

This document should be used as general guidance for customers wishing to migrate from the MR-E Super to the MR-JE product line. Included in this document is the following information.

Contents

Migration Summary	1
Recommended Replacements	1
Servo Amplifiers	1
Servo Motors	2
Regenerative Options	2
Differences in MR-E Super and MR-JE	3
Product Dimension Comparison	3
Product Feature Comparison	4

Migration Summary

Customers migrating from the MR-E Super line of products will experience significantly improved features and performance with the new MR-JE Product Line. Parameters in the MR-E Super and MR-JE are different and need to be changed. When using MR Configurator2, the parameter conversion function can convert MR-E-□A(G)KH003 parameters into the MR-JE-□A. The number of mounting holes for the 2kW amplifiers have also changed.

Recommended Replacements

Servo Amplifiers

MR-E Super Model	Recommended MR-JE Replacement	Compatibility
MR-E-10A(G)-KH003	MR-JE-10A	●
MR-E-20A(G)-KH003	MR-JE-20A	●
MR-E-40A(G)-KH003	MR-JE-40A	●
MR-E-70A(G)-KH003	MR-JE-70A	●
MR-E-100A(G)-KH003	MR-JE-100A	●
MR-E-200A(G)-KH003	MR-JE-200A	●
	MR-JE-300A	○

●= Compatible, ○Not drop in compatible

Servo Motors

Customers who wish to migrate to the MR-JE platform can use the HF-KN and HF-SN motors listed below. If migrating after July 2015 please migrate to the HG-KN and HG-SN motors due to be released Mid-2015.

Motor Type	MR-E-A(G)-KH003		MR-JE-A
	DISCONTINUED	Pending Discontinuation 10/2015	Released Mid-Year 2015
Low Inertia, Small Capacity Motors	HF-KE13(B)W1-S100	HF-KN13(B)J-S100	HG-KN13(B)J
	HF-KE23(B)W1-S100	HF-KN23(B)J-S100	HG-KN23(B)J
	HF-KE43(B)W1-S100	HF-KN43(B)J-S100	HG-KN43(B)J
	HF-KE73(B)W1-S100	HF-KN73(B)J-S100	HG-KN73(B)J
Medium Inertia, Medium Capacity Motors	HF-SE52(B)JW1-S100	HF-SN52(B)J-S100	HG-SN52(B)J
	HF-SE102(B)JW1-S100	HF-SN102(B)J-S100	HG-SN102(B)J
	HF-SE152(B)JW1-S100	HF-SN152(B)J-S100	HG-SN152(B)J
	HF-SE202(B)JW1-S100	HF-SN202(B)J-S100	HG-SN202(B)J
		HF-SN302(B)J-S100	HG-SN302(B)J

Regenerative Options

Regenerative options have not changed. MR-E Super and the MR-JE use the same option regenerative resistors. The MR-E Super used Basic parameter #0 to set the regenerative option, in the MR-JE the parameter to access this setting is parameter PA02.

Optional Regenerative Resistors for MR-E-□A(G)-KH003

Servo Amplifier Model	Built-In Regenerative Resistor/Tolerable Regenerative Power (W)	Optional Regeneration Resistors/Tolerable Regenerative power(W)				
		MR-RB032 (40Ω)	MR-RB12 (40Ω)	MR-RB30 (13Ω)	MR-RB32 (40Ω)	MR-RB50 (13Ω) (*1)
MR-E-10A(G)-KH003		30				
MR-E-20A(G)-KH003		30	100			
MR-E-40A(G)-KH003	10	30	100			
MR-E-70A(G)-KH003	20	30	100		300	
MR-E-100A(G)-KH003	20	30	100		300	
MR-E-200A(G)-KH003	100			300		500

Note (*1): Be sure to cool the unit forcibly with a cooling fan. The cooling fan must be prepared by user.

Optional Regenerative Resistors for MR-JE-□A

Servo Amplifier Model	Built-In Regenerative Resistor/Tolerable Regenerative Power (W)	Optional Regeneration Resistors/Tolerable Regenerative power(W) (*1)				
		MR-RB032 (40Ω)	MR-RB12 (40Ω)	MR-RB30 (13Ω)	MR-RB32 (40Ω)	MR-RB50 (13Ω)(*1)
MR-JE-10A		30				
MR-JE-20A		30	100			
MR-JE-40A	10	30	100			
MR-JE-70A	20	30	100		300	
MR-JE-100A	20	30	100		300	
MR-JE-200A	100			300		500
MR-JE-300A	100			300		500

Note (*1): Be sure to cool the unit forcibly with a cooling fan. The cooling fan must be prepared by user.

Differences in MR-E Super and MR-JE

Product Dimension Comparison Servo Amplifiers

MR-E Super	MR-JE-A	MR-E Super	MR-JE	MR-E Super	MR-JE	MR-E Super	MR-JE	Mounting Compatibility		
		Height		Width		Depth				
MR-E-10A(G)-KH003	MR-JE-10A	168	168	50	50	135	135	Compatible		
MR-E-20A(G)-KH003	MR-JE-20A									Compatible
MR-E-40A(G)-KH003	MR-JE-40A			70	50					Compatible
MR-E-70A(G)-KH003	MR-JE-70A					70	190	185	Compatible	
MR-E-100A(G)-KH003	MR-JE-100A								Compatible	
MR-E-200A(G)-KH003	MR-JE-200A					90	90	195	195	Not compatible (*2)
MR-E-300A(G)-KH003	MR-JE-300A									

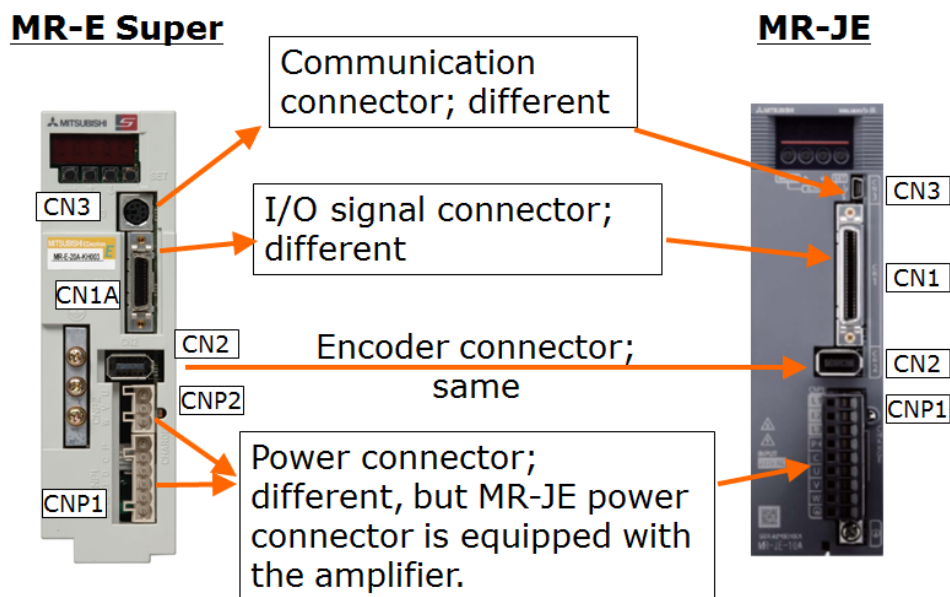
Note (*1): **Highlighted** areas indicate dimensional differences in the new MR-JE product line. See brochure for details
Note (*2): Different number of mounting holes

Product Dimension Comparison Servo Motors

The same HF-KN and HF-SN motors used with MR-E Super series are used with MR-JE-A. HF-SN203(B)(J) is newly added with a rated output of 3kW.

Product Connector Comparison

Connector differences are shown in the image below.



Product Feature Comparison

	Feature	MR-E□A(G)-KH003 Series	MR-JE-□A Series
1	Capacity	0.1~2kW/200V	0.1~ 3kW /200V
2	Dynamic Brake	Built In	Built-In (Movement amount change)
3	Main Circuit Power Supply	3-phase 200~230VAC 1-Phase 230VAC	3-phase 200~ 240VAC 1-Phase 200~240VAC
4	Auto-Tuning	Real Time Auto Tuning Filters: 15	Real Time Auto-Tuning Filters: 40
5	Maximum Input Pulse Frequency	Differential Receiver: 1Mpps Open Collector: 200kbps	Differential Receiver: 4Mpps Open Collector: 200kbps
6	DIO Points (except EM1)	DI:5 points, DO: 4 points	DI:5 points, DO: 4 points
7	Encoder Output pulse	Differential ABZ-Phase Pulse Open Collector: Z Phase	Differential (A/B/Z-Phase Pulse) Open Collector: Z Phase
8	DIO Connections	Sink	Sink/Source
9	Analog Input /Output	Input: 2ch equivalent torque 10bit/speed 14bit Output: Equivalent of 10bitx2ch(only MR-E-□AG)	Input: 2ch equivalent torque 10bit/14 bit rate Output: The equivalent 10bit x 2ch
10	Parameter Setting Method	MRZJW3-SETUP154E/154C	MR Configurator2 SW1DNC-MRC2-C (1.15R or later)
11	Setup Software communication	RS-232C	USB
12	Servo Motor (Encoder Resolution)	HF-KN and HF-SN (17bit incremental)	HF-KN and HF-SN (17bit incremental) HG-KN and HG-SN (incremental)
13	LED Display	7 Segment,5-Digit	7 Segment,5-Digit
14	Internal speed commands	8-MR-E-□A 7-MR-E-□AG	7
15	Advanced Vibration control II	No	Yes
16	Adaptive Filter	Yes (Adaptive Filter I)	Yes (Adaptive Filter II)
17	Noise Filtering	Yes (2 Filters)	Yes (5 filters)
18	Tough Drive Function	No	Yes
19	Drive Recorder	No	Yes
20	Forced Stop	EM1(DB Stop)	EM1 (DB Stop)/EM2(Stop)
21	ALM signal timing after power on	About 1s later	2.5-3.5 seconds later

Note: **Highlighted** Features indicate differences between the MR-JE and the ME-E Super. Please refer to the MR-JE Instruction manual for additional information.