

Mitsubishi Electric to Add Two New Power Modules to J1-Series Lineup

7/22/2014

New modules will suit a variety of electric and hybrid vehicles

Mitsubishi Electric Corporation (TOKYO: 6503) announced that it will begin shipping samples of its new 300A/1,200V and 300A/650V J1-Series power modules for electric and hybrid vehicles starting on October 31.

The new products will be exhibited at MOTORTECH JAPAN 2014 during TECHNO-FRONTIER 2014 at Tokyo Big Sight in Japan from July 23 to 25.



J1-Series power modules

Product Features

1) Suitable for a variety of electric and hybrid vehicles

- The 300A/1,200V module is suited to high-voltage battery inverters used in hybrid buses and trucks.
- The 300A/650V module is suited to small-capacity inverters used in small electric vehicles and mild hybrids.

2) Simplified design for inverter systems

- Adoption of the same package as other J1-Series modules (600A/650V and 400A/900V) simplifies the design of capacity inverters.

Samples

Product	Model	Specifications	Shipments Begin
J1-Series	CT300CJ1A120	300A/1200V (6-in-1 package)	October. 31
	CT300CJ1A060	300A /650V (6-in-1 package)	

Power modules for automobiles must deliver higher reliability than industrial-use modules due to the 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.

The J1-Series lineup is being expanded to meet the requirements of high power-supply voltages and small-capacity inverters. The new products meet the demands of EV/HEV inverters in compact and large vehicle, not just midsized models.

J1-Series Lineup

Model	Rated current	Rated voltage	Connection	Saturation Voltage (Typ, I _c =Ratings, T _j =25°C)
CT300CJ1A060	300A	650V	6-in-1	1.4V
CT600CJ1A060	600A			1.4V
CT400CJ1A090	400A	900V		1.4V
CT300CJ1A120	300A	1200V		1.4V

Features of J1-Series

1) Extra-compact package for automotive inverters

- 6-in-1 package shrinks inverter footprint to about 80% of three 2-in-1 J-Series T-PMs (CT600DJH060).

2) Low power loss and high reliability for automotive motors

- Seventh-generation CSTBTTM chip technology enables collector-emitter saturation voltage to be reduced by about 15% compared to 2-in-1 J-Series T-PM (CT600DJH060) chips..

- Direct cooling package with cooling fin improves heat radiation by about 40% compared to 2-in-1 J-Series T-PM (CT600DJH060) module mounted on Al fin with thermal grease.

Environmental awareness

J1-Series power modules are compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS).

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 4,054.3 billion yen (US\$ 39.3 billion*) in the fiscal year ended March 31, 2014. For more information visit <http://www.MitsubishiElectric.com>

*At an exchange rate of 103 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2014

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