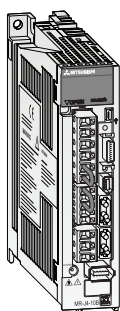


## MR-J4 servo amplifier specifications



The MELSERVO MR-J4 series is designed for ease of use and setup, safety, energy-efficiency and user friendly handling. With additional functions like “One-touch Tuning” and “Advanced Vibration Suppression Control” the servo performance achieves industry-leading level. The range covers 200 V amplifiers from 0.1 to 37 kW and 400 V amplifiers from 0.6 to 55 kW.

- Processing of encoder signals with 22 bit resolution (4,194,304 pulses/rev.)
- Speed frequency response is increased to 2.5 kHz
- Operating of rotary, linear and direct drive motors as standard

- Compatible with safety functions STO (Safe Torque Off) and SS1 (Safe Stop 1) corresponding EN 61800-5-2 as standard.

The MR-J4-B servo amplifier receives a command signal from a control system via high speed motion network SSCNETIII/H with a communication speed of 150 Mbps and a cycle time of 0.22 ms. This optical network is very reliable in operation because it is not affected by EMC.

For control, the MR-J4-A servo amplifier has a pulse train input and two analog inputs for current or voltage. Possible modes of the MR-J4-A are torque, speed or position control.

Common specifications MR-J4-□(-RJ)	10A 10B	20A 20B	40A 40B	60A 60B	70A 70B	100A 100B	200A 200B	350A 350B	500A 500B	700A 700B	11KA 11KB	15KA 15KB	22KA 22KB	
Power supply	3-phase or 1-phase 200–240 V AC, 50/60 Hz					3-phase or 1-phase 200–240 V AC, 50/60 Hz *		3-phase 200–240 V AC, 50/60 Hz						
Control system	Sinusoidal PWM control/current control system													
Dynamic brake	Built-in										External option			
Speed frequency response	2500 Hz													
Protective functions	Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), servomotor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection.													
Safety function	STO (IEC/EN 61800-5-2); (The functions SS1, SBC, SLS and SSM are available in combination with the optional functional safety unit MR-D30.)													
Structure	Self-cooling, open (IP20)					Fan cooling, open (IP20)								
<b>Order information</b>														
A-RJ type	Art. no.	269247	269248	269249	269250	269251	269252	269253	269254	269265	269266	269267	269268	269269
B-RJ type	Art. no.	269279	269280	269281	269282	269283	269284	269285	269286	269287	269288	269289	269290	269291

\* When 1-phase 200 V AC to 240 V AC power supply is used, use them with 75 % or less of the effective load ratio.

Common specifications MR-J4-□(-RJ)	60A4 60B4	100A4 100B4	200A4 200B4	350A4 350B4	500A4 500B4	700A4 700B4	11KA4 11KB4	15KA4 15KB4	22KA4 22KB4	
Power supply	3-phase 380–480 V AC, 50/60 Hz									
Control system	Sinusoidal PWM control/current control system									
Dynamic brake	Built-in						External option			
Speed frequency response	2500 Hz									
Protective functions	Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), servomotor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection.									
Safety function	STO (IEC/EN 61800-5-2); (The functions SS1, SBC, SLS and SSM are available in combination with the optional functional safety unit MR-D30.)									
Structure	Self-cooling, open (IP20)				Fan cooling, open (IP20)					
<b>Order information</b>										
A-RJ type	Art. no.	269270	269271	269272	269273	269274	269275	269276	269277	269278
B-RJ type	Art. no.	269292	269293	269294	269295	269296	269297	269298	269299	269300

Control specifications MR-J4-□(-RJ)	10A	20A	40A	60A(4)	70A	100A(4)	200A(4)	350A(4)	500A(4)	700A(4)	11KA(4)	15KA(4)	22KA(4)
Position control mode	maximum input pulse frequency	4 Mpps (when using differential receiver), 200 kpps (when using open collector)											
	positioning feedback pulse	Resolution per encoder/servo motor rotation: 4194304 pulses/revolution (22 Bit)											
	command pulse multiple	A/B multiple; A: 1–16777215, B: 1–16777215, 1/10 < A/B < 4000											
	torque limit input	Set by parameters or external analog input (0–± 10 V DC/maximum torque)											
Speed control mode	speed control range	Analog speed command 1:2000, internal speed command 1:5000											
	analog speed command input	0–± 10 V DC/rated speed (The speed at 10 V can be changed by parameter.)											
	speed fluctuation rate	±0.01 % max. (load fluctuation 0–100 %); 0 % (power fluctuation ±10 %) ±0.2 % max. (ambient temperature 25 °C ±10 °C), when using external analog speed command											
	torque limit	Set by parameters or external analog input (0–± 10 V DC/maximum torque)											
Torque control specifications	torque command input	0–±8 V DC/maximum torque (input impedance 10–12 kΩ)											
	speed limit	Set by parameters or external analog input (0–± 10 V DC, rated speed)											
Integrated positioning	position tables	255 table entries for target position, set speed value, acceleration/deceleration time, braking											
	programming style	256 programs, 640 program steps, 25 commands											
	indexing function	255 stations, rotational direction tightly adjustable or automatically shortest path											

Control specifications MR-J4-□(-RJ) (SSCNETIII/H)	10B	20B	40B	60B(4)	70B-RJ	100B(4)	200B(4)	350B(4)	500B(4)	700B(4)	11KB(4)	15KB(4)	22KB(4)
Position/speed control mode, torque control specifications	Control via SSCNETIII/H												
Communication speed	150 Mbps												