Selection of peripheral equipment

• Electric wires, no-fuse circuit breakers, magnetic contactors

Servo-amp	No-fuse circuit breaker	Magnetic contactor	Electric wire size (mm ²)				
			L1, L2, L3	U, V, W, 🕀	L11, L21	P, C, D	B1, B2
MR-J2S-10A/A1/B/B1	5A NF-30	S-N10	2 (AWG14)	1.25 (AWG16)	1.25 (AWG16)	2 (AWG14)	1.25 (AWG16)
MR-J2S-20A/B	5A NF-30	S-N10	2 (AWG14)	1.25 (AWG16)	1.25 (AWG16)	2 (AWG14)	1.25 (AWG16)
MR-J2S-40A/B, 20A1/B1	10A NF-30	S-N10	2 (AWG14)	1.25 (AWG16)	1.25 (AWG16)	2 (AWG14)	1.25 (AWG16)
MR-J2S-60A/B, 40A1/B1	15A NF-30	S-N10	2 (AWG14)	1.25 (AWG16)	1.25 (AWG16)	2 (AWG14)	1.25 (AWG16)
MR-J2S-70A/B	15A NF-30	S-N10	2 (AWG14)	1.25 (AWG16)	1.25 (AWG16)	2 (AWG14)	1.25 (AWG16)
MR-J2S-100A/B	15A NF-30	S-N10	2 (AWG14)	2 (AWG14)	1.25 (AWG16)	2 (AWG14)	1.25 (AWG16)
MR-J2S-200A/B	20A NF-30	S-N18	3.5 (AWG12)	3.5 (AWG12)	1.25 (AWG16)	2 (AWG14)	1.25 (AWG16)
MR-J2S-350A/B	30A NF-30	S-N20	5.5 (AWG10)	5.5 (AWG10) 3.5 (AWG12) ^(Note 2)	1.25 (AWG16)	2 (AWG14)	1.25 (AWG16)
MR-J2S-500A/B (available soon)							
MR-J2S-700A/B (available soon)							

Notes: 1. Assuming use of a 600V polyvinyl chloride electric wire, with wires in table having a length of 30 meters (98.43 ft).

2. When connecting to servomotor HC-RFS203 use a 3.5mm² (AWG12) electric wire.

• Surge suppressor

Attach surge suppressors to the servo-amp and signal cable's AC relays, AC solenoids, and AC power-supply brake. Attach diodes to DC relays and DC solenoids.

Sample configuration

Surge suppressor: 972A-2003 504 11 (rated 200V, made by Matsuo Denki)

Diode: A diode with resisting pressure 4 or more times greater than the relay's drive voltage, and 2 or more times greater than the current.

• Data line filter

Attaching a data line filter to the pulse output cable or motor encoder cable of the pulse train command unit (AD75, etc.) is effective in preventing noise penetration.

Sample configuration

Data line filter: ESD-SR-25 (made by Tokin), ZCAT3035-1330 (made by TDK)

• Radio noise filter (FR-BIF)

Effectively controls noise transmitted from the power-supply side of the servo-amplifier, and is especially effective for radio frequency bands under 10 MHz. Only for input.



• Line noise filter (FR-BSF01/FR-BLF)

This filter is effective in suppressing radio noise emitted from the servo-amp's power-supply side or output side and highfrequency leakage current (zero-phase current). Especially effective in the 0.5MHz to 5MHz band. The greater the number of coils, the more effective this filter is.

