

### MITSUBISHI ELECTRIC PHOTOVOLTAIC MODULE

# PV-MF165EB4<sub>165Wp</sub>

#### Lead content: 0 g\*. A new form of photovoltaic power generation, even friendlier to the environment.

Previously, the total amount of lead used in the photovoltaic modules required providing power to a single residence (using a 3 kw system) was around 864 g. The new lead-free solder modules use no lead whatsoever.

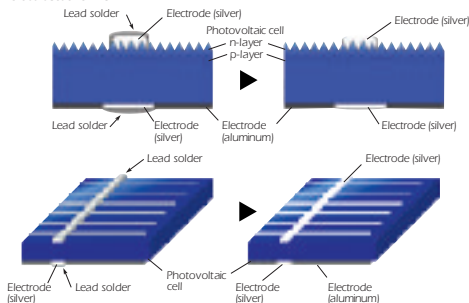
\*lead volume used in soldered parts



#### No solder coating required for cells-for higher PV module conversion efficiency.

Using newly developed silver electrodes that offer superior weatherproofing, we've perfected a technology for producing photovoltaic cells that do not require solder coatings. We've even achieved higher PV module conversion efficiency, taking advantage of the new product's ability to more uniformly reflect the sun's rays.

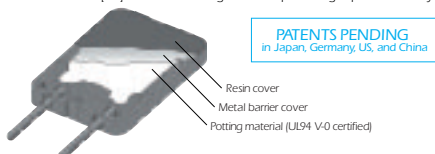
Cross-sectional view



#### An industry first.\* A triple-layered terminal box with remarkable water resistance and flame retardancy.

- 1) Adopts a highly flame resistance UL94 V-0 certified potting material\*\* throughout the terminal box interior.
- 2) The latest potting technologies achieve superb water resistance.
- 3) Adopts a newly-designed triple-layered construction of V-0 potting material, a metal barrier cover, and a resin cover.

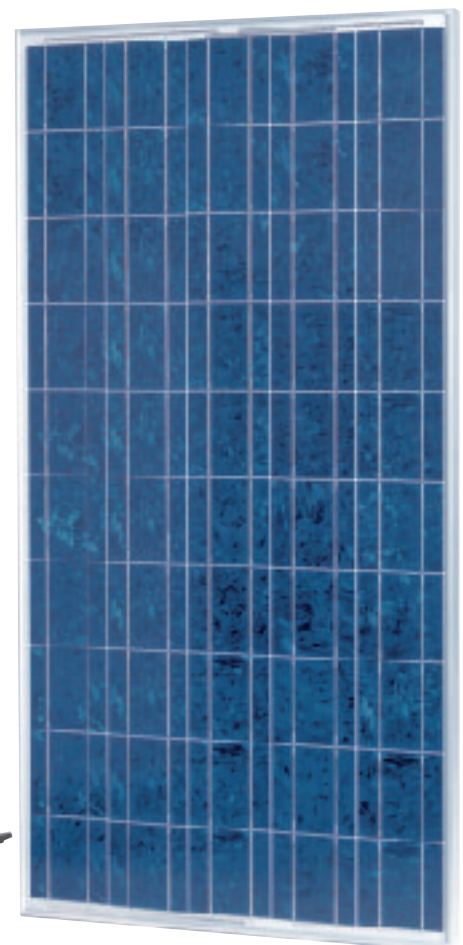
\*. In mass-production level photovoltaic modules as of June 2003.  
 \*\*Uses material certified to meet UL94 V-0 flammability standards for plastics by the Underwriters Laboratories Inc. (Underwriters Laboratories Inc. [UL] is a US-based organization specializing in product-safety testing and certification.)



- Designed for both commercial and domestic applications suitable for grid-connected systems, the module offers both high performance and reliability.
- The polycrystalline photovoltaic module is manufactured to the strictest engineering guidelines, ensuring all modules meet the strict requirements of international quality standards. UL 1703/IEC 61215/TÜV Safety Class II
- High power output is achieved using 150mm square polycrystalline silicon cells, thereby achieving greater output due to the high coverage area of the individual cells. Each cell string is protected by sheets of ethylene vinyl acetate (EVA) and laminated between a weatherproof backing film and a highly transmissive, highly impact-resistant, tempered glass and light can be effectively converted to electricity by using an anti-reflection coating.
- The clear anodized aluminium alloy frames are robust and corrosion resistant.
- Bypass diode minimizes power decrease caused by shade.
- Frame holes make installation flexible.



Cables with MC connectors are affixed to a junction box and facilitate excellent workability.



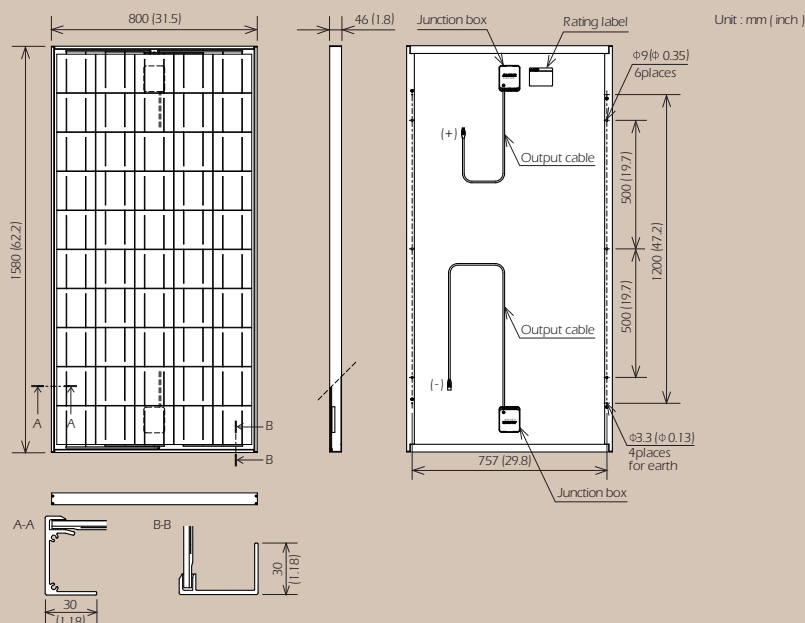
# PV-MF165EB4<sub>165Wp</sub>

## SPECIFICATIONS

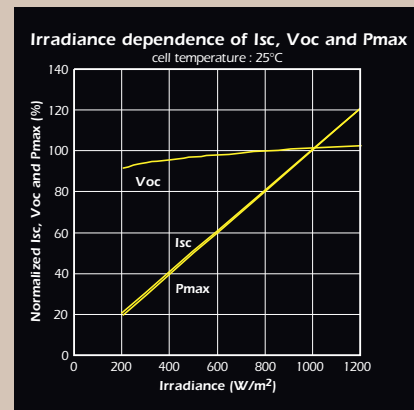
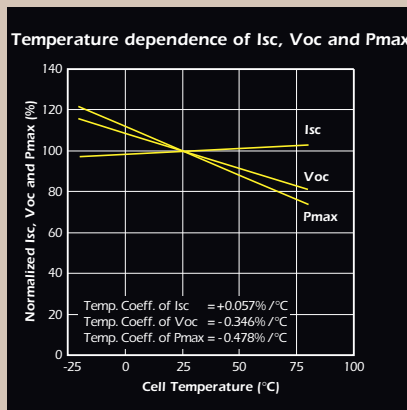
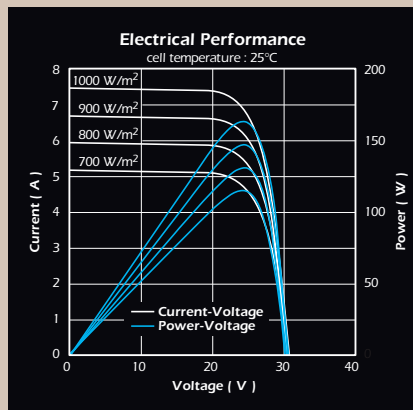
Model name	PV-MF165EB4
Cell type	Polycrystalline silicon 150mm square
No. of cells	50 in series
Maximum power rating [Pmax]	165W
Warranted minimum Pmax	156.8W
Open circuit voltage [Voc]	30.4V
Short circuit current [Isc]	7.36A
Maximum power voltage [Vmp]	24.2V
Maximum power current [Imp]	6.83A
Maximum system voltage	DC 780V (TÜV Safety class II), DC 600V (UL)
Fuse rating	15A
Output terminal	Cable with MC connector
Dimensions	1580x800x46mm (62.2x31.5x1.8")
Weight	15.5kg (34.2lb)
Module efficiency	13.1%
Packing condition	2pcs-1 carton

Electric performance represents values under Standard Test Conditions (STC:25°C, AM1.5, 1000W/m<sup>2</sup>). Specifications are subject to change without notice.

## DRAWINGS AND DIMENSIONS



## ELECTRICAL CHARACTERISTICS



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