

FOR IMMEDIATE RELEASE

**Hitachi to Introduce HIVECTOL-HVI-E2 Series,
the Smallest in class Medium Voltage Multi-level IGBT Drive**

Enable to make less space, more efficient transport and installation,
and IoT connectivity with enhanced communications



HIVECTOL-HVI-E2 Series Medium voltage multi-level IGBT drive

Tokyo, July 26, 2016 --- Hitachi, Ltd. (TSE:6501, “Hitachi”) announced today that it has introduced HIVECTOL-HVI-E2 Series (hereinafter “E2 Series”) to expand its product line of HIVECTOL-HVI medium voltage multi-level IGBT drives, which contribute to energy conservation in process plants, as well as improvements in productivity and quality. Sale of E2 Series, the smallest in class^{*1}, will start on October 1st.

By adopting an all-in-one structure^{*2}, the E2 Series has been made light and compact, thereby increasing the flexibility of installation, and improving efficiency in transport, installation, and maintenance operations. The unit is also IoT compatible, being equipped with data gathering and communication functions.

Hitachi will market these products targeting a broad range of fields throughout the world, including chemical, iron & steel, cement, and water treatment plants.

Inverter is an equipment to control motor speed depending upon operating requirements, and can reduce electric power consumption in fans, pumps, and other devices. In recent years, by the requirement of energy conservation, applying inverters to fans and pumps of process plants in order for efficient operation has become a trend.

In this situation, inverters for 2000kW or less motors have higher demand in steel, chemical and other process plant. On the other hand, limitation of installation space and efficient transportation, installation and maintenance has become matters and requirement for advanced facility operation and for IoT connectivity is increasing.

To meet these needs, installation area for the E2 Series is reduced by approximately 30% compared to existing models^{*3}, by adopting optimum parts mounting technologies and cooling design technologies, and realized the smallest in class. In this way, the E2 Series can be installed even in locations where space is limited. Furthermore, with its all-in-one structure, the E2 Series can be transported without disassembly. This leads transport and installation operations more efficient. The unit is also IoT compatible, with functions for gathering and communicating data on facility operations. The compact size of the components of main circuit improves ease of maintenance.

Hitachi is strengthening the global competitiveness of its industrial product business, while at the same time focusing its efforts on enhancing products that can be linked through digital technologies. The new HIVECTOL-HVI-E2 Series of medium voltage multi-level IGBT drives was developed with the advanced motor control technologies and the extensive track record, accumulated over 80 years in the field of drive systems. Through the broad sales of these products, Hitachi will contribute to greater energy conservation in industrial fields.

*1 As of July 26, 2016. Source: Hitachi survey. In comparison to various manufacturers' medium-voltage inverters with similar voltage and capacity ranges, and with built-in input transformers, as far as the major models of 3.3kV series and 6.6kV series are concerned, 5 types which output capacity is less than or equal to 420kVA among 3.3kV series, and all 14 types among 6.6kV are minimum width, height, and volume in class Medium Voltage Multi-level IGBT Drive. Among 3.3kV series, 9 types of this series which output capacity is more than 480 kVA are minimum height.

*2 Main circuit and control components combined in a single unit, and installed on a single platform rather than using separate platforms.

*3 Compared to Hitachi's existing HIVECTOL-HVI-E models.

■ Main features

1. The smallest inverter in class, it takes up very little space, so can be installed in locations with limited space available. This also enables transport more efficient, as it can be loaded in standard containers^{*4}.
2. The all-in-one structure, combining the main circuit, control, and transformer components, enables efficient transport and installation operations using a forklift, with no need for disassembly.
3. Programmable Logic Controller (PLC)^{*5} is installed as a standard feature. This enables the gathering and communication of facilities operation data, and Internet connectivity supports IoT compatibility.
4. The compact size of the components of main circuit, along with optimum circuit wiring, minimizes time required for maintenance and inspections.
5. Auto tuning functions^{*6} reduce the time of product implementation.
6. 15 year maintenance services (long-term comprehensive maintenance^{*7} and long-term warrantee^{*8}) are offered as an option.

*4 ISO standard 20-ft containers (2,438 × 6,058 × 2,591 mm) and 40-ft containers (2,438 × 12,192 × 2,591 mm)

*5 Programmable Logic Controller (PLC): A type of miniature computer, generally used for control in factory automation applications.

*6 A function for automatically adjusting parameters required for motor control, in keeping with unique motor specifications.

*7 Services include regular inspections and replacement of parts with limited lifetime.

*8 In addition to the long-term comprehensive maintenance contract, this service offers an extended warranty period and failure recovery using spare parts.

■ Specifications:

Item	Specifications
Output voltage (kV)	2.4kV, 3.3kV, 4.16kV, 6.6kV
Inverter output capacity (kVA)	130 – 920kVA (2.4kV unit) 180 – 1,260kVA (3.3kV unit) 230 – 1,590kVA (4.16kV unit) 360 – 2,530kVA (6.6kV unit)
Size (Core models; WxDxH) *9	1,500 × 1,200 × 1,900 mm (3.3kV, 420kVA) 2,200 × 1,200 × 1,900 mm (6.6kV, 840kVA)

*9 Not including base and cooling fan. Input transformer and control components are installed on the same platform as the main inverter component.

About Hitachi, Ltd.

Hitachi, Ltd. (TSE: 6501), headquartered in Tokyo, Japan, delivers innovations that answer society's challenges. The company's consolidated revenues for fiscal 2015 (ended March 31, 2016) totaled 10,034.3 billion yen (\$88.8 billion). The Hitachi Group is a global leader in the Social Innovation Business, and it has approximately 335,000 employees worldwide. Through collaborative creation, Hitachi is providing solutions to customers in a broad range of sectors, including Power / Energy, Industry / Distribution / Water, Urban Development, and Finance / Government & Public / Healthcare. For more information on Hitachi, please visit the company's website at <http://www.hitachi.com>.

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Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.
