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# MITSUBISHI ELECTRIC ANNOUNCES NEW PHOTOVOLTAIC MODULES FOR STAND-ALONE SYSTEMS

**Tokyo, April 8, 2009** – Mitsubishi Electric Corporation (President and CEO: Setsuhiro Shimomura) (TOKYO: 6503) announced today the launch of four new models of photovoltaic (PV) modules for the worldwide market, suitable for use in stand-alone solar power generation systems in the midlands of the USA and in regions where the local electrification infrastructure is insufficient or non-existent, such as in remote areas of developing countries. Shipment will begin on April 10, 2009.

## **Summary of Sale**

Product	Model	Cell type	Maximum power rating	Number of cells	Price	Shipping date
Photovoltaic	PV-EE130MF5F	<b>5</b> 1 11	130Wp	26 :	Ouoted	4 11 10
Module for	PV-EE125MF5F	Polycrystalline	125Wp	36 pieces	upon	April 10,
Stand-alone	PV-EE120MF5F	silicon	120Wp	$(9 \times 4)$	consultation	2009
Systems	PV-EE115MF5F		115Wp		Consultation	

# Aim of Sale

The PV systems market has been rapidly expanding globally due to increasing environmental concerns, as seen in worldwide efforts to reduce carbon dioxide emissions to prevent global warming. The PV market of the USA, in particular, has been gaining greater momentum with the introduction of environmental initiatives within the new stimulus plan, and enhancements in government subsidies. Mitsubishi Electric expects the USA market volume to surpass 1 GW by 2012, with stand-alone systems that power streetlights, traffic lights, water pumping systems for sprinklers and other equipment making up 20% of the demand.

Meanwhile, countries in Asia and Africa with areas that lack power plants, power lines, and other infrastructure are promoting projects to install stand-alone PV systems in order to meet electricity needs.

Mitsubishi Electric's new lineup of PV modules for stand-alone systems consists of models with outputs from 115W to 130W. Compared to the company's previous models, the new models have specifications more suitable for off-grid installation environments in the midlands of the USA and remote areas in developing countries. Mitsubishi Electric will attempt to meet the diverse demands of various countries and usage patterns.

Mitsubishi Electric plans to expand its annual production capacity to 600 megawatts in fiscal 2012 (April 1, 2011-March 31, 2012). The company has also enhanced its PV business by forming a new division, the Photovoltaic Systems Division, in the Living Environment & Digital Media Equipment Group as of April 1, 2009. Mitsubishi Electric will continue to promote PV systems worldwide, thus contributing not only to the prevention of global warming in developed countries, but also to enhance social infrastructure in developing countries.

## **Main Features**

## 1) Junction box dedicated to stand-alone PV systems makes installation easy and enhances safety

The new models are equipped with a junction box dedicated to stand-alone PV systems, taking into consideration the remote installation environments that they are often used in. The lid does not separate from the box, and can stay open at a fixed angle, enabling easier cable installation. This junction box was first adopted in Mitsubishi Electric's small-size PV modules announced August 27, 2008, with its patents pending. A highly flame-retardant mica sheet has been added to the inside of the junction box lid, enhancing safety. In the rare event of fire caused by a faulty or incorrect connection when installed, the sheet will prevent flames from spreading outside the junction box.

# 2) Power voltage appropriate for stand-alone systems

The modules each consist of 36 PV cells, and their operating voltages are suitable for a 12V rechargeable battery, which is most widely used in stand-alone PV systems.

#### 3) Lead-free solder reduces negative impact on the environment

These modules use solder containing zero lead (0g), minimizing negative impact on the environment.

## **Main Specifications**

Product	Photovoltaic Modules for Stand-alone Systems					
Model	PV-EE130M	PV-EE125M	PV-EE120M	PV-EE115M		
Model	F5F	F5F	F5F	F5F		
Cell type	Polycrystalline silicon					
Number of cells	36 pieces (9 x 4)					
Maximum power rating [Pmax]	130W	125W	120W	115W		
Maximum power voltage [Vmp]	17.4V	17.3V	17.2V	17.1V		
Maximum power current [Imp]	7.47A	7.23A	6.99A	6.75A		
Maximum system operation voltage	600V					
Tolerance	+10%/-5%					
Weight	13.0 kg (28.7lbs)					
Dimensions	1495 x 674 x 46 mm (58.9.0 x 26.5 x 1.81 inch)					
Module conversion efficiency	12.9%	12.4%	11.9%	11.4%		
Certifications	IEC 61215 Second Edition 2, IEC61730, UL1703,					
Certifications	ULC/ORD-C1703-1					
Ambient temperature	-20 to 40 degrees C					

#### **About Mitsubishi Electric**

With over 80 years of experience in providing reliable, high-quality products to both corporate clients and general consumers all over the world, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacturing, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. The company recorded consolidated group sales of 4,049.8 billion yen (US\$ 40.5 billion\*) in the fiscal year ended March 31, 2008. For more information, visit http://global.mitsubishielectric.com

\*At an exchange rate of 100 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2008

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