



## MITSUBISHI ELECTRIC CORPORATION

PUBLIC RELATIONS DIVISION

7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo, 100-8310 Japan

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Customer Inquiries

Power Device Overseas Marketing Dept.A and Dept.B Mitsubishi Electric Corporation

http://www.MitsubishiElectric.com/semiconductors/

#### No. 2928

Media Inquiries

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

# Mitsubishi Electric to Launch DIPIPM+ Series

Smaller, simpler design for inverter systems in air conditioners and industrial applications

**TOKYO, May 7, 2015** – <u>Mitsubishi Electric Corporation</u> (TOKYO: 6503) announced today the launch of DIPIPM+, new models in its DIPIPM<sup>TM</sup> series of inverter applications featuring loading converter and brake circuits for reduced design load and size. Sales begin May 29.

The new models will be exhibited at major trade shows including Power Conversion Intelligent Motion (PCIM) Europe 2015 in Nuremberg, Germany from May 19 to 21, MOTORTECH JAPAN 2015 during TECHNO-FRONTIER 2015 in Japan from May 20 to 22, and PCIM Asia 2015 in China from June 24 to 26.

Mitsubishi Electric commercialized its first DIPIPM transfer-mold intelligent power module in 1997, the beginning of its ongoing contributions to miniaturization and energy savings in inverter systems. DIPIPM has contributed to miniaturization and energy-savings in inverter systems. To achieve more compact and simpler design, Mitsubishi Electric has developed DIPIPM+ that has inverter, converter and brake circuit with one package.



DIPIPM+ series

## **Product Features**

## 1) Inverter, converter and brake circuits in one package for inverter systems

- DIPIPM with a built-in inverter and a driving circuit, and newly added converter and brake circuits, and incorporated into one package
- Realized the small package by Mitsubishi Electric's own direct wire bonding technology
- Built-in bootstrap diode (BSD) with current limit resistor and analog temperature voltage output

## 2) Downsizing and simpler design for inverter systems

- Reduced external components thanks to built-in converter and brake circuits
- Simpler design for inverter systems with simpler wiring pattern on board

## Sale Schedule

Series	Model	Specification	Shipment	
DIPIPM+	PSS05MC1FT	5A/1200V	June 30, 2015	
	PSS10MC1FT	10A / 1200V		
	PSS15MC1FT	15A / 1200V		
	PSS25MC1FT	25A / 1200V	May 29, 2015	
	PSS35NC1FT*	35A / 1200V	June 30, 2015	
	PSS50MC1F6	50A / 600V		

\* Does not include a brake circuit

## **Main Specifications**

Model	PSS05MC1FT	PSS10MC1FT	PSS15MC1FT	PSS25MC1FT	PSS35NC1FT	PSS50MC1F6		
Specification	5A/1200V	10A / 1200V	15A / 1200V	25A/1200V	35A/1200V	50A/600V		
Dimensions	34.0×85.0×5.7 mm							
Build-in chips	Three-phase inverter bridge with build-in IGBT, FWD, HVIC, LVIC							
	and Bootstrap Diode chips.							
	Three-phase converter circuit and brake circuit.							
	Short-circuit protection (by shunt resistance).							
	Control power supply under-voltage (UV) protection: F <sub>0</sub> output on N-side protection.							
	Analog temperature voltage output (VOT).							

## **Environmental Awareness**

The DIPIPM+ series are compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) directive 2011/65/EU.

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#### About Mitsubishi Electric Corporation

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 4,323.0 billion yen (US\$ 36.0 billion\*) in the fiscal year ended March 31, 2015. For more information visit: http://www.MitsubishiElectric.com

\*At an exchange rate of 120 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2015

DIPIPM is a registered trademark of Mitsubishi Electric Corporation.