MSE PERC 72

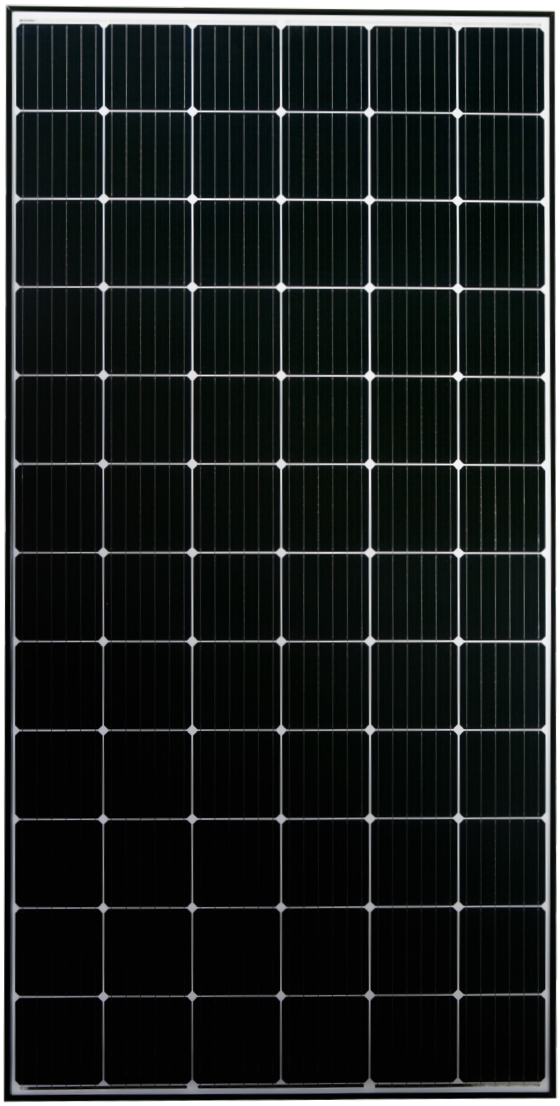
MISSION SOLAR ENERGY

420W

Class leading power output

Positive Power Tolerance

-0 to +3%



FRAME-TO-FRAME WARRANTY

Degradation guaranteed not to exceed 2% in year one and 0.58% annually from years two to 30 with 84.08% capacity guaranteed in year 25.
For more information, visit www.missionsolar.com/warranty

CERTIFICATIONS

CEC

TÜV SUD

C UL US LISTED

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.

True American Quality
True American Brand

Mission Solar Energy is headquartered in San Antonio, Texas where we manufacture our modules. We produce American, high-quality solar modules ensuring the highest-in-class power output and best-in-class reliability. Our product line is tailored for residential, commercial and utility applications. Every Mission Solar Energy solar module is certified and surpasses industry standard regulations, proving excellent performance over the long term.

Demand the best. Demand Mission Solar Energy.

Certified Reliability

- Tested to UL 61730 & IEC Standards
- PID resistant
- Resistance to salt mist corrosion

Advanced Technology

- 6 Busbar
- Passivated Emitter Rear Contact
- Ideal for all applications

Extreme Weather Resilience

- Up to 5,400 Pa front load & 3,600 Pa back load
- Tested load to UL 61730
- 40 mm frame

BAA Compliant for Government Projects

- Buy American Act
- American Recovery & Reinvestment Act

MODULES ASSEMBLED DESIGNED & ENGINEERED IN THE USA OF U.S. AND NON-U.S. PARTS

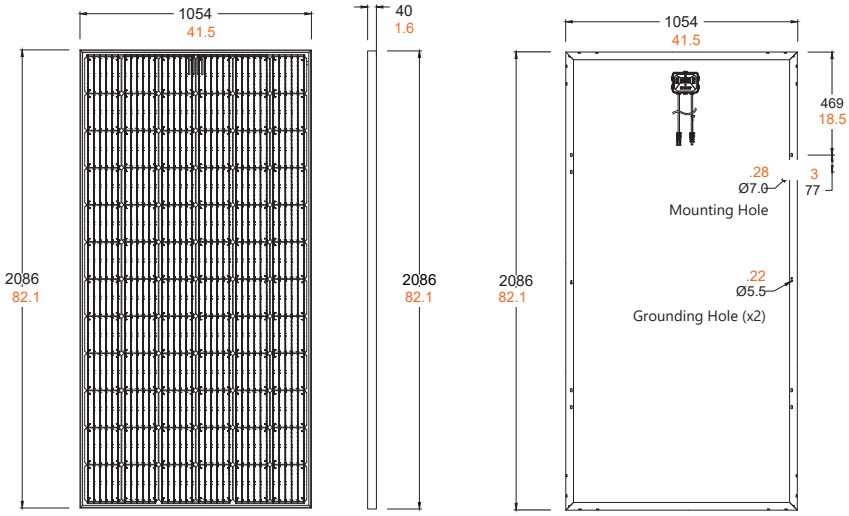
FRAME-TO-FRAME 25 YEAR WARRANTY

Class Leading
415-425W

MSE PERC 72

BASIC DIMENSIONS

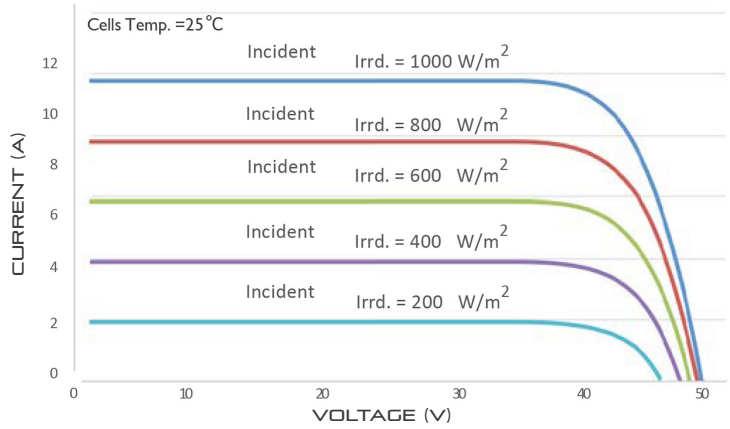
[UNITS: MM/IN]



CURRENT-VOLTAGE CURVE

MSE415SX6W: 415WP, 72 CELL SOLAR MODULE

Current-voltage characteristics with dependence on irradiance and module temperature



CERTIFICATIONS AND TESTS

IEC	**61215, 61730, 61701**
UL	**61730**

ELECTRICAL SPECIFICATION

PRODUCT TYPE	MSExxxSX6W (xxx = P_{max})				
Power Output	P_{max}	W_p	415	420	425
Module Efficiency		%	18.9	19.1	19.3
Tolerance		%	0/+3	0/+3	0/+3
Short Circuit Current	I_{sc}	V	10.99	11.05	11.09
Open Circuit Voltage	V_{oc}	A	48.92	49.14	49.28
Rated Current	I_{mp}	V	10.39	10.46	10.55
Rated Voltage	V_{mp}	V	39.93	40.14	40.27
Fuse Rating		A	20	20	20
System Voltage		V	1,500	1,500	1,500

TEMPERATURE COEFFICIENTS

Normal Operating Cell Temperature (NOCT)	44.69°C (±3.7%)
Temperature Coefficient of Pmax	-0.359%/°C
Temperature Coefficient of Voc	-0.261%/°C
Temperature Coefficient of Isc	0.044%/°C

OPERATING CONDITIONS

Maximum System Voltage	1,500Vdc
Operating Temperature Range	-40°C (-40°F) to +85°C (185°F)
Maximum Series Fuse Rating	20A
Fire Safety Classification	Type 1
Front & Back Load (UL Standard)	Up to 5400 Pa front and 3600 Pa back load, Tested to UL 61730
Hail Safety Impact Velocity	25mm at 23 m/s

MECHANICAL DATA

Solar Cells	P-type mono-crystalline silicon
Cell Orientation	72 cells (6x12)
Module Dimension	2,086mm x 1,054mm x 40mm
Weight	23.4 kg (49 lbs.)
Front Glass	3.2mm, tempered, low-iron, anti-reflective
Frame	Anodized
Encapsulant	Ethylene vinyl acetate (EVA)
Junction Box	Protection class IP67 with 3 bypass-diodes
Cable	1.2m, Wire 4mm2 (12AWG)
Connector	Staubli PV-KBT4/6II-UR and PV-KST4/6II-UR, MC4, Renhe 05-8

SHIPPING INFORMATION

Container Feet	Ship To	Pallet	Panels	415 W Bin
53'	Most States	28	728	305.76 kW
Double Stack	CA	25	650	273 kW

PALLET [26 PANELS]

Weight	Height	Width	Length
1,450 lbs. (657 kg)	47.5 in (120.65 cm)	46 in (116.84 cm)	83.75 in (212.72 cm)

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