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**No. 2704**

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## **Mitsubishi Electric to Launch SiC Module-Equipped CNC Drive Unit**

**Tokyo, October 29, 2012** – [Mitsubishi Electric Corporation](#) (TOKYO: 6503) announced today the launch of a drive unit equipped with a silicon carbide (SiC) power module for computerized numerical controllers (CNCs). The MDS-DM2-SPHV3-20080 is a multi-hybrid, multi-axis integrated-drive unit for drive control of spindle and servo motors. Sales will begin on December 3.

Power conversion modules are widely used in inverters and converters of household appliances and industrial equipment. SiC power modules are superior to conventional silicon (Si) modules in terms of their significantly reduced switching loss and high tolerance to temperature.

To date, Mitsubishi Electric has commercialized SiC power modules for inverters in air conditioners and railcars. The new SiC power module for CNC drive units offers higher speed and torque for driving machine tool spindles and servo motors, which is expected to improve manufacturing productivity in factories.



MDS-DM2-SPHV3-20080  
multi-hybrid drive unit

### **Main Features**

*SiC power module for higher speed and torque*

- Power module uses diodes made with SiC
- High-speed switching operation increases spindle motor speed up to twice that of its previous model (MDS-DM Series) under specific conditions.
- Reduced power loss in drive unit results in 15% higher torque for spindle motors than MDS-DM Series under specific conditions.

*Power shut-off and other functions enable downsizing and reduced wiring*

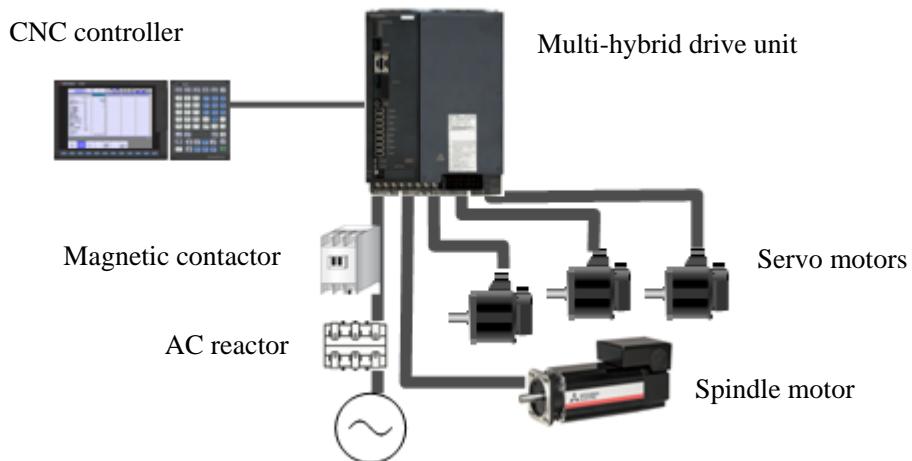
- The Safe Torque Off function for shutting off the power supply to motors, which reduces the number of magnetic reactors required, is available as a standard feature.
- An interface for linear scale enables direct detection and feedback of machine positions, requiring no external interface unit.

Mitsubishi Electric's new CNC drive unit will be showcased at the 26th Japan International Machine Tool Fair (JIMTOF 2012), which will be held at Tokyo Big Sight in Japan from November 1–6.

## Specifications

Model name		MDS-DM2-SPHV3-20080
Nominal maximum current for spindle (at peak)[A]		200
Nominal maximum current for servo (at peak) [A]		80 x 3 axes
Output	Rated voltage [V]	155AC
	Rated current for spindle [A]	63
	Rated current for servo [A]	15.8
Input	Rated voltage [V]	200 to 230AC Tolerable voltage fluctuation: Between 10% and -15%
	Rated current [A]	60
Control power	Voltage [V]	24DC±10%
Compatible spindle motors		SJ-V15-03ZT, SJ-V15-09ZT, SJ-V11-08ZT, SJ-DJ15/80-01, SJ-DL3.7/240, SJ-BG090D/300
Compatible servo motors		HF54, HF104, HF154, HF204, HF224, HF223, HF303, HF302
Weight [kg]	15	
Dimensions [mm]		W:260 x H:380 x D:278

## NC System Configuration



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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