

# TOPCon Bifacial 144HC

Dual Glass

MISSION SOLAR  
ENERGY

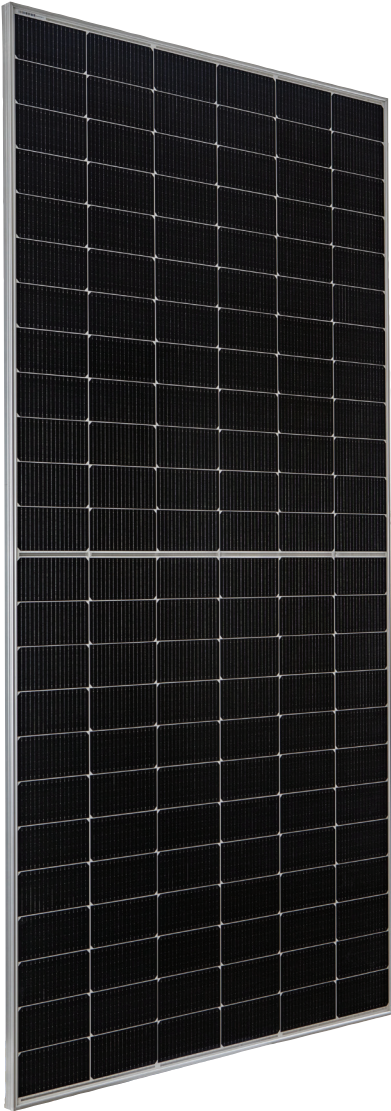


## 575-585W

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

- High-efficiency TOPCon cells combined with SMBB technology boosts efficiency to 22.65%
- Ideal for utility and commercial applications



#### Extreme Weather Resilience

- Up to 5,400 Pa front load & 2,400 Pa back load
- Superior corrosion protection in coastal areas
- Excellent resistance to ammonia

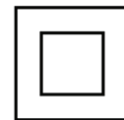
### FRAME-TO-FRAME WARRANTY

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.

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

### CERTIFICATIONS

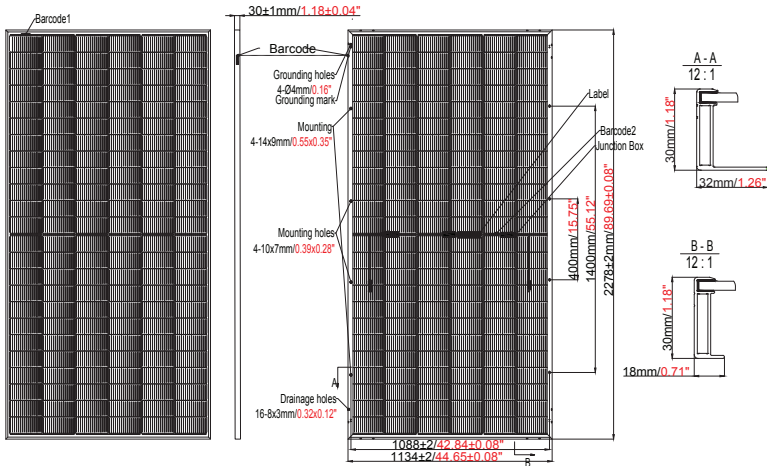
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If you have questions or concerns about certification of our products in your area, please contact Mission Solar Energy.

## BASIC DIMENSIONS

[UNITS: MM/IN]

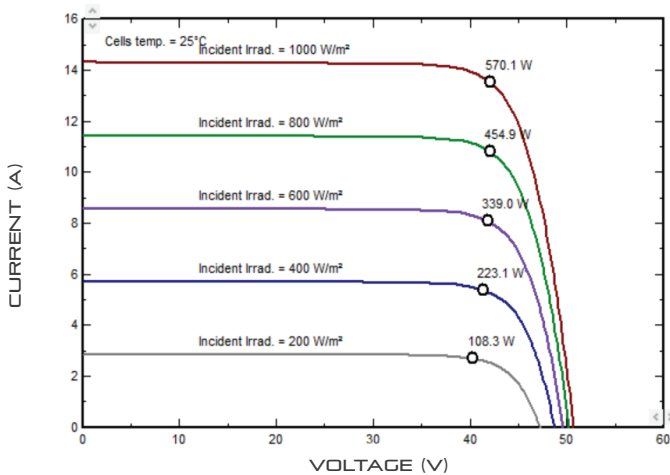


FRONT VIEW      SIDE VIEW      REAR VIEW

## CURRENT-VOLTAGE CURVE

MSN10-580HN4G, 144 HALF-CUT CELL SOLAR MODULE

Current-voltage characteristics with dependence on irradiance and module temperature



## ELECTRICAL SPECIFICATION

PRODUCT TYPE	MSN10xxxHN4G (xxx = P <sub>max</sub> )				
Power Output	P <sub>max</sub>	W <sub>p</sub>	575	580	585
Module Efficiency	%		22.26	22.45	22.65
Tolerance	W		0/+5	0/+5	0/+5
Short Circuit Current	I <sub>sc</sub>	A	14.29	14.35	14.41
Open Circuit Voltage	V <sub>oc</sub>	V	51.30	51.50	51.70
Rated Current	I <sub>mp</sub>	A	13.50	13.56	13.62
Rated Voltage	V <sub>mp</sub>	V	42.60	42.80	43.00
Fuse Rating	A		30	30	30
System Voltage	V		1,500	1,500	1,500

## BIFACIAL OUTPUT WITH 25% REAR SIDE POWER GAIN

Front power P <sub>max</sub>	575W	580W	585W
Total power P <sub>max</sub>	719	725	731
V <sub>mp</sub> (Total)	42.7	42.9	43.1
I <sub>mp</sub> (Total)	16.83	16.90	19.97
V <sub>oc</sub> (Total)	51.4	51.6	51.8
I <sub>sc</sub> (Total)	17.82	17.88	17.96

## TEMPERATURE COEFFICIENTS

Normal Operating Cell Temperature (NOCT)	44°C (±2%)
Temperature Coefficient of P <sub>max</sub>	-0.32%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of I <sub>sc</sub>	+0.044%/°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, Tested to UL 61730
Hail Safety Impact Velocity	2" at 51 mph (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	69.45 lbs. (31.5kg)
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

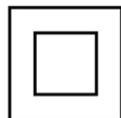
## SHIPPING INFORMATION

Container	Pallet	Modules	580W Bin	Total Weight
40'	20	720	417.6 kW	51,588 lbs. / 23,400 kg

## PALLET (36 MODULES)

Weight	Height	Width	Length
2759.4 lbs. (1170 kg)	50 in (1271 mm)	47.2 in (1120 mm)	90.6 in (2300 mm)

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# Mission Solar Energy

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