

N-Type Bifacial 144HC

Dual Glass

MISSION SOLAR
ENERGY



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
- N-Type 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

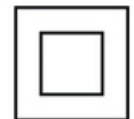
FRAME-TO-FRAME WARRANTY

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

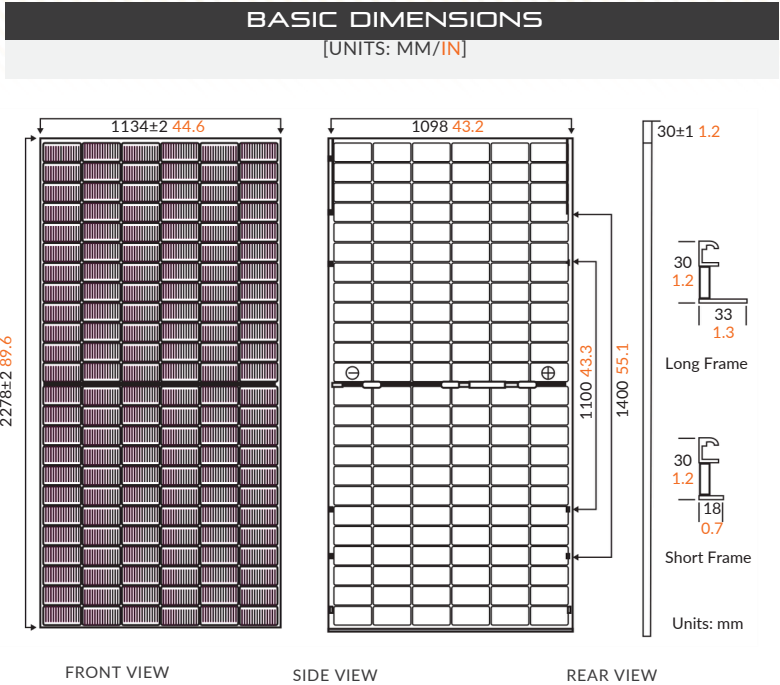
CERTIFICATIONS

CEC



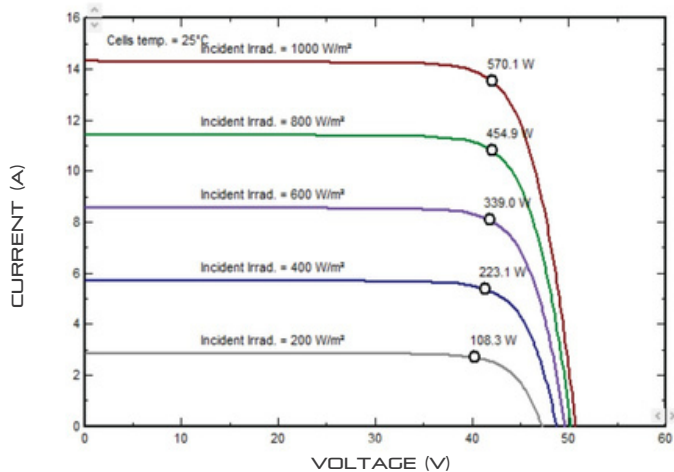
UL 61730 / IEC 61215 / IEC 61730 / IEC 61701

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



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



Mission Solar Energy

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Mission Solar Energy reserves the right to make specification changes without notice.

ELECTRICAL SPECIFICATION					
PRODUCT TYPE	MSI10-xxxHN4G (xxx= Pmax)				
Power Output	Pmax	Wp	580	585	590
Module Efficiency	%		22.47	22.67	22.86
Tolerance	W		0/+5	0/+5	0/+5
Short Circuit Current	Isc	A	13.99	14.05	14.11
Open Circuit Voltage	Voc	V	52.50	52.70	52.90
Rated Current	Imp	A	13.24	13.30	13.36
Rated Voltage	Vmp	V	43.85	44.04	44.23
Fuse Rating	A		30	30	30
System Voltage	V		1,500	1,500	1,500

BIFACIAL OUTPUT REAR SIDE POWER GAIN			
5%-Maximum Power (Pmax)	609W	614W	620W
5%-Module Efficiency STC(%)	23.57%	23.76%	24.00%
15%-Maximum Power (Pmax)	667W	673W	679W
15%-Module Efficiency STC(%)	25.82%	26.04%	26.27%
25%-Maximum Power (Pmax)	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 Pmax	-0.298%/°C
Temperature Coefficient of Voc	-0.2398%/°C
Temperature Coefficient of Isc	+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	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	Anodized aluminum profile
Junction Box	Protection class IP68 with 3 bypass-diodes
Cable	1.2m, wire 4mm2 (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)