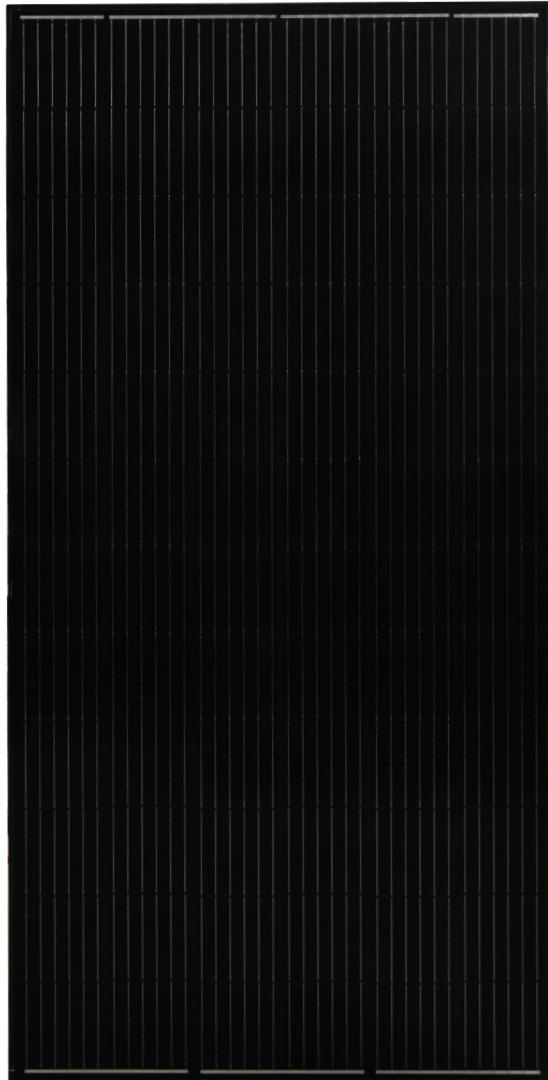


415W

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

CEC



UL 61730 / IEC 61215 / IEC 61730 / IEC 61701

CERTIFICATIONS

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

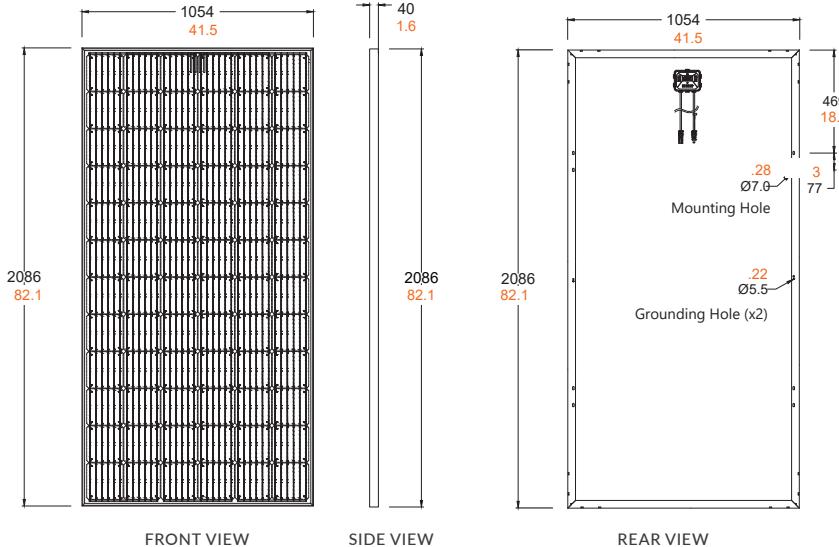
- Buy American Act
- American Recovery & Reinvestment Act

Class Leading
410-420W

MSE PERC 72

BASIC DIMENSIONS

[UNITS: MM/IN]



ELECTRICAL SPECIFICATION

PRODUCT TYPE	MSExxxSX6Z (xxx = P _{max})	410	415	420	
Power Output	P _{max}	W _p	410	415	
Module Efficiency	%	18.6	18.9	19.1	
Tolerance	%	0/+3	0/+3	0/+3	
Short Circuit Current	I _{sc}	A	10.85	10.91	10.97
Open Circuit Voltage	V _{oc}	V	48.70	48.91	49.13
Rated Current	I _{mp}	A	10.28	10.35	10.42
Rated Voltage	V _{mp}	V	39.88	40.09	40.29
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)	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 (51.6 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 4mm ² (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	302.12 kW
Double Stack	CA	25	650	269.75 kW

PALLET [26 PANELS]

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



Mission Solar Energy

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