

MSE PERC 108HC

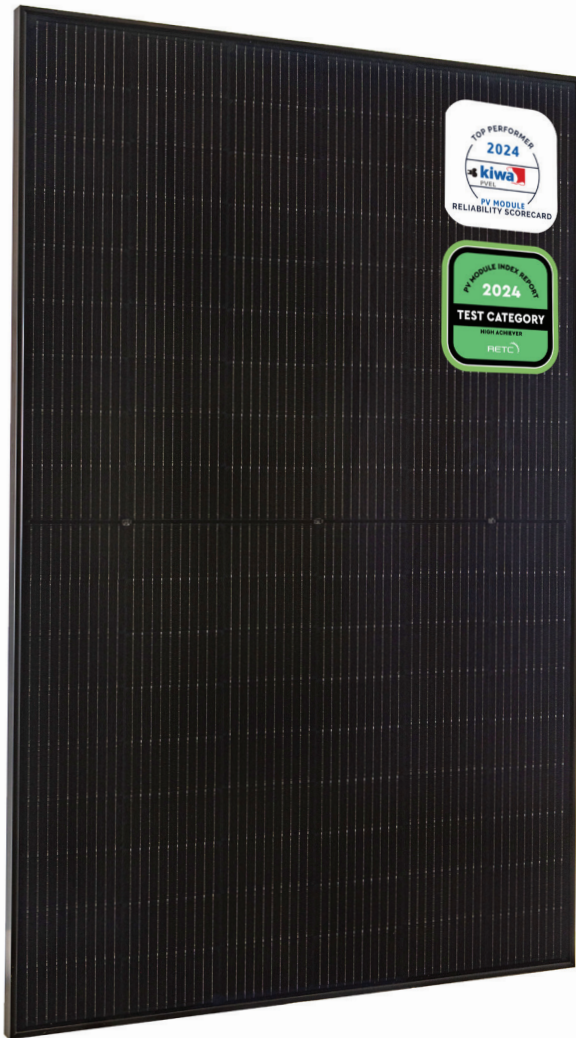


410W

Class leading power output

Positive
Power
Tolerance

-0 to +3%



FRAME-TO-FRAME WARRANTY

Degradation guaranteed not to exceed 2% in year 1 and .55% annually from years 2 to 25 with 84.8% capacity guaranteed in year 25.
For more information, visit www.missionsolar.com/warranty

American Solar Built for the Long Haul

Mission Solar Energy is headquartered in San Antonio, Texas where we manufacture our modules. We produce American, high-quality solar modules ensuring the highest-in-class power output and best-in-class reliability. This product is tailored for residential and commercial applications. Every Mission Solar Energy solar module is certified and surpasses industry standard regulations, providing excellent performance over the long term.

America's Module Company®



Fair Trade Practices

- Free of forced labor at all stages of the supply chain
- Not subject to AD/CVD tariffs or investigations
- Polysilicon manufactured with sustainable hydroelectric power



Certified Reliability

- Tested to UL 61730 & IEC Standards
- PID resistant
- Resistance to salt mist corrosion



Advanced Technology

- M10 half-cut cell with 10 busbars
- Passivated Emitter Rear Contact
- Engineered for residential and commercial applications



Extreme Weather Resilience

- Up to 5,400 Pa snow and wind load
- Third-party hail tests exceed 55 mm at 33.9 m/s



BAA Compliant for Government Projects

- Buy American Act
- American Recovery & Reinvestment Act

CERTIFICATIONS



CEC

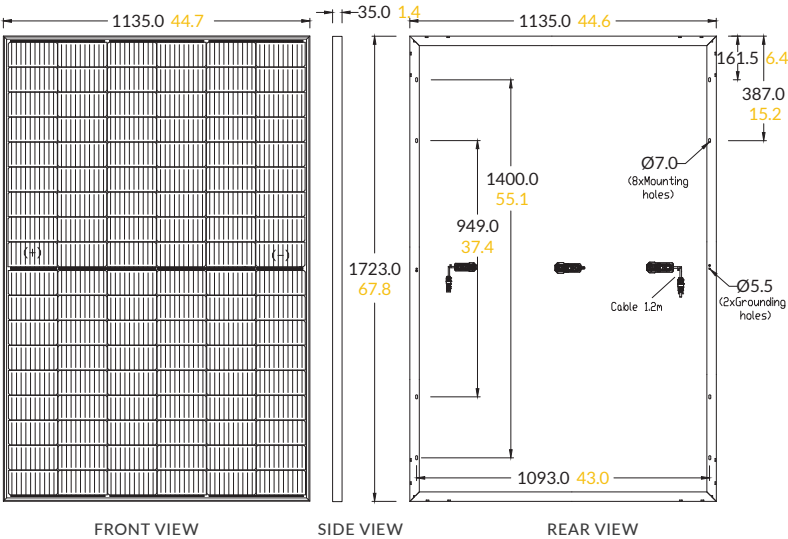


If you have questions or concerns about certification of our products in your area, please contact Mission Solar Energy.



BASIC DIMENSIONS

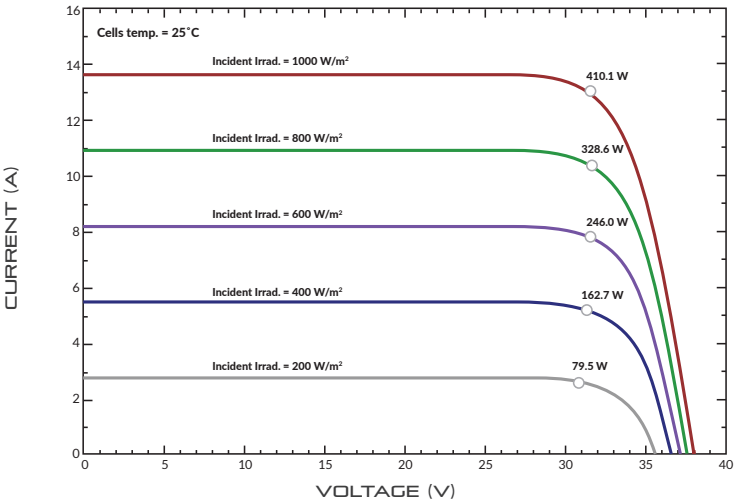
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CURRENT-VOLTAGE CURVE

MSE410HT0B: 410W, 108 HALF-CUT CELL SOLAR MODULE

Current-voltage characteristics with dependence on irradiance and module temperature



CERTIFICATIONS AND TESTS

| | |
|-----|---------------------|
| IEC | 61215, 61730, 61701 |
| UL | 61730 |



CEC



Mission Solar Energy

8303 S. New Braunfels Ave., San Antonio, Texas 78235
www.missionsolar.com | info@missionsolar.com

ELECTRICAL SPECIFICATION

| PRODUCT TYPE | MSE _{xxx} HT0B (xxx = P _{max}) | | | | |
|-----------------------|---|----------------|-------|-------|-------|
| Power Output | P _{max} | W _p | 400 | 405 | 410 |
| Module Efficiency | | % | 20.5 | 20.7 | 21.0 |
| Tolerance | | % | 0/+3 | 0/+3 | 0/+3 |
| Short Circuit Current | I _{sc} | A | 13.75 | 13.82 | 13.90 |
| Open Circuit Voltage | V _{oc} | V | 37.09 | 37.27 | 37.41 |
| Rated Current | I _{mp} | A | 12.92 | 13.00 | 13.07 |
| Rated Voltage | V _{mp} | V | 30.96 | 31.16 | 31.38 |
| Fuse Rating | | A | 25A | 25A | 25A |
| System Voltage | | V | 1,000 | 1,000 | 1,000 |

TEMPERATURE COEFFICIENTS

| | |
|---|----------------------|
| Normal Operating Cell Temperature (NOCT) | 45.52°C (±3.7%) |
| Temperature Coefficient of P _{max} | -0.343%/°C (±5.0%) |
| Temperature Coefficient of V _{oc} | -0.254%/°C (±5.0%) |
| Temperature Coefficient of I _{sc} | +0.0266%/°C (±10.0%) |

OPERATING CONDITIONS

| | |
|---------------------------------|---|
| Maximum System Voltage | 1,000Vdc |
| Operating Temperature Range | -40°F to 185°F (-40°C to +85°C) |
| Maximum Series Fuse Rating | 25A |
| Fire Safety Classification | Type 1* |
| Front & Back Load (UL Standard) | Up to 5,400 Pa front and 5,400 Pa back load. Tested to UL 61730 |
| Hail Safety Impact Velocity | 55mm at 33.9m/s |

*Mission Solar Energy uses quality sourced materials that result in a Type 1 fire rating. Please note, the "Fire Class" Rating is designated for the fully-installed PV system, which includes, but is not limited to, the module, the type of mounting used, pitch and roof composition.

MECHANICAL DATA

| | |
|------------------|---|
| Solar Cells | P-PERC 182mm x 182mm |
| Cell Orientation | 108 half-cut cells |
| Module Dimension | 1723mm x 1135mm x 35mm |
| Weight | 42 lbs. (19kg) |
| Front Glass | 3.2mm tempered, low-iron, anti-reflective |
| Frame | 35mm anodized interlocking |
| Encapsulant | Ethylene vinyl acetate (EVA) |
| Junction Box | Protection class IP68 with 3 bypass-diodes |
| Cable | 1.2m, Wire 4mm² (12AWG) |
| Connector | MC4 Staubli PV-KBT4/6II-UR and PV-KST4/6II-UR |

SHIPPING INFORMATION

| | | | | |
|----------------|-------------|---------|---------|-----------|
| Container Feet | Ship To | Pallets | Modules | 410W Bin |
| 53' | Most States | 26 | 806 | 330.46 kW |

Double Stack: (Horizontal Orientation): 31 panels per pallet

PALLET [31 MODULES]

| | | | |
|------------------------|---------------------|---------------------|---------------------|
| Weight | Height | Width | Length |
| 1,610 lbs. (730 kg) | 51 in (129.5 cm) | 47 in (119.4 cm) | 70 in (119.4 cm) |