

THE MITSUBISHI

Extra Issue



Published by Mitsubishi Electric Corporation

June 2013

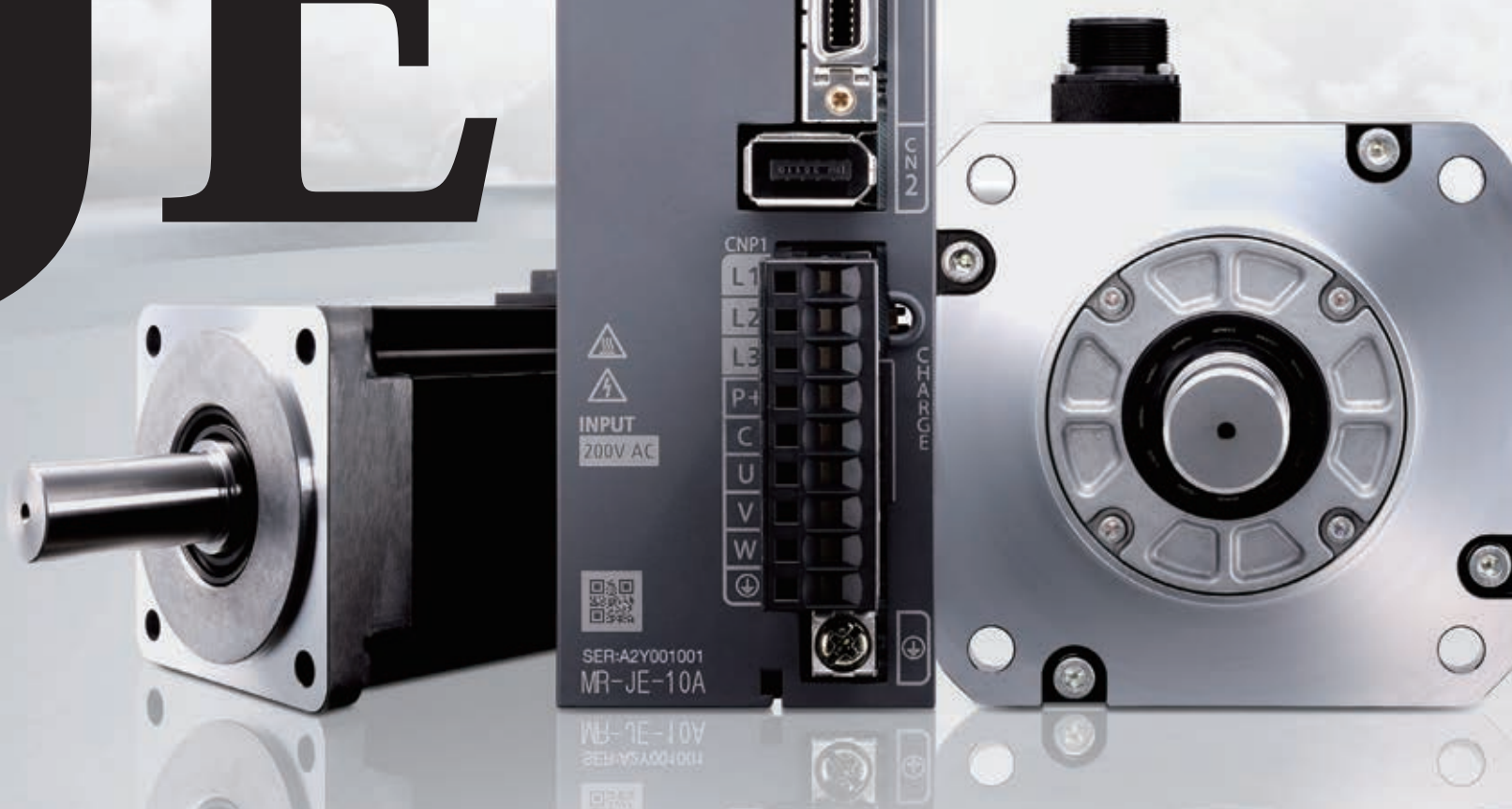
SERVO NEWS



NEW Release!

MITSUBISHI SERVO AMPLIFIERS & MOTORS

MELSERVO JE



High Performance and Easy to Use Servo System for All Machines

Easy To Use
Fast, Trouble-Free Setup

High Performance
Further Reduction of Tact Time

Global Standard
Fully Compliant Worldwide

The Servo You've Been Waiting For

The new Mitsubishi MELSERVO-JE servo amplifiers and servo motors are here. Combining proven reliability with a 2.0 kHz high-frequency response and an energy-saving design, they offer the best-in-class performance with the setup ease of Advanced One-Touch Tuning. Fully compliant with global standards and ready for deployment worldwide, MELSERVO-JE series is the servo solution you've been waiting for.

**Fast, Accurate,
and
Easy to Use**

MITSUBISHI SERVO AMPLIFIERS & MOTORS

MELSERVO-JE

Easy To Use

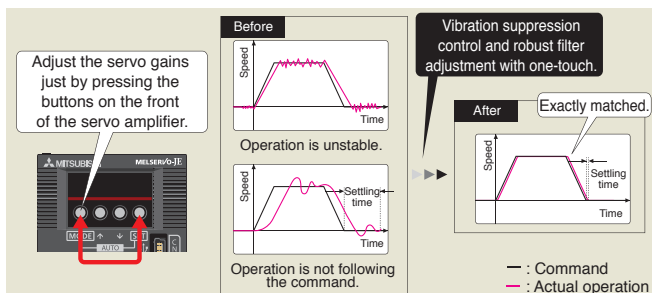
High-Precision Tuning

Servo Gain Adjustment with One-Touch Ease

Advanced One-Touch Tuning Function

Servo gains including machine resonance suppression filter, advanced vibration suppression control II*, and robust filter are adjusted just by pressing the buttons on the front of the servo amplifier. Machine performance is utilized to the fullest using the advanced vibration suppression control function.

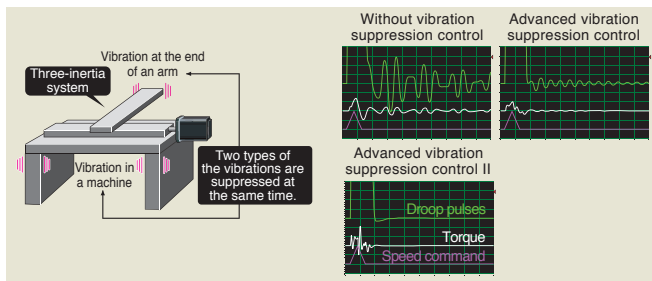
* The advanced vibration suppression control II automatically adjusts one frequency.



Suppress Two Types of Low Frequency Vibrations at Once

Advanced Vibration Suppression Control II

Due to vibration suppression algorithm which supports three-inertia system, two types of low frequency vibrations are suppressed at the same time. Adjustment is performed on MR Configurator2. This function is effective in suppressing vibration at the end of an arm and in reducing residual vibration in a machine.

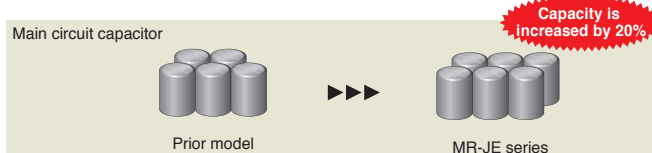


Improved Tolerance against Instantaneous Power Failure

Reduce machine downtime

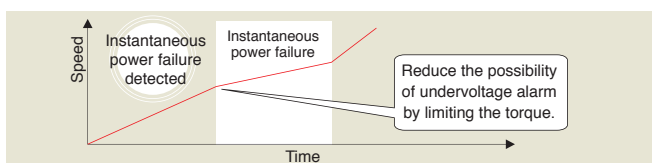
Large Capacity Main Circuit Capacitor

The improved tolerance against instantaneous power failure is improved as the capacity of the main circuit capacitor is increased by 20% from the prior model, reducing machine downtime and improving productivity.



Instantaneous Power Failure Tough Drive

The possibility of undervoltage alarm is reduced by limiting the torque when instantaneous power failure is detected in the main circuit power supply.



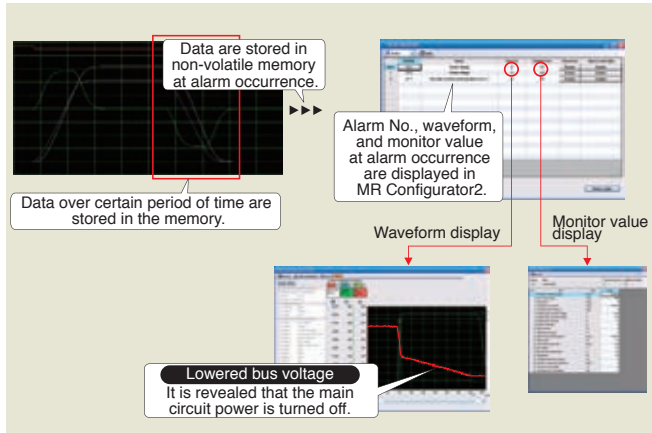
Easy Monitoring and Maintenance

Analyze Cause of Alarm

Large Capacity Drive Recorder

Servo data such as motor current and position command before and after the alarm occurrence are stored in non-volatile memory of the servo amplifier.

This function allows you to check the monitor values and the waveform of the past 16 alarms in the alarm history ((analog 16 bits × 7 channels + digital 8 channels) × 256 points) on MR Configurator2. The data read on MR Configurator2 help you to analyze the cause of the alarm.

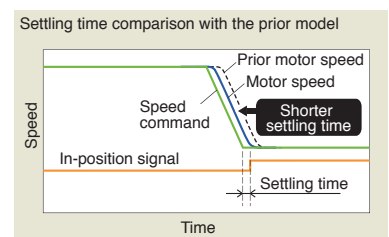


High Performance

Fast and Accurate

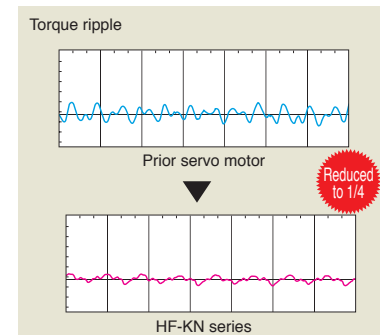
Speed Frequency Response of 2.0 kHz

The top-level speed frequency response of 2.0 kHz shortens the settling time substantially, reducing the tact time of a machine.



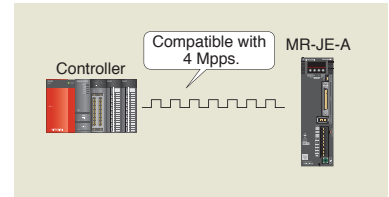
Smooth, Constant-Speed Operation

By optimizing the combination of the number of motor poles and the number of slots, torque ripple during conduction is reduced to 1/4 as compared to the prior series. Smooth constant-velocity operation of a machine is achieved.



Max Command Pulse Frequency of 4 Mpps

MR-JE-A having a general-purpose interface is compatible with the maximum command pulse frequency of 4 Mpps, enabling smooth operation.



Accurate Positioning

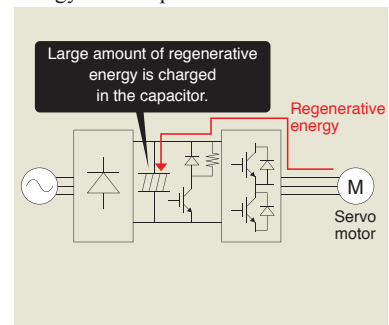
The servo motor equipped with an incremental encoder of 131072 pulses/rev (17-bit) enables high-accuracy positioning and smooth rotation.

Eco-Friendly Performance

Efficient-Utilization of Regenerative Energy

Capacity of the main circuit capacitor is increased by 20% as compared to that of the prior model, and thus the charging capacity is increased, enabling larger regenerative energy to be reused as driving power energy.

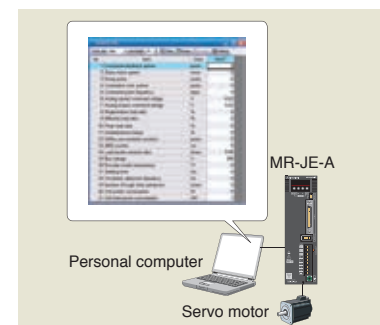
Additionally, because the control circuit and the main circuit use a common power supply, the regenerative energy is also used for the control circuit, reducing waste in energy consumption.



Power Monitor Supports Energy Saving

The servo amplifier calculates the driving power, the regenerative energy, and the power consumption from the data such as speed and current.

With MR Configurator2, the power consumption is monitored in real time. The Visualization of power consumption supports the energy conservation.



Global Standard

Fully Compliant Worldwide

Best Quality All Over The World

Use the MR-JE series globally. The servo amplifiers and the servo motors conform to global standards as standard.

Conformity with global standards and regulations

	Servo amplifier	Servo motor
European EC directive	EN 61800-5-1	EN 60034-1 / EN 60034-5
Low voltage directive	EN 61800-5-1	EN 60034-1 / EN 60034-5
EMC directive	EN 61800-3	EN 60034-1
RoHS directive	Compliant	Compliant
UL standard	UL 508C	UL 1004-1 / UL 1004-6
CSA standard	CSA C22.2 No.14	CSA C22.2 No.100
Measures for Administration of the Pollution Control of Electronic Information Products (Chinese RoHS)	Compliant (optional cables and connectors)	Compliant (optional cables and connectors)
China Compulsory Certification (CCC)	N/A	N/A
Korea Radio Wave Law (KC)	Compliant	N/A

*1. Refer to "Servo Amplifier Instruction Manual" and "EMC Installation Guidelines" when your system needs to meet the EMC directive.
*2. When exporting the product, follow the local laws and regulations.

Sink and Source Connections

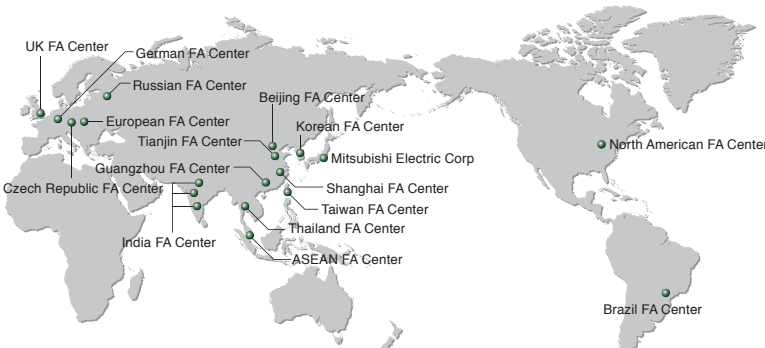
The command pulse input and the digital input/output are compatible with both sink and source type connections.

Extensive Global Support Network

Global FA Centers

Mitsubishi FA Centers are located throughout North America, Europe, and Asia to support the MELSERVO users all over the world.

In addition to the local assistance for purchasing products and after-sales services, we provide attentive services including technical consulting and practical training for equipment operations.



LINEUP

Servo amplifier



General-purpose interface compatible
MR-JE-A

Servo motor



Small capacity, low inertia
HF-KN series
Capacity: 100 to 750 W



Medium capacity, medium inertia
HF-SN series
Capacity: 0.5 to 3 kW

**NEW
Release!**

MITSUBISHI ELECTRIC CORPORATION
HEAD OFFICE: TOKYO BUILDING, 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN