

MSI PERC Bifacial 144HC  
Dual Glass



**545-555W**

Class leading power output

Positive  
Power  
Tolerance  
**-0 to +5W**



## Solar Built for the Long Haul

Mission Solar Energy is headquartered in San Antonio, Texas. This product is tailored for commercial and utility applications. Every Mission Solar Energy solar module is certified and surpasses industry standard regulations, providing excellent performance over the long term. Mission Solar Energy is a proud member of the OCI Family of Companies.

### America's Module Company<sup>®</sup>



#### Fair Trade Practices

- Free of forced labor at all stages of the supply chain
- Not subject to AD/CVD tariffs or investigations



#### Certified Reliability

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



#### Advanced Technology

- Half-cut cell with 10 busbar
- Passivated Emitter Rear Contact
- Engineered for residential and commercial applications



#### Extreme Weather Resilience

- Up to 5,400 Pa front load & 2,400 Pa back load
- Hail tests results exceed 25mm at 23/ms

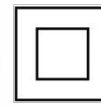
### FRAME-TO-FRAME WARRANTY

Degradation guaranteed not to exceed 2% in year 1 and 0.45% annually from years 2-30, with 84.95% guaranteed in year 30; 12-year Material and Workmanship coverage.

For more information, visit [www.missionsolar.com/warranty](http://www.missionsolar.com/warranty)

### CERTIFICATIONS

CEC

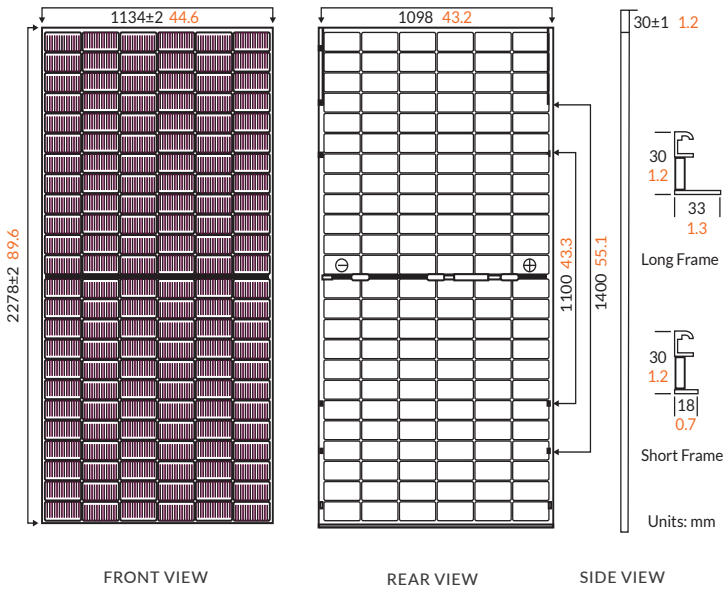


UL 61730 / IEC 61215 / IEC 61730

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

## BASIC DIMENSIONS

[UNITS: MM/IN]



FRONT VIEW

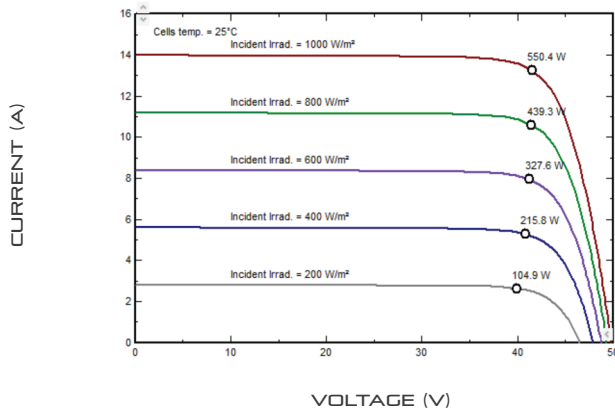
REAR VIEW

SIDE VIEW

## CURRENT-VOLTAGE CURVE

MSI10-550HT4G, 144 HALF-CUT CELL SOLAR MODULE

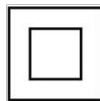
Current-voltage characteristics with dependence on irradiance and module temperature



## CERTIFICATIONS AND TESTS

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

CEC



# Mission Solar Energy

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## ELECTRICAL SPECIFICATION

| PRODUCT TYPE          | MSI10-xxxHT4G (xxx = P <sub>max</sub> ) |       |       |       |
|-----------------------|---|-------|-------|-------|
| Power Output          | P <sub>max</sub> W <sub>p</sub>         | 545   | 550   | 555   |
| Module Efficiency     | %                                       | 21.30 | 21.50 | 21.69 |
| Tolerance             | W                                       | 0/+5  | 0/+5  | 0/+5  |
| Short Circuit Current | I <sub>sc</sub> A                       | 13.92 | 13.99 | 14.02 |
| Open Circuit Voltage  | V <sub>oc</sub> V                       | 49.65 | 49.80 | 49.95 |
| Rated Current         | I <sub>mp</sub> A                       | 13.04 | 13.11 | 13.18 |
| Rated Voltage         | V <sub>mp</sub> V                       | 41.80 | 41.95 | 42.09 |
| Fuse Rating           | A                                       | 30A   | 30A   | 30A   |
| System Voltage        | V                                       | 1,500 | 1,500 | 1,500 |

## BIFACIAL OUTPUT | REAR SIDE POWER GAIN

|                                       |        |        |        |
|---------------------------------------|--------|--------|--------|
| 5%-Maximum Power (P <sub>max</sub> )  | 572W   | 578W   | 583W   |
| 5%-Module Efficiency STC(%)           | 22.37% | 22.57% | 22.78% |
| 15%-Maximum Power (P <sub>max</sub> ) | 627W   | 633W   | 638W   |
| 15%-Module Efficiency STC(%)          | 24.50% | 24.72% | 24.95% |
| 25%-Maximum Power (P <sub>max</sub> ) | 681W   | 688W   | 694W   |
| 25%-Module Efficiency STC(%)          | 26.36% | 26.63% | 27.12% |

## TEMPERATURE COEFFICIENTS

|   |            |
|---|------------|
| Normal Operating Cell Temperature (NOCT)    | 45°C (±2%) |
| Temperature Coefficient of P <sub>max</sub> | -0.335%/°C |
| Temperature Coefficient of V <sub>oc</sub>  | -0.277%/°C |
| Temperature Coefficient of I <sub>sc</sub>  | +0.036%/°C |

## OPERATING CONDITIONS

|                                 |  |
|---------------------------------|--|
| Maximum System Voltage          | 1,500Vdc                                   |
| Operating Temperature Range     | -40°F to 185°F (-40°C to +85°C)            |
| Maximum Series Fuse Rating      | 30A  |
| Fire Safety Classification      | UL Type 29                                 |
| Front & Back Load (UL Standard) | Up to 5,400 Pa snow and 2,400 Pa wind load |
| Hail Safety Impact Velocity     | 25mm at 23 m/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        | PERC, 182mm x 91mm, 144 (6x24)               |
| Cell Orientation   | 144 half-cut cells                           |
| Module Dimension   | 2278(±2mm) x 1134(±2mm) x 30(±1mm)           |
| Weight             | 70.99 lbs. (32.2kg)                          |
| Front / Back Glass | Single glass, 3.2mm AR coated tempered glass |
| Frame              | 30mm Anodized                                |
| Junction Box       | Protection class IP68 with 3 bypass-diodes   |
| Cable              | 1.2m, wire 4mm <sup>2</sup> (12AMG)          |
| Connector          | Stäubli EVO2 MC4                             |

## SHIPPING INFORMATION

| Pallet | Modules | 550 W BIN | Total Weight            |
|--------|---------|-----------|-------------------------|
| 20     | 720     | 396 kW    | 52,435 lbs. / 23,784 kg |
| 15     | 540     | 297 kW    | 39,326 lbs. / 17,838 kg |

### PALLET [36 MODULES]

|                         |                 |                   |                 |
|-------------------------|-----------------|-------------------|-----------------|
| Weight                  | Height          | Width             | Length          |
| 2629.7 lbs. (1192.8 kg) | 50 in (1271 mm) | 44.5 in (1130 mm) | 91 in (2313 mm) |