# 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

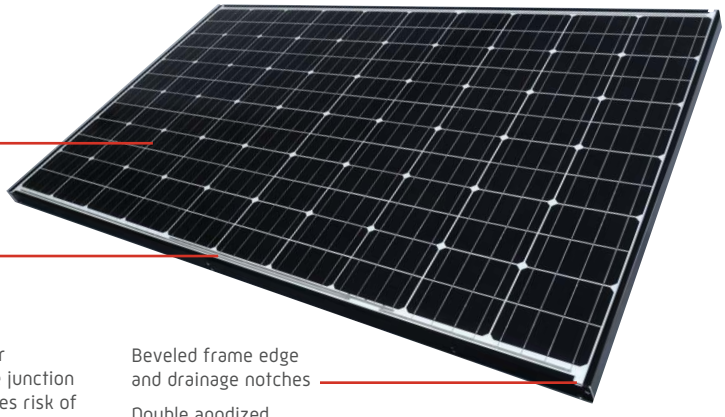
Engineering excellence and attention to the finest detail ensure longevity and optimal performance. Our corrosion-resistant design even allows installation in coastal areas.

## 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






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

COUNT ON ME

MITSUBISHI ELECTRIC
SOLAR INNOVATIONS

Diamond Premium is a trademark of Mitsubishi Electric US, Inc.

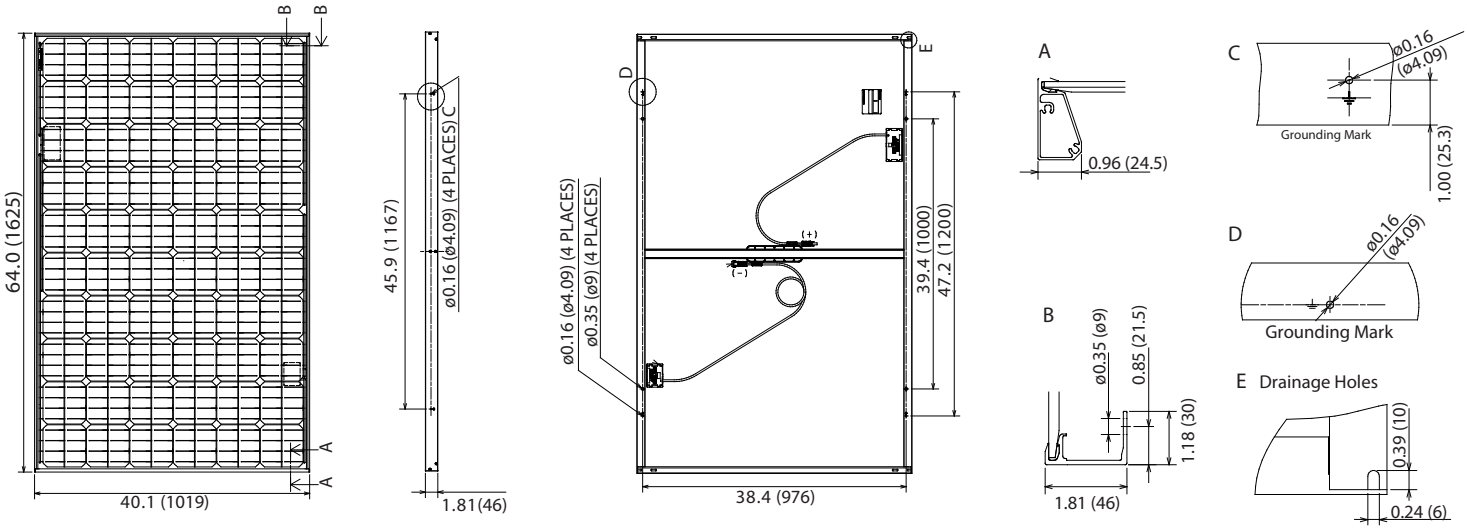
# Diamond Premium™

## Module Specifications

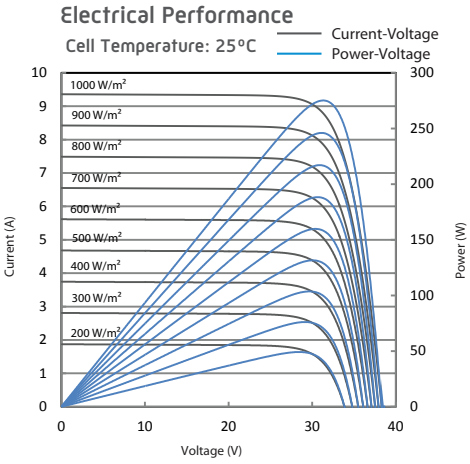
| | |
|---|---|
| Model name | PV-MLE280HD2 |
| Cell type | Monocrystalline Silicon, 78mm x 156 mm |
| Number of cells | 120 cells |
| Maximum power rating (Pmax) | 280 W |
| Warranted minimum Pmax | 280 W |
| PV USA test condition rating (PTC) | 252.1 Wp |
| Open circuit voltage (Voc) | 38.6V |
| Short 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 |

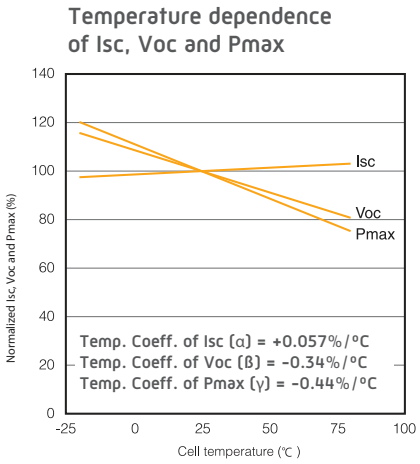
| | |
|---|---|
| Normal operating cell temperature (NOCT) | 46.5°C |
| Maximum system voltage, DC | 600V & 1000V (UL), 1000V (IEC) |
| Fuse rating | 15A |
| Dimensions | 64.0 x 40.1 x 1.81 inch (1625 x 1019 x 46 mm) |
| Weight | 44 lbs (20kg) |
| Number of modules per pallet | 22 |
| Number of modules 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 |

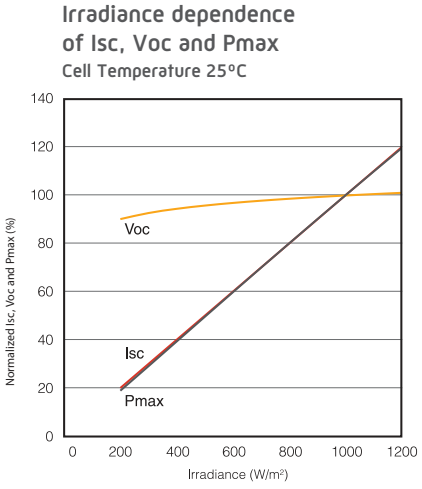
## Drawings and Dimensions Unit: inch (mm)




## Electrical Characteristics




MITSUBISHI ELECTRIC
SOLAR INNOVATIONS

Mitsubishi Electric US, Inc., 5900-A Katella Avenue, CA 90630-5019 Ph: 714-236-6137 Email: pv@meus.mea.com www.MitsubishiElectricSolar.com