

MITSUBISHI ELECTRIC CORPORATION
PUBLIC RELATIONS DIVISION
7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo, 100-8310 Japan

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Product Inquiries

Power Device Overseas Marketing Dept.A and Dept.B
Mitsubishi Electric Corporation
semi.power@me.MitsubishiElectric.co.jp
<http://www.MitsubishiElectric.com/semiconductors/>

Media Inquiries

Public Relations Division
Mitsubishi Electric Corporation
prd.gnews@nk.MitsubishiElectric.co.jp
<http://www.MitsubishiElectric.com/news/>

Mitsubishi Electric to Release Sample TYPE+B J-Series IPMs

New intelligent power modules will strengthen automotive safety and functionality

Tokyo, April 18, 2013 – Mitsubishi Electric Corporation (TOKYO: 6503) announced today it has developed a series of large-capacity intelligent power modules (IPMs) mainly for application in electric and hybrid vehicles. Sample shipments of two J-Series IPM (TYPE+B) models will start August 5 and mass production is expected to begin in 2014.

J-Series IPM (TYPE+B) models will be exhibited at Power Conversion Intelligent Motion (PCIM) Europe 2013 in Nuremberg, Germany on May 14-16.



J-Series IPM TYPE+B

Power modules for automobiles offer higher reliability than industrial-use modules due to extremely high standards for vehicle safety. Mitsubishi Electric pioneered the mass production of power modules for hybrid vehicles in 1997, and since then the demand for these modules has grown in parallel with the expanding global market for electric and hybrid vehicles.

Sample Products

Series	Package	Model	Specifications	Saturation Voltage (Typ, Ic=Rating, Tj=25°C)	Sample Shipment
J-Series IPM	TYPE+B	PM500CJG120G	500A/1200V (6-in-1 package)	2.0V	Aug. 5, 2013
		PM800CJG060G	800A/600V (6-in-1 package)	1.8V	

Features of Sample Products

1) Large-capacity IPM for automotive motors

- J-Series TYPE+B series offers a choice of 600V/800A and 1,200V/500A models.
- Larger current capacity than existing TYPE-B models, but with same footprint area.
- Built-in power supplies for IGBT drive and logic circuits.

2) All-in-one IPM for automotive motors

- Low-loss 3-phase CSTBT™ inverter configuration with built-in control-power supply circuit, optimized IGBT drive & protection circuit, and high-grade isolation photo-couplers.
- High-accuracy analog temperature monitor for chip center.

Common Features of All J-series IPMs

- IGBT drive & Protection (short-circuit protection, control-power-supply under-voltage protection, over-temperature protection and fault signaling output).
- Isolation with photo-couplers.
- High-accuracy analog temperature output function monitors chip center.
- High-accuracy analog power-supply voltage output function monitors inverter DC-link voltage (optional).
- IPM enabling ready-signal input for fail-safe operation.
- Vibration-resistant connectors for reliable interface with customer designs.

Environmental awareness

- J-series TYPE+B is compliant with the European Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (RoHS).

J-series IPM Lineup

Series	Package	Model	Shipment Date
J-Series IPM	TYPE-A	PM150CJG120G	Samples available
		PM300CJG060G	
	TYPE-B	PM300CJG120G	
		PM600CJG060G	
	TYPE+B	PM500CJG120G	Aug 5, 2013
		PM800CJG060G	

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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

CSTBT is registered trademark of Mitsubishi Electric