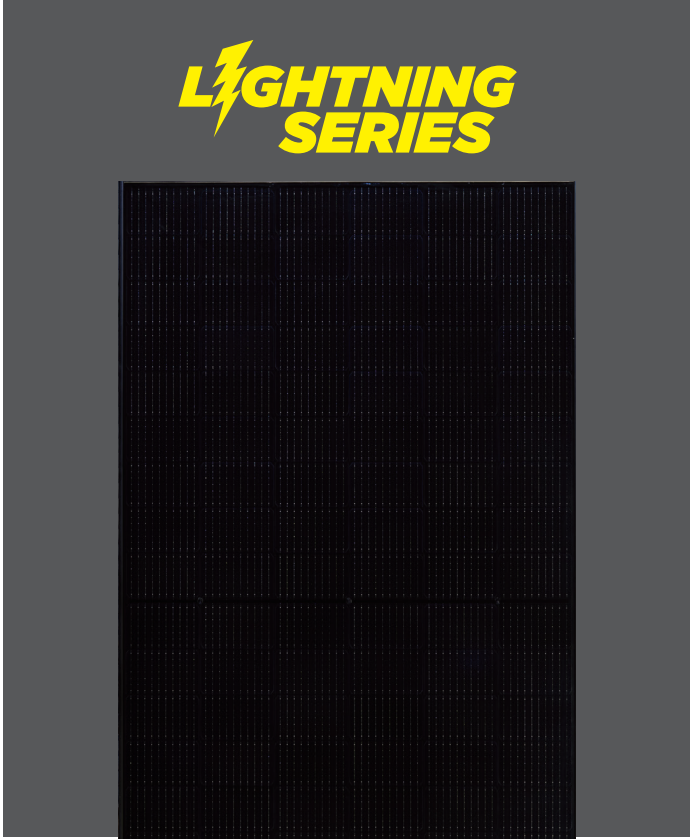


410W
108 Half Cell Bifacial Module



High Conversion Efficiency

Module efficiency up to 21.0% through advanced cell technology and manufacturing process



Excellent Weak Light Performance

More power output in weak light condition, such as cloudy days, morning and sunset



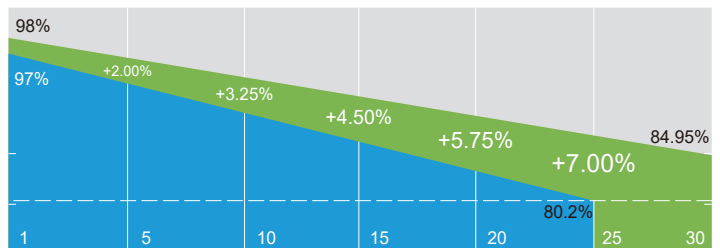
Extended Mechanical Performance

Module certified to withstand extreme wind (2400 Pa) and snow loading (5400 Pa)



Quality Guarantee

High module quality ensures long-term reliability



■ Conventional Module

■ Spitzer Performance



12 Years warranty for materials and workmanship



30 Years warranty for extra linear power output



Warranty partner

IEC61215 / IEC61730 / UL61730
IEC61701 / IEC62716 / IEC60068
ISO9001

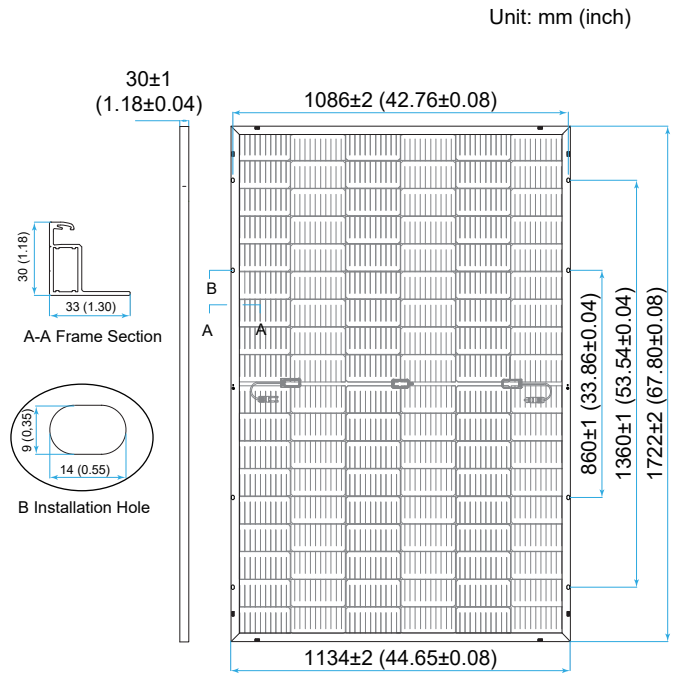
Mechanical Parameters

| | |
|---------------|---|
| Solar Cell | Mono PERC 182mm |
| No. of Cells | 108 (6 × 18) |
| Dimensions | 1722 × 1134 × 30mm (67.08 × 44.65 × 1.18in.) |
| Weight | 25.2kg (55.55lbs) |
| Junction Box | IP68 rated (3 bypass diodes) |
| Output Cables | 4mm ² (IEC), 12 AWG(UL) (-/+)1200mm (47.24in.) or customized |
| Connector | EVO2 or similar |
| Front Cover | 2.0mm (0.079in.) semi-tempered AR glass |
| Back Cover | 2.0mm (0.079in.) semi-tempered glass |
| Container | 36 pcs/Pallet, 792 pcs/40' HC |

Operating Parameters

| | |
|------------------------|---------------------------------|
| Max. System Voltage | DC 1500V (IEC/UL) |
| Operating Temperature | -40°C ~ +85°C (-40°F ~ +185°F) |
| Max. Fuse Rating | 30A |
| Frontside Max. Loading | 5400Pa (112lb/ft ²) |
| Backside Max. Loading | 2400Pa (50lb/ft ²) |
| Bifaciality | 70%±10% |
| Fire Resistance | IEC Class A, UL Type 29 |

Engineering Drawing



Electrical Characteristics - STC

Irradiance 1000 W/m², ambient temperature 25 °C, AM1.5.

| | | | | | |
|-----------------------------------|--------|-------|-------|-------|-------|
| Maximum Power at STC (Pmax/W) | 410 | 405 | 400 | 395 | 390 |
| Power Tolerance (W) | 0 ~ +5 | | | | |
| Optimum Operating Voltage (Vmp/V) | 31.45 | 31.21 | 31.01 | 30.84 | 30.64 |
| Optimum Operating Current (Imp/A) | 13.04 | 12.98 | 12.90 | 12.81 | 12.73 |
| Open Circuit Voltage (Voc/V) | 37.32 | 37.23 | 37.07 | 36.98 | 36.85 |
| Short Circuit Current (Isc/A) | 13.95 | 13.87 | 13.79 | 13.70 | 13.61 |
| Module Efficiency | 21.0% | 20.7% | 20.5% | 20.2% | 20.0% |

Electrical Characteristics - NMOT

Irradiance 800 W/m², ambient temperature 20 °C, AM1.5, wind speed 1 m/s.

| | | | | | |
|-----------------------------------|-------|-------|-------|-------|-------|
| Maximum Power at NMOT (Pmax/W) | 310.2 | 306.4 | 302.5 | 298.8 | 295.0 |
| Optimum Operating Voltage (Vmp/V) | 29.82 | 29.60 | 29.41 | 29.25 | 29.06 |
| Optimum Operating Current (Imp/A) | 10.40 | 10.35 | 10.29 | 10.22 | 10.15 |
| Open Circuit Voltage (Voc/V) | 35.39 | 35.31 | 35.15 | 35.07 | 34.95 |
| Short Circuit Current (Isc/A) | 11.25 | 11.19 | 11.13 | 11.05 | 10.98 |

Rearside Power Gain (Reference to 410W Front)

| | | | |
|-----------------------------------|-------|-------|-------|
| Rearside Power Gain | 5% | 15% | 25% |
| Maximum Power (Pmax/W) | 431 | 472 | 513 |
| Optimum Operating Voltage (Vmp/V) | 31.45 | 31.55 | 31.55 |
| Optimum Operating Current (Imp/A) | 13.69 | 14.94 | 16.24 |
| Open Circuit Voltage (Voc/V) | 37.32 | 37.42 | 37.42 |
| Short Circuit Current (Isc/A) | 14.65 | 16.00 | 17.39 |
| Module Efficiency | 22.1% | 24.2% | 26.3% |

Temperature Characteristics

| | |
|--------------------------------------|-----------|
| Nominal Module Operating Temperature | 42 ± 2 °C |
| Nominal Cell Operating Temperature | 45 ± 2 °C |
| Temperature Coefficient of Pmax | -0.35%/°C |
| Temperature Coefficient of Voc | -0.27%/°C |
| Temperature Coefficient of Isc | 0.05%/°C |

Current-Voltage & Power-Voltage Curve (410W)

