

# MELSERVO-J4 Servo Options

## Software

### Servo Support Software • MR-CONFIGURATOR2



This software makes it easy to perform setup, tuning, monitor display, diagnostics, reading and writing of parameters, and test operations with a personal computer. User-friendly functions that enable the balance with the machine system, optimum control and short start up time are available.

- This software can set up and tune your servo system easily with a personal computer.
- Multiple monitor functions. Graphic display functions are provided to display the Servo Motor status with the input signal triggers, such as the command pulse, droop pulse and speed.
- Test operations with a personal computer. Test operation of the Servo Motors can be performed with a personal computer using multiple test mode menus.
- Further advanced tuning is possible with the improved advanced functions.

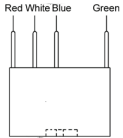
Description	Model Number	Stocked Item
Windows Communication Software	MR-CONFIG2-C1	S
	MR-CONFIG2-C5	S
	MR-CONFIG2-C10	S
	MR-CONFIG2-C1-SMA	-
	MR-CONFIG2-C5-SMA	-
	MR-CONFIG2-C10-SMA	-
Communication Cable	MR-J3USBCBL3M	S

## Optional Accessories


### Line Noise Filter

Servo Amplifier Type	Model Number	Stocked Item	Description
MR-J4 For Wire Size 3.5mm <sup>2</sup> (AWG12) or Smaller	FR-BSF01	S	
MR-J4 For Wire Size 5.5mm <sup>2</sup> (AWG10) or Larger	FR-BLF	S	


### Radio Noise Filter

Servo Amplifier Type	Model Number	Stocked Item	Description
J4 200V/100V Amps	FR-BIF	S	
J4 400V Amps	FR-BIF-H	-	

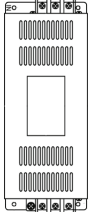
### Extension I/O Unit

Servo Amplifier Type	Model Number	Stocked Item	Description
MR-J4-B Only	MR-J3-D05	S	
MR-J4-B-RJ	MR-D30	S	

### Manual Pulse Generator

Servo Amplifier Type	Model Number	Stocked Item	Description
MR-J4-A Only	MR-HDP01	S	

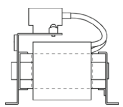
### EMC Filter (\*1)

Servo Amplifier Type	Model Number	Stocked Item	Description
MR-J4-10B(-RJ) ~ MR-J4-100B(-RJ), MR-J4W2-22B, MR-J4W2-44B, MR-J4W3-222B	MF3F480-010.233MF	S	
MR-J4-200B(-RJ), MR-J4W2-77B, MR-J4W3-444B	MF3F480-015.230MF3	S	
MR-J4-350B(-RJ), MR-J4W2-1010B	MF3F480-025.230MF3	S	
MR-J4-500B(-RJ), MR-J4-700B(-RJ)	MF3F480-050.230MF3	S	
MR-J4-11KB(-RJ)	MF-3F480-035.230	-	
MR-J4-15KB(-RJ)	MF-3F480-035.230	-	
MR-J4-22KB(-RJ)	MF-3F480-050.230MF3	-	
MR-J4-60B4/A4, MR-J4-100B4/A4	MF3F480-010.233MF	S	
MR-J4-200B4/A4	MF3F480-015.230MF3	S	
MR-J4-350B4/A4	MF3F480-015.233MF	S	
MR-J4-500B4/A4 MR-J4-700B4/A4	MF3F480-025.230MF3	S	
MR-J4-11KB4/A4	MF-3F480-035.230	-	
MR-J4-15KB4/A4	MF-3F480-035.230	-	
MR-J4-22KB4/A4	MF-3F480-050.230MF3	-	

Note: Contact MEAU for additional filter opportunities.

1. HF3100A-UN and larger EMC filters are manufactured by Soshin Electric Co., Ltd. A surge protector is separately required to use this EMC filter. Refer to EMC Installation Guidelines.

### Power Factor Improving DC Reactor

Servo Amplifier Type	Model Number	Stocked Item	Description
MR-J4-10B/A MR-J4-20B/A	FR-HEL-0.4K	-	
MR-J4-40B/A	FR-HEL-0.75K	-	
MR-J4-60B/A MR-J4-70B/A	FR-HEL-1.5K	-	
MR-J4-100B/A	FR-HEL-2.2K	-	
MR-J4-200B/A	FR-HEL-3.7K	-	
MR-J4-350B/A	FR-HEL-7.5K	-	
MR-J4-500B/A	FR-HEL-11K	-	
MR-J4-700B/A MR-J4-11KB/A	FR-HEL-15K	-	
MR-J4-15KB/A	FR-HEL-22K	-	
MR-J4-22KB/A	FR-HEL-30K	-	
MR-J4-60B4/A4	FR-HEL-H1.5K	-	
MR-J4-100B4/A4	FR-HEL-H2.2K	-	

Servo Amplifier Type	Model Number	Stocked Item
MR-J4-350B4/A4	FR-HEL-H7.5K	-
MR-J4-500B4/A4	FR-HEL-1K	-
MR-J4-700B4/A4 MR-J4-11KB4/A4	FR-HEL-H15K	-
MR-J4-15KB4/A4	FR-HEL-H22K	-
MR-J4-22KB4/A4	FR-HEL-H30K	-

## Converter Unit EMC Filter

Converter Unit	Model Number	EMC Filter Model Number	Stocked Item
MR-CR55K	MR-J4-DU30KB/A	HF3200A-UN (*1)	-
	MR-J4-DU37KB/A		
MR-CR55K4	MR-J4-DU30KB4/A4	MF-3F480-125.230	-
	MR-J4-DU37KB4/A4		
	MR-J4-DU45KB4/A4		
	MR-J4-DU55KB4/A4		

Note 1: Please contact Soshin Denki to purchase.

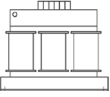
Converter Unit Model	Drive Unit Model	Power Factor Improving DC Reactor Model	Stocked Item
MR-CR55K	MR-J4-DU30KB/A	MR-DCL30K	-
	MR-J4-DU37KB/A	MR-DCL37K	-
MR-CR55K4	MR-J4-DU30KB4/A4	MR-DCL30K-4	-
	MR-J4-DU37KB4/A4	MR-DCL37K-4	-
	MR-J4-DU45KB4/A4	MR-DCL45K-4	-
	MR-J4-DU55KB4/A4	MR-DCL55K-4	-

## 20 Pin Terminal Block (\*1)

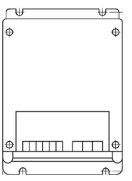
Servo Amplifier Type	Model Number	Stocked Item
MR-J3-B Safety Only	PS7DW-20V14B-F	S

Note 1: MR-TB20 terminal block cannot be used for MR-J3-B Safety.

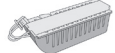
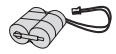
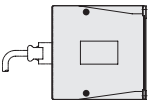
## Power Factor Improving AC Reactor

Servo Amplifier Type	Model Number	Stocked Item	Description
MR-J4-10A/B, MR-J4-20A/B	FR-HAL-0.4K	-	
MR-J4-40A/B	FR-HAL-0.75K	-	
MR-J4-60A/B, MR-J4-70A/B	FR-HAL-1.5K	-	
MR-J4-100A/B	FR-HAL-2.2K	-	
MR-J4-200A/B	FR-HAL-3.7K	-	
MR-J4-350A/B	FR-HAL-7.5K	-	
MR-J4-500A/B	FR-HAL-11K	-	
MR-J4-700A/B	FR-HAL-15K	-	

## Dynamic Brake

Servo Amplifier Type	Model Number	Stocked Item	Description
MR-J4-11KB/A	DBU-11K	-	
MR-J4-15KB/A	DBU-15K	-	
MR-J4-22KB/A	DBU-22K-R1	-	
MR-J4-11KB4/A4	DBU-11K-4	-	
MR-J4-15KB4/A4	DBU-22K-4	S	
MR-J4-22KB4/A4		-	
MR-J4-DU30KB/A	DBU-37K-R1	-	
MR-J4-DU37KB/A		-	
MR-J4-DU30KB4/A4	DBU-55K-4-R5	-	
MR-J4-DU37KB4/A4		-	
MR-J4-DU45KB4/A4		-	
MR-J4-DU55KB4/A4		-	

## Battery

Item Number	Model Number	Description	Stocked Item	Description
Battery	MR-BAT6V1SET	The Servo Motor's absolute value can be maintained by installing the battery in the servo amplifier. The battery is not required when the servo system is used in an incremental mode.	S	
Battery	MR-BAT6V1	The battery case and the batteries are required when configuring absolute position detection system using the rotary Servo Motor or the direct drive motor. MR-BT6VCASE is a case that stores 5 pieces of MR-BAT6V1 batteries by connecting the connectors. Up to 8 axes of MR-J4W_ _B servo amplifiers are able to be connected to this battery case. Use optional MR-BT6V2CBL_M junction battery cable for branching off the connection when connecting multiple servo amplifiers. MR-BT6VCASE and MR-BAT6V1 are not required when using the linear Servo Motor or when configuring incremental system with the MR-J4W_ _B servo amplifier. MR-BAT6V1 is not included with MR-BT6VCASE. Please purchase the batteries separately.	S	
Battery Case	MR-BT6VCASE		S	

## Optional Regeneration Resistors 200/100V

Servo Amplifier Model MR-J4_	Built-in Regenerative Resistor	Optional Regeneration Resistors/Tolerable Regenerative Power (W) (*2, *3)													
		MR-RB													
		032	12	30	3N	31	32	50 (*1)	5N (*1)	51 (*1)	5R (*2)	9F (*2)	9T (*2)	14	34
40Ω	40Ω	13Ω	9Ω	6.7Ω	40Ω	13Ω	9Ω	6.7Ω	3.2Ω	3 Ω	2.5Ω	26Ω	26Ω		
Stocked Item	-	S	S	S	S	S	S	S	S	S					
MR-J4-10A/B MR-J4-10B1/A1	-	30	-	-	-	-	-	-	-	-	-	-	-	-	
MR-J4-20A/B MR-J4-20B1/A1	10	30	100	-	-	-	-	-	-	-	-	-	-	-	
MR-J4-40A/B MR-J4-40B1/A1	10	30	100	-	-	-	-	-	-	-	-	-	-	-	
MR-J4-60A/B	10	30	100	-	-	-	-	-	-	-	-	-	-	-	
MR-J4-70A/B	20	30	100	-	-	-	300	-	-	-	-	-	-	-	
MR-J4-100A/B	20	30	100	-	-	-	300	-	-	-	-	-	-	-	
MR-J4-200A/B	100	-	-	300	-	-	-	500	-	-	-	-	-	-	
MR-J4-350A/B	100	-	-	-	300	-	-	-	500	-	-	-	-	-	
MR-J4-500A/B	130	-	-	-	-	300	-	-	-	500	-	-	-	-	
MR-J4-700A/B	170	-	-	-	-	300	-	-	-	500	-	-	-	-	
MR-J4-11KB/A	-	-	-	-	-	-	-	-	-	-	500 (800)	-	-	-	
MR-J4-15KB/A	-	-	-	-	-	-	-	-	-	-	-	850 (1300)	-	-	
MR-J4-22KB/A	-	-	-	-	-	-	-	-	-	-	-	-	850 (1300)	-	
MR-J4W2-22B	20	-	-	-	-	-	-	-	-	-	-	-	-	100	
MR-J4W2-44B	20	-	-	-	-	-	-	-	-	-	-	-	-	100	
MR-J4W2-77B	100	-	-	-	300	-	-	-	-	-	-	-	-	-	
MR-J4W2-1010B	100	-	-	-	300	-	-	-	-	-	-	-	-	-	
MR-J4W3-222B	30	-	-	-	-	-	-	-	-	-	-	-	100	300	
MR-J4W3-444B	30	-	-	-	-	-	-	-	-	-	-	-	100	300	

### Notes:

- Be sure to cool the unit forcibly with a cooling fan (92 mm x 92 mm, minimum air flow: 1.0 m<sup>3</sup>/min). The cooling fan must be prepared by user.
- The power values in this table are resistor-generated powers, not rated powers
- MR-J4 amplifiers include the regeneration resistors as a standard accessory, with the exception of the PX and RZ models.

Converter Unit Model	Drive Unit Model	Tolerable Regenerative Power [W] of Regenerative Option (*1)			
		MR-RB139	MR-RB137	MR-RB137-4	MR-RB13V-4
		1.3 Ω	1.3 Ω (*2)	4 Ω	4 Ω (*2)
Stocked Item	-	-	-	-	-
MR-CR55K	MR-J4-DU30KB/A MR-J4-DU37KB/A	1300	3900	-	-
MR-CR55K4	MR-CR55K4 MR-J4-DU30KB4/A4 MR-J4-DU37KB4/A4 MR-J4-DU45KB4/A4 MR-J4-DU55KB4/A4	-	-	1300	3900

### Notes:

- The power values in this table are resistor-generated powers, not rated powers.
- This is the resultant resistance when three units of MR-RB137 are connected in parallel.

## Optional Regeneration Resistors 400

Servo Amplifier Model MR-J4_	Built-in Regenerative Resistor	Optional Regeneration Resistors/Tolerable Regenerative Power (W) (*4)									
		MR-RB									
		1H-4	3M-4 (*1)	3G-4 (*1)	3A-4 (*1)	3U-4 (*1)	5G-4 (*1)	5A-4 (*1)	5U-4 (*1)	5K-4 (*1)	6K-4 (*1)
82Ω	120Ω	47Ω	26Ω	22Ω	47Ω	26Ω	22Ω	10Ω	10Ω		
Stocked Item	-	-	S	S	S	-	S	S	-	-	
MR-J4-60B4/A4	15	100	300	-	-	-	-	-	-	-	
MR-J4-100B4/A4	15	100	300	-	-	-	-	-	-	-	
MR-J4-200B4/A4	100	-	-	300	-	-	500	-	-	-	
MR-J4-350B4/A4	100	-	-	300	-	-	500	-	-	-	
MR-J4-500B4/A4	130 (*3)	-	-	-	300	-	-	500	-	-	
MR-J4-700B4/A4	170 (*3)	-	-	-	-	300	-	-	500	-	
MR-J4-11KB4/A4	-	-	-	-	-	-	-	-	-	500 (800)	
MR-J4-15KB4/A4	-	-	-	-	-	-	-	-	-	850 (1300)	
MR-J4-22KB4/A4	-	-	-	-	-	-	-	-	-	850 (1300)	

### Notes:

- Be sure to cool the unit forcibly with a cooling fan (92 mm x 92 mm, minimum air flow: 1.0 m<sup>3</sup>/min). The cooling fan must be prepared by user.
- The value in brackets is applicable when cooling fans (2 units of 92 mm x 92 mm, minimum air flow: 1.0 m<sup>3</sup>/min) are installed, and then [Pr. PA02] is changed.
- The servo amplifier built-in regenerative resistor is compatible with the maximum torque deceleration when the Servo Motor is used within the rated speed and the recommended load to motor inertia ratio. Contact your local sales office if the operating motor speed or the load to motor inertia ratio exceeds the rated speed or the recommended ratio.