N-Type Bifacial 144HC
Dual Glass

MISSION SOLAR ENERGY

580-600W
Class leading power output

Positive Power Tolerance
0 to +3%

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
- PID resistant

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
- 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; 15-year product warrant and 30-year warranty on power output.

For more information, visit www.missionsolar.com/warranty

CERTIFICATIONS

CEC

C US

UL 61730

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

www.missionsolar.com | info@missionsolar.com

Class Leading
580-600W

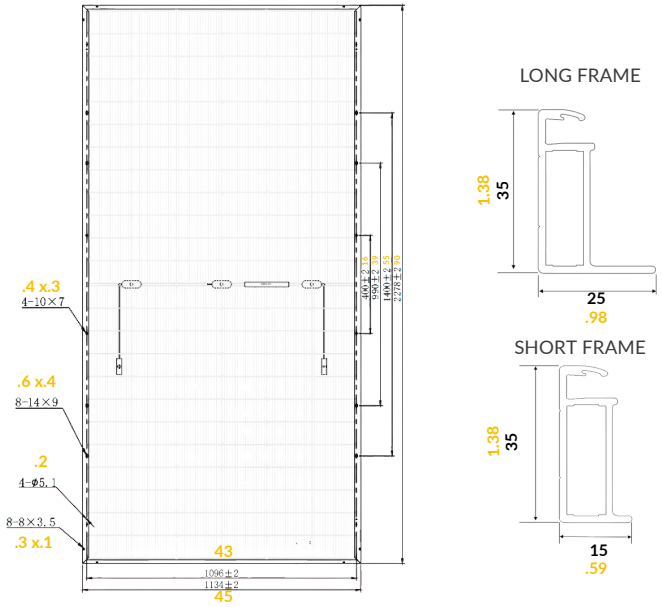
N-Type Bifacial 144HC Dual Glass

ELECTRICAL SPECIFICATION

PRODUCT TYPE	MSH10-xxxHN4G (xxx = Pmax)				
Power Output	Pmax	Wp	585	590	595
Module Efficiency		%	22.6	22.8	23
Tolerance		%	0/+3	0/+3	0/+3
Short Circuit Current	Isc	A	14.47	14.55	14.62
Open Circuit Voltage	Voc	V	51.5	51.7	51.85
Rated Current	Imp	A	13.53	13.59	13.67
Rated Voltage	Vmp	V	43.3	43.5	43.55
Fuse Rating		A	25	25	25
System Voltage		V	1,500	1,500	1,500

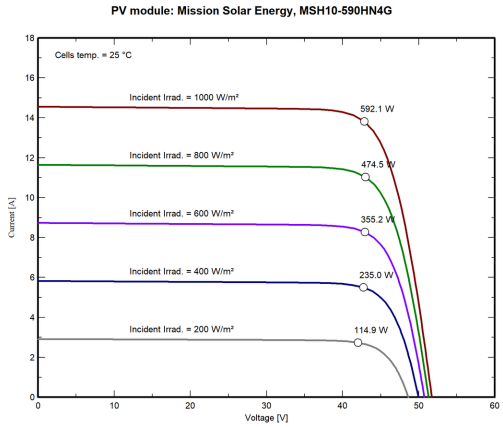
BASIC DIMENSIONS

[UNITS: MM/IN]



CURRENT-VOLTAGE CURVE

MSH10-590HN4G: 590W, 144 CELL SOLAR MODULE



ELECTRICAL SPECIFICATION (BACKSIDE)

Power Output	Pmax	Wp	445	449	453
Short Circuit Current	Isc	A	11.66	11.73	11.79
Open Circuit Voltage	Voc	V	49.4	49.6	49.8
Rated Current	Imp	A	10.7	10.77	10.82
Rated Voltage	Vmp	V	41.6	41.7	41.9

TEMPERATURE COEFFICIENTS

Nominal Module Operating Temperature (NMOT)	45°C (±2°C)
Temperature Coefficient of Pmax	-0.29%/°C
Temperature Coefficient of Voc	-0.23%/°C
Temperature Coefficient of Isc	0.046%/°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	25A
Fire Safety Classification	Type 29
Front & Back Load (UL Standard)	Up to 5,400 Pa front and 2,400 Pa back load.

MECHANICAL DATA

Solar Cells	N-type TOPCON Monocrystalline
Cell Orientation	144 cells
Module Dimension	2278 mm x 1134 mm x 35 mm
Weight	71.65 lbs. (32.5±0.5kg)
Front Glass	2.0 mm High Transmission Tempered Glass
Back Glass	2.0 mm High Transmission Tempered Glass
Frame	Anodized Aluminum Alloy
Encapsulant	Polyolefin Elastomer (POE)
Junction Box	IP 68 Rated
Cable	Wire 4 mm^2 (12AWG)
Connector	MC4 Compatible

SHIPPING INFORMATION

Truck Load	Ship To	Pallets	Modules	590W Bin
53'	Most States	16	496	292.64 kW

Double Stack: (Horizontal Orientation): 31 modules per pallet

PALLET [31 MODULES]

Weight	Height	Width	Length
1000 kg (2205 lbs)	49 in (1243 mm)	45 in (1145 mm)	91 in (2304 mm)

CERTIFICATIONS

CEC

C US

UL 61730

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

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