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Mitsubishi Electric Unveils Sixth-generation MPD Series of IGBT Modules

For smaller, more efficient power converters in wind power-generation and photovoltaic systems

Tokyo, May 8, 2012 – Mitsubishi Electric Corporation (TOKYO: 6503) announced today its Sixth-generation Mega Power Dual (MPD) Series of three insulated-gate bipolar transistor (IGBT) modules. The modules, which are for use in power converters, mainly those in large-capacity photovoltaic (PV) and wind power-generation systems, also are suitable for high-power applications in large-capacity inverters and uninterruptible power supply (UPS) systems for industrial equipment. Shipments will begin May 31 through Mitsubishi Electric sales sites (www.MitsubishiElectric.com/semiconductors/network/) in the Americas, Europe, China and Korea.

The modules will be showcased at PCIM Europe 2012 in Nuremberg, Germany from May 8-10.



MPD Series of IGBT Module

Power generation systems are increasingly shifting to natural energy sources, such as wind and solar power, as part of efforts to limit carbon dioxide (CO₂) emissions attributed to global warming. The Sixth-generation MPD Series responds to the growing need for robust power-conversion equipment in newer, large-scale megawatt-class systems. The predecessor series Fifth-generation MPD was released in 2002.

Product Features

1) *Enables smaller, more efficient power-conversion equipment*

- The new modules' sixth-generation carrier-stored trench-gate bipolar transistor (CSTBT) reduces collector-emitter saturation voltage by approximately 15 percent compared to fifth-generation IGBT modules (CM900DUC-24NF, CM1400DUC-24NF and CM1000DUC-34NF).
- Gate capacitance reduced by 30–50 percent.
- Maximum junction temperature raised by 25°C to 175°C.

2) *Compatibility with previous IGBT models*

- Shape, size and pin configuration are the same as those of fifth-generation IGBT modules.
- Isolation voltage raised by 14–60 percent to 4,000V.

Environmental awareness

The Sixth-generation MPD Series is compliant with the European Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS).

Note: CSTBT is a registered trademark of Mitsubishi Electric.

Main Specifications

Model	CM900DUC-24S	CM1400DUC-24S	CM1000DUC-34SA
Collector-emitter voltage (V)	1,200	1,200	1,700
Collector current (A)	900	1,000	1,400
Collector-emitter saturation voltage (V)	1.55	1.55	1.9
Isolation voltage (Vrms)	4,000	4,000	4,000
Module size (mm)	150 (W) × 166 (D) × 34(H)		

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About Mitsubishi Electric

With over 90 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, 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. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology.

The company recorded consolidated group sales of 3,639.4 billion yen (US\$ 44.4 billion*) in the fiscal year ended March 31, 2012. For more information visit <http://www.MitsubishiElectric.com>

*At an exchange rate of 82 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2012