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### FOR IMMEDIATE RELEASE

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# Mitsubishi Electric to Launch New X-Series HVIGBTs and HVDIODEs

7 new models will meet demands for smaller, more robust inverters systems in large equipment

**TOKYO, April 26, 2021** – <u>Mitsubishi Electric Corporation</u> (TOKYO: 6503) announced today it has developed seven new X-Series products—two HVIGBTs and five HVDIODEs—boosting the X-Series lineup to 24 power semiconductor modules suitable for increasingly large-capacity, small-sized inverters used in traction motors, DC-power transmitters, large industrial machinery and other high-voltage, large-current equipment. The models will be released sequentially beginning July 1. The modules will be exhibited at "PCIM Europe digital days 2021," the digital version of this power conversion intelligent motion trade show, from May 3 to 7.



\* HVDIODE (not shown) has no auxiliary terminals

### **Product Features**

1) Expanded lineup accommodates wide-ranging inverter capacities

- 24-model X-Series lineup (two new HVIGBTs and five new HVDIODEs) now ranges from 1.7kV to 6.5kV to accommodate wide range of inverter capacities in large industrial equipment.
- 2) Increase in rated current to support larger-capacity, smaller-sized inverters
  - Seventh-generation CSTBT<sup>TM</sup> chip and RFC diode chips help to reduce power loss and thermal resistance, resulting in a higher rated current to support larger-capacity inverters.
  - Compared to existing CM900HC-90H, new CM900HC-90X, etc. are 33% smaller but achieve the same voltage and current ratings.

## 3) Compatible models simplify parts replacement and inverter development

- CM2400HCB-34X, etc. offer same compatibility specifications as well as dimensions as existing CM2400HC-34H HVIGBT to support faster development of new inverters.

## Sales Schedule

Туре	Model	Rating	Shipment	
HVIGBT module X-Series	CM2400HCB-34X	1.7kV/2400A		
	СМ900НС-90Х	4.5kV/900A		
HVDIODE module X-Series	RM1200DC-34X	1.7kV/1200A		
	RM1200DC-66X	3.3kV/1200A	From July 1	
	RM1500DC-90X	4.5kV/1500A		
	RM900DG-90X			
	RM1500DG-90X	4.5kV/1500A		

## Main Specifications (new modules in bold)

Product	Model	Collector- emitter voltage	Rating current	Isolation voltage	Dimensions (WxDxH)
X-Series HVIGBT module	CM2400HC-34X	1.7 kV	2400A	6kV <sub>rms</sub>	140 x 130 x 38 mm
	CM2400HCB-34X		<u>2400A</u>	<u>6kV<sub>rms</sub></u>	<u>140 x 190 x 38 mm</u>
	CM1200HC-66X	3.3 kV	1200A	6kV <sub>rms</sub>	140 x 130 x 38 mm
	CM1200HCB-66X		1200A	6kV <sub>rms</sub>	140 x 190 x 38 mm
	CM1800HC-66X		1800A	6kV <sub>rms</sub>	140 x 190 x 38 mm
	CM1800HG-66X		1800A	$10 k V_{rms}$	140 x 190 x 48 mm
	<u>СМ900НС-90Х</u>	4.5 kV	<u>900A</u>	<u>6kV<sub>rms</sub></u>	<u>140 x 130 x 38 mm</u>
	CM1350HC-90X		1350A	6kV <sub>rms</sub>	140 x 190 x 38 mm
	CM1500HC-90XA		1500A	6kV <sub>rms</sub>	140 x 190 x 38 mm
	CM900HG-90X		900A	10kV <sub>rms</sub>	140 x 130 x 48 mm
	CM1000HG-90X		1000A	$10 k V_{rms}$	140 x 130 x 48 mm
	CM1350HG-90X		1350A	10kV <sub>rms</sub>	140 x 190 x 48 mm
	CM1500HG-90X		1500A	$10 k V_{rms}$	140 x 190 x 48 mm
	CM900HG-130X	6.5 kV	900A	$10 k V_{rms}$	140 x 190 x 48 mm
	CM1000HG-130XA		1000A	10kV <sub>rms</sub>	140 x 190 x 48 mm
Product	Model	Collector- emitter voltage	Rating current	Isolation voltage	Dimensions (WxDxH)
X-Series HVDIODE module	<u>RM1200DC-34X</u>	1.7 kV	<u>1200A</u>	<u>6kVrms</u>	<u>140 x 130 x 38 mm</u>
	RM600DC-66X	3.3 kV	600A	$6 k V_{rms}$	140 x 130 x 38 mm
	<u>RM1200DC-66X</u>		<u>1200A</u>	<u>6kV<sub>rms</sub></u>	<u>140 x 130 x 38 mm</u>
	RM1200DG-66X		1200A	$10 kV_{rms}$	140 x 130 x 48 mm
	RM450DG-90X	4.5 kV	450A	10kV <sub>rms</sub>	140 x 130 x 48 mm
	<u>RM900DG-90X</u>		<u>900A</u>	<u>10kV<sub>rms</sub></u>	<u>140 x 130 x 48 mm</u>
	<u>RM1500DC-90X</u>		<u>1500A</u>	<u>6kVrms</u>	<u>140 x 130 x 38 mm</u>
	<u>RM1500DG-90X</u>		<u>1500A</u>	<u>10kV<sub>rms</sub></u>	<u>140 x 130 x 48 mm</u>
	RM1000DG-130XA	6.5 kV	1000A	10kV <sub>rms</sub>	140 x 130 x 48 mm

<X-Series Package Lineup>



140mm x 130mm Isolation voltage 6kVrms (HVIGBT/HVDIODE\*)

**Comparisons with Existing Model (Features)** 



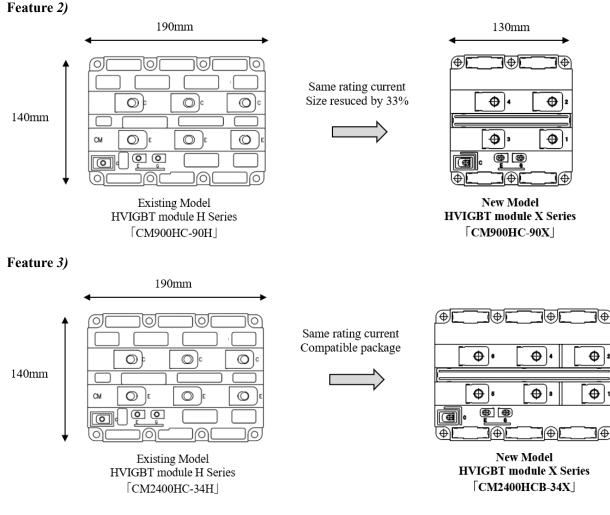
140mm x 130mm Isolation voltage 10kVrms (HVIGBT/HVDIODE\*)



140mm x 190mm Isolation voltage 6kVrms (HVIGBT)



140mm x 190mm Isolation voltage 10kVrms (HVIGBT)



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#### About Mitsubishi Electric Corporation

With 100 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. Mitsubishi Electric enriches society with technology in the spirit of its "Changes for the Better." The company recorded a revenue of 4,462.5 billion yen (U.S.\$ 40.9 billion\*) in the fiscal year ended March 31, 2020. For more information, please visit <u>www.MitsubishiElectric.com</u>

\*U.S. dollar amounts are translated from yen at the rate of ¥109=U.S.\$1, the approximate rate on the Tokyo Foreign Exchange Market on March 31, 2020