

# MSE Mono 60

High Power Mono Rooftop Module



Class Leading Output:  
280W power



Advanced P-Type  
monocrystalline cell  
technology



Superior Aesthetics:  
All-black design coupled with  
outstanding power output



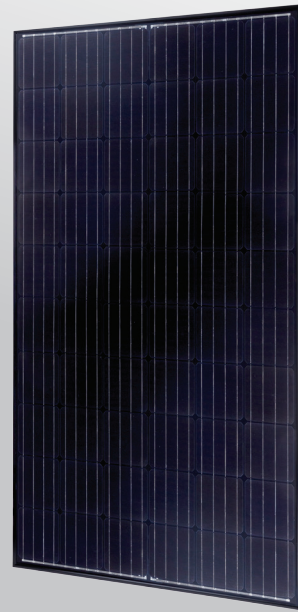
Certified Reliability:  
3X IEC, salt mist, ammonia



5600 Pa snow load **New!**  
175 mph wind rating



Buy American Act



## Proudly assembled in the USA

Mission Solar Energy is headquartered in San Antonio, TX with module facilities onsite. Our hardworking team calls Texas home and is devoted to producing high quality solar products and services. Our supply chain includes local and domestic vendors increasing our impact to the U.S. economy.



Assembled  
in the USA

## CERTIFICATIONS

IEC 61215/ IEC 61730/ IEC 61701 UL 1703



\*As there are different certification requirements in different markets, please contact your local Mission Solar Energy sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

## Superior Aesthetics

The MSE Mono 60's slick all-black design coupled with outstanding power output makes it ideal for DG installations including commercial and rooftop systems.

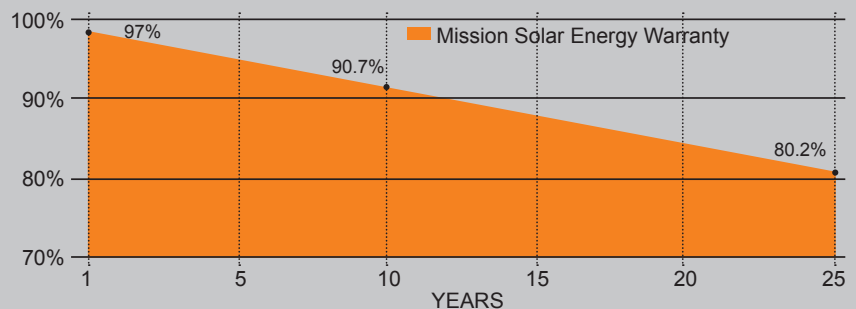
## Proven reliability and bankability

Mission Solar Energy panels have been tested by independent testing centers to meet and exceed IEC standards. Our panels are deployed in projects across North America.

## Best in class quality

Mission Solar Energy production lines are fully automated and include multiple quality checks throughout the production process.

## 25-YEAR LINEAR WARRANTY



## ELECTRICAL SPECIFICATIONS

Electrical parameters at Standard Test Condition (STC)

Module Type			MSE270SO5T	MSE275SO5T	MSE280SO5T
Power Output	P <sub>max</sub>	W <sub>p</sub>	270	275	280
Module Efficiency		%	16.26	16.55	16.85
Tolerance			0~+3%		
Short-Circuit Current	I <sub>sc</sub>	A	9.09	9.17	9.27
Open Circuit Voltage	V <sub>oc</sub>	V	38.21	38.45	38.60
Rated Current	I <sub>mp</sub>	A	8.64	8.72	8.79
Rated Voltage	V <sub>mp</sub>	V	31.28	31.55	31.87

STC: Irradiance 1000 W/m<sup>2</sup>, Cell temperature of 25°C, AM 1.5

## TEMPERATURE COEFFICIENTS

Normal Operating Cell Temperature (NOCT)	44°C (±2°C)
Temperature Coefficient of P <sub>max</sub>	-0.415%/°C
Temperature Coefficient of V <sub>oc</sub>	-0.312%/°C
Temperature Coefficient of I <sub>sc</sub>	0.042%/°C

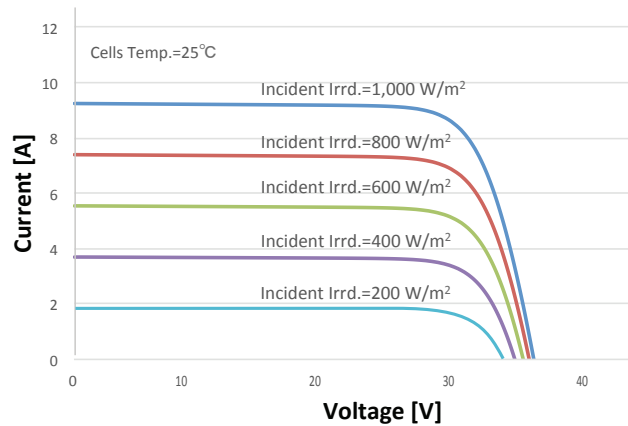
## OPERATING CONDITIONS

Maximum System Voltage	1,000VDC
Operating Temperature Range	-40°C (-40°F) to +90°C (194°F)
Maximum Series Fuse Rating	15A
Fire Safety Classification	Type 1, Class C
Front & Back Load (UL standard)	5600 Pa (117 psf) <b>New!</b>
Hail Safety Impact Velocity	25mm at 23 m/s

## MECHANICAL DATA

Solar Cells	P-type Mono-crystalline Silicon (156.75mm)
Cell orientation	60 cells (6x10), 4 busbar
Module dimension	1664mm x 999mm x 40mm (65.51 in. x 39.33 in. x 1.57 in.)
Weight	18.2 kg (40.1 lb)
Front Glass	3.2mm (0.126 in.) tempered, Low-iron, Anti-reflective coating
Frame	Anodized aluminum alloy
Encapsulant	Ethylene vinyl acetate (EVA)
J-Box	Protection class IP67 with 3 bypass-diodes
Cables	PV wire, 1m (39.37 in.), 4mm <sup>2</sup> / 12 AWG
Connector	MC4 or compatible

## MSE270SO5T: 270WP, 60CELL SOLAR MODULE CURRENT-VOLTAGE CURVE



Current-voltage characteristics with dependence on irradiance and module temperature

## BASIC DESIGN (UNITS: mm)

