

# MSX N-Type 108HC

Mono-facial High Efficiency N-type

MISSION SOLAR  
ENERGY

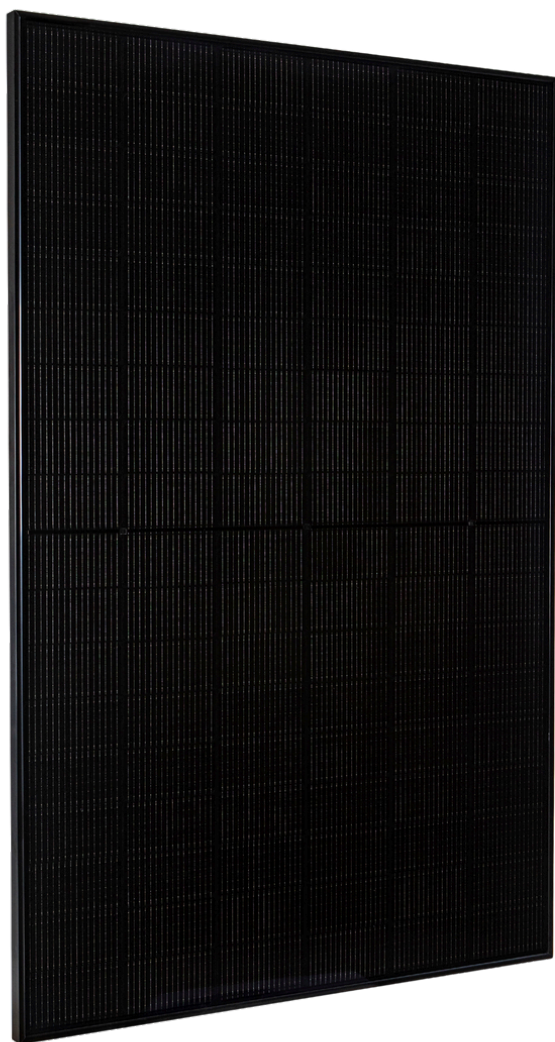


# 435W

Class leading power output

Positive  
Power  
Tolerance

0 to +3%



## American Solar Built for the Long Haul

Mission Solar Energy, headquartered in San Antonio, Texas, offers high-quality, American-made solar modules designed specifically for residential and commercial rooftops. Engineered for maximum efficiency and durability in real-world conditions, our modules combine sleek aesthetics with best-in-class performance to power homes and businesses for decades to come.

### America's Module Company®



#### High Power Output

- Achieves 22.3% efficiency with advanced high-density interconnect technology
- Multi-busbar design improves current flow and reduces resistance for better energy



#### Built for Tough Conditions

- Enhanced cell processing and material control for long-term durability
- Resists corrosion and degradation in harsh environments —salt spray, ammonia, sand, humidity, and high heat
- Certified for 5400 Pa front load and 5400 Pa back load for mechanical strength



#### More Energy, More of the Time

- Proven performance in low light and at challenging angles, verified by third-party testing
- Specialized glass design maintains output even in cloudy or shifting weather
- Low temperature coefficient (-0.29%)

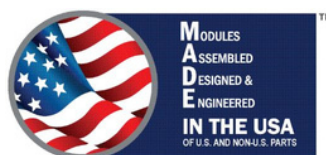
### FRAME-TO-FRAME WARRANTY

Degradation guaranteed not to exceed 1% in year 1 and 0.45% annually from years 2 to 25 with 88.0% capacity guaranteed in year 25. For more information, visit [www.missionsolar.com/warranty](http://www.missionsolar.com/warranty)

### CERTIFICATIONS

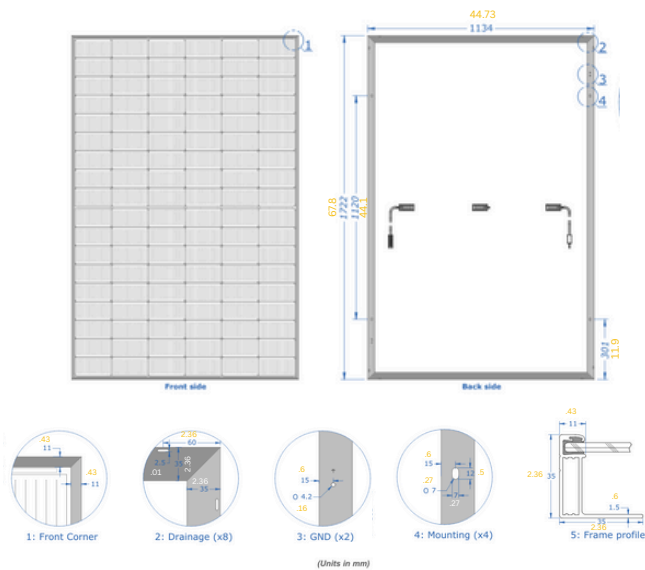


If you have questions or concerns about certification of our products in your area, please contact Mission Solar Energy.



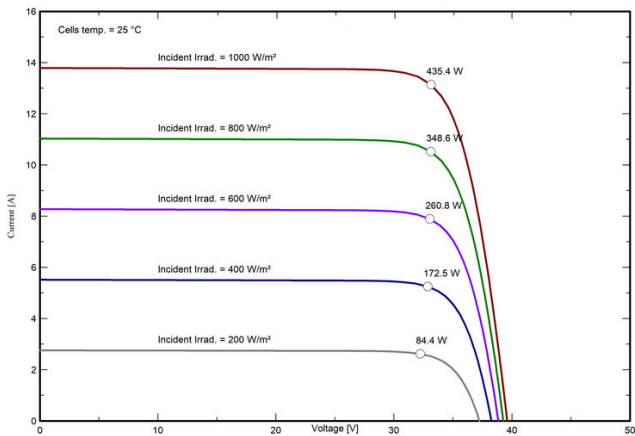
BASIC DIMENSIONS

[UNITS: MM/IN]



CURRENT-VOLTAGE CURVE

MSX10-xxxHNOB: 435W, 108 CELL SOLAR MODULE



CERTIFICATIONS AND TESTS

IEC	61215, 61730, 61701
UL	61730



Mission Solar Energy

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

MSX N-Type 108HC

ELECTRICAL SPECIFICATION

PRODUCT TYPE	MSX10-xxxHNOB (xxx = P <sub>max</sub> )			
Power Output	P <sub>max</sub> Wp	435	440	445
Module Efficiency	%	22.3	22.5	22.8
Tolerance	%	0/+3	0/+3	0/+3
Short Circuit Current	I <sub>sc</sub> A	13.79	13.9	14.02
Open Circuit Voltage	V <sub>oc</sub> V	39.56	39.62	39.69
Rated Current	I <sub>mp</sub> A	13.07	13.19	13.31
Rated Voltage	V <sub>mp</sub> V	33.31	33.37	33.44
Fuse Rating	A	30	30	30
System Voltage	V	1,500	1,500	1,500

TEMPERATURE COEFFICIENTS

Normal Operating Cell Temperature (NOCT)	45°C
Temperature Coefficient of P <sub>max</sub>	-0.29%/°C
Temperature Coefficient of V <sub>oc</sub>	-0.25%/°C
Temperature Coefficient of I <sub>sc</sub>	0.05%/°C

OPERATING CONDITIONS

Maximum System Voltage	1,500 Vdc
Operating Temperature Range	-40°F to 185°F (-40°C to +85°C)
Maximum Series Fuse Rating	30A
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

\*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 i-TOPCon Monocrystalline
Cell Orientation	108 cells
Module Dimension	1722 mm x 1134 mm x 35 mm
Weight	46.96 lbs. (21.3 kg)
Front Glass	3.2 mm AR Coating Tempered Glass
Frame	35 mm Anodized Aluminum, Black
Encapsulant	Polyolefin Elastomer (POE)
Junction Box	IP 68 Rated
Cable	1.2 m, Wire 4 mm <sup>2</sup> (12AWG)
Connector	MC4 EV02 / Staubli EVO-2A

SHIPPING INFORMATION

Truck Load	Ship To	Pallets	Modules	435W Bin
53'	Most States	28	840	365.4 kW

Double Stack: (Horizontal Orientation): 30 modules per pallet

PALLET [30 MODULES]

Weight	Height	Width	Length
1,360 lbs. (617 kg)	44.25 in (112.4 cm)	47.25 in (120 cm)	70 in (177.8 cm)