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No. 2753

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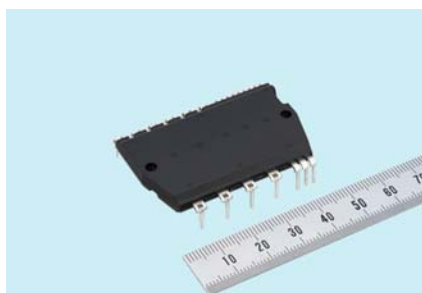
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Mitsubishi Electric to Launch Mini DIIPM for Industrial Applications

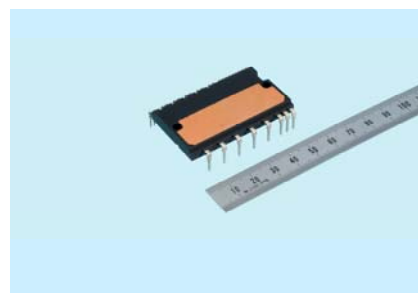
Reduces power consumption, size and cost of small motors, servos and more

TOKYO, April 9, 2013 – [Mitsubishi Electric Corporation](http://www.mitsubishielectric.com) (TOKYO: 6503) announced today it will launch a new series of transfer-mold-type, mini dual-inline-package intelligent power modules (DIIPM™) primarily for inverter drive systems of small-capacity motors, servos and other industrial equipment. The modules feature embedded bootstrap diode (BSD) chips, embedded analog temperature voltage output (VOT) and a 5A–50A current rating. Sales begin April 25.

Motor drive inverter systems have been evolving rapidly in recent years in response to increasing demands for energy savings. Mitsubishi Electric's new 5A–50A industrial Mini DIIPM series uses sixth-generation IGBT chips featuring the carrier-stored trench-gate bipolar transistor (CSTBT™) structure, a special feature of Mitsubishi Electric IGBT chips, as well as integrated external components such as BSD, current-limiting resistors and thermistors, to reduce the power consumption, size and cost of small-capacity inverter systems.



New Mini DIIPM (5A–15A)



New Mini DIIPM (20A–50A)

Product Features

1) Reduced power consumption, size and cost for small-capacity inverter systems

- Sixth-generation IGBT chips featuring the CSTBT structure enable power loss to be reduced by about 10% compared to Mitsubishi Electric's existing Mini DIIPM products (Mini DIIPM Ver. 3 series with 5A–15A current rating and Mini DIIPM Ver. 4 series with 20A–50A current rating).
- Reduced size of external components (BSD, BSR and thermistor) by incorporating VOT and BSD with current-limiting resistor.

- External dimensions compatible with Mitsubishi Electric's existing Mini DIIPM products.

2) *Current rating of 50A in PSS50S71F6 Mini DIIPM package*

- External dimensions (31.0 x 52.5mm) reduced 34% compared to Mitsubishi Electric's existing PS21869-* Large DIIPM Ver.3 series (31.0 x 79.0mm) due to the use of insulation sheet structure package for excellent thermal dissipation.

Environmental awareness

The Mini DIIPM Series is compliant with the European Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (RoHS).

Sale Schedule

Model	Specification	Shipment date
PSS05S51F6	5A/600V	August 30, 2013 (samples available from June 28, 2013)
PSS10S51F6	10A/600V	
PSS15S51F6	15A/600V	
PSS20S71F6	20A/600V	April 25, 2013
PSS30S71F6	30A/600V	
PSS50S71F6	50A/600V	

Main Specifications

Model	PSS05S51F6	PSS10S51F6	PSS15S51F6
Specification	5A/600V	10A/600V	15A/600V
Dimensions	30.5×49.0×5.0 mm (same as Mini DIIPM ver. 3)		
Build-in Chips	Three-phase inverter bridge with built-in IGBT, FWD, HVIC, LVIC and bootstrap diode chips		
Functions	<ul style="list-style-type: none"> • Short circuit protection by external shunt resistor • Controlled power-supply under-voltage (UV) protection: Fo output on N-side • Analog temperature voltage output (VOT) 		
Other	Inverter with divided-emitter-type N-side (3 shunts)		

Model	PSS20S71F6	PSS30S71F6	PSS50S71F6
Specification	20A/600V	30A/600V	50A/600V
Dimensions	31.0×52.5×5.6 mm (same as Mini DIIPM ver. 4)		
Built-in Chips	Three-phase inverter bridge with built-in IGBT, FWD, HVIC, LVIC and bootstrap diode chips		
Functions	<ul style="list-style-type: none"> • Short circuit protection by external shunt resistor • Controlled power-supply under-voltage (UV) protection: Fo output on N-side • Analog temperature voltage output (VOT) 		
Other	Inverter with divided-emitter-type N-side (3 shunts)		

In 1997, Mitsubishi Electric first commercialized its DIIPM transfer-mold-type intelligent power module, which has contributed greatly to the realization of smaller and more energy-efficient inverter systems.

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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

DIIPM and CSTBT are registered trademarks of Mitsubishi Electric.