

Sales and Service

Increase in Capacity of MR-J4 Series General-Purpose AC Servo Amplifier to Compatible with 1-Phase 200 V AC Power Supplies

Thank you for your continued patronage of the Mitsubishi general-purpose AC servo and FA products. Up to now, the capacity of MR-J4 series general-purpose AC servo amplifier is 750 W or less. To be compatible with the main circuit power supply of 1-phase 200 V AC, the capacity of the servo amplifier will be increased to a maximum of 2 kW. Thus, even in 3-phase 400 V AC regions (such as Europe), you can operate the 200 V AC-compatible servo amplifier or servo motor with a 1-phase 200 V AC power supply, so as to downsize equipment and use the same equipment both in 3-phase 400 V AC and 3-phase 200 V regions. We ask for your understanding in this matter.

1. Target Models

- MR-J4-100A/100B (1 kW)
- MR-J4-200A/200B (2 kW)

2. Details of Change

The MR-J4 series general-purpose AC servo amplifier will be compatible with the main power supply of 1-phase 200 V AC in addition to the 3-phase 200 V AC input. Accordingly, the rating plate indications will be changed as shown in Table 1.

Connect the main circuit power supply input to L1 and L3 of CNP1. Use the servo amplifier with 75% or less of the effective load ratio. When using a 1-phase 200 V AC power supply, do not mount the servo amplifier closely. Table 2 shows other changes when the servo amplifier is used with the 1-phase 200 V AC power supply.

Table 1. Changes

	Before change	After change
Main circuit power supply input	3-phase 200 V AC to 240 V AC	3-phase or 1-phase 200 V AC to 240 V AC
Rating plate indication	INPUT 3AC 200-240 V 5.0 A 50/60 Hz (MR-J4-100A/100B)	INPUT 3AC/AC 200-240 V 5.0 A/10.5 A 50/60 Hz (MR-J4-100A/100B)
	INPUT 3AC 200-240 V 10.5 A 50/60 Hz (MR-J4-200A/200B)	INPUT 3AC/AC 200-240 V 10.5 A/15.8 A 50/60 Hz (MR-J4-200A/200B)

Table 2. Changes when a 1-phase 200 V AC power supply is used

	Changes when a 1-phase 200 V AC power supply is used	
	MR-J4-100A/100B (1 kW)	MR-J4-200A/200B (2 kW)
Effective load ratio	75% or less	
Close mounting	Impossible	
Wire size for L1 and L3 (HIV wire)	(2 mm ² (AWG 14), no change)	3.5 mm ² (AWG 12)
NFB (when power factor improving reactor is used)	30 A frame 15 A	(30 A frame 20 A, no change)
Power factor improving AC reactor	FR-HAL-3.7K	FR-HAL-5.5K

3. Schedule

This change will be made sequentially from the May 2015 production.

There may be cases when both new and old products exist in the distribution stage.

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