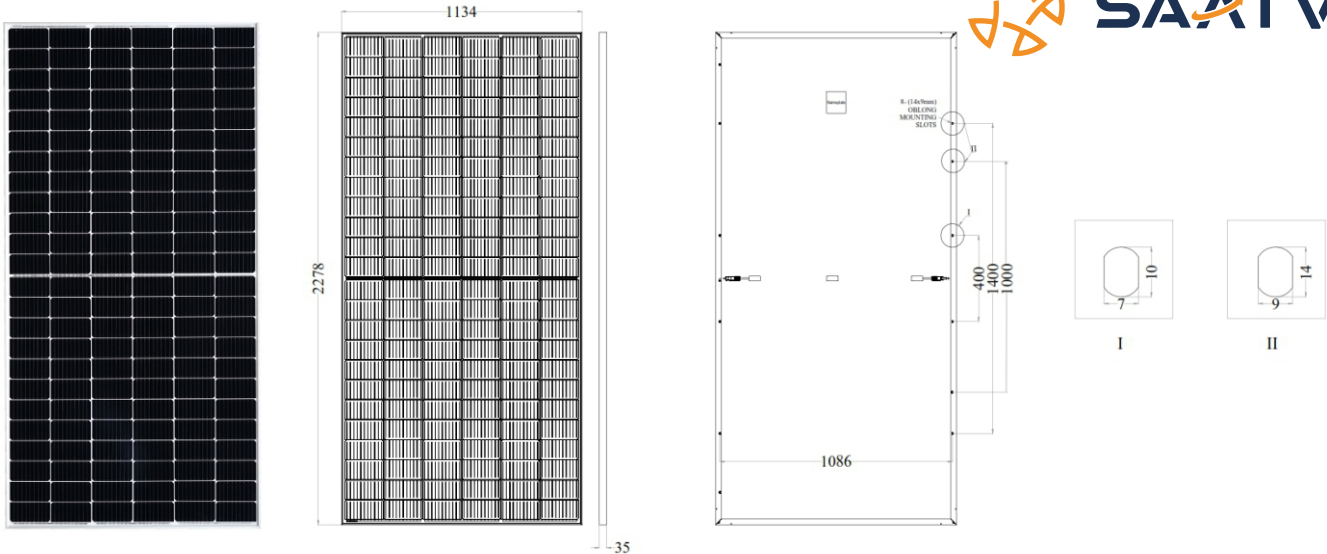


Performance Warranty** Please read Saatvik solar warranty documents thoroughly.

Product Warranty** 12 years of product warranty

Performance Warranty** Power degradation <2.0% in first year and <0.55% / year in 2 to 25 years





ELECTRICAL DATA PERFORMANCE

| Module Type | | 525Wp | | 530Wp | | 535Wp | | 540Wp | | 545Wp | | 550Wp | |
|-------------------------------------|------|-------------|-------|--------|---|--------|-------|--------|-------|--------|-----------|--------|-------|
| Conditions | Unit | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT |
| Peak Power, Pmax (Wp) | W | 525 | 390 | 530 | 393 | 535 | 397 | 540 | 401 | 545 | 405 | 550 | 408 |
| Voltage at Maximum power, Vmp | V | 41.31 | 39.00 | 41.48 | 39.16 | 41.64 | 39.31 | 41.77 | 39.43 | 41.96 | 39.61 | 42.12 | 39.76 |
| Current at maximum power, Imp | A | 12.71 | 9.99 | 12.78 | 10.05 | 12.85 | 10.10 | 12.93 | 10.17 | 12.99 | 10.21 | 13.06 | 10.27 |
| Open circuit voltage, Voc | V | 48.85 | 46.11 | 49.05 | 46.30 | 49.25 | 46.49 | 49.45 | 46.68 | 49.65 | 46.87 | 49.85 | 47.06 |
| Short circuit current, Isc | A | 13.35 | 10.78 | 13.42 | 10.84 | 13.50 | 10.61 | 13.59 | 10.98 | 13.65 | 11.02 | 13.74 | 11.10 |
| Module Efficiency (%) | | 20.32% | | 20.52% | | 20.71% | | 20.90% | | 21.10% | | 21.29% | |
| Operating Temperature (°C) | | -40°C~+85°C | | | Temperature coefficient of Isc (α) | | | | | | 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 (Wp) | | 0~+3% | | | Application | | | | | | Class-A | | |
| Temperature coefficient of Pmax (γ) | | -0.36%/°C | | | Safety Class | | | | | | Class-II | | |
| Temperature coefficient of Voc (β) | | -0.28%/°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 | 525Wp | 530Wp | 535Wp | 540Wp | 545Wp | 550Wp |
|---------------|-------------------|------|-------|-------|-------|-------|-------|-------|
| 5% | Peak Power (Pmax) | W | 551 | 557 | 562 | 567 | 572 | 577 |
| | Module Efficiency | % | 21.34 | 21.54 | 21.75 | 21.95 | 22.15 | 22.34 |
| 10% | Peak Power (Pmax) | W | 578 | 583 | 589 | 594 | 600 | 605 |
| | Module Efficiency | % | 22.36 | 22.57 | 22.78 | 22.99 | 23.22 | 23.42 |
| 15% | Peak Power (Pmax) | W | 604 | 610 | 615 | 621 | 627 | 632 |
| | Module Efficiency | % | 23.37 | 23.59 | 23.82 | 24.04 | 24.26 | 24.47 |

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

MODULE MECHANICAL DATA

SPECIFICATION DATA

| | |
|-----------------------------|---|
| Cell Type | Half Cut-PERC Monocrystalline, 144Cells |
| Dimensions | 2278X1134X35 mm |
| Weight | 28 kgs |
| Front Cover | 3.2 mm Tempered Glass |
| Backsheet | Transparent Backsheet |
| Frame Material | Silver Anodized Aluminium Profile, |
| J-Box | IP68, 3 diodes |
| Cable | 350mm, 4mm ² |
| Connectors | Mc4 Compatible Connector |
| Standard Packaging | 31 Pieces/Pallet |
| Module Pieces per Container | 620 pieces (40* HQ) |

- 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.

I-V Characteristics At Different Irradiations

