





MR-J3 Amplifiers

Amplifier Types

Type	Interface							Control Mode						Setup Software	Model	Power	Source Capacity (*1)	Compatible Motor Series								
	Pulse Train	Analog	DIO	SSCNET III	RS-422 Multi-Drop	CC-Link	EtherCAT (*4)	Position	Speed	Torque	Position Functions	Fully Closed Loop Control	Turret Index					HF-KP	HF-IMP	HF-SP	HF-JP	HC-LP	HC-RP	HC-UP	HA-LP	
A-Type 	x	x	-	-	x	-	x	x	x	x	-	-	x	x	MR-J3_A	3-Phase 200VAC	0.05 ~ 37kW	x	x	x	x	x	x	x	x	x
															MR-J3-_A1	1-Phase 100VAC	0.05 ~ 0.4kW	x	x	-	-	-	-	-	-	-
															MR-J3-_A4	3-Phase 400VAC	0.5 ~ 55kW	-	-	x	x	-	-	-	-	x
B Safety Type 	-	-	-	x	-	-	-	x	x	x	-	x	-	x	MR-J3-_BS	3-Phase 200VAC	0.05 ~ 37kW	x	x	x	x	x	x	x	x	x
															MR-J3-_BS1	1-Phase 100VAC	0.05 ~ 0.4kW	x	x	-	-	-	-	-	-	-
															MR-J3-_BS4	3-Phase 400VAC	0.5 ~ 55kW	-	-	x	x	-	-	-	-	x
B Dual Axis 	-	-	-	x	-	-	-	x	x	x	-	-	-	x	MR-J3W-_B	3-Phase 200VAC	0.05 ~ 0.75kW	x	x	-	-	-	-	-	-	-
T-Type 	x (*2)	-	x (*3)	-	x	x	-	x	-	-	x	-	-	x	MR-J3-_T	3-Phase 200VAC	0.05 ~ 25kW	x	x	x	x	x	x	x	x	x
															MR-J3-_T1	1-Phase 100VAC	0.05 ~ 0.4kW	x	x	-	-	-	-	-	-	-
															MR-J3-_T4	3-Phase 400VAC	0.5 ~ 22kW	-	-	x	x	-	-	-	-	x

Notes:

1. Capacity selection software MSIZE (MRZJW3-MOTSZ111) can be downloaded for free from www.meau.com.
2. Please use the manual pulse generator (MR-HDP01).
3. Please use the extended IO unit (MR-D01).
4. Please use the interface module MR-J3-T04.

100V/200V Amplifier Selection: (Example Part No. = MR-J3-10BS)

MR-J3-□-□-□-□

Mitsubishi General Purpose AC Servo Amplifier

Symbol	Special Types
None	Standard
W	Dual Axis (*1)

Note:
1. B type only. Available for 200, 400, 750W only. Safety option not available.

A: General Purpose Interface
B: MR-J3W Type Amplifiers Only
BS: SSCNET III Interface
T: CC-Link Interface
AN: General Purpose Interface For 2kW-200V amplifiers only
TN: CC-Link Interface For 2kW-200V amplifiers only

Symbol	Special Types
None	Standard J3 Amplifier
U1__	400% Maximum Torque (*1)
RJ070	Turret Index (*2)

Notes:
1. JP motors only.
2. Available on MR-J3-A type only.

Symbol	Power Supply
None	3-phase 200VAC or 1-phase 230VAC (*1)
1	1-phase 100VAC (*2)

Notes:
1. The 1-phase 200VAC is available on MR-J3-70 or smaller.
2. The 1-phase 100VAC is available on MR-J3-40 or smaller.

Symbol	Compatible Motors							
	HF-KP	HF-MP	HF-SP	HF-JP	HC-LP	HC-RP	HC-UP	HA-LP
10	053, 13	053, 13	-	-	-	-	-	-
20	23	23	-	-	-	-	-	-
40	43	43	-	-	-	-	-	-
60	-	-	51, 53	52	52	-	-	-
70	73	73	-	73	-	-	72	-
100	-	-	81, 102	103	53 (*3)	102	-	-
200	-	-	121, 201, 152, 202	153, 203	73, 103 (*3)	152	103, 153	152
350	-	-	301, 352	353	153, 203 (*3)	202	203	202
500	-	-	421, 502	503	353 (*3)	302	353, 503	352, 502
700	-	-	702	703	503 (*3)	-	-	502
11K	-	-	-	903, 11K1M (*6)	-	-	-	601, 701M, 702
15K	-	-	-	15K1M (*6)	-	-	-	15K1, 15K1M, 15K2
22K	-	-	-	-	-	-	-	20K1, 25K1, 22K1M, 22K2
DU30K (*1, *2)	-	-	-	-	-	-	-	30K1, 30K1M, 30K2
DU37K (*1, *2)	-	-	-	-	-	-	-	37K1, 37K1M, 37K2
Dual Axis	22	053, 13, 23	053, 13, 23	-	-	-	-	-
	44	053(*4, *5), 13(*4, *5), 23, 43	053(*4, *5), 13(*4, *5), 23, 43	-	-	-	-	-
	77	43(*4, *5), 73	43(*4, *5), 73	51(*4, *5), 52(*4, *5)	-	-	52 (*2, *3)	72 (*2, *3)

- Notes:
1. Converter Unit MR-J3-CR55K is required for 30kW and 37kW amplifiers.
2. Available for MR-J3-A and B Safety types only.
3. Use this Servo Motor with a dedicated servo amplifier MR-J3-_A(4)/BS(4)/T(4)-U1__ when increasing the maximum torque.
4. These motors can be used by setting parameter No. Po04 to “_ _1_”.
5. These motors are not compatible with FX3U-20SSC-H controller.
6. Use a dedicated servo amplifier MR-J3-_A(4)/BS(4)/T(4)-LR/-LW for HF-JP11K1M(4) and HF-JP15K1M(4). These Servo Motors cannot be used with any other servo amplifiers without “-LR”.

400V Amplifier Selection: (Example Part No. = MR-J3-60A4)

MR-J3-□□4-□

Mitsubishi General Purpose AC Servo Amplifier

400VAC Amplifier

Symbol	Power Supply
None	Standard J3 Amplifier
U1__	400% Maximum Torque (*2)
RJ070	Turret Index (*1)

Notes:
1. Available on MR-J3-A type only.
2. JP motors only.

A: General Purpose Interface
BS: SSCNET III Interface
T: CC-Link Interface (up to 22kW only)

Symbol	Compatible Motors		
	HF-SP	HF-JP	HA-LP
60	524	534	-
100	1024	734, 1034	534 (*3)
200	1524, 2024	1534, 2034	734, 1034 (*3)
350	3524	3534	1534, 2034 (*3)
500	5024	5034	3534 (*3)
700	7024	7034	5034 (*3)
11K	-	9034, 11K1M4 (*4)	-
15K	-	15K1M4 (*4)	-
22K	-	-	-
DU30K (*1, *2)	-	-	25K14, 30K14, 30K1M4, 30K24
DU37K (*1, *2)	-	-	37K14, 37K1M4, 37K24
DU45K (*1, *2)	-	-	45K1M4, 45K24
DU55K (*1, *2)	-	-	50K1M4, 55K24

- Notes:
1. Converter Unit MR-J3-CR55K4 is required for 30kW to 55kW amplifiers.
2. Available for the MR-J3-A and B Safety types only.
3. These motors can be used by setting parameter No. Po04 to “_ _1_”.
4. Use a dedicated servo amplifier MR-J3-_A(4)/BS(4)/T(4)-LR/-LW for HF-JP11K1M(4) and HF-JP15K1M(4). These Servo Motors cannot be used with any other servo amplifiers without “-LR”.

MR-J3-A Servo Amplifier Specifications 100/200V 22kW or Smaller

Servo Amplifier Model MR-J3-		10A	20A	40A	60A	70A	100A	200AN	350A	500A	700A	11KA	15KA	22KA	10A1	20A1	40A1	
Stocked Item		S	S	S	S	S	S	S	S	S	S	S	-	-	S	S	S	
Main Circuit Power Supply	Voltage/Frequency (*1, *2)	3-phase 200 to 230VAC 50/60Hz or 1-phase 200 to 230VAC 50/60Hz (*10)					3-phase 200 to 230VAC 50/60Hz						1-phase 100 to 120VAC 50/60Hz					
	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						1-phase 85 to 132VAC					
	Permissible Frequency Fluctuation	±5% maximum																
Control Circuit Power Supply	Voltage/Frequency	1-phase 200 to 230VAC 50/60Hz (*10)					1-phase 200 to 230VAC 50/60Hz						1-phase 100 to 120VAC 50/60Hz					
	Permissible Voltage Fluctuation	1-phase 170 to 253VAC																
	Permissible Frequency Fluctuation	±5% maximum																
	Power Consumption (W)	30									45				30			
Interface Power Supply		24VDC ±10% (required current capacity: 300mA (*7))																
Regenerative Resistor/Tolerable Regenerative Power (W) (*3, *4)	Built-in Regenerative Resistor	-	10	10	10	20	20	100	100	130	170	-	-	-	-	10	10	
	External Regenerative Resistor (Standard Accessory) (*5, *6)	-	-	-	-	-	-	-	-	-	-	500 (800)	850 (1300)	850 (1300)	-	-	-	
Control System		Sine-wave PWM control/current control system																
Dynamic Brake		Built-in (*8, *13)										External option			Built-in (*8, *13)			
Safety Features		Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), Servo Motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection																
Position Control Mode	Maximum Input Pulse Frequency	1Mpps (when using differential receiver), 200kpps (when using open collector), (4Mpps) (*11)																
	Positioning Feedback Pulse	Resolution per encoder/Servo Motor rotation: 262144 p/rev																
	Command Pulse Multiple	Electronic gear A/B multiple, A: 1 to 1048576, B: 1 to 1048576, 1/10 < A/B < 2000																
	Positioning Complete Width Setting	0 to ±10000 pulses (command pulse unit)																
	Excess Error	±3 rotations																
	Torque Limit	Set by parameters or external analog input (0 to +10VDC/maximum torque)																
Speed Control Mode	Speed Control Range	Analog speed command 1:2000, internal speed command 1:5000																
	Analog Speed Command Input	0 to ±10VDC/rated speed (possible to change the speed in 10V using the parameter No. PC12.) (*12)																
	Speed Fluctuation Rate	±0.01% maximum (load fluctuation 0 to 100%) 0% (power fluctuation ±10%) ±0.2% maximum (ambient temperature 25°C±10°C (59°F to 95°F)), when using analog speed command																
	Torque Limit	Set by parameters or external analog input (0 to +10VDC/maximum torque) (*12)																
Torque Control Mode	Analog Torque Command Input	0 to ±8VDC/maximum torque (input impedance 10 to 12kΩ) (*12)																
	Speed Limit	Set by parameters or external analog input (0 to ±10VDC/rated speed)																
Structure		Self-cooling open (IP00)					Fan cooling open (IP00)						Self-cooling open (IP00)					
Environment	Ambient Temperature (*6, *9)	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 maximum																
Weight kg (lb)	0.8 (1.8)	0.8 (1.8)	1.0 (2.2)	1.0 (2.2)	1.4 (3.1)	1.4 (3.1)	2.1 (4.6)	2.3 (5.1)	4.6 (10)	6.2 (14)	18 (40)	18 (40)	19 (42)	0.8 (1.8)	0.8 (1.8)	1.0 (2.2)		

Notes:

- Rated output and speed of a Servo Motor are applicable when the servo amplifier, combined with the Servo Motor, is operated within the specified power supply voltage and frequency. Torque drops when the power supply voltage is below the specified value.
- For torque characteristics when combined with a Servo Motor, refer to the section "Servo Motor torque characteristics" in this catalog.
- Optimal regenerative resistor varies for each system. Select the most suitable regenerative resistor by using the capacity selection software.
- Refer to the section "Options • Optional regeneration unit" in this catalog for the tolerable regenerative power (W).
- The servo amplifier (MR-J3- KA-PX) without an enclosed regenerative resistor is also available.
- The value in () applies when the external regenerative resistors, GRZG400-Ω, (standard accessory) are used with cooling fans (2 units of 92 x 92mm, minimum air flow: 1.0m³/min). Note that change in the parameter No. PA02 is required.
- 300mA 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. Refer to "MR-J3- A SERVO AMPLIFIER INSTRUCTION MANUAL" for details.
- Special specification models without a dynamic brake, MR-J3- A-ED and MR-J3- A1-ED, are also available for 7kW or smaller servo amplifier.
- The MR-J3-350A or smaller servo amplifier can be installed close together. In this case, keep the ambient temperature within 0 to 45°C (32 to 113°F), or use the servo amplifier with 75% or less of the effective load rate.
- The special specification model, MR-J3- A-U004, is also available for 1-phase 200 to 240 VAC.
- 4Mpps compatible servo amplifier (MR-J3- A(1)-KE) is also available.
- High resolution analog speed command and analog torque command is available with a set of MR-J3- A(1)-RJ040 and the extension IO unit, MR-D01.
- When using the built-in dynamic brake, refer to "MR-J3- A SERVO AMPLIFIER INSTRUCTION MANUAL" for the permissible load inertia moment ratio.

MR-J3-A Servo Amplifier Specifications: 200VAC, 30kW or Larger

Drive Unit Model		MR-J3-DU30KA	MR-J3-DU37KA
Stocked Item		-	-
Main Circuit Power Supply	Voltage/Frequency (*1)	The drive unit's main circuit power is supplied from the converter unit	
	Permissible Voltage Fluctuation		
	Permissible Frequency Fluctuation		
Control Circuit Power Supply	Voltage/Frequency	1-phase 200 to 230VAC 50/60Hz	
	Permissible Voltage Fluctuation	1-phase 170 to 253VAC	
	Permissible Frequency Fluctuation	±5% maximum	
	Power Consumption (W)	45	
Interface Power Supply		24VDC ±10% (required current capacity: 300mA) (*3)	
Control System		Sine-wave PWM control/current control system	
Dynamic Brake		External option	
Safety Features		Overcurrent shutdown, overload shutdown (electronic thermal), Servo Motor overheat protection, encoder fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection	
Position Control Mode	Maximum Input Pulse Frequency	1Mpps (when using differential receiver), 200kpps (when using open collector)	
	Positioning Feedback Pulse	Resolution per encoder/Servo Motor rotation: 262144 p/rev	
	Command Pulse Multiple	Electronic gear A/B multiple, A: 1 to 1048576, B: 1 to 1048576, 1/10 < A/B < 2000	
	Positioning Complete Width Setting	0 to ±10000 pulses (command pulse unit)	
	Excess Error	±3 rotations	
Speed Control Mode	Torque Limit	Set by parameters or external analog input (0 to +10VDC/maximum torque)	
	Speed Control Range	Analog speed command 1:2000, internal speed command 1:5000	
	Analog Speed Command Input	0 to ±10VDC/rated speed (possible to change the speed in 10V using the parameter No. PC12.)	
	Speed Fluctuation Rate	±0.01% maximum (load fluctuation 0 to 100%) 0% (power fluctuation ±10%) ±0.2% maximum (ambient temperature 25°C±10°C (59°F to 95°F)), when using analog speed command	
Torque Control Mode (*2)	Torque Limit	Set by parameters or external analog input (0 to +10VDC/maximum torque)	
	Analog Torque Command Input	0 to ±8VDC/maximum torque (input impedance 10 to 12kΩ)	
Torque Control Mode (*2)	Speed Limit	Set by parameters or external analog input (0 to ±10VDC/rated speed)	
	Speed Limit	Set by parameters or external analog input (0 to ±10VDC/rated speed)	
Structure		Fan cooling open (IP00)	
Weight kg (lb)		26 (57)	
Environment	Ambient Temperature	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 maximum	

Notes:

- Rated output and speed of a Servo Motor are applicable when the drive unit and the converter unit, combined with the Servo Motor, are operated within the specified power supply voltage and frequency. Torque drops when the power supply voltage is below the specified value.
- For torque characteristics when combined with a Servo Motor, refer to the section "Servo Motor torque characteristics" in this catalog.
- The interface power supply can be shared with the drive unit and the converter unit. When all of the input/output points are used, 300mA is required for the drive unit, and 130mA is required for the converter unit. The current capacity can be stepped down according to the number of input/output points in use. Refer to "MR-J3_A SERVO AMPLIFIER INSTRUCTION MANUAL" for details.

MR-J3-A Servo Amplifier Specifications, 400VAC, 22kW or Smaller

Servo Amplifier Model MR-J3-		60A4	100A4	200A4	350A4	500A4	700A4	11KA4	15KA4	22KA4	
Stocked Item		S	S	S	S	S	S	-	-	-	
Main Circuit Power Supply	Voltage/Frequency (*1, *2)	3-phase 380 to 480VAC 50/60Hz									
	Permissible Voltage Fluctuation	3-phase 323 to 528VAC									
	Permissible Frequency Fluctuation	±5% maximum									
Control Circuit Power Supply	Voltage/Frequency	1-phase 380 to 480VAC 50/60Hz									
	Permissible Voltage Fluctuation	1-phase 323 to 528VAC									
	Permissible Frequency Fluctuation	±5% maximum									
Power Consumption (W)		30			45						
Interface Power Supply		24VDC ±10% (required current capacity: 300mA) (*7)									
Regenerative Resistor/Tolerable Regenerative Power (W) (*3, *4)	Built-in Regenerative Resistor	15	15	100	100	130 (*9)	170 (*9)	-	-	-	
	External Regenerative Resistor (Standard Accessory) (*5, *6)	-	-	-	-	-	-	500 (800)	850 (1300)	850 (1300)	
Control System		Sine-wave PWM control/current control system									
Dynamic Brake		Built-in (*8, *10)						External option			
Safety Features		Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), Servo Motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection									
Position Control Mode	Maximum Input Pulse Frequency	1Mpps (when using differential receiver), 200kpps (when using open collector)									
	Positioning Feedback Pulse	Resolution per encoder/Servo Motor rotation: 262144 p/rev									
	Command Pulse Multiple	Electronic gear A/B multiple, A: 1 to 1048576, B: 1 to 1048576, 1/10 < A/B < 2000									
	Positioning Complete Width Setting	0 to ±10000 pulses (command pulse unit)									
	Excess Error	±3 rotations									
Torque Limit		Set by parameters or external analog input (0 to +10VDC/maximum torque)									
Speed Control Mode	Speed Control Range	Analog speed command 1:2000, internal speed command 1:5000									
	Analog Speed Command Input	0 to ±10VDC/rated speed (possible to change the speed in 10V using the parameter No. PC12.) (*11)									
	Speed Fluctuation Rate	±0.01% maximum (load fluctuation 0 to 100%) 0% (power fluctuation ±10%) ±0.2% maximum (ambient temperature 25°C±10°C (59°F to 95°F)), when using analog speed command									
	Torque Limit	Set by parameters or external analog input (0 to +10VDC/maximum torque) (*11)									
Torque Control Mode	Analog Torque Command Input	0 to ±8VDC/maximum torque (input impedance 10 to 12kΩ) (*11)									
	Speed Limit	Set by parameters or external analog input (0 to ±10VDC/rated speed)									
Structure		Self-cooling open (IP00)				Fan cooling open (IP00)					
Environment	Ambient Temperature (*6)	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 maximum									
Weight kg (lb)		1.7 (3.7)	1.7 (3.7)	2.1 (4.6)	4.6 (10)	4.6 (10)	6.2 (14)	18 (40)	18 (40)	19 (42)	

Notes:

- Rated output and speed of a Servo Motor are applicable when the servo amplifier, combined with the Servo Motor, is operated within the specified power supply voltage and frequency. Torque drops when the power supply voltage is below the specified value.
- For torque characteristics when combined with a Servo Motor, refer to the section "Servo Motor torque characteristics" in this catalog.
- Optimal regenerative resistor varies for each system. Select the most suitable regenerative resistor by using the capacity selection software.
- Refer to the section "Options • Optional regeneration unit" in this catalog for the tolerable regenerative power (W).
- The servo amplifier (MR-J3- KA4-PX) without an enclosed regenerative resistor is also available.
- The value in () applies when the external regenerative resistors, GRZG400-0, (standard accessory) are used with cooling fans (2 units of 92 x 92mm, minimum air flow: 1.0m³/min). Note that change in the parameter No. PA02 is required.
- 300mA 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. Refer to "MR-J3- A SERVO AMPLIFIER INSTRUCTION MANUAL" for details.
- Special specification models without a dynamic brake, MR-J3- A4 -ED, are also available for 7kW or smaller servo amplifier.
- The amplifier built-in resistor is compatible with the maximum torque deceleration when the motor is used within the rated speed and the recommended load/motor inertia moment ratio. Contact Mitsubishi if the operating motor speed and the load/motor inertia moment ratio exceed the rated speed and the recommended ratio.
- When using the built-in dynamic brake, refer to "MR-J3- A SERVO AMPLIFIER INSTRUCTION MANUAL" for the permissible load inertia moment ratio.
- For the servo amplifier 11kW to 22kW, high resolution analog speed command and analog torque command is available with a set of MR-J3- A4-RJ040 and the extension IO unit, MR-D01. Servo amplifier 7kW or smaller, compatible with high resolution analog speed torque command, will be available.

MR-J3-A Servo Amplifier Specifications, 400VAC, 30kW or Larger

Drive Unit Model		MR-J3-DU30KA4	MR-J3-DU37KA4	MR-J3-DU45KA4	MR-J3-55KA4
Stocked Item		-			
Main Circuit Power Supply	Voltage/Frequency (*1)	The drive unit's main circuit power is supplied from the converter unit			
	Permissible Voltage Fluctuation				
	Permissible Frequency Fluctuation				
Control Circuit Power Supply	Voltage/Frequency	1-phase 380 to 480VAC 50/60Hz			
	Permissible Voltage Fluctuation	1-phase 323 to 528VAC			
	Permissible Frequency Fluctuation	±5% maximum			
	Power Consumption (W)	45			
Interface Power Supply		24VDC ±10% (required current capacity: 300mA) (*3)			
Control System		Sine-wave PWM control/current control system			
Dynamic Brake		External option			
Safety Features		Overcurrent shutdown, overload shutdown (electronic thermal), Servo Motor overheat protection, encoder fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection			
Position Control Mode	Maximum Input Pulse Frequency	1Mpps (when using differential receiver), 200kpps (when using open collector)			
	Positioning Feedback Pulse	Resolution per encoder/Servo Motor rotation: 262144 p/rev			
	Command Pulse Multiple	Electronic gear A/B multiple, A: 1 to 1048576, B: 1 to 1048576, 1/10 < A/B < 2000			
	Positioning Complete Width Setting	0 to ±10000 pulses (command pulse unit)			
	Excess Error	±3 rotations			
Speed Control Mode	Torque Limit	Set by parameters or external analog input (0 to +10VDC/maximum torque)			
	Speed Control Range	Analog speed command 1:2000, internal speed command 1:5000			
	Analog Speed Command Input	0 to ±10VDC/rated speed (possible to change the speed in 10V using the parameter No. PC12.)			
	Speed Fluctuation Rate	±0.01% maximum (load fluctuation 0 to 100%) 0% (power fluctuation ±10%) ±0.2% maximum (ambient temperature 25°C±10°C (59°F to 95°F)), when using analog speed command			
Torque Control Mode (*2)	Torque Limit	Set by parameters or external analog input (0 to +10VDC/maximum torque)			
	Speed Limit	Set by parameters or external analog input (0 to ±10VDC/rated speed)			
Structure		Fan cooling open (IP00)			
Weight kg (lb)		18 (40)	26 (57)		
Environment	Ambient Temperature	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 maximum			

Notes:

- Rated output and speed of a Servo Motor are applicable when the drive unit and the converter unit, combined with the Servo Motor, are operated within the specified power supply voltage and frequency. Torque drops when the power supply voltage is below the specified value.
- For torque characteristics when combined with a Servo Motor, refer to the section "Servo Motor torque characteristics" in this catalog.
- The interface power supply can be shared with the drive unit and the converter unit. When all of the input/output points are used, 300mA is required for the drive unit, and 130mA is required for the converter unit. The current capacity can be stepped down according to the number of input/output points in use. Refer to "MR-J3-A SERVO AMPLIFIER INSTRUCTION MANUAL" for details.

MR-J3-A-RJ070 Servo Amplifier Specifications 200VAC, 22kW or Smaller (Indexer)

Servo Amplifier Model MR-J3-_-RJ070		10A	20A	40A	60A	70A	100A	200AN	350A	500A	700A	11KA	15KA	22KA	10A1	20A1	40A1	
Stocked Item		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Main Circuit Power Supply	Voltage/Frequency	3-phase 200 to 230VAC 50/60Hz or 1-phase 200 to 230VAC 50/60Hz					3-phase 200 to 230VAC 50/60Hz							1-phase 100 to 120VAC 50/60Hz				
	Permissible Voltage Fluctuation	For 1-phase 230VAC: 207 to 253VAC For 3-phase 200 to 230VAC: 170 to 253VAC					1-phase 170 to 253VAC							1-phase 85 to 132VAC				
	Permissible Frequency Fluctuation	±5% maximum																
Control Circuit Power Supply	Voltage/Frequency	1-phase 200 to 230VAC 50/60Hz												1-phase 100 to 120VAC 50/60Hz				
	Permissible Voltage Fluctuation	1-phase 170 to 253VAC												1-phase 85 to 132VAC				
	Permissible Frequency Fluctuation	±5% maximum																
	Power Consumption (W)	30									45				30			
Inrush Current		Refer to MR-J3-_A Servo Amplifier Instruction Manual																
Interface Power Supply		24VDC ±10% (300mA) (*1)																
Control System		Sine-wave PWM control/current control system																
Dynamic Brake		Built-in										External option			Built-in			
Safety Features		Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), Servo Motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection																
Indexer Positioning (Turret)	Max. No. of Stations	MR-J3-_A-RJ070 only: 15 stations, With MR-D01: 255 stations																
	Number of Gears on Servo Motor / Machine (Electronic Gears)	1/9999<MCX/CDV<9999, CDV x STN<32767, CMX x CDV<100000																
	In-Position Range Setting	0 to ±10000 pulses (command pulse unit)																
	Error Excessive	±3 rotations																
	Torque Limit	Set by parameters or external analog input (0 to +10VDC/maximum torque)																
Structure		Self-cooling open (IP00)					Forced-cooling open (IP00)							Self-cooling open (IP00)				
Environment	Ambient Temperature	0 to 55°C (32 to 131°F) (non-freezing), storage: -20 to 65°C (-4 to 149°F) (non-freezing) (*2)																
	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 maximum																
Weight kg (lb)		0.8 (1.8)	0.8 (1.8)	1.0 (2.2)	1.0 (2.2)	1.4 (3.1)	1.4 (3.1)	2.1 (4.6)	2.3 (5.1)	4.6 (10)	6.2 (14)	18 (40)	18 (40)	19 (42)	0.8 (1.8)	0.8 (1.8)	1.0 (2.2)	

Notes:

- 300mA is the value when all I/O signals are used. The current capacity can be decreased by reducing the number of I/O points.
- When closely mounting the servo amplifiers of 3.5kW or less, operate them at the ambient temperatures of 0 to 45°C or at 75% or smaller effective ratio loads.

MR-J3-A-RJ070 Servo Amplifier Specifications 400VAC, 22kW or Smaller (Indexer)

Servo Amplifier Model MR-J3-_-RJ070		60A4	100A4	200A4	350A4	500A4	700A4	11KA4	15KA4	22KA4	
Stocked Item		-									
Main Circuit Power Supply	Voltage/Frequency	3-phase 380 to 480VAC 50/60Hz									
	Permissible Voltage Fluctuation	3-phase 323 to 528VAC									
	Permissible Frequency Fluctuation	±5% maximum									
	Power Supply Equipment Capacity	Refer to MR-J3-_A Servo Amplifier Instruction Manual									
	Inrush Current	Refer to MR-J3-_A Servo Amplifier Instruction Manual									
Control Circuit Power Supply	Voltage/Frequency	1-phase 380 to 480VAC 50/60Hz									
	Permissible Voltage Fluctuation	1-phase 323 to 528VAC									
	Permissible Frequency Fluctuation	±5% maximum									
	Power Consumption (W)	30					45				
Inrush Current		Refer to MR-J3-_A Servo Amplifier Instruction Manual									
Interface Power Supply		24VDC ±10% (300mA) (*1)									
Control System		Sine-wave PWM control/current control system									
Dynamic Brake		Built-in							External option		
Safety Features		Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), Servo Motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection									
Indexer Positioning (Turret)	Maximum Number of Stations	MR-J3-_A-RJ070 only: 15 stations, With MR-D01: 255 stations									
	Number of Gears on Servo Motor/ Machine (Electronic Gears)	1/9999<MCX/CDV<9999, CDV x STN<32767, CMX x CDV<100000									
	In-Position Range Setting	0 to ±10000 pulses (command pulse unit)									
	Error Excessive	±3 rotations									
	Torque Limit	Set by parameters or external analog input (0 to +10VDC/maximum torque)									
Structure		Self-cooling open (IP00)					Forced cooling open (IP00)				
Environment	Ambient Temperature	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 maximum									
Weight kg (lb)		1.7 (3.7)	1.7 (3.7)	2.1 (4.6)	4.6 (10)	4.6 (10)	6.2 (14)	18 (40)	18 (40)	19 (42)	

Note: 1. 300mA is the value when all I/O signals are used. The current capacity can be decreased by reducing the number of I/O points.

MR-J3-B Safety Servo Amplifier Specifications 100V/200VAC, 22kW or Smaller

Servo Amplifier Model MR-J3-		10BS	20BS	40BS	60BS	70BS	100BS	200BS	350BS	500BS	700BS	11KBS	15KBS	22KBS	10BS1	20BS1	40BS1	
Stocked Item		S	S	S	S	S	S	S	S	S	S	-	-	S	S	S	S	
Main Circuit Power Supply	Voltage/Frequency (*1, *2)	3-phase 200 to 230VAC 50/60Hz or 1-phase 200 to 230VAC 50/60Hz (*10)					3-phase 200 to 230VAC 50/60Hz							1-phase 100 to 120VAC 50/60Hz				
	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							1-phase 85 to 132VAC				
	Permissible Frequency Fluctuation	±5% maximum																
Control Circuit Power Supply	Voltage/Frequency	1-phase 200 to 230VAC 50/60Hz (*10)					1-phase 200 to 230VAC 50/60Hz							1-phase 100 to 120VAC 50/60Hz				
	Permissible Voltage Fluctuation	1-phase 170 to 253VAC												1-phase 85 to 132VAC				
	Permissible Frequency Fluctuation	±5% maximum																
	Power Consumption (W)	30									45				30			
Interface Power Supply		24VDC ±10% (required current capacity: 150mA) (*7)																
Regenerative Resistor/Tolerable Regenerative Power (W) (*3, *4)	Built-in Regenerative Resistor	-	10	10	10	20	20	100	100	130	170	-	-	-	-	10	10	
	External Regenerative Resistor (Standard Accessory) (*5, *6)	-	-	-	-	-	-	-	-	-	-	500 (800)	850 (1300)	850 (1300)	-	-	-	
Control System		Sine-wave PWM Control/Current Control System																
Dynamic Brake		Built-in (*8, *11)										External option			Built-in (*8, *11)			
Safety Features		Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), Servo Motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection																
Structure	Self-Cooling Open	Self-cooling open (IP00)										Fan cooling open (IP00)			Self-cooling open (IP00)			
Environment	Ambient Temp. (*9)	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 maximum																
Weight kg (lb)		0.8 (1.8)	0.8 (1.8)	1.0 (2.2)	1.0 (2.2)	1.4 (3.1)	1.4 (3.1)	2.1 (4.6)	2.3 (5.1)	4.6 (10)	6.2 (14)	18 (40)	18 (40)	19 (42)	0.8 (1.8)	0.8 (1.8)	1.0 (2.2)	

Notes:

- Rated output and rated speed of the Servo Motor used in combination with the servo amplifier are as indicated when using the power supply voltage and frequency listed. The torque drops when the power supply voltage is less than specified.
- For torque characteristics when combined with a Servo Motor, refer to the section "Servo Motor torque characteristics" in the MR-J3 manual.
- Optimal regenerative resistor varies for each system. Select the most suitable regenerative resistor by using the capacity selection software.
- Refer to the section "Options • Optional regeneration unit" in the MR-J3 manual for the tolerable regenerative power (W).
- The servo amplifier (MR-J3-KB-PX) without an enclosed regenerative resistor is also available.
- The value in () applies when the external regenerative resistors, GRZG400-Ω, (standard accessory) are used with cooling fans (2 units of 92 x 92mm, minimum air flow: 1.0m³/min). Note that change in the parameter No. PA02 is required.
- 150mA 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. Refer to "MR-J3-B Safety SERVO AMPLIFIER INSTRUCTION MANUAL" for details.
- Special specification models without a dynamic brake, MR-J3-BS-ED and MR-J3-B1-ED, are also available.
- The MR-J3-350BS or smaller servo amplifier can be installed closely. In this case, keep the ambient temperature within 0 to 45°C (32 to 113°F), or use the servo amplifier with 75% or less of the effective load rate.
- The special specification model, MR-J3-BS-U004, is also available for 1-phase 200 to 240VAC.
- When using the built-in dynamic brake, refer to MR-J3-B Safety SERVO AMPLIFIER INSTRUCTION MANUAL for the permissible load inertia moment ratio.

MR-J3-B Safety Servo Amplifier Specifications: 200VAC, 30kW or Larger

Drive Unit Model		MR-J3-DU30KBS	MR-J3-DU37KBS
Stocked Item		-	
Main Circuit Power Supply	Voltage/Frequency (*1)	-	
	Permissible Voltage Fluctuation	The drive unit's main circuit power is supplied from the converter unit	
	Permissible Frequency Fluctuation		
Control Circuit Power Supply	Voltage/Frequency	1-phase 200 to 230VAC 50/60Hz	
	Permissible Voltage Fluctuation	1-phase 170 to 253VAC	
	Permissible Frequency Fluctuation	±5% maximum	
	Power Consumption (W)	45	
Interface Power Supply		24VDC ±10% (required current capacity: 150mA) (*2)	
Control System		Sine-wave PWM control/current control system	
Dynamic Brake		External option	
Safety Features		Overcurrent shutdown, overload shutdown (electronic thermal), Servo Motor overheat protection, encoder fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection	
Structure		Fan cooling open (IP00)	
Weight kg (lb)		26 (57)	
Environment	Ambient Temperature	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 maximum	

Notes:

- Rated output and rated speed of the Servo Motor used in combination with the drive unit and the converter unit are as indicated when using the power supply voltage and frequency listed. The torque drops when the power supply voltage is less than specified.
- The interface power supply can be shared with the drive unit and the converter unit. When all of the input/output points are used, 150mA is required for the drive unit, and 130mA is required for the converter unit. The current capacity can be stepped down according to the number of input/output points in use. Refer to "MR-J3-B Safety SERVO AMPLIFIER INSTRUCTION MANUAL" for details.

MR-J3-B Safety Servo Amplifier Specifications: 400VAC, 22kW or Smaller

Servo Amplifier Model MR-J3-		60BS4	100BS4	200BS4	350BS4	500BS4	700BS4	11KBS4	15KBS4	22KBS4
Stocked Item		S	S	S	S	S	S	S	S	S
Main Circuit Power Supply	Voltage/Frequency (*1, *2)	3-phase 380 to 480VAC 50/60Hz								
	Permissible Voltage Fluctuation	3-phase 323 to 528VAC								
	Permissible Frequency Fluctuation	±5% maximum								
Control Circuit Power Supply	Voltage/Frequency	1-phase 380 to 480VAC 50/60Hz								
	Permissible Voltage Fluctuation	1-phase 323 to 528VAC								
	Permissible Frequency Fluctuation	±5% maximum								
	Power Consumption (W)	30				45				
Interface Power Supply		24VDC ±10% (required current capacity: 150mA) (*7)								
Regenerative Resistor/Tolerable Regenerative Power (W) (*3, *4)	Built-In Regenerative Resistor	15	15	100	100	130 (*9)	170 (*9)	-	-	-
	External Regenerative Resistor (Standard Accessory) (*5, *6)	-	-	-	-	-	-	500 (800)	850 (1300)	850 (1300)
Control System		Sine-wave PWM control/current control system								
Dynamic Brake		Built-in (*8, *10)						External option		
Safety Features		Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), Servo Motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection								
Structure		Self-cooling open (IP00)			Fan cooling open (IP00)					
Environment	Ambient Temperature	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 maximum								
Weight kg (lb)		1.7 (3.7)	1.7 (3.7)	2.1 (4.6)	4.6 (10)	4.6 (10)	6.2 (14)	18 (40)	18 (40)	19 (42)

Notes:

- Rated output and rated speed of the Servo Motor used in combination with the servo amplifier are as indicated when using the power supply voltage and frequency listed. The torque drops when the power supply voltage is less than specified.
- For torque characteristics when combined with a Servo Motor, refer to the section "Servo Motor torque characteristics" in the MR-J3 manual.
- Optimal regenerative resistor varies for each system. Select the most suitable regenerative resistor by using the capacity selection software.
- Refer to the section "Options • Optional regeneration unit" in the MR-J3 manual for the tolerable regenerative power (W).
- The servo amplifier (MR-J3- KB4-PX) without an enclosed regenerative resistor is also available.
- The value in () applies when the external regenerative resistors, GRZG400-Ω, (standard accessory) are used with cooling fans (2 units of 92 X 92mm, minimum air flow: 1.0m³/min). Note that change in the parameter No. PA02 is required.
- 150mA 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. Refer to "MR-J3- B SAFETY SERVO AMPLIFIER INSTRUCTION MANUAL" for details.
- Special specification models without a dynamic brake, MR-J3- B4-ED, are also available.
- The amplifier built-in resistor is compatible with the maximum torque deceleration when the motor is used within the rated speed and the recommended load/motor inertia moment ratio. Contact Mitsubishi if the operating motor speed and the load/motor inertia moment ratio exceed the rated speed and the recommended ratio.
- For the servo amplifier 5kW or 7kW, the load/motor of inertia moment ratio must be 5 times or less when the amplifier built-in dynamic brake is used, and the motor speed exceeds 2000r/min.

MR-J3-B Safety Servo Amplifier Specifications: 400VAC, 30kW or Larger

Drive Unit Model		MR-J3-DU30KBS4	MR-J3-DU37KBS4	MR-J3-DU45KBS4	MR-J3-DU55KBS4
Stocked Item		-			
Main Circuit Power Supply	Voltage/Frequency (*1)	The drive unit's main circuit power is supplied from the converter unit			
	Permissible Voltage Fluctuation				
	Permissible Frequency Fluctuation				
Control Circuit Power Supply	Voltage/Frequency	1-phase 380 to 480VAC 50/60Hz			
	Permissible Voltage Fluctuation	1-phase 323 to 528VAC			
	Permissible Frequency Fluctuation	±5% maximum			
	Power Consumption (W)	45			
Interface Power Supply		24VDC ±10% (required current capacity: 150mA) (*2)			
Control System		Sine-wave PWM control/current control system			
Dynamic Brake		External option			
Safety Features		Overcurrent shutdown, overload shutdown (electronic thermal), Servo Motor overheat protection, encoder fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection			
Structure		Fan cooling open (IP00)			
Weight kg (lb)		18 (40)		26 (57)	
Environment	Ambient Temperature	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 maximum			

Notes:

- Rated output and rated speed of the Servo Motor used in combination with the drive unit and the converter unit are as indicated when using the power supply voltage and frequency listed. The torque drops when the power supply voltage is less than specified.
- The interface power supply can be shared with the drive unit and the converter unit. When all of the input/output points are used, 150mA is required for the drive unit, and 130mA is required for the converter unit. The current capacity can be stepped down according to the number of input/output points in use. Refer to "MR-J3- B SAFETY SERVO AMPLIFIER INSTRUCTION MANUAL" for details.

MR-J3-D05 Safety Logic Unit Specifications (*4)

Servo Amplifier Model MR-J3-		MR-J3-D05
Stocked Item		S
Control Circuit Power Supply	Voltage	24VDC
	Permissible Voltage Fluctuation	24VDC±10%
	Required Current Capacity	500mA (*1, *2)
Compatible System		2 systems (A-axis, B-axis independent)
Shut-off Input		4 points (2 points x 2 systems) SDI_ : source/sink compatible (*3)
Shut-off Release Input		2 points (1 point x 2 systems) SRES_ : source/sink compatible (*3)
Feedback Input		2 points (1 point x 2 systems) TOF_ : source compatible (*3)
Input Method		Photocoupler insulation, 24VDC (external supply), internal limited resistance 5.4kΩ
Shut-off Output		8 points (4 points x 2 systems) STO_ : source compatible (*3) SDO_ : source/sink compatible (*3)
Output Method		Photocoupler insulation, Open collector. Permissible current: 40mA or less per output, Inrush current: 100mA or less per output
Response Performance (When Delay Time is Set to 0s)		20ms or less (STO input OFF - shut-off output OFF)
Delay Time Setting		A-axis: select from 0s, 1.4s, 2.8s, 5.6s, 9.8s or 30.8s; B-axis: select from 0s, 1.4s, 2.8s, 9.8s or 30.8s; Accuracy: ±2%
Safety Function		STO, SS1 (EN IEC 61800-5-2), EMG STOP, EMG OFF (EN IEC 60204-1)
Safety Performance		EN ISO 13849-1 PL d (Category 3), IEC/EN 61508 SIL 2, EN 62061 SIL CL 2
Structure		Self-cooling open (IP00)
Environment	Ambient Temperature	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)
Weight kg (lb)		0.2 (0.44) (including CN9 and CN10 connectors)

Notes:

- Inrush current of approximately 1.5mA flows instantaneously when turning the control circuit power supply on. Select an appropriate capacity of a power supply considering the inrush current.
- Power-ON duration of the safety logic unit is 100,000 times.
- _ in signal name represents a symbol which indicates a system number and axis name.
- MR-J3B Safety amplifiers have STO built-in, the MR-J3-D05 is needed for the SS1 function.

MR-J3W-B Servo Amplifier Specifications

Servo Amplifier Model MR-J3-		MR-J3W-22B		MR-J3W-44B		MR-J3W-77B	
Stocked Item		S		-		-	
Rated Output Capacity		A-axis 200W	B-axis 200W	A-axis 400W	B-axis 400W	A-axis 750W	B-axis 750W
Output	Rated Voltage	3-phase 170VAC					
	Rated Current (A)	1.5	1.5	2.8	2.8	5.8	5.8
Main Circuit Power Supply	Voltage/Frequency (*1)	3-phase 200 to 230VAC 50/60Hz or 1-phase 200 to 230VAC 50/60Hz				3-phase 200 to 230VAC 50/60Hz	
	Rated Current (A)	3.5		6.1		10.4	
	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	
	Permissible Frequency Fluctuation	±5% maximum					
Control Circuit Power Supply	Voltage/Frequency	1-phase 200 to 230VAC 50/60Hz					
	Rated Current (A)	0.4					
	Permissible Voltage Fluctuation	1-phase 170 to 253VAC					
	Permissible Frequency Fluctuation	±5% maximum					
Power Consumption (W)		55					
Interface Power Supply		24VDC ±10% (required current capacity: 0.25A) (*2)					
Tolerable Regenerative Power of Regenerative Resistor (W)	Built-In Regenerative Resistor		10		100		100
	Optional Regeneration Unit	MR-RB14	100		-		-
		MR-RB34	-		-		300
Control System		Sine-wave PWM control/current control system					
Dynamic Brake		Built-in (*3)					
Safety Features		Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), Servo Motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection					
Structure		Self-cooling open (IP00)				Fan cooling open (IP00)	
Environment	Ambient Temperature (*4)	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 maximum, 10 – 55Hz (X, Y, Z axes)					
Weight kg (lb)		1.4				2.3	

Notes:

- Rated output and speed of a rotary Servo Motor; and rated thrust and speed of a linear Servo Motor are applicable when the servo amplifier, combined with the Servo Motors or the linear Servo Motors, is operated within the specified power supply voltage and frequency. Torque drops when the power supply voltage is below the specified value.
- 0.25A 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.
- When using the built-in dynamic brake, refer to "MR-J3W-MB SERVO AMPLIFIER INSTRUCTION MANUAL" for permissible load inertia moment ratio.
- MR-J3W- B servo amplifiers can be mounted closely. In the case of MR-J3-44B, however, operate them at 90% or less of the effective load ratio.

MR-J3-T Servo Amplifier Specifications 100VAC/200VAC

Servo Amplifier Model MR-J3-		10T	20T	40T	60T	70T	100T	200TN	350T	500T	700T	11KT	15KT	22KT	10T1	20T1	40T1	
Stocked Item		S	S	S	S	S	S	S	S	S	S	-	-	-	S	S	S	
Main Circuit Power Supply	Voltage/Frequency (*1, *2)	3-phase 200 to 230VAC 50/60Hz or 1-phase 200 to 230VAC 50/60Hz (*10)						3-phase 200 to 230VAC 50/60Hz						1-phase 100 to 120VAC 50/60Hz				
	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						1-phase 85 to 132VAC				
	Permissible Freq. Fluctuation	±5% maximum																
Control Circuit Power Supply	Voltage/Frequency	1-phase 200 to 230VAC 50/60Hz (*10)						1-phase 200 to 230VAC 50/60Hz						1-phase 100 to 120VAC 50/60Hz				
	Permissible Voltage Fluctuation	1-phase 170 to 253VAC																
	Permissible Freq. Fluctuation	±5% maximum																
Power Consumption (W)		30						45						30				
Interface Power Supply		24VDC ±10% (required current capacity: 150mA (*7))																
Regenerative Resistor/ Tolerable Regenerative Power (W) (*3, *4)	Built-In Regenerative Resistor	-	10	10	10	20	20	100	100	130	170	-	-	-	-	10	10	
	External Regenerative Resistor (Standard Accessory) (*5, *6)	-	-	-	-	-	-	-	-	-	-	500 (800)	850 (1300)	850 (1300)	-	-	-	
Control System		Sine-wave PWM control/current control system																
Dynamic Brake		Built-in (*8)											External option			Built-in (*8)		
Safety Features		Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), Servo Motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection																
Structure		Self-cooling open (IP00)						Fan cooling open (IP00)						Self-cooling open (IP00)				
Environment	Ambient Temperature (*9)	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 maximum																
Weight kg (lb)		0.8 (1.8)	0.8 (1.8)	1.0 (2.2)	1.0 (2.2)	1.4 (3.1)	1.4 (3.1)	2.1 (4.6)	2.3 (5.1)	4.6 (10)	6.2 (14)	18 (40)	18 (40)	19 (42)	0.8 (1.8)	0.8 (1.8)	1.0 (2.2)	

Notes:

- Rated output and rated speed of the Servo Motor used in combination with the servo amplifier are as indicated when using the power supply voltage and frequency listed. The torque drops when the power supply voltage is less than specified.
- For torque characteristics when combined with a Servo Motor, refer to the section "Servo Motor torque characteristics" in the MR-J3 manual.
- Optimal regenerative resistor varies for each system. Select the most suitable regenerative resistor by using the capacity selection software.
- Refer to the section "Options • Optional regeneration unit" in the MR-J3 manual for the tolerable regenerative power (W).
- The servo amplifier (MR-J3- KT-PX) without an enclosed regenerative resistor is also available.
- The value in () applies when the external regenerative resistors, GRZG400-Ω, (standard accessory) are used with cooling fans (2 units of 92 x 92mm, minimum air flow: 1.0m³/min). Note that change in the parameter No. PA02 is required.
- 150mA 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. Refer to "MR-J3-T SERVO AMPLIFIER INSTRUCTION MANUAL" for details.
- Special specification models without a dynamic brake, MR-J3- T-ED and MR-J3- T1-ED, are also available.
- The MR-J3-350T or smaller servo amplifier can be installed closely. In this case, keep the ambient temperature within 0 to 45°C (32 to 113°F), or use the servo amplifier with 75% or less of the effective load rate.
- The special specification model, MR-J3- T-U004, is also available for 1-phase 200 to 240VAC.

MR-J3-T Servo Amplifier Specifications 400VAC

Servo Amplifier Model MR-J3-		60T4	100T4	200T4	350T4	500T4	700T4	11KT4	15KT4	22KT4
Stocked Item		S	S	S	S	S	S	-	-	-
Main Circuit Power Supply	Voltage/Frequency (*1, 2)	3-phase 380 to 480VAC 50/60Hz								
	Permissible Voltage Fluctuation	3-phase 323 to 528VAC								
	Permissible Frequency Fluctuation	±5% maximum								
Control Circuit Power Supply	Voltage/Frequency	1-phase 380 to 480VAC 50/60Hz								
	Permissible Voltage Fluctuation	1-phase 323 to 528VAC								
	Permissible Frequency Fluctuation	±5% maximum								
Power Consumption (W)		30			45					
Interface Power Supply		24VDC ±10% (required current capacity: 150mA (*7))								
Regenerative Resistor/ Tolerable Regenerative Power (W) (*3, 4)	Built-In Regenerative Resistor	15	15	100	100	130 (*9)	170 (*9)	-	-	-
	External Regenerative Resistor (Standard Accessory) (*5, *6)	-	-	-	-	-	-	500 (800)	850 (1300)	850 (1300)
Control System		Sine-wave PWM control/current control system								
Dynamic Brake		Built-in (*8, *10)						External option		
Safety Features		Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), Servo Motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection								
Structure		Self-cooling open (IP00)			Fan cooling open (IP00)					
Environment	Ambient Temperature	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 maximum								
Weight kg (lb)		1.7 (3.7)	1.7 (3.7)	2.1 (4.6)	4.6 (10)	4.6 (10)	6.2 (14)	18 (40)	18 (40)	19 (42)

Notes:

- Rated output and rated speed of the Servo Motor used in combination with the servo amplifier are as indicated when using the power supply voltage and frequency listed. The torque drops when the power supply voltage is less than specified.
- For torque characteristics when combined with a Servo Motor, refer to the section "Servo Motor torque characteristics" in the MR-J3 manual.
- Optimal regenerative resistor varies for each system. Select the most suitable regenerative resistor by using the capacity selection software.
- Refer to the section "Options • Optional regeneration unit" in the MR-J3 manual for the tolerable regenerative power (W).
- The servo amplifier (MR-J3- KT4-PX) without an enclosed regenerative resistor is also available.
- The value in () applies when the external regenerative resistors, GRZG400-MΩ, (standard accessory) are used with cooling fans (2 units of 92 x 92mm, minimum air flow: 1.0m³/min). Note that change in the parameter No. PA02 is required.
- 150mA 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. Refer to "MR-J3-T SERVO AMPLIFIER INSTRUCTION MANUAL" for details.
- Special specification models without a dynamic brake, MR-J3- T4-ED are also available.
- The amplifier built-in resistor is compatible with the maximum torque deceleration when the motor is used within the rated speed and the recommended load/motor inertia moment ratio. Contact Mitsubishi if the operating motor speed and the load/motor inertia moment ratio exceed the rated speed and the recommended ratio.
- For the servo amplifier 5kW or 7kW, the load/motor of inertia moment ratio must be 5 times or less when the amplifier built-in dynamic brake is used, and the motor speed exceeds 2000r/min.

MR-D01 Specifications

Model	MR-D01	
Stocked Item	S	
Power Supply for Interface	24VDC \pm 10% (required current capacity: 800mA) (*1, *2)	
Digital Input	30 points, photocoupler insulation, sink/source compatible	
Digital Output	16 points, photocoupler insulation, sink/source compatible	
Analog Input	2ch, 0 to \pm 10VDC (input impedance: 10 to 12k Ω)	
Analog Output	2ch, 0 to \pm 12VDC	
Power Supply for Analog Input Signal (*3)	P15R: DC+15V, permissible current: 30mA; N12R: DC-12V, permissible current: 30mA (*3)	
Structure	Self-cooling open (IP00)	
Environment	Ambient Temperature	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 maximum
Weight kg (lb)	140 (0.31)	

Notes:

- 0.8A 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.
- A 24VDC power supply for input/output signals can be shared by the servo amplifier and MR-D01. In this case, secure the power supply capacity corresponding to the points of the input/output signals to be used.
- P15R can be used as a power supply for TLA and VC. N12R can be used as a power supply for VC. The power voltage varies between -12V to -15V.

Functions Connecting to MR-J3-_T_

Function	Description
Digital Input	Point table No. selection 1 to 8 (DIO to DI7), Servo-on (SON), Reset (RES), External torque limit selection (TL), Internal torque limit selection (TL1), Manual pulse generator multiplication 1 and 2 (TP0, TP1), Override selection (OVR), Automatic/manual selection (MD0), Temporary stop/restart (TSTP), Proportional control (PC), Forward rotation start (ST1), Reverse rotation start (ST2), Position data input 1 to 12 (POS00 to POS03, POS10 to POS13, POS20 to POS23), Position data input symbol+ (POSP), Clear (CR), Position data input symbol- (POSN), Strobe (STRB), Speed selection 1 to 3 (SP0 to SP2), Gain changing (CDP) (*1)
Digital Output	Alarm code (ACD0 to ACD3), M code (MCD00 to MCD03, MCD10 to MCD13), Temporary stop (PUS), Positioning complete (MEND), Phase match (CPO), In-position (INP), Position data request 1 and 2 (PRQ1, PRQ2), Zero speed (ZSP), Torque limit in effect (TLC), Warning (WNG), Electromagnetic brake interlock (MBR), Dynamic brake interlock (DB), Battery warning (BWNG), Positioning range output (POT), Variable gain selection (CDPS), Command speed reached (SA), Point table No. output 1 to 8 (PT0 to PT7) (*1)
Analog Input	Override (VC) (-10 to +10VDC/0 to 200%) Analog torque limit (TLA) (0 to \pm 10VDC/maximum torque)
Analog Output	Analog monitor output (MO1, MO2) (*2)

Functions Connecting to MR-J3-_A_-RJ040

Function	Description	
Position Control Mode	Electric Gear Numerator Digital Input	The electric gear numerator can be set arbitrarily in 5-digit BCD or 16-bit binary.
	High Resolution Analog Torque Limit	The torque limit can be set according to the rotating direction. TLAP: 0 to +10VDC/maximum torque; Resolution: 12-bit (Standard: 10-bit) TLAN: 0 to -10VDC/maximum torque; Resolution: 12-bit (Standard: 10-bit)
Speed Control Mode	Digital Speed Command Input	The speed command can be set arbitrarily in 5-digit BCD or 12-bit (16-bit) binary.
	High Resolution Analog Torque Limit	The torque limit can be set according to the rotating direction. TLAP: 0 to +10VDC/maximum torque; Resolution: 16-bit (Standard: 14-bit) TLAN: 0 to -10VDC/maximum torque; Resolution: 16-bit (Standard: 14-bit)
Torque Control Mode	Digital Speed Limit Input	The speed limit can be set arbitrarily in 5-digit BCD or 12-bit (16-bit) binary.
	High Resolution Torque Command Input	External analog torque command (OTC) 0 to \pm 8VDC/maximum torque; Resolution: 12-bit (Standard: 10-bit)

Notes:

- The signal assignment can be changed by setting the parameters. Refer to "MR-J3-_T_ MR-D01 SERVO AMPLIFIER INSTRUCTION MANUAL" for details.
- Analog monitor output can be selected by setting the parameter. Refer to "MR-J3-_T_ MR-D01 SERVO AMPLIFIER INSTRUCTION MANUAL" for details.

Converter Unit (Required for 30KW ~ 55KW 200/400V Amplifiers)

Converter Unit Model	MR-J3-CR55K (For 200VAC Only)	MR-J3-CR55K4 (For 400VAC Only)	
Stocked Item	-	-	
Main Circuit Power Supply	Voltage/Frequency (*1, *2)	3-phase 200 to 230VAC 50/60Hz	3-phase 380 to 480VAC 50/60Hz
	Permissible Voltage Fluctuation	3-phase 170 to 253VAC	3-phase 323 to 528VAC
	Permissible Frequency Fluctuation	\pm 5% maximum	
Control Circuit Power Supply	Voltage/Frequency	1-phase 200 to 230VAC 50/60Hz	1-phase 380 to 480VAC 50/60Hz
	Permissible Voltage Fluctuation	1-phase 170 to 253VAC	1-phase 323 to 528VAC
	Permissible Frequency Fluctuation	\pm 5% maximum	
	Power Consumption (W)	45	
Interface Power Supply	24VDC \pm 10% (required current capacity: 130mA) (*3)		
Safety Features	Regeneration overvoltage shutdown, regeneration fault protection, overload shutdown (electronic thermal), undervoltage/sudden power outage protection		
Structure	Fan cooling open (IP00)		
Weight kg (lb)	25 (55)		

Notes:

- Rated output and rated speed of the Servo Motor used in combination with the drive unit and the converter unit are as indicated when using the power supply voltage and frequency listed. The torque drops when the power supply voltage is less than specified.
- For torque characteristics when combined with a Servo Motor, refer to the section "Servo Motor torque characteristics" in the MR-J3 manual.
- The interface power supply can be shared with the drive unit and the converter unit. When all of the input/output points are used, 150mA is required for the drive unit, and 130mA is required for the converter unit. The current capacity can be stepped down according to the number of input/output points in use. Refer to "MR-J3-_A/B_ SERVO AMPLIFIER INSTRUCTION MANUAL" for details.