

MR-J3-B-RJ004 servo amplifier specifications

Servo amplifier model (Note 7)	MR-J3-	20B-RJ004(U□)	40B-RJ004(U□)	60B-RJ004(U□)	70B-RJ004(U□)	200BN-RJ004(U□)	350B-RJ004(U□)	500B-RJ004(U□)	700B-RJ004U□	11KB-RJ004U□	15KB-RJ004U□	22KB4-RJ004U□	
Output	Rated voltage	3-phase 170VAC											3-phase 323VAC
	Rated current (A)	1.5	2.8	3.2	5.8	11.0	17.0	28.0	37.0	68.0	87.0	63.0	
Main circuit power supply	Voltage/frequency (Note 1)	3-phase 200 to 230VAC 50/60Hz or 1-phase 200 to 230VAC 50/60Hz				3-phase 200 to 230VAC 50/60Hz						3-phase 380 to 480VAC 50/60Hz	
	Rated current (A)	1.5	2.6	3.2	3.8	10.5	16.0	21.7	28.9	46.0	64.0	47.6	
	Permissible voltage fluctuation	For 3-phase 200 to 230VAC: 3-phase 170 to 253VAC For 1-phase 200 to 230VAC: 1-phase 170 to 253VAC				3-phase 170 to 253VAC						3-phase 323 to 528VAC	
	Permissible frequency fluctuation	±5% maximum											
Control circuit power supply	Voltage/frequency	1-phase 200 to 230VAC 50/60Hz											1-phase 380 to 480VAC 50/60Hz
	Rated current (A)	0.2						0.3				0.2	
	Permissible voltage fluctuation	1-phase 170 to 253VAC											1-phase 323 to 528VAC
	Permissible frequency fluctuation	±5% maximum											
	Power consumption (W)	30						45					
Interface power supply		24VDC ±10% (required current capacity: 0.15A (Note 3))											
Linear encoder interface	Serial interface		Mitsubishi high-speed serial communication										
	Pulse train interface	Input signal	A/B/Z-phase differential input signal										
		Minimum phase difference	200ns										
Tolerable regenerative power of regenerative resistor (Note 4, 5)	Built-in regenerative resistor	10	10	10	20	100	100	130	170	—	—	—	
	External regenerative resistor (standard accessory) (Note 6)	—	—	—	—	—	—	—	—	500 (800)	850 (1300)	850 (1300)	
Control system		Sine-wave PWM control/current control system											
Dynamic brake		Built-in								External option (Note 8)			
Safety features		Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), linear servo motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection, magnetic pole detection protection, linear servo control fault protection											
Structure		Natural-cooling open (IP rating: IP00)					Fan cooling open (IP rating: IP00)						
Environment	Ambient temperature (Note 2)	0 to 55°C (32 to 131°F) (non freezing), storage: -20 to 65°C (-4 to 149 F) (non freezing)											
	Ambient humidity	90% RH maximum (non condensing), storage: 90% RH maximum (non condensing)											
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust											
	Elevation	1000m or less above sea level											
	Vibration	5.9m/s ² or less at 10 to 55Hz (directions of X, Y and Z axes)											
Mass	(kg [lb])	0.8 (1.8)	1.0 (2.2)	1.0 (2.2)	1.4 (3.1)	2.3 (5.1)	2.3 (5.1)	4.6 (10)	6.2 (14)	18 (40)	18 (40)	19 (42)	

- Notes: 1. Rated thrust and speed of a linear servo motor are applicable when the servo amplifier, combined with the linear servo motor, is operated within the specified power supply voltage and frequency. Thrust drops when the power supply voltage is below the specified value. Refer to the section "thrust characteristics" in this catalog for thrust characteristics of each linear servo motor.
2. MR-J3-350B-RJ004(U□) or smaller servo amplifiers can be mounted closely. In this case, operate them at the ambient temperature of 0 to 45°C (32 to 113°F) or at 75% or less of the effective load ratio.
3. 0.15A is the value when all of the input/output points are used. The current capacity can be stepped down according to the number of input/output points in use.
4. Optimal regenerative resistor varies for each system.
5. Refer to the section "Options ● Optional regeneration unit" in this catalog for the tolerable regenerative power (W).
6. The value in () is applicable when the external regenerative resistors, GRZG400-□Ω (standard accessory) are used with cooling fans (2 units of 92 × 92mm, minimum air flow: 1.0m³/min). Note that change in parameter No. PA02 is required.
7. Servo amplifier model that is compatible with LM-F series is MR-J3-□B-RJ004U□. Refer to "Servo amplifier model designation" for more details.
8. Use an optional external dynamic brake with the servo amplifier. Without the external dynamic brake, a linear servo motor does not stop immediately at emergency stop and falls in free-run status, causing an accident such as machine collision, etc. Take measures to ensure safety on the entire system.