

# Diamond Premium™

## MLE 280W



The Diamond Premium 280W is a high-efficiency module with half-cut, four busbar monocrystalline cells. Designed for durability with a double coated anodized frame and I-beam support bar, the Diamond Premium excels in any environment.

Modules are the heart of a PV system.

Why take chances? Mitsubishi Electric, a diversified global Fortune 500 firm founded in 1921, manufactures panels that greatly exceed industry requirements. With 40+ years of PV experience, Mitsubishi has small and large installations around the globe, demonstrating the strength and resilience of the modules in a variety of environments. Mitsubishi modules, designed for reliability and durability, are manufactured in our own factories in Japan. With financial strength and unparalleled product quality, you can count on Mitsubishi Electric.

### Technological Innovations

The Diamond Premium series of panels features several innovations, including half-cut, four busbar cells, improving efficiency and reducing the potential for micro cracking. Drainage notches also keep panels cleaner and producing more electricity. Thicker frames and an I-beam support bar bolster frame rigidity to protect the cells. The four-layer, potted junction box enhances safety by keeping dust and water out.

### Enhanced Reliability

Engineering excellence and attention to the finest detail ensure longevity and optimal performance. Our corrosion-resistant design even allows installation in coastal areas.

### Mitsubishi Electric Quality

Our experienced engineers and meticulous manufacturing processes provide the highest quality products possible. Automated production lines ensure consistent high quality in every cell and module, each flash tested to ensure rated level of output. All Mitsubishi Electric modules are manufactured in Japan and made with 100% lead-free solder, a safer and more eco-friendly solution.

### FEATURES

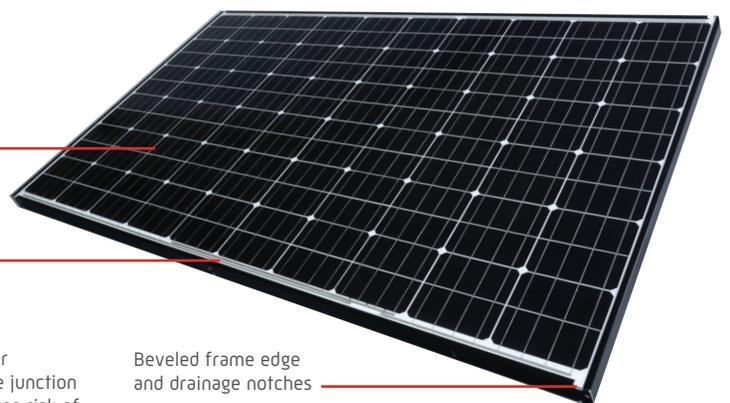
- 25 years** Linear performance warranty
- 10 years** Workmanship & materials warranty
- 0/+5%** Positive power tolerance
- 1000 volts** Maximum system voltage
- 100% lead-free solder** Safer for the environment
- 97.7%** Excellent low light performance
- 2000 hours** Accelerated aging test  
2000 hours damp heat test  
400 thermal cycles

Proprietary cell surface texturing process increases light absorption

Half-cut, four bus bar, monocrystalline cells increase module efficiency



Four-layer protective junction box reduces risk of failure from water or dust intrusion, enhancing reliability and safety



Beveled frame edge and drainage notches

Double anodized frame for greater corrosion resistance

Solid C-Channel frame

COUNT ON ME

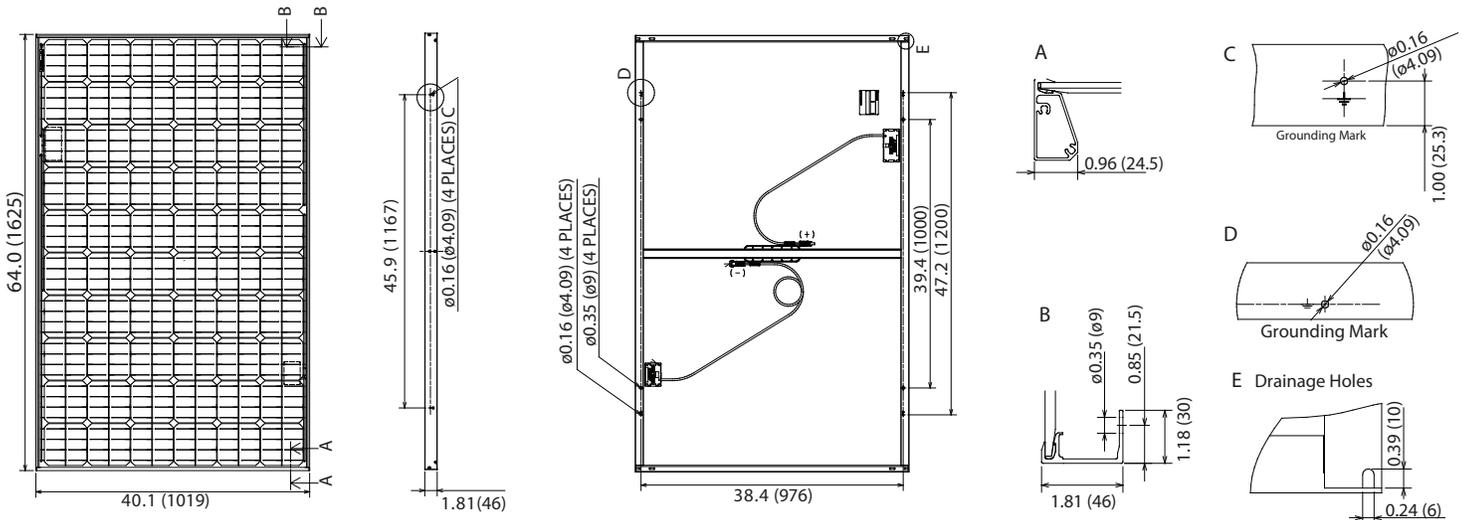


## Module Specifications

Model name	PV-MLE280HD2
Cell type	Monocrystalline Silicon, 78mm x 156 mm
Number of cells	120 cells
Maximum power rating (Pmax)	280 W
Warranted minimum Pmax	280 W
PV USA test condition rating (PTC)	252.1 Wp
Open circuit voltage (Voc)	38.6V
Short circuit current (Isc)	9.37A
Maximum power voltage (Vmp)	32.4V
Maximum power current (Imp)	8.68A
Module efficiency	16.9%
Aperture efficiency	19.5%
Tolerance of maximum power rating	-0/+5%
Weight Static load test passed	5,400 Pa
Number of bus bars per cell	4 Bus bars

Normal operating cell temperature (NOCT)	46.5°C
Maximum system voltage, DC	600V & 1000V (UL), 1000V (IEC)
Fuse rating	15A
Dimensions	64.0 x 40.1 x 1.81 inch (1625 x 1019 x 46 mm)
Weight	44 lbs (20kg)
Number of modules per pallet	22
Number of modules per container (40 ft. container)	616
Output terminal	(+) 800mm, (-) 1250mm with SMK (PV-03) connector
Certifications	UL 1703, IEC 61215 2nd Edition, IEC 61730
Fire rating	Type 2, 5, 8
Country of Origin	Made in Japan

## Drawings and Dimensions Unit inch (mm)



## Electrical Characteristics

