

# SERVO AMPLIFIER

## PRODUCT SERIES

MR-J3 Series

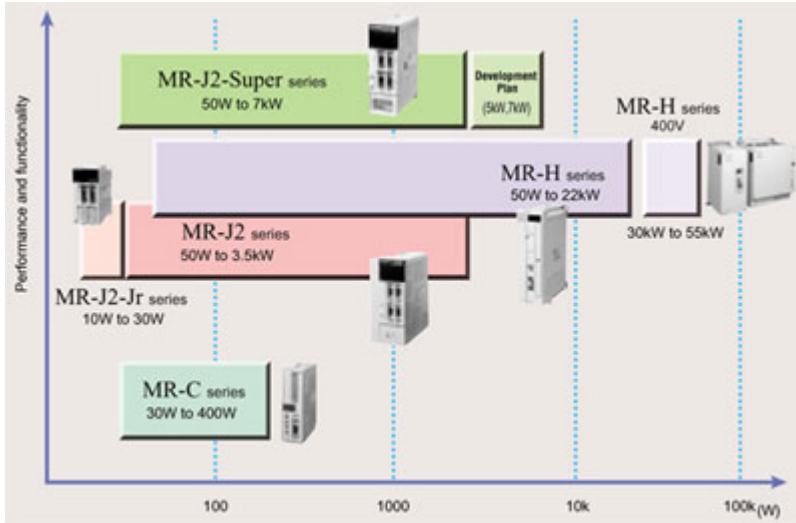
MR-J2-SUPER SERIES

MR- E SERIES

MR-J2-JR SERIES

MR - C SERIES

MR-H SERIES



- ❖ Digital servo-amplifiers for higher machine performance.
- ❖ Improved reliability and repeatability through digital technology and Mitsubishi's own real time auto-tuning.
- ❖ Servo amplifiers which support user needs from DC 24V type to AC 400V type are available

## PRODUCT SERIES

### J3 SERIES

MR – J3-A







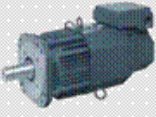
MR – J3-B

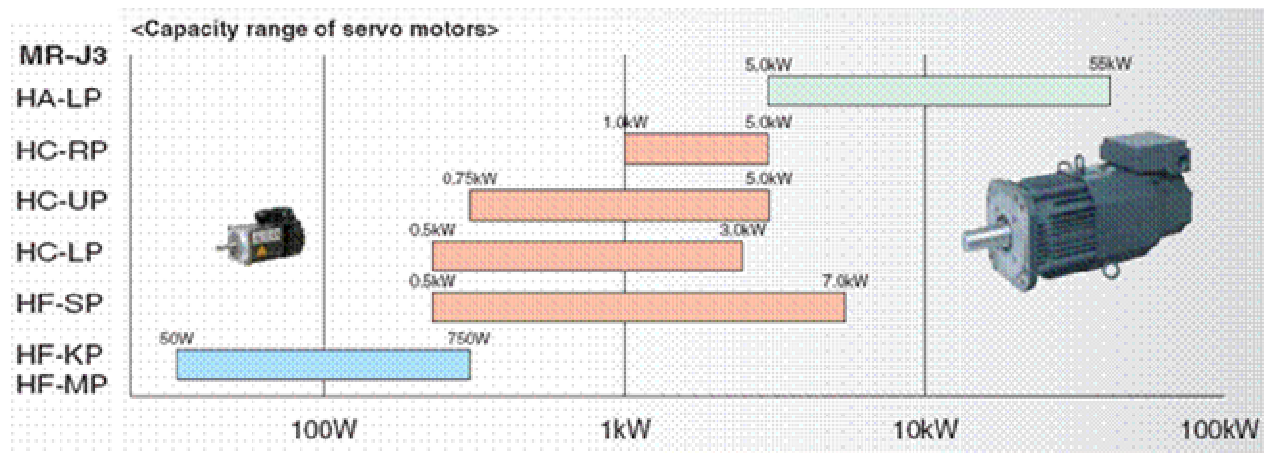
MR – J3-T

### Features :

- ❖ Compact series & Ultra-high performance
- ❖ Very high resolution encoder 18-bit
- ❖ Speed frequency response of 900Hz
- ❖ High motor speed upto 6000 rpm
- ❖ Robust disturbance compensation function
- ❖ Enhanced suppression control & auto-tune functions
- ❖ Improved machine analyzer & simulation functions
- ❖ Flexible wiring & amplifiers close mounting
- ❖ Motor connection changeable mounting directions

- ❖ USB / RS422 as standard port
- ❖ Long motion network capability - 800mtr long
- ❖ IP65/IP67 protection level available
- ❖ From 50W to 55kW in both 200V / 400V Class

Motor series (Note 6)	Features	Application examples
Small capacity series	<b>HF-KP series</b>  <b>Low inertia</b> Perfect for general industrial machines.	<ul style="list-style-type: none"> <li>• Belt drive</li> <li>• Robots</li> <li>• Mounters</li> <li>• Sewing machines</li> <li>• X-Y tables</li> <li>• Food processing machines</li> <li>• Semiconductor manufacturing devices</li> <li>• Knitting and embroidery machines</li> </ul>
	<b>HF-MP series</b>  <b>Ultra-low inertia</b> Well suited for high-throughput operation.	<ul style="list-style-type: none"> <li>• Inserters</li> <li>• Mounters</li> </ul>
Medium capacity series	<b>HF-SP series</b>  <b>Medium inertia</b> Two models, from low to high-speed, are available for various applications.	<ul style="list-style-type: none"> <li>• Material handling systems</li> <li>• Robots</li> <li>• X-Y tables</li> </ul>
	<b>HC-LP series</b>  <b>Low inertia</b> Perfect for general industrial machines.	<ul style="list-style-type: none"> <li>• Roll feeders</li> <li>• Loaders and unloaders</li> <li>• High-throughput material handling systems</li> </ul>
	<b>HC-RP series</b>  <b>Ultra-low inertia</b> Well suited for high-throughput operation.	<ul style="list-style-type: none"> <li>• Ultra-high-throughput material handling systems</li> </ul>
Flat Medium capacity series	<b>HC-UP series</b>  <b>Flat type</b> The flat design makes this unit well suited for situations where the installation space is restricted.	<ul style="list-style-type: none"> <li>• Robots</li> <li>• Food processing machines</li> </ul>
Medium/Large capacity series	<b>HA-LP series</b>  <b>Low inertia</b> Three models, from low to medium-speed, are available for various applications. As standard, 30kW and larger motors can be mounted either with the flange or the legs. (Note 4)	<ul style="list-style-type: none"> <li>• Injection molding machines</li> <li>• Semiconductor manufacturing equipment</li> <li>• Large material handling systems</li> <li>• Press machines</li> </ul>



## J2-SUPER SERIES

- ❖ MR - J2S-A
- ❖ MR - J2S-B
- ❖ MR - J2S-CP



### FEATURES :

**MELSERVO-J2-SUPER SERIES – Intelligent servos for next generation.. compatible motors: 50W to 7 kW**

- ▶ Improved responsiveness
- ▶ Equipped with a high resolution absolute serial encoder 131072 PLS/rev (17bit) as standard
- ▶ Enhanced auto-tuning function
- ▶ Adaptive vibration suppression control function
- ▶ Machine analyzer function
- ▶ Machine simulation function
- ▶ Gain search function
- ▶ Built in PU unit
- ▶ Three models – Universal, High Speed Bus type and built in position controller type
- ▶ RS232/RS422 interface a standard feature
- ▶ Six control modes

Note: The product keeps compatibility with MR-J2 series and improves ease of use and performance

## MR-E SERIES (ECONOMY SERIES)

### FEATURES :

## MR-E SERIES – Economical Servos systems. compatible motors: 100W to 2 kW in low and medium inertia series.

- ▶ Responsiveness same as J2-Super
- ▶ Equipped with a incremental encoder 10000ppr.
- ▶ Enhanced auto-tuning function
- ▶ Adaptive vibration suppression control function
- ▶ Machine analyzer function
- ▶ Machine simulation function
- ▶ Gain search function
- ▶ Built in PU unit
- ▶ General pulse train type, preset speed control mode as Standard
- ▶ RS232 interface a standard feature

## MR-J2 – JR SERIES

### FEATURES :

- ▶ Ultra-small size, low capacity, DC24V type.
- ▶ For wide range of applications machinery from semiconductor manufacturing devices to small robots.
- ▶ Three types universal, high speed bus type and built in position controller type
- ▶ Serial port connection standard
- ▶ Compatible motors: 10W to 30W



## MR- C SERIES

### FEATURES :

- ▶ Compact size servo amplifier.
- ▶ Substitution for stepping motors
- ▶ Compatible and suited for pulse train positioning.
- ▶ Compatible motors: 30W to 400W
- ▶ Introduction of low inertia motors
- ▶ Possible to connect to personal computer with RS-232C optional unit "MR-C-T01"
- ▶ Possible to support multi-drop with RS-422 optional unit "MR-C-T02"

## MR – H SERIES

### FEATURES :

- ▶ High function and high performance servo
- ▶ Emphasis on expandability.
- ▶ Optional parameter unit "MR-PRU01A"
- ▶ Compatible motors: 50W to 55kW (200V type: 50W to 22kW, 400V type: 30kW to 55kW)



- ▶ Model adaptive control makes possible the realization of a highly responsive and stable system.
- ▶ Three types universal, high speed bus type and built in position controller type
- ▶ Comes with RS-232C serial communication as a standard feature.
- ▶ Optional "MR-H-D01" which can expand I/O signals is available. (I/O, 24 points or 16 points)

## MR H SERIES TABLE



	MR-H-W AN	MR-H-W BN	MR-H-W ACN	MR-H W TN
Power Supply	3-phase AC200 V			
Capacity range	50 W to 22 kW			
Frequency response	200Hz or more			
Interface	Pulse train/Analog type	SSCNET (high speed serial bus)	-	
Communication	RS-232 communication			RS-232 Communication, CC-Link communication
Control mode	Position control / Speed control / Torque control	Position control	With built-in positioning function	
7-segment display panel	4-digit	2-digit	4-digit	