

# MSI TOPCon Bifacial 144HC

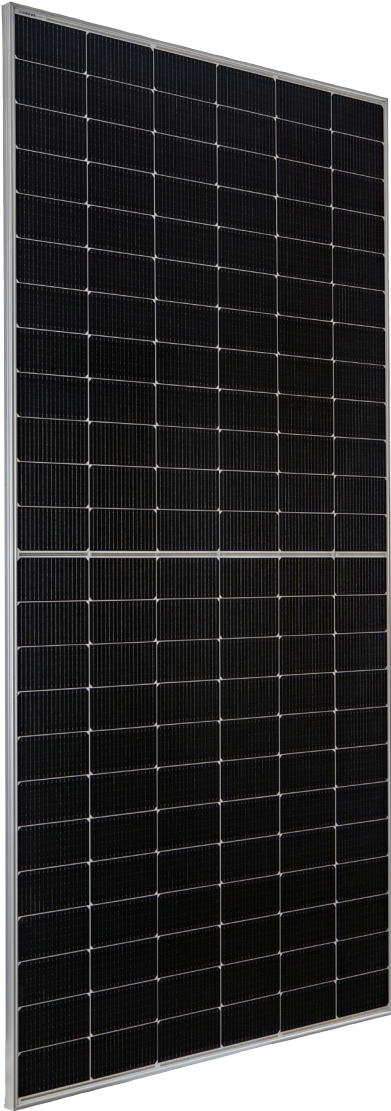
Dual Glass



## 580-590W

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®



#### 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

- SMBB Technology
- TopCon Cell
- Ideal for utility and commercial applications



#### Extreme Weather Resilience

- Up to 5,400 Pa front load & 2,400 Pa back load
- Tested load to UL 61730 & IEC Standards
- Hail tests results exceed 25mm at 23 m/s

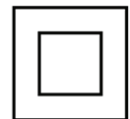
### FRAME-TO-FRAME WARRANTY

Degradation guaranteed not to exceed 1% in year 1 and 0.4% annually from years 2 to 30, with 87.4% 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

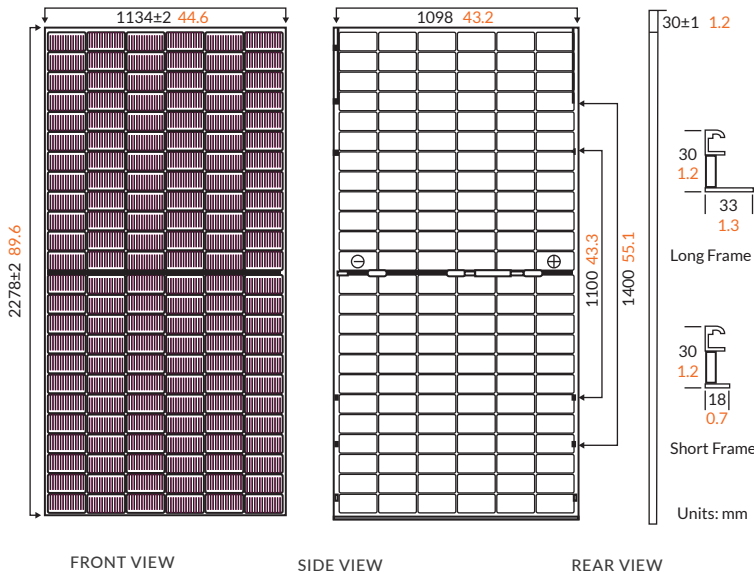


UL 61730 / IEC 61215 / IEC 61730 / IEC 61701

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

## BASIC DIMENSIONS

[UNITS: MM/IN]



## ELECTRICAL SPECIFICATION

PRODUCT TYPE	MSI10-xxxHN4G (xxx = P <sub>max</sub> )				
Power Output	P <sub>max</sub>	W <sub>p</sub>	580	585	590
Module Efficiency	%		22.47	22.67	22.86
Tolerance	W		0/+5	0/+5	0/+5
Short Circuit Current	I <sub>sc</sub>	A	13.99	14.05	14.11
Open Circuit Voltage	V <sub>oc</sub>	V	52.50	52.70	52.90
Rated Current	I <sub>mp</sub>	A	13.24	13.30	13.36
Rated Voltage	V <sub>mp</sub>	V	43.85	44.04	44.23
Fuse Rating	A		30	30	30
System Voltage	V		1,500	1,500	1,500

## BIFACIAL OUTPUT | REARSIDE POWER GAIN

5%-Maximum Power (P <sub>max</sub> )	609W	614W	620W
5%-Module Efficiency STC(%)	23.57%	23.76%	24.00%
15%-Maximum Power (P <sub>max</sub> )	667W	673W	679W
15%-Module Efficiency STC(%)	25.82%	26.04%	26.27%
25%-Maximum Power (P <sub>max</sub> )	725W	731W	738W
25%-Module Efficiency STC(%)	28.07%	28.31%	28.55%

## TEMPERATURE COEFFICIENTS

Normal Operating Cell Temperature (NOCT)	45°C (±2%)
Temperature Coefficient of P <sub>max</sub>	-0.298%/°C
Temperature Coefficient of Voc	-0.2398%/°C
Temperature Coefficient of I <sub>sc</sub>	+0.041%/°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	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	N-type, 182mm x 91mm
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	Semi-tempered double glass, 2.0 mm/2.0 mm
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	585W Bin	Total Weight
20	720	421.2 kW	52,435 lbs. / 23,784 kg
15	540	315.9 kW	39,326 lbs. / 17,838 kg

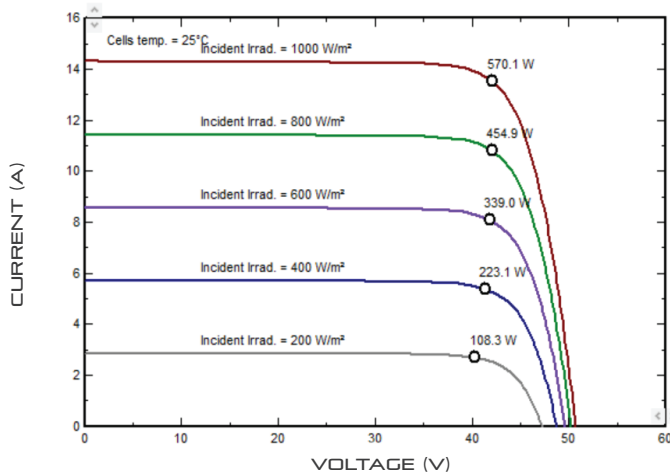
## PALLET [36 MODULES]

Weight	Height	Width	Length
2621.7 lbs. (1189.2 kg)	50 in (1271 mm)	44.5 in (1130 mm)	91 in (2313 mm)

## CURRENT-VOLTAGE CURVE

MSI10-580HN4G, 144 HALF-CUT CELL SOLAR MODULE

Current-voltage characteristics with dependence on irradiance and module temperature



## CERTIFICATIONS AND TESTS

IEC	61215, 61730
UL	61730

CEC



# Mission Solar Energy

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