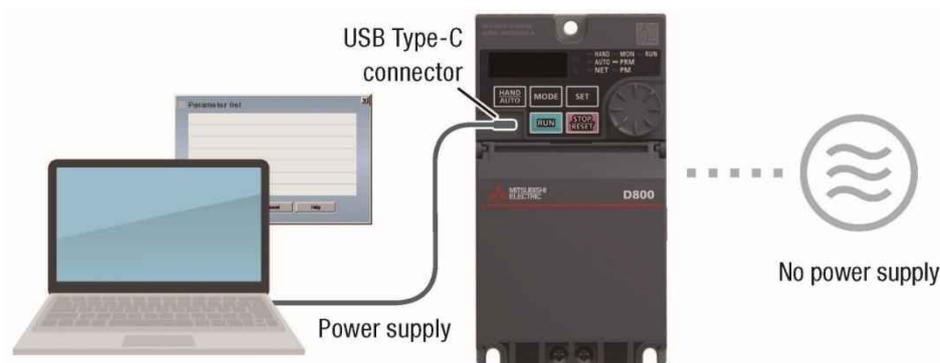


Mitsubishi Electric unveils next-generation FR-D800 series inverters for enhanced efficiency and simplicity

Mitsubishi Electric has launched its latest FR-D800 series inverters, designed to deliver better performance, easy operation, and improved energy efficiency for a wide range of industrial applications. Compact and intuitive, the new series delivers powerful performance alongside features designed to make selection, installation, and operation simpler.



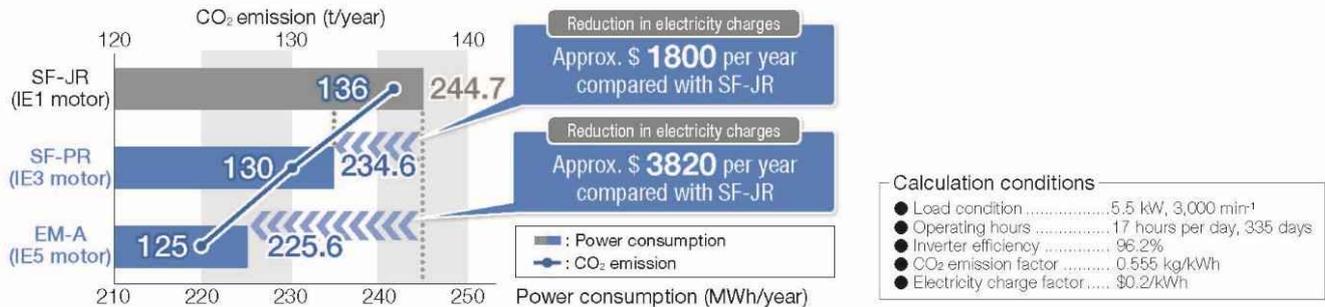
With a focus on user-friendliness, the FR-D800 inverters feature a door-style surface cover and integrated wiring to make installation faster and easier. The FR-D800 is up to 37% smaller*1 than its equivalent predecessor, reducing enclosure size requirements, allowing for more flexible mounting, and reduced installation costs. A new USB Type-C interface lets users set parameters directly from a PC without powering up the inverter, streamlining both setup and maintenance.



Parameters can be set without needing to power the inverters main circuit

The inverters can help save energy with advanced synchronous motor control, which reduces power consumption and cuts operating costs. Its high-efficiency motor drive and lower standby power consumption also contribute to a reduced carbon footprint, supporting more sustainable production practices.

■ Comparison of power consumption (MWh/year) and CO₂ emission (t/year)



"With the FR-D800 series, we wanted to create an inverter that both new and experienced users can use with confidence," said Shotaro Marumoto, Inverter Development Section Leader at Mitsubishi Electric. "We've made it straightforward while delivering the advanced performance businesses need to improve productivity, save energy, and meet their sustainability goals."

The FR-D800 series is suitable for a wide range of applications, from conveyors and pumps to food processing equipment and textile machinery. Selected models*2 are also suitable for harsh, corrosive environments, thanks to circuit board protection meeting IEC 60721-3-3:1994 3C2/3S2 standards. Furthermore, FR-D800 inverters can control both induction and permanent magnet (PM) motors, eliminating the need for multiple inverters for different motor types. Built-in support for popular Ethernet protocols including CC-Link IE TSN, Modbus/TCP, and EtherNet/IP ensures seamless integration into existing industrial networks, enabling users to quickly integrate it into their digital manufacturing and smart production environments.

The series also makes maintenance simpler. Its preventive maintenance functions include lifetime diagnostics for key components like capacitors and fans, helping operators spot potential issues early, especially when using the FR Configurator2 support software. Anomaly detection based on current patterns helps reduce the risk of unexpected downtime, and when a fault does occur, analysis functions solve the problem quickly.

"Energy efficiency, simplicity, and reliability are essential for modern automation applications and industry in general," added Marumoto. "The FR-D800 series shows Mitsubishi Electric's commitment to providing solutions that meet these needs while contributing to a greener future."

The FR-D800 series will be available globally from March 2025, with models designed for different voltage requirements, including single-phase 100V, 200V, and three-phase 400V options.

*1 Illustrative example FR-D820-3.7K-165, size reductions will vary by model.

*2 Protected models are identified with "-60" suffix in the part number.

-/END/-

The Art of Manufacturing

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Created April 2025