



MAXIMA GxB 310 SL Bifacial Module

A Trusted Quality Brand in Solar



High Performance

Bifacial technology generates power from both the front and back faces of the module, resulting in up to 20% higher energy harvest (kWh). Our HCT cells packaged in frameless double glass modules yield higher power and do not suffer from light-induced degradation (LID) or potential induced degradation (PID).



Robust Quality & Reliability

Double glass modules designed for durability. Certified to international certification body standards: IEC, UL, and CEC listed. Manufactured according to the International Quality Management System ISO9001.



Extreme Climate Performance

As temperatures rise, our patented SmartSilicon hybrid cell technology produces more power [kW] than conventional crystalline silicon solar panels at the same elevated temperature.



Guaranteed Performance

All modules have a 10 year product warranty and 25 year power output warranty.



Superior Aesthetics

Thin profile double-glass construction provides superior aesthetics that are a perfect complement to roofs, carports, and canopies.

About Sunpreme

Sunpreme is an innovative solar PV module manufacturer headquartered in Sunnyvale, California with manufacturing facilities in the United States and China. We provide high quality, reliable and aesthetically superior modules to residential, commercial, and utility customers globally. Sunpreme solar systems are delivering clean energy on 5 continents.

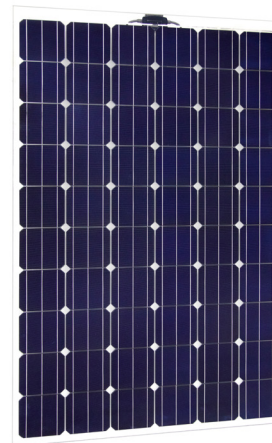
Sunpreme solar panels are designed and engineered in Silicon Valley, CA, USA.

Hybrid Cell Technology

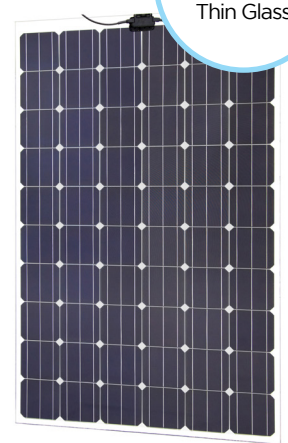
Sunpreme modules use our patented Hybrid Cell Technology platform that utilizes enabling thin-film materials on surface engineered Silicon substrate to achieve high-efficiency power output and reliable energy production for increased project returns.

Unlike conventional crystalline silicon cell technologies, Sunpreme uses highly scalable process to deliver high output solar power at very competitive Levelized Cost of Energy (LCOE).

SL
for Super Light
Thin Glass



Front view



Back View

High Efficiency

18.8% Module Efficiency (STC),
20.7% Efficiency with 10% Backside Power Boost, and
22.6% with 20% Backside Power Boost

Bifacial Energy Boost

Harvests sun from the backside to increase power output up to 20%

Double-Glass Frameless Design

Sunpreme Design is more robust, and does not require module grounding

10 YEAR

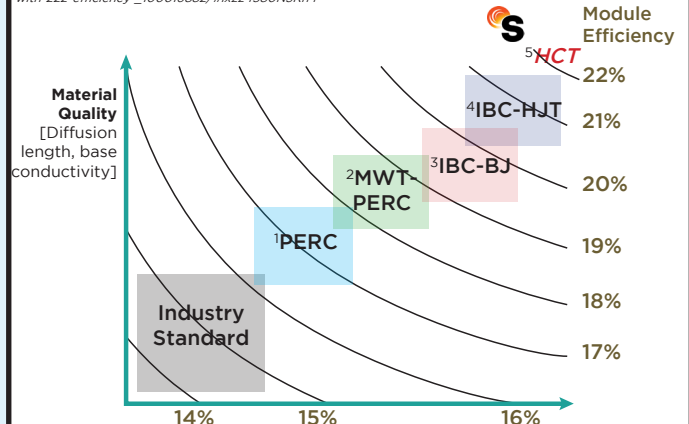
PRODUCT WARRANTY

25 YEAR

POWER WARRANTY

Performance warranty obligations on GxB 310 SL module(s), if produced and sold during the Policy Period [July 15th, 2014 to Dec 31st, 2016], have been insured by Sunpreme with a Munich Re Group insurer, reinsured by Munich Reinsurance, a AA- rated reinsurer. Only Sunpreme or designated successor have a direct claim against the insurer.

"At 22%, Sunpreme HCT Bifacial Double Glass modules move to the top of the class in effective efficiency" Dr. Eicke Weber quoted in:
<http://www.pv-magazine.com/news/details/beitrag/sunpreme-unveils-500-w-bifacial-double-glass-module-with-22-efficiency-100016882/#ixzz4580N3Rt4>



¹PERC: Passivated Emitter and Rear Cell

²MWT: Metal Wrap Through

³IBC - BJ - Interdigitated Back Contact - Back Junction

⁴HJT: Hetero Junction Technology

⁵HCT: Hybrid Cell Technology

**Graph adapted from Preu et al., EU-PSPEC

Device Quality
[Passivation of surfaces, low series resistance, light confinement]

| ELECTRICAL SPECIFICATIONS¹ | 290 | 300 | 310 |
|--|------------|------------|------------|
| STC rated output P_{MPP} (W) | 290 | 300 | 310 |
| Cell Efficiency | 20.7% | 21.3% | 21.6% |
| Module Efficiency STC | 17.6% | 18.2% | 18.8% |
| Standard sorted output | -3%/+5% | -3%/+5% | -3%/+5% |
| Open Circuit Voltage V_{OC} (V) | 43.9 | 44.9 | 45.1 |
| Short circuit current I_{SC} (A) | 9.2 | 9.3 | 9.3 |
| Rated Voltage V_{MPP} (V) | 33.7 | 34.5 | 35.6 |
| Rated Current I_{MPP} (A) | 8.6 | 8.7 | 8.7 |

¹ Standard Test Conditions for front-face of panel: 1000 W/m², 25°C.

BI-FACIAL OUTPUT^{*}

With 10% Backside Power Boost

| | | | |
|-------------------|-------|-------|-------|
| Power Output (W) | 319 | 330 | 341 |
| Module Efficiency | 19.5% | 20.1% | 20.7% |

With 20% Backside Power Boost

| | | | |
|-------------------|-------|-------|-------|
| Power Output (W) | 348 | 360 | 372 |
| Module Efficiency | 21.2% | 22.0% | 22.6% |

*Backside boost for flush mount configuration is ≤5%, resulting in $I_{sc} \leq 9.56 - 9.77$ A

TEST OPERATING CONDITIONS

| | |
|--|---|
| Operating Temperature | - 40 to + 85°C |
| Storage Temperature | - 40 to + 85°C |
| Maximum Series Fuse | 15 A |
| Maximum System Voltage | 600V UL / 1000VDC IEC |
| Power/Sq.Ft. w/ 20% backside power boost | 20.3 W / Sq. Foot |
| Maximum load capacity | 4,000 Pa (snow load) 150 mph wind rating |
| Fire Class | Class A - Type 10 |

TEMPERATURE COEFFICIENTS

| | |
|--|-----------|
| Temperature coefficient P_{MPP} | -0.28%/C |
| Temperature coefficient I_{SC} | +0.015%/C |
| Temperature coefficient V_{OC} | -0.21%/C |
| Normal operating cell temperature (NOCT)°C | 46C +/- 2 |

WARRANTY

10 year extended product warranty
95% power warranty first 5 years
-0.6% or less per year degradation for the following 20 years

CERTIFICATION

Certified to IEC 61646, IEC 61730-01, IEC 61730-02, IEC 61701, UL 1703, ISO 9001, ISO 14001, CEC, CE Mark, FSEC, MCS, and TUV



MECHANICAL SPECIFICATIONS

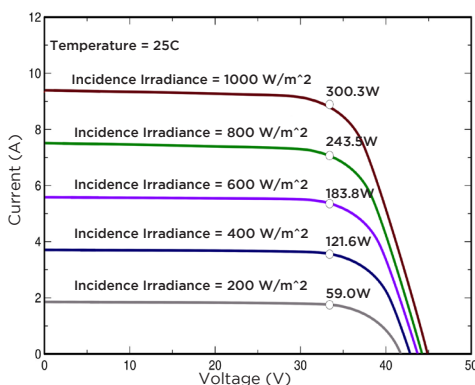
| | |
|--------------|---|
| Dimensions | 1,663 x 990 x 4.4 mm (5.46 x 3.25 x 0.015 ft) |
| Weight | 18.0 kg (39.68 lbs) |
| Area | 1.64 m ² (17.7 ft ²) |
| Cell type | Bifacial Hybrid Cell Technology (HCT) |
| Module type | 60 Cells, Frameless double glass design, no grounding required |
| Glass | Strengthened, 2.0mm, anti-reflective coating, low-iron |
| Junction Box | Tyco IP-67 rated; 1,000V UL/IEC, 3 diodes |
| Cables | 4mm ² x 0.9 m cable: MC4 or MC4 Compatible Tyco connectors MC4 |
| Clamps | Recommended Sunpreme 200mm |

PACKAGING

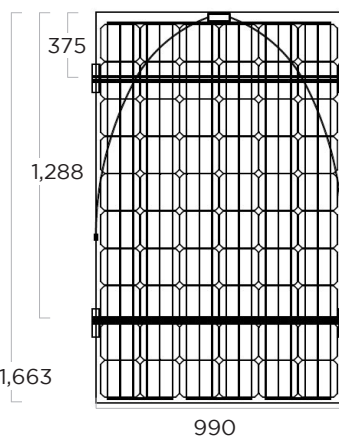
| | |
|-------------------------------|----|
| Modules per crate | 26 |
| Crates per shipping container | 28 |

$I_{max} - V_{max}$ (60 cell Version)

Multi-Irradiance Curve for Maxima GxB - 300SL



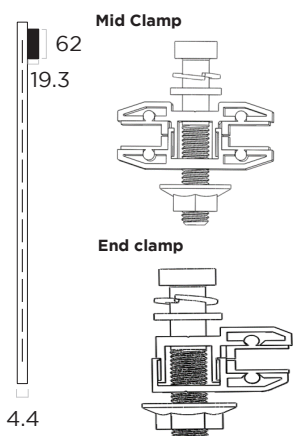
Rear View (mm)



Mounting method

- Rail structure runs parallel to short-side of module
- Uniform mounting method for ground, roof, or carport installations

Side View (mm)



Covered by one or more of the following U.S. patents:
7,951,640; 7,956,283; 7,960,644

A recommended clamp assembly