P-PERC Bifacial 144HC

Transparent Backsheet



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

- Half-cut cell with 10 busbar
- Passivated Emitter Rear contact
- Engineered for residential 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

CERTIFICATIONS







UL 61730

from years 2 to 30, with 84.95% guaranteed in year 30; 12-year product warranty and 30-year warranty power output.

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

FRAME-TO-FRAME WARRANTY

Degradation guaranteed not to exceed 2% in year 1 and 0.45% annually

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

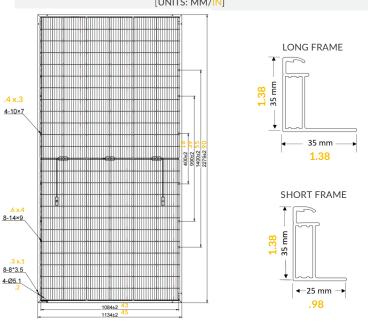
Class Leading 540-560W

P-PERC Bifacial 144HC Transparent Backsheet

ELECTRICAL SPECIFICATION					
PRODUCT TYPE	MSH10	-xxxHT	4T (xxx = 1	O _{max})	
Power Output	Pmax	Wp	545	550	555
Module Efficiency		%	21.1	21.3	21.5
Tolerance		%	0/+3	0/+3	0/+3
Short Circuit Current	lsc	Α	13.95	14	14.07
Open Circuit Voltage	Voc	V	49.65	49.8	49.95
Rated Current	Imp	Α	13.05	13.12	13.2
Rated Voltage	Vmp	V	41.8	41.95	42.1
Fuse Rating		Α	25	25	25
System Voltage		V	1,500	1,500	1,500

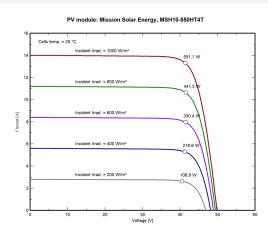
BASIC DIMENSIONS

[UNITS: MM/IN]



CURRENT-VOLTAGE CURVE

MSH10-550HT4T: 550W, 144 CELL SOLAR MODULE



Mission Solar Energy

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

C-MKTG-0051 VERSION: 1 VERSION DATE: 12/8/2025

ELECTRICAL	_ SPEC	IFIC/	ATION	(BVCK	SIDE)
Power Output	Pmax	Wp	405	409	413
Short Circuit Current	lsc	Α	11.26	11.3	11.36
Open Circuit Voltage	Voc	V	47.06	47.2	47.34
Rated Current	lmp	Α	10.22	10.29	10.35
Rated Voltage	Vmp	V	39.62	39.76	39.9

TEMPERATURE COEFFICIENTS			
Nominal Module Operating Temperature (NMOT)	45°C (±2°C)		
Temperature Coefficient of Pmax	-0.326%/°C		
Temperature Coefficient of Voc	-0.258%/°C		
Temperature Coefficient of Isc	0.051%/°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 1		
Front & Back Load (UL Standard)	Up to 5,400 Pa front and 2,400 Pa back load.		

MECHANICAL DATA			
Solar Cells	P-PERC Monocrystalline		
Cell Orientation	144 cells		
Module Dimension	2279 mm x 1134 mm x 35 mm		
Weight	60.6 lbs. (27.5 kg)		
Front Glass	3.2 mm High Transmission Tempered Glass		
Frame	Anodized Aluminum Alloy		
Encapsulant	Ethylene Vinyl Acetate (EVA)		
Junction Box	IP 68 Rated		
Cable	Wire 4 mm ² (12AWG)		
Connector	MC4 EV02 / MC4		

SHIPPING INFORMATION				
Truck Load	Ship To	Pallets	Modules	610W Bin
53'	Most States	20	620	341 kW
Double Stack: (Horizontal Orientation): 31 modules per pallet				

PALLET [31 MODULES]					
Weight	Height	Width	Length		
1969 lbs. (893 kg)	49 in (1243 mm)	45 in (1145 mm)	91 in (2304 mm)		

CERTIFICATIONS AND TESTS

CEC





UL 61730