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**FOR IMMEDIATE RELEASE**

**No. 3094**

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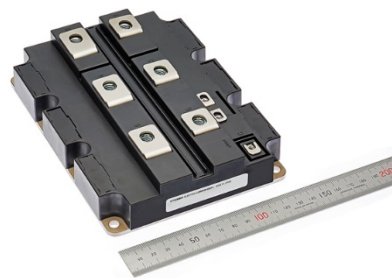
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## **Mitsubishi Electric to Expand Lineup of X-Series HVIGBT Modules**

*Eight new products will help to enlarge capacity and reduce size of inverters*

**TOKYO, April 5, 2017**– [Mitsubishi Electric Corporation](http://www.mitsubishielectric.com) (TOKYO: 6503) announced today that it has developed eight new X-Series HVIGBT modules in three (3.3kV, 4.5kV and 6.5kV) classes for larger capacity and smaller sized inverters in traction motors, DC-power transmitters, large industrial machinery and other high-voltage, large-current equipment. The models will be released sequentially beginning in September. Prior to the releases, the models will be exhibited at several major trade shows worldwide, including MOTORTECH JAPAN 2017 during in Chiba, Japan from April 19 to 21, Power Conversion and Intelligent Motion (PCIM) Europe 2017 in Nuremberg, Germany from May 16 to 18, and PCIM Asia 2017 in Shanghai, China from June 27 to 29.



X-Series HVIGBT module

High-power modules are essential for power systems that require large capacity, high reliability and maximum efficiency. Mitsubishi Electric's first HVIGBT module, which was commercialized in 1997, enabled the development of larger capacity and smaller sized high-voltage converter systems. The X-Series HVIGBT module (6.5kV/1000A), which features a seventh-generation insulated gate bipolar transistor (IGBT) and relaxed field of cathode (RFC) diode, was released for inverter systems in November 2015.

### **Product Features**

**1) *Wide range of new high-voltage IGBTs includes leading power-capacity ratings, contributing to the large capacity of inverters***

- Three 3.3kV modules (one 1200A and two 1800A models), three 4.5kV modules (900A, 1350A and 1500A models) and two 6.5kV modules (600A and 900A models)

- Two modules offering industry-leading power capacity ratings — 1800A in the 3.3kV module and 1500A in the 4.5kV module — join another leader, the existing 6.5kV module (1000A rating)

**2) Seventh-generation IGBT and RFC diode for smaller inverters**

- Seventh-generation CSTBT<sup>TM</sup> chip and RFC diode chip reduce power loss by about 20%\*\*
- The new chip set's reduced package size, about 33% smaller than its predecessor (same voltage and current ratings), will lead to smaller inverters
- 150-degree Celsius operating temperature enables a simplified cooling system which realizes smaller inverters and improves the degree of freedom in design

\* Mitsubishi Electric's proprietary IGBT chip construction incorporating carrier-store effect

\*\* X-series CM1200HC-66X compared to H-series CM1200HC-66H

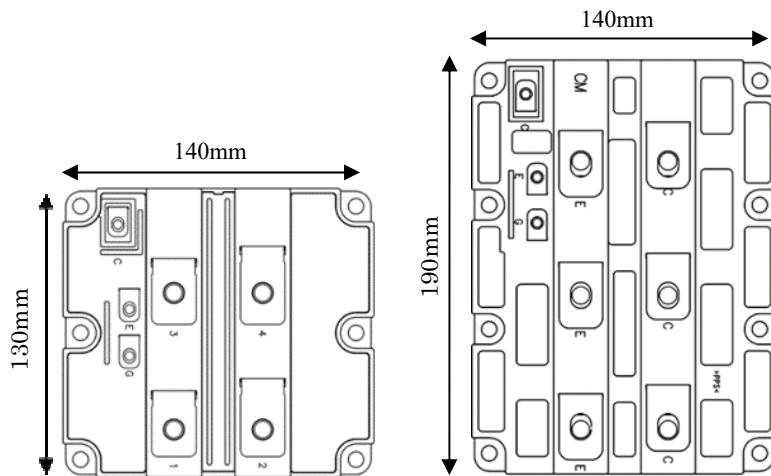
**3) Optimized package structure for highly reliable inverters**

- Package's new internal structure achieves longer lifetime through improved heat dissipation, moisture resistance and flame retardance

**Sales Schedule**

Model	Collector-emitter voltage	Maximum current rating	Isolation voltage	Dimensions (W×D×H)	Shipment
CM1200HC-66X	3.3kV	1200A	6kVrms	140mm×130mm×38mm	From September 2017
CM1800HC-66X		1800A	6kVrms	140mm×190mm×38mm	
CM1800HG-66X		1800A	10kVrms	140mm×190mm×48mm	
CM900HG-90X	4.5kV	900A	10kVrms	140mm×130mm×48mm	
CM1350HG-90X		1350A	10kVrms	140mm×190mm×48mm	
CM1500HC-90XA		1500A	6kVrms	140mm×190mm×38mm	
CM600HG-130X	6.5kV	600A	10kVrms	140mm×130mm×48mm	
CM900HG-130X		900A	10kVrms	140mm×190mm×48mm	

**Visual Comparison of New (left) and Existing Models**



**New model**  
**X-Series HVIGBT Module**  
**CM1200HC-66X**  
**18200mm<sup>2</sup>**

**Existing model**  
**H-Series HVIGBT Module**  
**CM1200HC-66H**  
**26600mm<sup>2</sup>**

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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 4,394.3 billion yen (US\$ 38.8 billion\*) in the fiscal year ended March 31, 2016. For more information visit:

[www.MitsubishiElectric.com](http://www.MitsubishiElectric.com)

\*At an exchange rate of 113 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2016