

## AC Servo Sales and Service

### Production Discontinuation of General-Purpose AC Servo MR-J3/MR-J3W Series

Thank you for your continued patronage of the Mitsubishi Electric general-purpose AC servo. The MR-J3/MR-J3W series have been on market for 14 years since 2003, but now we are having difficulty in obtaining their electronic components mainly. We will discontinue their production according to the schedule below. We ask for your understanding in this matter.

#### 1. Target Model

##### Servo amplifier

MR-J3-10A to 22KA, MR-J3-10A1 to 40A1, MR-J3-60A4 to 22KA4  
 MR-J3-DU30KA to DU37KA, MR-J3-DU30KA4 to DU55KA4  
 MR-J3-10B to 22KB, MR-J3-10B1 to 40B1, MR-J3-60B4 to 22KB4  
 MR-J3-DU30KB to DU37KB, MR-J3-DU30KB4 to DU55KB4  
 MR-J3-10BS to 22KBS, MR-J3-10BS1 to 40BS1, MR-J3-60BS4 to 22KBS4  
 MR-J3-DU30KBS to DU37KBS, MR-J3-DU30KBS4 to DU55KBS4  
 MR-J3-10B-RJ006 to 22KB-RJ006, MR-J3-10B1-RJ006 to 40B1-RJ006  
 MR-J3-60B4-RJ006 to 22KB4-RJ006, MR-J3-10B-RJ004 to 15KB-RJ004  
 MR-J3-22KB4-RJ004, MR-J3-20B-RJ080W to 500B-RJ080W  
 MR-J3-10A-RJ007 to 22KA-RJ007, MR-J3-10A1-RJ007 to 40A1-RJ007  
 MR-J3-10T to 22KT, MR-J3-10T1 to 40T1, MR-J3-60T4 to 22KT4  
 MR-J3-CR55K, MR-J3-CR55K4  
 MR-J3W-22B to 1010B, MR-J3W-0303BN6

##### Servo motor

HF-KP, HF-MP, HF-SP, HC-RP, HC-LP, HC-UP, HF-JP, HA-LP, LM-N, LM-H2 (All capacities)

\*1. Derived models of the above products are included.

\*2. The dedicated options and peripherals for the series are included.

\*3. For details of the target models, refer to Appendix 1.

#### 2. Transition to Made-to-Order Production

May 31, 2018

The delivery time is 8 to 10 weeks from receipt of an order after the transition.

#### 3. Production Discontinuation

May 2019

Orders will be accepted through May 31, 2019.

#### 4. Repair Acceptance and Parts Supply

May 2026

Repairs and parts orders will be accepted through May 31, 2026.

<b>Date of issue</b>	May 2017	<b>Title</b>	Production Discontinuation of General-Purpose AC Servo MR-J3/MR-J3W Series	Mitsubishi Electric Corp., Nagoya Works 1-14, Yada-minami 5-chome, Higashi-ku, Nagoya 461-8670 Tel.: +81 (52) 721-2111 Main line
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## 5. Replacement Model

The MR-J4 series is available as a replacement model for the MR-J3/MR-J3W series. Please consider replacing your MR-J3/MR-J3W series with the MR-J4 series. For details, refer to Appendixes 1, 2, and 3, and the following materials.

### Catalog/Transition handbook



#### ■ MELSERVO-J4 catalog L(NA)03058

MR-J4 series catalog  
This catalog provides information about the MR-J4 series servo amplifiers, servo motors, options, and others.



#### ■ Transition from MELSERVO-J3 Series to J4 Series Handbook L(NA)03127

This handbook explains how to upgrade the system by replacing the MR-J3 series with the MR-J4 series.

The catalog, transition handbook, and each manual are downloadable on our MITSUBISHI ELECTRIC FA Global Website (<http://www.MitsubishiElectric.com/fa/>).

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## Appendix 1: List of Models to Be Discontinued

### 1. SERVO AMPLIFIER

#### 1.1 MR-J3 Series

No.	Model	Replacement model example	No.	Model	Replacement model example
1	MR-J3-10A	MR-J4-10A	61	MR-J3-15KB4	MR-J4-15KB4
2	MR-J3-10A1	MR-J4-10A1	62	MR-J3-22KB4	MR-J4-22KB4
3	MR-J3-20A	MR-J4-20A	63	MR-J3-11KB4-LR	MR-J4-11KB4
4	MR-J3-20A1	MR-J4-20A1	64	MR-J3-15KB4-LR	MR-J4-15KB4
5	MR-J3-40A	MR-J4-40A	65	MR-J3-DU30KB	MR-J4-DU30KB
6	MR-J3-40A1	MR-J4-40A1	66	MR-J3-DU37KB	MR-J4-DU37KB
7	MR-J3-60A	MR-J4-60A	67	MR-J3-DU30KB4	MR-J4-DU30KB4
8	MR-J3-70A	MR-J4-70A	68	MR-J3-DU37KB4	MR-J4-DU37KB4
9	MR-J3-100A	MR-J4-100A	69	MR-J3-DU45KB4	MR-J4-DU45KB4
10	MR-J3-200AN	MR-J4-200A	70	MR-J3-DU55KB4	MR-J4-DU55KB4
11	MR-J3-350A	MR-J4-350A	71	MR-J3-10BS	MR-J4-10B-RJ
12	MR-J3-500A	MR-J4-500A	72	MR-J3-10BS1	MR-J4-10B1-RJ
13	MR-J3-700A	MR-J4-700A	73	MR-J3-20BS	MR-J4-20B-RJ
14	MR-J3-11KA	MR-J4-11KA	74	MR-J3-20BS1	MR-J4-20B1-RJ
15	MR-J3-15KA	MR-J4-15KA	75	MR-J3-40BS	MR-J4-40B-RJ
16	MR-J3-22KA	MR-J4-22KA	76	MR-J3-40BS1	MR-J4-40B1-RJ
17	MR-J3-11KA-LR	MR-J4-11KA	77	MR-J3-60BS	MR-J4-60B-RJ
18	MR-J3-15KA-LR	MR-J4-15KA	78	MR-J3-70BS	MR-J4-70B-RJ
19	MR-J3-60A4	MR-J4-60A4	79	MR-J3-100BS	MR-J4-100B-RJ
20	MR-J3-100A4	MR-J4-100A4	80	MR-J3-200BS	MR-J4-200B-RJ
21	MR-J3-200A4	MR-J4-200A4	81	MR-J3-350BS	MR-J4-350B-RJ
22	MR-J3-350A4	MR-J4-350A4	82	MR-J3-500BS	MR-J4-500B-RJ
23	MR-J3-500A4	MR-J4-500A4	83	MR-J3-700BS	MR-J4-700B-RJ
24	MR-J3-700A4	MR-J4-700A4	84	MR-J3-11KBS	MR-J4-11KB-RJ
25	MR-J3-11KA4	MR-J4-11KA4	85	MR-J3-15KBS	MR-J4-15KB-RJ
26	MR-J3-15KA4	MR-J4-15KA4	86	MR-J3-22KBS	MR-J4-22KB-RJ
27	MR-J3-22KA4	MR-J4-22KA4	87	MR-J3-11KBS-LR	MR-J4-11KB-RJ
28	MR-J3-11KA4-LR	MR-J4-11KA4	88	MR-J3-15KBS-LR	MR-J4-15KB-RJ
29	MR-J3-15KA4-LR	MR-J4-15KA4	89	MR-J3-60BS4	MR-J4-60B4-RJ
30	MR-J3-DU30KA	MR-J4-DU30KA	90	MR-J3-100BS4	MR-J4-100B4-RJ
31	MR-J3-DU37KA	MR-J4-DU37KA	91	MR-J3-200BS4	MR-J4-200B4-RJ
32	MR-J3-DU30KA4	MR-J4-DU30KA4	92	MR-J3-350BS4	MR-J4-350B4-RJ
33	MR-J3-DU37KA4	MR-J4-DU37KA4	93	MR-J3-500BS4	MR-J4-500B4-RJ
34	MR-J3-DU45KA4	MR-J4-DU45KA4	94	MR-J3-700BS4	MR-J4-700B4-RJ
35	MR-J3-DU55KA4	MR-J4-DU55KA4	95	MR-J3-11KBS4	MR-J4-11KB4-RJ
36	MR-J3-10B	MR-J4-10B	96	MR-J3-15KBS4	MR-J4-15KB4-RJ
37	MR-J3-10B1	MR-J4-10B1	97	MR-J3-22KBS4	MR-J4-22KB4-RJ
38	MR-J3-20B	MR-J4-20B	98	MR-J3-11KBS4-LR	MR-J4-11KB4-RJ
39	MR-J3-20B1	MR-J4-20B1	99	MR-J3-15KBS4-LR	MR-J4-15KB4-RJ
40	MR-J3-40B	MR-J4-40B	100	MR-J3-DU30KBS	MR-J4-DU30KB-RJ
41	MR-J3-40B1	MR-J4-40B1	101	MR-J3-DU37KBS	MR-J4-DU37KB-RJ
42	MR-J3-60B	MR-J4-60B	102	MR-J3-DU30KBS4	MR-J4-DU30KB4-RJ
43	MR-J3-70B	MR-J4-70B	103	MR-J3-DU37KBS4	MR-J4-DU37KB4-RJ
44	MR-J3-100B	MR-J4-100B	104	MR-J3-DU45KBS4	MR-J4-DU45KB4-RJ
45	MR-J3-200BN	MR-J4-200B	105	MR-J3-DU55KBS4	MR-J4-DU55KB4-RJ
46	MR-J3-350B	MR-J4-350B	106	MR-J3-10B-RJ006	MR-J4-10B-RJ
47	MR-J3-500B	MR-J4-500B	107	MR-J3-10B1-RJ006	MR-J4-10B1-RJ
48	MR-J3-700B	MR-J4-700B	108	MR-J3-20B-RJ006	MR-J4-20B-RJ
49	MR-J3-11KB	MR-J4-11KB	109	MR-J3-20B1-RJ006	MR-J4-20B1-RJ
50	MR-J3-15KB	MR-J4-15KB	110	MR-J3-40B-RJ006	MR-J4-40B-RJ
51	MR-J3-22KB	MR-J4-22KB	111	MR-J3-40B1-RJ006	MR-J4-40B1-RJ
52	MR-J3-11KB-LR	MR-J4-11KB	112	MR-J3-60B-RJ006	MR-J4-60B-RJ
53	MR-J3-15KB-LR	MR-J4-15KB	113	MR-J3-70B-RJ006	MR-J4-70B-RJ
54	MR-J3-60B4	MR-J4-60B4	114	MR-J3-100B-RJ006	MR-J4-100B-RJ
55	MR-J3-100B4	MR-J4-100B4	115	MR-J3-200BN-RJ006	MR-J4-200B-RJ
56	MR-J3-200B4	MR-J4-200B4	116	MR-J3-350B-RJ006	MR-J4-350B-RJ
57	MR-J3-350B4	MR-J4-350B4	117	MR-J3-500B-RJ006	MR-J4-500B-RJ
58	MR-J3-500B4	MR-J4-500B4	118	MR-J3-700B-RJ006	MR-J4-700B-RJ
59	MR-J3-700B4	MR-J4-700B4	119	MR-J3-11KB-RJ006	MR-J4-11KB-RJ
60	MR-J3-11KB4	MR-J4-11KB4	120	MR-J3-15KB-RJ006	MR-J4-15KB-RJ

No.	Model	Replacement model example	No.	Model	Replacement model example
121	MR-J3-22KB-RJ006	MR-J4-22KB-RJ	160	MR-J3-200A-RJ007	The MR-J4 series is not scheduled to be developed for these models. (*3)
122	MR-J3-60B4-RJ006	MR-J4-60B4-RJ	161	MR-J3-350A-RJ007	
123	MR-J3-100B4-RJ006	MR-J4-100B4-RJ	162	MR-J3-500A-RJ007	
124	MR-J3-200B4-RJ006	MR-J4-200B4-RJ	163	MR-J3-700A-RJ007	
125	MR-J3-350B4-RJ006	MR-J4-350B4-RJ	164	MR-J3-11KA-RJ007	
126	MR-J3-500B4-RJ006	MR-J4-500B4-RJ	165	MR-J3-15KA-RJ007	
127	MR-J3-700B4-RJ006	MR-J4-700B4-RJ	166	MR-J3-22KA-RJ007	
128	MR-J3-11KB4-RJ006	MR-J4-11KB4-RJ	167	MR-J3-10T	MR-J4-10A-RJ/MR-J4-10GF
129	MR-J3-15KB4-RJ006	MR-J4-15KB4-RJ	168	MR-J3-10T1	MR-J4-10A1-RJ/MR-J4-10GF1 (*2)
130	MR-J3-22KB4-RJ006	MR-J4-22KB4-RJ	169	MR-J3-20T	MR-J4-20A-RJ/MR-J4-20GF
131	MR-J3-10B-RJ004	MR-J4-10B-RJ	170	MR-J3-20T1	MR-J4-20A1-RJ/MR-J4-20GF1 (*2)
132	MR-J3-20B-RJ004	MR-J4-20B-RJ	171	MR-J3-40T	MR-J4-40A-RJ/MR-J4-40GF
133	MR-J3-40B-RJ004	MR-J4-40B-RJ	172	MR-J3-40T1	MR-J4-40A1-RJ/MR-J4-40GF1 (*2)
134	MR-J3-60B-RJ004	MR-J4-60B-RJ	173	MR-J3-60T	MR-J4-60A-RJ/MR-J4-60GF
135	MR-J3-70B-RJ004	MR-J4-70B-RJ	174	MR-J3-70T	MR-J4-70A-RJ/MR-J4-70GF
136	MR-J3-100B-RJ004	MR-J4-100B-RJ	175	MR-J3-100T	MR-J4-100A-RJ/MR-J4-100GF
137	MR-J3-200BN-RJ004	MR-J4-200B-RJ	176	MR-J3-200TN	MR-J4-200A-RJ/MR-J4-200GF
138	MR-J3-350B-RJ004	MR-J4-350B-RJ	177	MR-J3-350T	MR-J4-350A-RJ/MR-J4-350GF
139	MR-J3-500B-RJ004	MR-J4-500B-RJ	178	MR-J3-500T	MR-J4-500A-RJ/MR-J4-500GF
140	MR-J3-700B-RJ004	MR-J4-700B-RJ	179	MR-J3-700T	MR-J4-700A-RJ/MR-J4-700GF
141	MR-J3-11KB-RJ004	MR-J4-11KB-RJ	180	MR-J3-11KT	MR-J4-11KA-RJ/MR-J4-11KGF
142	MR-J3-15KB-RJ004	MR-J4-15KB-RJ	181	MR-J3-15KT	MR-J4-15KA-RJ/MR-J4-15KGF
143	MR-J3-22KB4-RJ004	MR-J4-22KB4-RJ	182	MR-J3-22KT	MR-J4-22KA-RJ/MR-J4-22KGF
144	MR-J3-20B-RJ080W	MR-J4-20B-RJ	183	MR-J3-11KT-LR	MR-J4-11KA-RJ/MR-J4-11KGF
145	MR-J3-40B-RJ080W	MR-J4-40B-RJ	184	MR-J3-15KT-LR	MR-J4-15KA-RJ/MR-J4-15KGF
146	MR-J3-60B-RJ080W	MR-J4-60B-RJ	185	MR-J3-60T4	MR-J4-60A4-RJ/MR-J4-60GF4
147	MR-J3-70B-RJ080W	MR-J4-70B-RJ	186	MR-J3-100T4	MR-J4-100A4-RJ/MR-J4-100GF4
148	MR-J3-100B-RJ080W	MR-J4-100B-RJ	187	MR-J3-200T4	MR-J4-200A4-RJ/MR-J4-200GF4
149	MR-J3-350B-RJ080W	MR-J4-350B-RJ	188	MR-J3-350T4	MR-J4-350A4-RJ/MR-J4-350GF4
150	MR-J3-500B-RJ080W	MR-J4-500B-RJ	189	MR-J3-500T4	MR-J4-500A4-RJ/MR-J4-500GF4
151	MR-J3-10A-RJ007	The MR-J4 series is not scheduled to be developed for these models. (*3)	190	MR-J3-700T4	MR-J4-700A4-RJ/MR-J4-700GF4
152	MR-J3-10A1-RJ007		191	MR-J3-11KT4	MR-J4-11KA4-RJ/MR-J4-11KGF4
153	MR-J3-20A-RJ007		192	MR-J3-15KT4	MR-J4-15KA4-RJ/MR-J4-15KGF4
154	MR-J3-20A1-RJ007		193	MR-J3-22KT4	MR-J4-22KA4-RJ/MR-J4-22KGF4
155	MR-J3-40A-RJ007		194	MR-J3-11KT4-LR	MR-J4-11KA4-RJ/MR-J4-11KGF4
156	MR-J3-40A1-RJ007		195	MR-J3-15KT4-LR	MR-J4-15KA4-RJ/MR-J4-15KGF4
157	MR-J3-60A-RJ007		196	MR-J3-CR55K	MR-CR55K
158	MR-J3-70A-RJ007		197	MR-J3-CR55K4	MR-CR55K4
159	MR-J3-100A-RJ007				

\*1. Derived models of the above products are included.

\*2. The MR-J4-\_\_GF1, which is compatible with a 1-phase 100 V AC power supply, will be available in the future.

\*3. Consider replacing these models with the MR-J4-A.

## 1.2 MR-J3W Series

No.	Model	Replacement model example	No.	Model	Replacement model example
1	MR-J3W-22B	MR-J4W2-22B	4	MR-J3W-1010B	MR-J4W2-1010B
2	MR-J3W-44B	MR-J4W2-44B	5	MR-J3W-0303BN6	MR-J4W2-0303B6
3	MR-J3W-77B	MR-J4W2-77B			

\*1. Derived models of the above products are included.

## 2. SERVO MOTOR

### 2.1 HF-KP Series

No.	Model	Replacement model example	No.	Model	Replacement model example
1	HF-KP053(B)	HG-KR053(B)	11	HF-KP13(B)G1 1/20	HG-KR13(B)G1 1/20
2	HF-KP13(B)	HG-KR13(B)	12	HF-KP23(B)G1 1/5	HG-KR23(B)G1 1/5
3	HF-KP23(B)	HG-KR23(B)	13	HF-KP23(B)G1 1/12	HG-KR23(B)G1 1/12
4	HF-KP43(B)	HG-KR43(B)	14	HF-KP23(B)G1 1/20	HG-KR23(B)G1 1/20
5	HF-KP73(B)	HG-KR73(B)	15	HF-KP43(B)G1 1/5	HG-KR43(B)G1 1/5
6	HF-KP053(B)G1 1/5	HG-KR053(B)G1 1/5	16	HF-KP43(B)G1 1/12	HG-KR43(B)G1 1/12
7	HF-KP053(B)G1 1/12	HG-KR053(B)G1 1/12	17	HF-KP43(B)G1 1/20	HG-KR43(B)G1 1/20
8	HF-KP053(B)G1 1/20	HG-KR053(B)G1 1/20	18	HF-KP73(B)G1 1/5	HG-KR73(B)G1 1/5
9	HF-KP13(B)G1 1/5	HG-KR13(B)G1 1/5	19	HF-KP73(B)G1 1/12	HG-KR73(B)G1 1/12
10	HF-KP13(B)G1 1/12	HG-KR13(B)G1 1/12	20	HF-KP73(B)G1 1/20	HG-KR73(B)G1 1/20

No.	Model	Replacement model example	No.	Model	Replacement model example
21	HF-KP053(B)G5 1/5	HG-KR053(B)G5 1/5	46	HF-KP053(B)G7 1/5	HG-KR053(B)G7 1/5
22	HF-KP053(B)G5 1/11	HG-KR053(B)G5 1/11	47	HF-KP053(B)G7 1/11	HG-KR053(B)G7 1/11
23	HF-KP053(B)G5 1/21	HG-KR053(B)G5 1/21	48	HF-KP053(B)G7 1/21	HG-KR053(B)G7 1/21
24	HF-KP053(B)G5 1/33	HG-KR053(B)G5 1/33	49	HF-KP053(B)G7 1/33	HG-KR053(B)G7 1/33
25	HF-KP053(B)G5 1/45	HG-KR053(B)G5 1/45	50	HF-KP053(B)G7 1/45	HG-KR053(B)G7 1/45
26	HF-KP13(B)G5 1/5	HG-KR13(B)G5 1/5	51	HF-KP13(B)G7 1/5	HG-KR13(B)G7 1/5
27	HF-KP13(B)G5 1/11	HG-KR13(B)G5 1/11	52	HF-KP13(B)G7 1/11	HG-KR13(B)G7 1/11
28	HF-KP13(B)G5 1/21	HG-KR13(B)G5 1/21	53	HF-KP13(B)G7 1/21	HG-KR13(B)G7 1/21
29	HF-KP13(B)G5 1/33	HG-KR13(B)G5 1/33	54	HF-KP13(B)G7 1/33	HG-KR13(B)G7 1/33
30	HF-KP13(B)G5 1/45	HG-KR13(B)G5 1/45	55	HF-KP13(B)G7 1/45	HG-KR13(B)G7 1/45
31	HF-KP23(B)G5 1/5	HG-KR23(B)G5 1/5	56	HF-KP23(B)G7 1/5	HG-KR23(B)G7 1/5
32	HF-KP23(B)G5 1/11	HG-KR23(B)G5 1/11	57	HF-KP23(B)G7 1/11	HG-KR23(B)G7 1/11
33	HF-KP23(B)G5 1/21	HG-KR23(B)G5 1/21	58	HF-KP23(B)G7 1/21	HG-KR23(B)G7 1/21
34	HF-KP23(B)G5 1/33	HG-KR23(B)G5 1/33	59	HF-KP23(B)G7 1/33	HG-KR23(B)G7 1/33
35	HF-KP23(B)G5 1/45	HG-KR23(B)G5 1/45	60	HF-KP23(B)G7 1/45	HG-KR23(B)G7 1/45
36	HF-KP43(B)G5 1/5	HG-KR43(B)G5 1/5	61	HF-KP43(B)G7 1/5	HG-KR43(B)G7 1/5
37	HF-KP43(B)G5 1/11	HG-KR43(B)G5 1/11	62	HF-KP43(B)G7 1/11	HG-KR43(B)G7 1/11
38	HF-KP43(B)G5 1/21	HG-KR43(B)G5 1/21	63	HF-KP43(B)G7 1/21	HG-KR43(B)G7 1/21
39	HF-KP43(B)G5 1/33	HG-KR43(B)G5 1/33	64	HF-KP43(B)G7 1/33	HG-KR43(B)G7 1/33
40	HF-KP43(B)G5 1/45	HG-KR43(B)G5 1/45	65	HF-KP43(B)G7 1/45	HG-KR43(B)G7 1/45
41	HF-KP73(B)G5 1/5	HG-KR73(B)G5 1/5	66	HF-KP73(B)G7 1/5	HG-KR73(B)G7 1/5
42	HF-KP73(B)G5 1/11	HG-KR73(B)G5 1/11	67	HF-KP73(B)G7 1/11	HG-KR73(B)G7 1/11
43	HF-KP73(B)G5 1/21	HG-KR73(B)G5 1/21	68	HF-KP73(B)G7 1/21	HG-KR73(B)G7 1/21
44	HF-KP73(B)G5 1/33	HG-KR73(B)G5 1/33	69	HF-KP73(B)G7 1/33	HG-KR73(B)G7 1/33
45	HF-KP73(B)G5 1/45	HG-KR73(B)G5 1/45	70	HF-KP73(B)G7 1/45	HG-KR73(B)G7 1/45

\*1. Derived models of the above products are included. (B): With electromagnetic brake

## 2.2 HF-MP Series

No.	Model	Replacement model example	No.	Model	Replacement model example
1	HF-MP053(B)	HG-MR053(B)	36	HF-MP43(B)G5 1/5	HG-KR43(B)G5 1/5
2	HF-MP13(B)	HG-MR13(B)	37	HF-MP43(B)G5 1/11	HG-KR43(B)G5 1/11
3	HF-MP23(B)	HG-MR23(B)	38	HF-MP43(B)G5 1/21	HG-KR43(B)G5 1/21
4	HF-MP43(B)	HG-MR43(B)	39	HF-MP43(B)G5 1/33	HG-KR43(B)G5 1/33
5	HF-MP73(B)	HG-MR73(B)	40	HF-MP43(B)G5 1/45	HG-KR43(B)G5 1/45
6	HF-MP053(B)G1 1/5	HG-KR053(B)G1 1/5	41	HF-MP73(B)G5 1/5	HG-KR73(B)G5 1/5
7	HF-MP053(B)G1 1/12	HG-KR053(B)G1 1/12	42	HF-MP73(B)G5 1/11	HG-KR73(B)G5 1/11
8	HF-MP053(B)G1 1/20	HG-KR053(B)G1 1/20	43	HF-MP73(B)G5 1/21	HG-KR73(B)G5 1/21
9	HF-MP13(B)G1 1/5	HG-KR13(B)G1 1/5	44	HF-MP73(B)G5 1/33	HG-KR73(B)G5 1/33
10	HF-MP13(B)G1 1/12	HG-KR13(B)G1 1/12	45	HF-MP73(B)G5 1/45	HG-KR73(B)G5 1/45
11	HF-MP13(B)G1 1/20	HG-KR13(B)G1 1/20	46	HF-MP053(B)G7 1/5	HG-KR053(B)G7 1/5
12	HF-MP23(B)G1 1/5	HG-KR23(B)G1 1/5	47	HF-MP053(B)G7 1/11	HG-KR053(B)G7 1/11
13	HF-MP23(B)G1 1/12	HG-KR23(B)G1 1/12	48	HF-MP053(B)G7 1/21	HG-KR053(B)G7 1/21
14	HF-MP23(B)G1 1/20	HG-KR23(B)G1 1/20	49	HF-MP053(B)G7 1/33	HG-KR053(B)G7 1/33
15	HF-MP43(B)G1 1/5	HG-KR43(B)G1 1/5	50	HF-MP053(B)G7 1/45	HG-KR053(B)G7 1/45
16	HF-MP43(B)G1 1/12	HG-KR43(B)G1 1/12	51	HF-MP13(B)G7 1/5	HG-KR13(B)G7 1/5
17	HF-MP43(B)G1 1/20	HG-KR43(B)G1 1/20	52	HF-MP13(B)G7 1/11	HG-KR13(B)G7 1/11
18	HF-MP73(B)G1 1/5	HG-KR73(B)G1 1/5	53	HF-MP13(B)G7 1/21	HG-KR13(B)G7 1/21
19	HF-MP73(B)G1 1/12	HG-KR73(B)G1 1/12	54	HF-MP13(B)G7 1/33	HG-KR13(B)G7 1/33
20	HF-MP73(B)G1 1/20	HG-KR73(B)G1 1/20	55	HF-MP13(B)G7 1/45	HG-KR13(B)G7 1/45
21	HF-MP053(B)G5 1/5	HG-KR053(B)G5 1/5	56	HF-MP23(B)G7 1/5	HG-KR23(B)G7 1/5
22	HF-MP053(B)G5 1/11	HG-KR053(B)G5 1/11	57	HF-MP23(B)G7 1/11	HG-KR23(B)G7 1/11
23	HF-MP053(B)G5 1/21	HG-KR053(B)G5 1/21	58	HF-MP23(B)G7 1/21	HG-KR23(B)G7 1/21
24	HF-MP053(B)G5 1/33	HG-KR053(B)G5 1/33	59	HF-MP23(B)G7 1/33	HG-KR23(B)G7 1/33
25	HF-MP053(B)G5 1/45	HG-KR053(B)G5 1/45	60	HF-MP23(B)G7 1/45	HG-KR23(B)G7 1/45
26	HF-MP13(B)G5 1/5	HG-KR13(B)G5 1/5	61	HF-MP43(B)G7 1/5	HG-KR43(B)G7 1/5
27	HF-MP13(B)G5 1/11	HG-KR13(B)G5 1/11	62	HF-MP43(B)G7 1/11	HG-KR43(B)G7 1/11
28	HF-MP13(B)G5 1/21	HG-KR13(B)G5 1/21	63	HF-MP43(B)G7 1/21	HG-KR43(B)G7 1/21
29	HF-MP13(B)G5 1/33	HG-KR13(B)G5 1/33	64	HF-MP43(B)G7 1/33	HG-KR43(B)G7 1/33
30	HF-MP13(B)G5 1/45	HG-KR13(B)G5 1/45	65	HF-MP43(B)G7 1/45	HG-KR43(B)G7 1/45
31	HF-MP23(B)G5 1/5	HG-KR23(B)G5 1/5	66	HF-MP73(B)G7 1/5	HG-KR73(B)G7 1/5
32	HF-MP23(B)G5 1/11	HG-KR23(B)G5 1/11	67	HF-MP73(B)G7 1/11	HG-KR73(B)G7 1/11
33	HF-MP23(B)G5 1/21	HG-KR23(B)G5 1/21	68	HF-MP73(B)G7 1/21	HG-KR73(B)G7 1/21
34	HF-MP23(B)G5 1/33	HG-KR23(B)G5 1/33	69	HF-MP73(B)G7 1/33	HG-KR73(B)G7 1/33
35	HF-MP23(B)G5 1/45	HG-KR23(B)G5 1/45	70	HF-MP73(B)G7 1/45	HG-KR73(B)G7 1/45

\*1. Derived models of the above products are included. (B): With electromagnetic brake

## 2.3 HF-SP Series

No.	Model	Replacement model example	No.	Model	Replacement model example
1	HF-SP51(B)	HG-SR51(B)	58	HF-SP702(4)(B)G1(H) 1/17	HG-SR702(4)(B)G1(H) 1/17
2	HF-SP81(B)	HG-SR81(B)	59	HF-SP702(4)(B)G1(H) 1/29	HG-SR702(4)(B)G1(H) 1/29
3	HF-SP121(B)	HG-SR121(B)	60	HF-SP702(4)(B)G1(H) 1/35	HG-SR702(4)(B)G1(H) 1/35
4	HF-SP201(B)	HG-SR201(B)	61	HF-SP702(4)(B)G1(H) 1/43	HG-SR702(4)(B)G1(H) 1/43
5	HF-SP301(B)	HG-SR301(B)	62	HF-SP702(4)(B)G1(H) 1/59	HG-SR702(4)(B)G1(H) 1/59
6	HF-SP421(B)	HG-SR421(B)	63	HF-SP52(4)(B)G5 1/5	HG-SR52(4)(B)G5 1/5
7	HF-SP52(4)(B)	HG-SR52(4)(B)	64	HF-SP52(4)(B)G5 1/11	HG-SR52(4)(B)G5 1/11
8	HF-SP102(4)(B)	HG-SR102(4)(B)	65	HF-SP52(4)(B)G5 1/21	HG-SR52(4)(B)G5 1/21
9	HF-SP152(4)(B)	HG-SR152(4)(B)	66	HF-SP52(4)(B)G5 1/33	HG-SR52(4)(B)G5 1/33
10	HF-SP202(4)(B)	HG-SR202(4)(B)	67	HF-SP52(4)(B)G5 1/45	HG-SR52(4)(B)G5 1/45
11	HF-SP352(4)(B)	HG-SR352(4)(B)	68	HF-SP102(4)(B)G5 1/5	HG-SR102(4)(B)G5 1/5
12	HF-SP502(4)(B)	HG-SR502(4)(B)	69	HF-SP102(4)(B)G5 1/11	HG-SR102(4)(B)G5 1/11
13	HF-SP702(4)(B)	HG-SR702(4)(B)	70	HF-SP102(4)(B)G5 1/21	HG-SR102(4)(B)G5 1/21
14	HF-SP52(4)(B)G1(H) 1/6	HG-SR52(4)(B)G1(H) 1/6	71	HF-SP102(4)(B)G5 1/33	HG-SR102(4)(B)G5 1/33
15	HF-SP52(4)(B)G1(H) 1/11	HG-SR52(4)(B)G1(H) 1/11	72	HF-SP102(4)(B)G5 1/45	HG-SR102(4)(B)G5 1/45
16	HF-SP52(4)(B)G1(H) 1/17	HG-SR52(4)(B)G1(H) 1/17	73	HF-SP152(4)(B)G5 1/5	HG-SR152(4)(B)G5 1/5
17	HF-SP52(4)(B)G1(H) 1/29	HG-SR52(4)(B)G1(H) 1/29	74	HF-SP152(4)(B)G5 1/11	HG-SR152(4)(B)G5 1/11
18	HF-SP52(4)(B)G1(H) 1/35	HG-SR52(4)(B)G1(H) 1/35	75	HF-SP152(4)(B)G5 1/21	HG-SR152(4)(B)G5 1/21
19	HF-SP52(4)(B)G1(H) 1/43	HG-SR52(4)(B)G1(H) 1/43	76	HF-SP152(4)(B)G5 1/33	HG-SR152(4)(B)G5 1/33
20	HF-SP52(4)(B)G1(H) 1/59	HG-SR52(4)(B)G1(H) 1/59	77	HF-SP152(4)(B)G5 1/45	HG-SR152(4)(B)G5 1/45
21	HF-SP102(4)(B)G1(H) 1/6	HG-SR102(4)(B)G1(H) 1/6	78	HF-SP202(4)(B)G5 1/5	HG-SR202(4)(B)G5 1/5
22	HF-SP102(4)(B)G1(H) 1/11	HG-SR102(4)(B)G1(H) 1/11	79	HF-SP202(4)(B)G5 1/11	HG-SR202(4)(B)G5 1/11
23	HF-SP102(4)(B)G1(H) 1/17	HG-SR102(4)(B)G1(H) 1/17	80	HF-SP202(4)(B)G5 1/21	HG-SR202(4)(B)G5 1/21
24	HF-SP102(4)(B)G1(H) 1/29	HG-SR102(4)(B)G1(H) 1/29	81	HF-SP202(4)(B)G5 1/33	HG-SR202(4)(B)G5 1/33
25	HF-SP102(4)(B)G1(H) 1/35	HG-SR102(4)(B)G1(H) 1/35	82	HF-SP202(4)(B)G5 1/45	HG-SR202(4)(B)G5 1/45
26	HF-SP102(4)(B)G1(H) 1/43	HG-SR102(4)(B)G1(H) 1/43	83	HF-SP352(4)(B)G5 1/5	HG-SR352(4)(B)G5 1/5
27	HF-SP102(4)(B)G1(H) 1/59	HG-SR102(4)(B)G1(H) 1/59	84	HF-SP352(4)(B)G5 1/11	HG-SR352(4)(B)G5 1/11
28	HF-SP152(4)(B)G1(H) 1/6	HG-SR152(4)(B)G1(H) 1/6	85	HF-SP352(4)(B)G5 1/21	HG-SR352(4)(B)G5 1/21
29	HF-SP152(4)(B)G1(H) 1/11	HG-SR152(4)(B)G1(H) 1/11	86	HF-SP502(4)(B)G5 1/5	HG-SR502(4)(B)G5 1/5
30	HF-SP152(4)(B)G1(H) 1/17	HG-SR152(4)(B)G1(H) 1/17	87	HF-SP502(4)(B)G5 1/11	HG-SR502(4)(B)G5 1/11
31	HF-SP152(4)(B)G1(H) 1/29	HG-SR152(4)(B)G1(H) 1/29	88	HF-SP702(4)(B)G5 1/5	HG-SR702(4)(B)G5 1/5
32	HF-SP152(4)(B)G1(H) 1/35	HG-SR152(4)(B)G1(H) 1/35	89	HF-SP52(4)(B)G7 1/5	HG-SR52(4)(B)G7 1/5
33	HF-SP152(4)(B)G1(H) 1/43	HG-SR152(4)(B)G1(H) 1/43	90	HF-SP52(4)(B)G7 1/11	HG-SR52(4)(B)G7 1/11
34	HF-SP152(4)(B)G1(H) 1/59	HG-SR152(4)(B)G1(H) 1/59	91	HF-SP52(4)(B)G7 1/21	HG-SR52(4)(B)G7 1/21
35	HF-SP202(4)(B)G1(H) 1/6	HG-SR202(4)(B)G1(H) 1/6	92	HF-SP52(4)(B)G7 1/33	HG-SR52(4)(B)G7 1/33
36	HF-SP202(4)(B)G1(H) 1/11	HG-SR202(4)(B)G1(H) 1/11	93	HF-SP52(4)(B)G7 1/45	HG-SR52(4)(B)G7 1/45
37	HF-SP202(4)(B)G1(H) 1/17	HG-SR202(4)(B)G1(H) 1/17	94	HF-SP102(4)(B)G7 1/5	HG-SR102(4)(B)G7 1/5
38	HF-SP202(4)(B)G1(H) 1/29	HG-SR202(4)(B)G1(H) 1/29	95	HF-SP102(4)(B)G7 1/11	HG-SR102(4)(B)G7 1/11
39	HF-SP202(4)(B)G1(H) 1/35	HG-SR202(4)(B)G1(H) 1/35	96	HF-SP102(4)(B)G7 1/21	HG-SR102(4)(B)G7 1/21
40	HF-SP202(4)(B)G1(H) 1/43	HG-SR202(4)(B)G1(H) 1/43	97	HF-SP102(4)(B)G7 1/33	HG-SR102(4)(B)G7 1/33
41	HF-SP202(4)(B)G1(H) 1/59	HG-SR202(4)(B)G1(H) 1/59	98	HF-SP102(4)(B)G7 1/45	HG-SR102(4)(B)G7 1/45
42	HF-SP352(4)(B)G1(H) 1/6	HG-SR352(4)(B)G1(H) 1/6	99	HF-SP152(4)(B)G7 1/5	HG-SR152(4)(B)G7 1/5
43	HF-SP352(4)(B)G1(H) 1/11	HG-SR352(4)(B)G1(H) 1/11	100	HF-SP152(4)(B)G7 1/11	HG-SR152(4)(B)G7 1/11
44	HF-SP352(4)(B)G1(H) 1/17	HG-SR352(4)(B)G1(H) 1/17	101	HF-SP152(4)(B)G7 1/21	HG-SR152(4)(B)G7 1/21
45	HF-SP352(4)(B)G1(H) 1/29	HG-SR352(4)(B)G1(H) 1/29	102	HF-SP152(4)(B)G7 1/33	HG-SR152(4)(B)G7 1/33
46	HF-SP352(4)(B)G1(H) 1/35	HG-SR352(4)(B)G1(H) 1/35	103	HF-SP152(4)(B)G7 1/45	HG-SR152(4)(B)G7 1/45
47	HF-SP352(4)(B)G1(H) 1/43	HG-SR352(4)(B)G1(H) 1/43	104	HF-SP202(4)(B)G7 1/5	HG-SR202(4)(B)G7 1/5
48	HF-SP352(4)(B)G1(H) 1/59	HG-SR352(4)(B)G1(H) 1/59	105	HF-SP202(4)(B)G7 1/11	HG-SR202(4)(B)G7 1/11
49	HF-SP502(4)(B)G1(H) 1/6	HG-SR502(4)(B)G1(H) 1/6	106	HF-SP202(4)(B)G7 1/21	HG-SR202(4)(B)G7 1/21
50	HF-SP502(4)(B)G1(H) 1/11	HG-SR502(4)(B)G1(H) 1/11	107	HF-SP202(4)(B)G7 1/33	HG-SR202(4)(B)G7 1/33
51	HF-SP502(4)(B)G1(H) 1/17	HG-SR502(4)(B)G1(H) 1/17	108	HF-SP202(4)(B)G7 1/45	HG-SR202(4)(B)G7 1/45
52	HF-SP502(4)(B)G1(H) 1/29	HG-SR502(4)(B)G1(H) 1/29	109	HF-SP352(4)(B)G7 1/5	HG-SR352(4)(B)G7 1/5
53	HF-SP502(4)(B)G1(H) 1/35	HG-SR502(4)(B)G1(H) 1/35	110	HF-SP352(4)(B)G7 1/11	HG-SR352(4)(B)G7 1/11
54	HF-SP502(4)(B)G1(H) 1/43	HG-SR502(4)(B)G1(H) 1/43	111	HF-SP352(4)(B)G7 1/21	HG-SR352(4)(B)G7 1/21
55	HF-SP502(4)(B)G1(H) 1/59	HG-SR502(4)(B)G1(H) 1/59	112	HF-SP502(4)(B)G7 1/5	HG-SR502(4)(B)G7 1/5
56	HF-SP702(4)(B)G1(H) 1/6	HG-SR702(4)(B)G1(H) 1/6	113	HF-SP502(4)(B)G7 1/11	HG-SR502(4)(B)G7 1/11
57	HF-SP702(4)(B)G1(H) 1/11	HG-SR702(4)(B)G1(H) 1/11	114	HF-SP702(4)(B)G7 1/5	HG-SR702(4)(B)G7 1/5

\*1. Derived models of the above products are included. (4): 400 V class (B): With electromagnetic brake (H): Foot-mounting



## 2.4 HC-RP, HC-LP, and HC-UP Series

No.	Model	Replacement model example	No.	Model	Replacement model example
1	HC-RP103(B)	HG-RR103(B)	31	HC-RP103(B)G7 1/33	HG-SR102(B)G7 1/33
2	HC-RP153(B)	HG-RR153(B)	32	HC-RP103(B)G7 1/45	HG-SR102(B)G7 1/45
3	HC-RP203(B)	HG-RR203(B)	33	HC-RP153(B)G7 1/5	HG-SR152(B)G7 1/5
4	HC-RP353(B)	HG-RR353(B)	34	HC-RP153(B)G7 1/11	HG-SR152(B)G7 1/11
5	HC-RP503(B)	HG-RR503(B)	35	HC-RP153(B)G7 1/21	HG-SR152(B)G7 1/21
6	HC-RP103(B)G5 1/5	HG-SR102(B)G5 1/5	36	HC-RP153(B)G7 1/33	HG-SR152(B)G7 1/33
7	HC-RP103(B)G5 1/11	HG-SR102(B)G5 1/11	37	HC-RP153(B)G7 1/45	HG-SR152(B)G7 1/45
8	HC-RP103(B)G5 1/21	HG-SR102(B)G5 1/21	38	HC-RP203(B)G7 1/5	HG-SR202(B)G7 1/5
9	HC-RP103(B)G5 1/33	HG-SR102(B)G5 1/33	39	HC-RP203(B)G7 1/11	HG-SR202(B)G7 1/11
10	HC-RP103(B)G5 1/45	HG-SR102(B)G5 1/45	40	HC-RP203(B)G7 1/21	HG-SR202(B)G7 1/21
11	HC-RP153(B)G5 1/5	HG-SR152(B)G5 1/5	41	HC-RP203(B)G7 1/33	HG-SR202(B)G7 1/33
12	HC-RP153(B)G5 1/11	HG-SR152(B)G5 1/11	42	HC-RP203(B)G7 1/45	HG-SR202(B)G7 1/45
13	HC-RP153(B)G5 1/21	HG-SR152(B)G5 1/21	43	HC-RP353(B)G7 1/5	HG-SR352(B)G7 1/5
14	HC-RP153(B)G5 1/33	HG-SR152(B)G5 1/33	44	HC-RP353(B)G7 1/11	HG-SR352(B)G7 1/11
15	HC-RP153(B)G5 1/45	HG-SR152(B)G5 1/45	45	HC-RP353(B)G7 1/21	HG-SR352(B)G7 1/21
16	HC-RP203(B)G5 1/5	HG-SR202(B)G5 1/5	46	HC-RP353(B)G7 1/33	HG-SR352(B)G7 1/21
17	HC-RP203(B)G5 1/11	HG-SR202(B)G5 1/11	47	HC-RP503(B)G7 1/5	HG-SR502(B)G7 1/5
18	HC-RP203(B)G5 1/21	HG-SR202(B)G5 1/21	48	HC-RP503(B)G7 1/11	HG-SR502(B)G7 1/11
19	HC-RP203(B)G5 1/33	HG-SR202(B)G5 1/33	49	HC-RP503(B)G7 1/21	HG-SR502(B)G7 1/11
20	HC-RP203(B)G5 1/45	HG-SR202(B)G5 1/45	50	HC-LP52(B)	HG-JR73(B)
21	HC-RP353(B)G5 1/5	HG-SR352(B)G5 1/5	51	HC-LP102(B)	HG-JR153(B)
22	HC-RP353(B)G5 1/11	HG-SR352(B)G5 1/11	52	HC-LP152(B)	HG-JR353(B)
23	HC-RP353(B)G5 1/21	HG-SR352(B)G5 1/21	53	HC-LP202(B)	HG-JR353(B)
24	HC-RP353(B)G5 1/33	HG-SR352(B)G5 1/21	54	HC-LP302(B)	HG-JR503(B)
25	HC-RP503(B)G5 1/5	HG-SR502(B)G5 1/5	55	HC-UP72(B)	HG-UR72(B)
26	HC-RP503(B)G5 1/11	HG-SR502(B)G5 1/11	56	HC-UP152(B)	HG-UR152(B)
27	HC-RP503(B)G5 1/21	HG-SR502(B)G5 1/11	57	HC-UP202(B)	HG-UR202(B)
28	HC-RP103(B)G7 1/5	HG-SR102(B)G7 1/5	58	HC-UP352(B)	HG-UR352(B)
29	HC-RP103(B)G7 1/11	HG-SR102(B)G7 1/11	59	HC-UP502(B)	HG-UR502(B)
30	HC-RP103(B)G7 1/21	HG-SR102(B)G7 1/21			

\*1. Derived models of the above products are included. (B): With electromagnetic brake

## 2.5 HF-JP and HA-LP Series

No.	Model	Replacement model example	No.	Model	Replacement model example
1	HF-JP53(4)(B)	HG-JR53(4)(B)	19	HA-LP37K1(4)	HG-JR37K1(4)
2	HF-JP73(4)(B)	HG-JR73(4)(B)	20	HA-LP701M(4)(B)	HG-JR701M(4)(B)
3	HF-JP103(4)(B)	HG-JR103(4)(B)	21	HA-LP11K1M(4)(B)	HG-JR11K1M(4)(B)
4	HF-JP153(4)(B)	HG-JR153(4)(B)	22	HA-LP15K1M(4)(B)	HG-JR15K1M(4)(B)
5	HF-JP203(4)(B)	HG-JR203(4)(B)	23	HA-LP22K1M(4)	HG-JR22K1M(4)
6	HF-JP353(4)(B)	HG-JR353(4)(B)	24	HA-LP30K1M(4)	HG-JR30K1M(4)
7	HF-JP503(4)(B)	HG-JR503(4)(B)	25	HA-LP37K1M(4)	HG-JR37K1M(4)
8	HF-JP703(4)(B)	HG-JR703(4)(B)	26	HA-LP45K1M4	HG-JR45K1M4
9	HF-JP903(4)(B)	HG-JR903(4)(B)	27	HA-LP50K1M4	HG-JR55K1M4
10	HF-JP11K1M(4)(B)	HG-JR11K1M(4)(B)	28	HA-LP502	HG-SR502
11	HF-JP15K1M(4)(B)	HG-JR15K1M(4)(B)	29	HA-LP702	HG-SR702
12	HA-LP601(4)(B)	HG-JR601(4)(B)	30	HA-LP11K2(4)(B)	HG-JR11K1M(4)(B)
13	HA-LP801(4)(B)	HG-JR801(4)(B)	31	HA-LP15K2(4)(B)	HG-JR11K1M(4)(B)
14	HA-LP12K1(4)(B)	HG-JR12K1(4)(B)	32	HA-LP22K2(4)(B)	HG-JR15K1M(4)(B)
15	HA-LP15K1(4)	HG-JR15K1(4)	33	HA-LP30K2(4)	HG-JR22K1M(4)
16	HA-LP20K1(4)	HG-JR20K1(4)	34	HA-LP37K2(4)	HG-JR30K1M(4)
17	HA-LP25K1(4)	HG-JR25K1(4)	35	HA-LP45K24	HG-JR37K1M4
18	HA-LP30K1(4)	HG-JR30K1(4)	36	HA-LP55K24	HG-JR45K1M4

\*1. Derived models of the above products are included. (4): 400 V class (B): With electromagnetic brake

## 2.6 LM-N and LM-H2 Series

No.	Model	Replacement model example	No.	Model	Replacement model example
1	LM-NP2S-05M	LM-FP2B-06M-1SS0	17	LM-H2P3A-24M-1SS0	LM-H3P7A-24P-ASS0
2	LM-NP2M-10M	LM-FP2D-12M-1SS0	18	LM-H2P3B-48M-1SS0	LM-H3P7B-48P-ASS0
3	LM-NP2L-15M	LM-FP2F-18M-1SS0	19	LM-H2P3C-72M-1SS0	LM-H3P7C-72P-ASS0
4	LM-NP4S-10M	LM-FP4B-12M-1SS0	20	LM-H2P3D-96M-1SS0	LM-H3P7D-96P-ASS0
5	LM-NP4M-20M	LM-FP4D-24M-1SS0	21	LM-H2S10-288-4SS0	LM-H3S20-288-BSS0
6	LM-NP4L-30M	LM-FP4F-36M-1SS0	22	LM-H2S10-384-4SS0	LM-H3S20-384-BSS0
7	LM-NP4G-40M	LM-FP4H-48M-1SS0	23	LM-H2S10-480-4SS0	LM-H3S20-480-BSS0
8	LM-NS20-360	LM-FS20-480-1SS0	24	LM-H2S10-768-4SS0	LM-H3S20-768-BSS0
9	LM-NS20-540	LM-FS20-576-1SS0	25	LM-H2S20-288-1SS0	LM-H3S30-288-CSS0
10	LM-NS40-360	LM-FS40-480-1SS0	26	LM-H2S20-384-1SS0	LM-H3S30-384-CSS0
11	LM-NS40-540	LM-FS40-576-1SS0	27	LM-H2S20-480-1SS0	LM-H3S30-480-CSS0
12	LM-H2P1A-06M-4SS0	LM-H3P2A-07P-BSS0	28	LM-H2S20-768-1SS0	LM-H3S30-768-CSS0
13	LM-H2P2A-12M-1SS0	LM-H3P3A-12P-CSS0	29	LM-H2S30-288-1SS0	LM-H3S70-288-ASS0
14	LM-H2P2B-24M-1SS0	LM-H3P3B-24P-CSS0	30	LM-H2S30-384-1SS0	LM-H3S70-384-ASS0
15	LM-H2P2C-36M-1SS0	LM-H3P3C-36P-CSS0	31	LM-H2S30-480-1SS0	LM-H3S70-480-ASS0
16	LM-H2P2D-48M-1SS0	LM-H3P3D-48P-CSS0	32	LM-H2S30-768-1SS0	LM-H3S70-768-ASS0

\*1. Derived models of the above products are included.

## 3. OPTION

No.	Model	Applicable servo amplifier series	No.	Model	Applicable servo amplifier series
1	MR-J3ACHECK	J3	18	MR-RB3B	J3W
2	MR-D05UDL□M (*3)	J3	19	MR-RB6B-4	J3
3	MR-J3WCNP12-DM	J3W	20	MR-RB60-4	J3
4	MR-J3WCNP12-DM-10P	J3W	21	MR-RB136-4	J3
5	MR-J3WCNP3-DL	J3W	22	MR-RB138-4	J3
6	MR-J3WCNP3-DL-20P	J3W	23	DBU-22K	J3
7	MR-J3WCNP3-D2L	J3W	24	DBU-37K	J3
8	MR-J3WCNP3-D2L-20P	J3W	25	DBU55K-4	J3
9	MR-J3WCNP123-SP	J3W	26	MRZJW3-SETUP221E (*4)	J3, J3W
10	MR-J3WCNP123-SP-10P	J3W	27	MR-J3W03PWCBL□M-A-H	J3W
11	MR-J3-TM	J3	28	MR-J3W03PWBRCBL□M-A-H	J3W
12	MR-J3BTCBL03M	J3	29	MR-J3W03CNP2-2P	J3W
13	MR-BTCASE	J3W	30	MR-J3W03CNP2-20P	J3W
14	MR-J3BT1CBL□M	J3W	31	MR-J3W03BTCBL03M	J3W
15	MR-J3BT2CBL□M	J3W	32	MR-J3-D01 (*1)	J3
16	MR-RB5E	J3	33	MR-J3-D11	J3
17	MR-RB9P	J3			

\*1. The production of the model has been discontinued since July 31, 2016.

\*2. Derived models of the above products are included.

\*3. The production of the MR-D05UDL3M-B will be continued.

\*4. MRZJW3-SETUP221E will be available for free from June 2019. Contact your local sales office.

## Appendix 2: Precautions for Replacing MR-J3 Series with MR-J4 Series

### 1. OUTLINE

This section describes the changes when the system is upgraded by replacing the MR-J3 series with the MR-J4 series. The functions and performance of the MR-J4 series are much higher than those of the MR-J3 series.

### 2. REPLACEMENT MODEL

This section describes the basic models for replacing the servo amplifier and servo motor as a set.

#### 2.1 Servo Amplifier

##### 2.1.1 Servo Amplifier Replacement Model and Compatibility

#### ■ Comparison of MR-J3 Series (Type A) and MR-J4 Series (Type A) (22 kW or Less in 200 V/100 V Class)

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
General-purpose interface	MR-J3-10A(1)	MR-J4-10A(1)	○	For the detailed specifications and functional differences, refer to the Instruction Manual.
	MR-J3-20A(1)	MR-J4-20A(1)	○	
	MR-J3-40A(1)	MR-J4-40A(1)	○	
	MR-J3-60A	MR-J4-60A	○	
	MR-J3-70A	MR-J4-70A	○	
	MR-J3-100A	MR-J4-100A	○	
	MR-J3-200A(N)(-RT)	MR-J4-200A	○	
	MR-J3-350A	MR-J4-350A	○	
	MR-J3-500A	MR-J4-500A	(*1)	
	MR-J3-700A	MR-J4-700A	○	
	MR-J3-11KA	MR-J4-11KA	(*1)	
	MR-J3-11KA-LR			
	MR-J3-15KA	MR-J4-15KA	(*1)	
	MR-J3-15KA-LR			
	MR-J3-22KA	MR-J4-22KA	○	

\*1. For the dimensions of the mounting holes and servo amplifiers, refer to the Instruction Manual.

#### ■ Comparison of MR-J3 Series (Type B) and MR-J4 Series (Type B) (22 kW or Less in 200 V/100 V Class)

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
SSCNET interface	MR-J3-10B(1)	MR-J4-10B(1)	○	For the detailed specifications and functional differences, refer to the Instruction Manual.
	MR-J3-20B(1)	MR-J4-20B(1)	○	
	MR-J3-40B(1)	MR-J4-40B(1)	○	
	MR-J3-60B	MR-J4-60B	○	
	MR-J3-70B	MR-J4-70B	○	
	MR-J3-100B	MR-J4-100B	○	
	MR-J3-200B(N)(-RT)	MR-J4-200B	○	
	MR-J3-350B	MR-J4-350B	○	
	MR-J3-500B	MR-J4-500B	(*1)	
	MR-J3-700B	MR-J4-700B	○	
	MR-J3-11KB	MR-J4-11KB	(*1)	
	MR-J3-11KB-LR			
	MR-J3-15KB	MR-J4-15KB	(*1)	
	MR-J3-15KB-LR			
	MR-J3-22KB	MR-J4-22KB	○	

\*1. For the dimensions of the mounting holes and servo amplifiers, refer to the Instruction Manual.

■ Comparison of MR-J3 Series (Type T: CC-Link Communication) and MR-J4 Series (Type GF) (22 kW or Less in 200 V Class)

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
Built-in positioning function CC-Link/CC-Link IE	MR-J3-10T	MR-J4-10GF	○ (*2)	For the detailed specifications and functional differences, refer to the Instruction Manual.
	MR-J3-20T	MR-J4-20GF	○ (*2)	
	MR-J3-40T	MR-J4-40GF	○ (*2)	
	MR-J3-60T	MR-J4-60GF	○ (*2)	
	MR-J3-70T	MR-J4-70GF	○	
	MR-J3-100T	MR-J4-100GF	○	
	MR-J3-200T(N)(-RT)	MR-J4-200GF	○	
	MR-J3-350T	MR-J4-350GF	○	
	MR-J3-500T	MR-J4-500GF	(*1)	
	MR-J3-700T	MR-J4-700GF	○	
	MR-J3-11KT	MR-J4-11KGF	(*1)	
	MR-J3-11KT-LR			
	MR-J3-15KT	MR-J4-15KGF	(*1)	
	MR-J3-15KT-LR			
	MR-J3-22KT	MR-J4-22KGF	○	

\*1. For the dimensions of the mounting holes and servo amplifiers, refer to the Instruction Manual.

\*2. For the dimensions, refer to the Instruction Manual.

\*3. If you are using DI/O command or serial communication operation with MR-J3-T, please replace the servo amplifier with MR-J4-A-RJ.

■ Comparison of MR-J3 Series (Type T: DIO Command/Serial Communication Operation) and MR-J4 Series (Type A-RJ) (22 kW or Less in 200 V/100 V Class)

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
Built-in positioning function DIO command Serial communication operation	MR-J3-10T(1)	MR-J4-10A(1)-RJ	○	For the detailed specifications and functional differences, refer to the Instruction Manual.
	MR-J3-20T(1)	MR-J4-20A(1)-RJ	○	
	MR-J3-40T(1)	MR-J4-40A(1)-RJ	○	
	MR-J3-60T	MR-J4-60A-RJ	○	
	MR-J3-70T	MR-J4-70A-RJ	○	
	MR-J3-100T	MR-J4-100A-RJ	○	
	MR-J3-200T(N)(-RT)	MR-J4-200A-RJ	○	
	MR-J3-350T	MR-J4-350A-RJ	○	
	MR-J3-500T	MR-J4-500A-RJ	(*1)	
	MR-J3-700T	MR-J4-700A-RJ	○	
	MR-J3-11KT	MR-J4-11KA-RJ	(*1)	
	MR-J3-11KT-LR			
	MR-J3-15KT	MR-J4-15KA-RJ	(*1)	
	MR-J3-15KT-LR			
	MR-J3-22KT	MR-J4-22KA-RJ	○	

\*1. For the dimensions of the mounting holes and servo amplifiers, refer to the Instruction Manual.

\*2. If you are using CC-Link with MR-J3-T, please replace the servo amplifier with MR-J4-GF.

■ Comparison of MR-J3 Series (Type A) and MR-J4 Series (Type A) (30 kW or More in 200 V Class)

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
General-purpose interface	MR-J3-DU30KA	MR-J4-DU30KA	○	For the detailed specifications and functional differences, refer to the Instruction Manual.
	MR-J3-DU37KA	MR-J4-DU37KA	○	
	MR-J3-CR55K	MR-CR55K	○	

■ Comparison of MR-J3 Series (Type B) and MR-J4 Series (Type B) (30 kW or More in 200 V Class)

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
SSCNET interface	MR-J3-DU30KB	MR-J4-DU30KB	○	For the detailed specifications and functional differences, refer to the Instruction Manual.
	MR-J3-DU37KB	MR-J4-DU37KB	○	
	MR-J3-CR55K	MR-CR55K	○	

■ Comparison of MR-J3 Series (Type A) and MR-J4 Series (Type A) (22 kW or Less in 400 V Class)

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
General-purpose interface	MR-J3-60A4	MR-J4-60A4	○ (*2)	For the detailed specifications and functional differences, refer to the Instruction Manual.
	MR-J3-100A4	MR-J4-100A4	○ (*2)	
	MR-J3-200A4	MR-J4-200A4	○	
	MR-J3-350A4	MR-J4-350A4	(*1)	
	MR-J3-500A4	MR-J4-500A4	○	
	MR-J3-700A4	MR-J4-700A4	○	
	MR-J3-11KA4	MR-J4-11KA4	(*1)	
	MR-J3-11KA4-LR			
	MR-J3-15KA4	MR-J4-15KA4	(*1)	
	MR-J3-15KA4-LR			
MR-J3-22KA4	MR-J4-22KA4	○		

\*1. For the dimensions of the mounting holes and servo amplifiers, refer to the Instruction Manual.

\*2. For the dimensions, refer to the Instruction Manual.

■ Comparison of MR-J3 Series (Type B) and MR-J4 Series (Type B) (22 kW or Less in 400 V Class)

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
SSCNET interface	MR-J3-60B4	MR-J4-60B4	○ (*2)	For the detailed specifications and functional differences, refer to the Instruction Manual.
	MR-J3-100B4	MR-J4-100B4	○ (*2)	
	MR-J3-200B4	MR-J4-200B4	○	
	MR-J3-350B4	MR-J4-350B4	(*1)	
	MR-J3-500B4	MR-J4-500B4	○	
	MR-J3-700B4	MR-J4-700B4	○	
	MR-J3-11KB4	MR-J4-11KB4	(*1)	
	MR-J3-11KB4-LR			
	MR-J3-15KB4	MR-J4-15KB4	(*1)	
	MR-J3-15KB4-LR			
	MR-J2S-22KB4	MR-J4-22KB4	○	

\*1. For the dimensions of the mounting holes and servo amplifiers, refer to the Instruction Manual.

\*2. For the dimensions, refer to the Instruction Manual.

■ Comparison of MR-J3 Series (Type T: CC-Link Communication) and MR-J4 Series (Type GF) (22 kW or Less in 400 V Class)

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
General-purpose interface	MR-J3-60T4	MR-J4-60GF4	○	For the detailed specifications and functional differences, refer to the Instruction Manual.
	MR-J3-100T4	MR-J4-100GF4	○	
	MR-J3-200T4	MR-J4-200GF4	○	
	MR-J3-350T4	MR-J4-350GF4	(*1)	
	MR-J3-500T4	MR-J4-500GF4	○	
	MR-J3-700T4	MR-J4-700GF4	○	
	MR-J3-11KT4	MR-J4-11KGF4	(*1)	
	MR-J3-11KT4-LR			
	MR-J3-15KT4	MR-J4-15KGF4	(*1)	
	MR-J3-15KT4-LR			
MR-J3-22KT4	MR-J4-22KGF4	○		

\*1. For the dimensions of the mounting holes and servo amplifiers, refer to the Instruction Manual.

■ Comparison of MR-J3 Series (Type A) and MR-J4 Series (Type A) (30 kW or More in 400 V Class)

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
General-purpose interface	MR-J3-DU30KA4	MR-J4-DU30KA4	○	For the detailed specifications and functional differences, refer to the Instruction Manual.
	MR-J3-DU37KA4	MR-J4-DU37KA4	○	
	MR-J3-DU45KA4	MR-J4-DU45KA4	○	
	MR-J3-DU55KA4	MR-J4-DU55KA4	○	
	MR-J3-CR55K4	MR-CR55K4	○	

■ Comparison of MR-J3 Series (Type B) and MR-J4 Series (Type B) (30 kW or More in 400 V Class)

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
General-purpose interface	MR-J3-DU30KB4	MR-J4-DU30KB4	○	For the detailed specifications and functional differences, refer to the Instruction Manual.
	MR-J3-DU37KB4	MR-J4-DU37KB4	○	
	MR-J3-DU45KB4	MR-J4-DU45KB4	○	
	MR-J3-DU55KB4	MR-J4-DU55KB4	○	
	MR-J3-CR55K4	MR-CR55K4	○	

## 2.1.2 Comparison of Servo Amplifier Dimensions

■ Comparison of MR-J3 Series (Type A/B and DIO Command/Serial Communication Operation with Type T) and MR-J4 Series (Type A/B) (22 kW or Less in 200 V/100 V Class)

The following table shows the dimension comparisons between the MR-J3 series and MR-J4 series. The servo amplifiers of 3.5 kW or less, 7 kW, and 22 kW can be mounted interchangeably because they have the same dimensions. However, note the following: For the servo amplifiers of 5 kW, the width and clearance between mounting screws in the horizontal direction have been changed. For the servo amplifiers of 11 kW and 15 kW, the width, clearance between mounting screws in the vertical and horizontal directions, and screw size have been changed.

Comparison of dimensions (comparison between the same capacity models)

[Unit: mm]

MR-J3 series model	MR-J4 series model	Height		Width		Depth		Clearance between mounting screws	
		MR-J3	MR-J4	MR-J3	MR-J4	MR-J3	MR-J4	MR-J3	MR-J4
MR-J3-10_(1)	MR-J4-10_(1)	168	168	40	40	135	135	156 (Vertical) (2 places)	156 (Vertical) (2 places)
MR-J3-20_(1)	MR-J4-20_(1)					170	170		
MR-J3-40_(1)	MR-J4-40_(1)								
MR-J3-60_	MR-J4-60_			60	60	185	185	156 (Vertical)/42 (Horizontal) (3 places)	156 (Vertical)/42 (Horizontal) (3 places)
MR-J3-70_	MR-J4-70_								
MR-J3-100_	MR-J4-100_								
MR-J3-200_(N)(-RT)	MR-J4-200_			90	90	195	195	156 (Vertical)/78 (Horizontal) (3 places)	156 (Vertical)/78 (Horizontal) (3 places)
MR-J3-350_	MR-J4-350_								
MR-J3-500_	MR-J4-500_	250	250	130	105	200	200	235 (Vertical)/118 (Horizontal) (4 places)	235 (Vertical)/93 (Horizontal) (4 places)
MR-J3-700_	MR-J4-700_	300	300	172	172			285 (Vertical)/160 (Horizontal) (4 places)	285 (Vertical)/160 (Horizontal) (4 places)
MR-J3-11K_(-LR)	MR-J4-11K_	400	400	260	220	260	260	376 (Vertical)/236 (Horizontal) (4 places)	380 (Vertical)/196 (Horizontal) (4 places)
MR-J3-15K_(-LR)	MR-J4-15K_				260				260
MR-J3-22K_	MR-J4-22K_								

\*1. The changed dimensions are shown with shading.

■ Comparison of MR-J3 Series (CC-Link Communication with Type T) and MR-J4 Series (Type GF) (22 kW or Less in 200 V Class)

The following table shows the dimension comparisons between the MR-J3 series and MR-J4 series. The servo amplifiers of 700 W to 3.5 kW, 7 kW, and 22 kW can be mounted interchangeably because they have the same dimensions. However, note the following: For the servo amplifiers of 600 W or less, the width and depth have been changed. For the servo amplifiers of 400 W or less, the depth has been increased. For the servo amplifiers of 5 kW, the width and clearance between mounting screws in the horizontal direction have been changed. For the servo amplifiers of 600 W or less, 11 kW, and 15 kW, the width, clearance between mounting screws in the vertical and horizontal directions, and screw size have been changed.

Comparison of dimensions (comparison between the same capacity models)

[Unit: mm]

MR-J3 series model	MR-J4 series model	Height		Width		Depth		Clearance between mounting screws	
		MR-J3	MR-J4	MR-J3	MR-J4	MR-J3	MR-J4	MR-J3	MR-J4
MR-J3-10T	MR-J4-10GF	168	168	40	50 (*2)	135	155 (*1)	156 (Vertical) (2 places)	156 (Vertical) (2 places)
MR-J3-20T	MR-J4-20GF					170	155		
MR-J3-40T	MR-J4-40GF								
MR-J3-60T	MR-J4-60GF			60	60	185	185	156 (Vertical)/42 (Horizontal) (3 places)	156 (Vertical)/42 (Horizontal) (3 places)
MR-J3-70T	MR-J4-70GF								
MR-J3-100T	MR-J4-100GF			90	90	195	195	156 (Vertical)/78 (Horizontal) (3 places)	156 (Vertical)/78 (Horizontal) (3 places)
MR-J3-200T(N)(-RT)	MR-J4-200GF								
MR-J3-350T	MR-J4-350GF								
MR-J3-500T	MR-J4-500GF	250	250	130	105	200	200	235 (Vertical)/118 (Horizontal) (4 places)	235 (Vertical)/93 (Horizontal) (4 places)
MR-J3-700T	MR-J4-700GF	300	300	172	172			285 (Vertical)/160 (Horizontal) (4 places)	285 (Vertical)/160 (Horizontal) (4 places)
MR-J3-11KT(-LR)	MR-J4-11KGF	400	400	260	220	260	260	376 (Vertical)/236 (Horizontal) (4 places)	380 (Vertical)/196 (Horizontal) (4 places)
MR-J3-15KT(-LR)	MR-J4-15KGF				260				260
MR-J3-22KT	MR-J4-22KGF								

\*1. Note that the depth will increase.

\*2. Note that the width will increase.

\*3. The changed dimensions are shown with shading.

■ Comparison of MR-J3 Series (Type A/B) and MR-J4 Series (Type A/B) (30 kW or More in 200 V Class)

The following table shows the dimension comparisons between the MR-J3 series and MR-J4 series. The servo amplifiers can be mounted interchangeably because they have the same height, width, clearance between mounting screws, and screw size. When a heat sink is mounted inside the cabinet, the depth changes.

Comparison of dimensions (comparison between the same capacity models) [Unit: mm]

MR-J3 series model	MR-J4 series model	Height		Width		Depth		Clearance between mounting screws	
		MR-J3	MR-J4	MR-J3	MR-J4	MR-J3	MR-J4	MR-J3	MR-J4
MR-J3-DU30K_	MR-J4-DU30K_	380	380	300	300	200 (328) (*1)	200 (300) (*1)	360 (Vertical)/260 (Horizontal) (4 places)	360 (Vertical)/260 (Horizontal) (4 places)
MR-J3-DU37K_	MR-J4-DU37K_								
MR-J3-CR55K	MR-J4-CR55K	380	380	300	300	200 (328) (*1)	200 (300) (*1)	360 (Vertical)/260 (Horizontal) (4 places)	360 (Vertical)/260 (Horizontal) (4 places)

\*1. The value in the parentheses is applicable when a heat sink is mounted inside the cabinet.

\*2. The changed dimensions are shown with shading.

■ Comparison of MR-J3 Series (Type A/B and DIO Command/Serial Communication Operation with Type T) and MR-J4 Series (Type A/B) (22 kW or Less in 400 V Class)

The following table shows the dimension comparisons between the MR-J3 series and MR-J4 series. The servo amplifiers of 2 kW, 5 kW, 7 kW, and 22 kW can be mounted interchangeably because they have the same dimensions. However, note the following: For the servo amplifiers of 1 kW or less, the depth has been changed. For the servo amplifiers of 3.5 kW, the width and clearance between mounting screws in the horizontal direction have been changed. For the servo amplifiers of 11 kW and 15 kW, the width, clearance between mounting screws in the vertical and horizontal directions, and screw size have been changed.

Comparison of dimensions (comparison between the same capacity models) [Unit: mm]

MR-J3 series model	MR-J4 series model	Height		Width		Depth		Clearance between mounting screws	
		MR-J3	MR-J4	MR-J3	MR-J4	MR-J3	MR-J4	MR-J3	MR-J4
MR-J3-60_4	MR-J4-60_4	168	168	60	60	195	185	156 (Vertical)/42 (Horizontal) (3 places)	156 (Vertical)/42 (Horizontal) (3 places)
MR-J3-100_4	MR-J4-100_4								
MR-J3-200_4	MR-J4-200_4			90	90		195	156 (Vertical)/78 (Horizontal) (3 places)	156 (Vertical)/78 (Horizontal) (3 places)
MR-J3-350_4	MR-J4-350_4	250	250	130	105	200	200	235 (Vertical)/118 (Horizontal) (4 places)	235 (Vertical)/93 (Horizontal) (4 places)
MR-J3-500_4	MR-J4-500_4				130				235 (Vertical)/118 (Horizontal) (4 places)
MR-J3-700_4	MR-J4-700_4				172			285 (Vertical)/160 (Horizontal) (4 places)	285 (Vertical)/160 (Horizontal) (4 places)
MR-J3-11K_4(-LR)	MR-J4-11K_4	400	400	260	220	260	260	376 (Vertical)/236 (Horizontal) (4 places)	380 (Vertical)/196 (Horizontal) (4 places)
MR-J3-15K_4(-LR)	MR-J4-15K_4								
MR-J3-22K_4	MR-J4-22K_4				260				376 (Vertical)/236 (Horizontal) (4 places)

\*1. The changed dimensions are shown with shading.



■ Comparison of MR-J3 Series (CC-Link Communication with Type T) and MR-J4 Series (Type GF) (22 kW or Less in 400 V Class)

The following table shows the dimension comparisons between the MR-J3 series and MR-J4 series. The servo amplifiers of 2 kW or less, 5 kW, 7 kW, and 22 kW can be mounted interchangeably because they have the same dimensions. However, note the following: For the servo amplifiers of 3.5 kW, the width and clearance between mounting screws in the horizontal direction have been changed. For the servo amplifiers of 11 kW and 15 kW, the width, clearance between mounting screws in the vertical and horizontal directions, and screw size have been changed.

Comparison of dimensions (comparison between the same capacity models) [Unit: mm]

MR-J3 series model	MR-J4 series model	Height		Width		Depth		Clearance between mounting screws	
		MR-J3	MR-J4	MR-J3	MR-J4	MR-J3	MR-J4	MR-J3	MR-J4
MR-J3-60_4	MR-J4-60_4	168	168	60	60	195	195	156 (Vertical)/42 (Horizontal) (3 places)	156 (Vertical)/42 (Horizontal) (3 places)
MR-J3-100_4	MR-J4-100_4								
MR-J3-200_4	MR-J4-200_4			90	90		195	156 (Vertical)/78 (Horizontal) (3 places)	156 (Vertical)/78 (Horizontal) (3 places)
MR-J3-350_4	MR-J4-350_4	250	250	130	105	200	200	235 (Vertical)/118 (Horizontal) (4 places)	235 (Vertical)/93 (Horizontal) (4 places)
MR-J3-500_4	MR-J4-500_4				130				235 (Vertical)/118 (Horizontal) (4 places)
MR-J3-700_4	MR-J4-700_4				172				285 (Vertical)/160 (Horizontal) (4 places)
MR-J3-11K_4(-LR)	MR-J4-11K_4	400	400	260	220	260	260	376 (Vertical)/236 (Horizontal) (4 places)	380 (Vertical)/196 (Horizontal) (4 places)
MR-J3-15K_4(-LR)	MR-J4-15K_4								
MR-J3-22K_4	MR-J4-22K_4				260				376 (Vertical)/236 (Horizontal) (4 places)

\*1. The changed dimensions are shown with shading.

■ Comparison of MR-J3 Series (Type A/B) and MR-J4 Series (Type A/B) (30 kW or More in 400 V Class)

The following table shows the dimension comparisons between the MR-J3 series and MR-J4 series. The servo amplifiers can be mounted interchangeably because they have the same height, width, clearance between mounting screws, and screw size. When a heat sink is mounted inside the cabinet, the depth changes.

Comparison of dimensions (comparison between the same capacity models) [Unit: mm]

MR-J3 series model	MR-J4 series model	Height		Width		Depth		Clearance between mounting screws	
		MR-J3	MR-J4	MR-J3	MR-J4	MR-J3	MR-J4	MR-J3	MR-J4
MR-J3-DU30K_4	MR-J4-DU30K_4	380	380	240	240	200 (328) (*1)	200 (300) (*1)	360 (Vertical)/120 (Horizontal) (4 places)	360 (Vertical)/120 (Horizontal) (4 places)
MR-J3-DU37K_4	MR-J4-DU37K_4								
MR-J3-DU45K_4	MR-J4-DU45K_4	380	380	300	300	200 (328) (*1)	200 (300) (*1)	360 (Vertical)/260 (Horizontal) (4 places)	360 (Vertical)/260 (Horizontal) (4 places)
MR-J3-DU55K_4	MR-J4-DU55K_4								
MR-J3-CR55K4	MR-J4-CR55K4	380	380	300	300	200 (328) (*1)	200 (300) (*1)	360 (Vertical)/260 (Horizontal) (4 places)	360 (Vertical)/260 (Horizontal) (4 places)

\*1. The value in the parentheses is applicable when a heat sink is mounted inside the cabinet.

\*2. The changed dimensions are shown with shading.

## 2.2 Rotary Servo Motor

### 2.2.1 Rotary Servo Motor Replacement Model and Compatibility

For the compatibility of rotary servo motor dimensions, gear reducer specifications, moment of inertia, connector specifications, and torque characteristics, refer to the catalog, Instruction Manual, and "Transition from MELSERVO-J3 Series to J4 Series Handbook".

#### ■ HF-KP Series

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
Small capacity, low inertia HF-KP series Standard/With electromagnetic brake  (B): With electromagnetic brake	HF-KP053(B)	HG-KR053(B)	○	
	HF-KP13(B)	HG-KR13(B)		
	HF-KP23(B)	HG-KR23(B)		
	HF-KP43(B)	HG-KR43(B)		
	HF-KP73(B)	HG-KR73(B)		
Small capacity, low inertia HF-KP series With gear reducer for general industrial machines (G1)  (B): With electromagnetic brake	HF-KP053(B)G1 1/5	HG-KR053(B)G1 1/5	○	<ul style="list-style-type: none"> <li>Setting of the electronic gear is required for the gear reducers marked with ◆ because the actual gear reduction ratio is different between the former and replacement models. For details, refer to "2.2.5 Comparison of Actual Reduction Ratios for Geared Rotary Servo Motors".</li> </ul>
	HF-KP053(B)G1 1/12	HG-KR053(B)G1 1/12		
	HF-KP053(B)G1 1/20	HG-KR053(B)G1 1/20		
	HF-KP13(B)G1 1/5	HG-KR13(B)G1 1/5		
	HF-KP13(B)G1 1/12	HG-KR13(B)G1 1/12		
	HF-KP13(B)G1 1/20	HG-KR13(B)G1 1/20		
	HF-KP23(B)G1 1/5	HG-KR23(B)G1 1/5		
	HF-KP23(B)G1 1/12	HG-KR23(B)G1 1/12 ◆		
	HF-KP23(B)G1 1/20	HG-KR23(B)G1 1/20 ◆		
	HF-KP43(B)G1 1/5	HG-KR43(B)G1 1/5		
	HF-KP43(B)G1 1/12	HG-KR43(B)G1 1/12 ◆		
	HF-KP43(B)G1 1/20	HG-KR43(B)G1 1/20 ◆		
	HF-KP73(B)G1 1/5	HG-KR73(B)G1 1/5		
	HF-KP73(B)G1 1/12	HG-KR73(B)G1 1/12 ◆		
	HF-KP73(B)G1 1/20	HG-KR73(B)G1 1/20		

■ HF-KP Series

Series	Former model	Replacement model example	Mounting compatibility (O: Compatible)	Precaution
Small capacity, low inertia HF-KP series With flange-output type gear reducer for high precision applications, flange mounting (G5)  (B): With electromagnetic brake	HF-KP053(B)G5 1/5	HG-KR053(B)G5 1/5	O	
	HF-KP053(B)G5 1/11	HG-KR053(B)G5 1/11		
	HF-KP053(B)G5 1/21	HG-KR053(B)G5 1/21		
	HF-KP053(B)G5 1/33	HG-KR053(B)G5 1/33		
	HF-KP053(B)G5 1/45	HG-KR053(B)G5 1/45		
	HF-KP13(B)G5 1/5	HG-KR13(B)G5 1/5		
	HF-KP13(B)G5 1/11	HG-KR13(B)G5 1/11		
	HF-KP13(B)G5 1/21	HG-KR13(B)G5 1/21		
	HF-KP13(B)G5 1/33	HG-KR13(B)G5 1/33		
	HF-KP13(B)G5 1/45	HG-KR13(B)G5 1/45		
	HF-KP23(B)G5 1/5	HG-KR23(B)G5 1/5		
	HF-KP23(B)G5 1/11	HG-KR23(B)G5 1/11		
	HF-KP23(B)G5 1/21	HG-KR23(B)G5 1/21		
	HF-KP23(B)G5 1/33	HG-KR23(B)G5 1/33		
	HF-KP23(B)G5 1/45	HG-KR23(B)G5 1/45		
	HF-KP43(B)G5 1/5	HG-KR43(B)G5 1/5		
	HF-KP43(B)G5 1/11	HG-KR43(B)G5 1/11		
	HF-KP43(B)G5 1/21	HG-KR43(B)G5 1/21		
	HF-KP43(B)G5 1/33	HG-KR43(B)G5 1/33		
	HF-KP43(B)G5 1/45	HG-KR43(B)G5 1/45		
Small capacity, low inertia HF-KP series With shaft-output type reducer for high precision applications, flange mounting (G7)  (B): With electromagnetic brake	HF-KP053(B)G7 1/5	HG-KR053(B)G7 1/5	O	
	HF-KP053(B)G7 1/11	HG-KR053(B)G7 1/11		
	HF-KP053(B)G7 1/21	HG-KR053(B)G7 1/21		
	HF-KP053(B)G7 1/33	HG-KR053(B)G7 1/33		
	HF-KP053(B)G7 1/45	HG-KR053(B)G7 1/45		
	HF-KP13(B)G7 1/5	HG-KR13(B)G7 1/5		
	HF-KP13(B)G7 1/11	HG-KR13(B)G7 1/11		
	HF-KP13(B)G7 1/21	HG-KR13(B)G7 1/21		
	HF-KP13(B)G7 1/33	HG-KR13(B)G7 1/33		
	HF-KP13(B)G7 1/45	HG-KR13(B)G7 1/45		
	HF-KP23(B)G7 1/5	HG-KR23(B)G7 1/5		
	HF-KP23(B)G7 1/11	HG-KR23(B)G7 1/11		
	HF-KP23(B)G7 1/21	HG-KR23(B)G7 1/21		
	HF-KP23(B)G7 1/33	HG-KR23(B)G7 1/33		
	HF-KP23(B)G7 1/45	HG-KR23(B)G7 1/45		
	HF-KP43(B)G7 1/5	HG-KR43(B)G7 1/5		
	HF-KP43(B)G7 1/11	HG-KR43(B)G7 1/11		
	HF-KP43(B)G7 1/21	HG-KR43(B)G7 1/21		
	HF-KP43(B)G7 1/33	HG-KR43(B)G7 1/33		
	HF-KP43(B)G7 1/45	HG-KR43(B)G7 1/45		
	HF-KP73(B)G7 1/5	HG-KR73(B)G7 1/5		
	HF-KP73(B)G7 1/11	HG-KR73(B)G7 1/11		
	HF-KP73(B)G7 1/21	HG-KR73(B)G7 1/21		
	HF-KP73(B)G7 1/33	HG-KR73(B)G7 1/33		
	HF-KP73(B)G7 1/45	HG-KR73(B)G7 1/45		

# ■HF-MP Series

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
Small capacity, ultra-low inertia HF-MP series Standard/With electromagnetic brake  (B): With electromagnetic brake	HF-MP053(B)	HG-MR053(B)	○	
	HF-MP13(B)	HG-MR13(B)		
	HF-MP23(B)	HG-MR23(B)		
	HF-MP43(B)	HG-MR43(B)		
	HF-MP73(B)	HG-MR73(B)		
Small capacity, ultra-low inertia HF-MP series With gear reducer for general industrial machines (G1)  (B): With electromagnetic brake	HF-MP053(B)G1 1/5	HG-KR053(B)G1 1/5	○	<ul style="list-style-type: none"> <li>• A geared servo motor is not available in HG-MR series. Please replace the HF-MP geared servo motor with HG-KR geared servo motor.</li> <li>• Setting of the electronic gear is required for the gear reducers marked with ◆ because the actual gear reduction ratio is different between the former and replacement models. For details, refer to "2.2.5 Comparison of Actual Reduction Ratios for Geared Rotary Servo Motors".</li> </ul>
	HF-MP053(B)G1 1/12	HG-KR053(B)G1 1/12		
	HF-MP053(B)G1 1/20	HG-KR053(B)G1 1/20		
	HF-MP13(B)G1 1/5	HG-KR13(B)G1 1/5		
	HF-MP13(B)G1 1/12	HG-KR13(B)G1 1/12		
	HF-MP13(B)G1 1/20	HG-KR13(B)G1 1/20		
	HF-MP23(B)G1 1/5	HG-KR23(B)G1 1/5		
	HF-MP23(B)G1 1/12	HG-KR23(B)G1 1/12 ◆		
	HF-MP23(B)G1 1/20	HG-KR23(B)G1 1/20 ◆		
	HF-MP43(B)G1 1/5	HG-KR43(B)G1 1/5		
	HF-MP43(B)G1 1/12	HG-KR43(B)G1 1/12 ◆		
	HF-MP43(B)G1 1/20	HG-KR43(B)G1 1/20 ◆		
	HF-MP73(B)G1 1/5	HG-KR73(B)G1 1/5		
	HF-MP73(B)G1 1/12	HG-KR73(B)G1 1/12 ◆		
	HF-MP73(B)G1 1/20	HG-KR73(B)G1 1/20		

■ HF-MP Series

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
Small capacity, ultra-low inertia HF-MP series With flange-output type gear reducer for high precision applications, flange mounting (G5) (B): With electromagnetic brake	HF-MP053(B)G5 1/5	HG-KR053(B)G5 1/5	○	▪ A geared servo motor is not available in HG-MR series. Please replace the HF-MP geared servo motor with HG-KR geared servo motor.
	HF-MP053(B)G5 1/11	HG-KR053(B)G5 1/11		
	HF-MP053(B)G5 1/21	HG-KR053(B)G5 1/21		
	HF-MP053(B)G5 1/33	HG-KR053(B)G5 1/33		
	HF-MP053(B)G5 1/45	HG-KR053(B)G5 1/45		
	HF-MP13(B)G5 1/5	HG-KR13(B)G5 1/5		
	HF-MP13(B)G5 1/11	HG-KR13(B)G5 1/11		
	HF-MP13(B)G5 1/21	HG-KR13(B)G5 1/21		
	HF-MP13(B)G5 1/33	HG-KR13(B)G5 1/33		
	HF-MP13(B)G5 1/45	HG-KR13(B)G5 1/45		
	HF-MP23(B)G5 1/5	HG-KR23(B)G5 1/5		
	HF-MP23(B)G5 1/11	HG-KR23(B)G5 1/11		
	HF-MP23(B)G5 1/21	HG-KR23(B)G5 1/21		
	HF-MP23(B)G5 1/33	HG-KR23(B)G5 1/33		
	HF-MP23(B)G5 1/45	HG-KR23(B)G5 1/45		
	HF-MP43(B)G5 1/5	HG-KR43(B)G5 1/5		
	HF-MP43(B)G5 1/11	HG-KR43(B)G5 1/11		
	HF-MP43(B)G5 1/21	HG-KR43(B)G5 1/21		
	HF-MP43(B)G5 1/33	HG-KR43(B)G5 1/33		
	HF-MP43(B)G5 1/45	HG-KR43(B)G5 1/45		
	HF-MP73(B)G5 1/5	HG-KR73(B)G5 1/5		
	HF-MP73(B)G5 1/11	HG-KR73(B)G5 1/11		
	HF-MP73(B)G5 1/21	HG-KR73(B)G5 1/21		
	HF-MP73(B)G5 1/33	HG-KR73(B)G5 1/33		
	HF-MP73(B)G5 1/45	HG-KR73(B)G5 1/45		
Small capacity, ultra-low inertia HF-MP series With shaft-output type reducer for high precision applications, flange mounting (G7) (B): With electromagnetic brake	HF-MP053(B)G7 1/5	HG-KR053(B)G7 1/5	○	▪ A geared servo motor is not available in HG-MR series. Please replace the HF-MP geared servo motor with HG-KR geared servo motor.
	HF-MP053(B)G7 1/11	HG-KR053(B)G7 1/11		
	HF-MP053(B)G7 1/21	HG-KR053(B)G7 1/21		
	HF-MP053(B)G7 1/33	HG-KR053(B)G7 1/33		
	HF-MP053(B)G7 1/45	HG-KR053(B)G7 1/45		
	HF-MP13(B)G7 1/5	HG-KR13(B)G7 1/5		
	HF-MP13(B)G7 1/11	HG-KR13(B)G7 1/11		
	HF-MP13(B)G7 1/21	HG-KR13(B)G7 1/21		
	HF-MP13(B)G7 1/33	HG-KR13(B)G7 1/33		
	HF-MP13(B)G7 1/45	HG-KR13(B)G7 1/45		
	HF-MP23(B)G7 1/5	HG-KR23(B)G7 1/5		
	HF-MP23(B)G7 1/11	HG-KR23(B)G7 1/11		
	HF-MP23(B)G7 1/21	HG-KR23(B)G7 1/21		
	HF-MP23(B)G7 1/33	HG-KR23(B)G7 1/33		
	HF-MP23(B)G7 1/45	HG-KR23(B)G7 1/45		
	HF-MP43(B)G7 1/5	HG-KR43(B)G7 1/5		
	HF-MP43(B)G7 1/11	HG-KR43(B)G7 1/11		
	HF-MP43(B)G7 1/21	HG-KR43(B)G7 1/21		
	HF-MP43(B)G7 1/33	HG-KR43(B)G7 1/33		
	HF-MP43(B)G7 1/45	HG-KR43(B)G7 1/45		
	HF-MP73(B)G7 1/5	HG-KR73(B)G7 1/5		
	HF-MP73(B)G7 1/11	HG-KR73(B)G7 1/11		
	HF-MP73(B)G7 1/21	HG-KR73(B)G7 1/21		
	HF-MP73(B)G7 1/33	HG-KR73(B)G7 1/33		
	HF-MP73(B)G7 1/45	HG-KR73(B)G7 1/45		

■ HF-SP Series

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
Medium capacity, medium inertia HF-SP series Standard/With electromagnetic brake  (4): 400 V specifications (B): With electromagnetic brake	HF-SP51(B)	HG-SR51(B)	○	<ul style="list-style-type: none"> <li>Check that the servo motor connectors do not interfere with the machine side because the total length of the replacement model is shorter than that of the former model.</li> </ul>
	HF-SP81(B)	HG-SR81(B)		
	HF-SP121(B)	HG-SR121(B)		
	HF-SP201(B)	HG-SR201(B)		
	HF-SP301(B)	HG-SR301(B)		
	HF-SP421(B)	HG-SR421(B)		
	HF-SP52(4)(B)	HG-SR52(4)(B)		
	HF-SP102(4)(B)	HG-SR102(4)(B)		
	HF-SP152(4)(B)	HG-SR152(4)(B)		
	HF-SP202(4)(B)	HG-SR202(4)(B)		
	HF-SP352(4)(B)	HG-SR352(4)(B)		
	HF-SP502(4)(B)	HG-SR502(4)(B)		
	HF-SP702(4)(B)	HG-SR702(4)(B)		
Medium capacity, medium inertia HF-SP series With gear reducer for general industrial machines  (4): 400 V specifications (B): With electromagnetic brake  G1: Flange-mounting G1H: Foot-mounting	HF-SP52(4)(B)G1(H) 1/6	HG-SR52(4)(B)G1(H) 1/6	○	<ul style="list-style-type: none"> <li>Check that the servo motor connectors do not interfere with the machine side because the total length of the replacement model is shorter than that of the former model.</li> </ul>
	HF-SP52(4)(B)G1(H) 1/11	HG-SR52(4)(B)G1(H) 1/11		
	HF-SP52(4)(B)G1(H) 1/17	HG-SR52(4)(B)G1(H) 1/17		
	HF-SP52(4)(B)G1(H) 1/29	HG-SR52(4)(B)G1(H) 1/29		
	HF-SP52(4)(B)G1(H) 1/35	HG-SR52(4)(B)G1(H) 1/35		
	HF-SP52(4)(B)G1(H) 1/43	HG-SR52(4)(B)G1(H) 1/43		
	HF-SP52(4)(B)G1(H) 1/59	HG-SR52(4)(B)G1(H) 1/59		
	HF-SP102(4)(B)G1(H) 1/6	HG-SR102(4)(B)G1(H) 1/6		
	HF-SP102(4)(B)G1(H) 1/11	HG-SR102(4)(B)G1(H) 1/11		
	HF-SP102(4)(B)G1(H) 1/17	HG-SR102(4)(B)G1(H) 1/17		
	HF-SP102(4)(B)G1(H) 1/29	HG-SR102(4)(B)G1(H) 1/29		
	HF-SP102(4)(B)G1(H) 1/35	HG-SR102(4)(B)G1(H) 1/35		
	HF-SP102(4)(B)G1(H) 1/43	HG-SR102(4)(B)G1(H) 1/43		
	HF-SP102(4)(B)G1(H) 1/59	HG-SR102(4)(B)G1(H) 1/59		
	HF-SP152(4)(B)G1(H) 1/6	HG-SR152(4)(B)G1(H) 1/6		
	HF-SP152(4)(B)G1(H) 1/11	HG-SR152(4)(B)G1(H) 1/11		
	HF-SP152(4)(B)G1(H) 1/17	HG-SR152(4)(B)G1(H) 1/17		
	HF-SP152(4)(B)G1(H) 1/29	HG-SR152(4)(B)G1(H) 1/29		
	HF-SP152(4)(B)G1(H) 1/35	HG-SR152(4)(B)G1(H) 1/35		
	HF-SP152(4)(B)G1(H) 1/43	HG-SR152(4)(B)G1(H) 1/43		
	HF-SP152(4)(B)G1(H) 1/59	HG-SR152(4)(B)G1(H) 1/59		
	HF-SP202(4)(B)G1(H) 1/6	HG-SR202(4)(B)G1(H) 1/6		
	HF-SP202(4)(B)G1(H) 1/11	HG-SR202(4)(B)G1(H) 1/11		
	HF-SP202(4)(B)G1(H) 1/17	HG-SR202(4)(B)G1(H) 1/17		
	HF-SP202(4)(B)G1(H) 1/29	HG-SR202(4)(B)G1(H) 1/29		
	HF-SP202(4)(B)G1(H) 1/35	HG-SR202(4)(B)G1(H) 1/35		
	HF-SP202(4)(B)G1(H) 1/43	HG-SR202(4)(B)G1(H) 1/43		
	HF-SP202(4)(B)G1(H) 1/59	HG-SR202(4)(B)G1(H) 1/59		
	HF-SP352(4)(B)G1(H) 1/6	HG-SR352(4)(B)G1(H) 1/6		
	HF-SP352(4)(B)G1(H) 1/11	HG-SR352(4)(B)G1(H) 1/11		
	HF-SP352(4)(B)G1(H) 1/17	HG-SR352(4)(B)G1(H) 1/17		
	HF-SP352(4)(B)G1(H) 1/29	HG-SR352(4)(B)G1(H) 1/29		
	HF-SP352(4)(B)G1(H) 1/35	HG-SR352(4)(B)G1(H) 1/35		
	HF-SP352(4)(B)G1(H) 1/43	HG-SR352(4)(B)G1(H) 1/43		
	HF-SP352(4)(B)G1(H) 1/59	HG-SR352(4)(B)G1(H) 1/59		

■ HF-SP Series

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
Medium capacity, medium inertia HF-SP series With gear reducer for general industrial machines  (4): 400 V specifications (B): With electromagnetic brake  G1: Flange-mounting G1H: Foot-mounting	HF-SP502(4)(B)G1(H) 1/6	HG-SR502(4)(B)G1(H) 1/6	○	▪ Check that the servo motor connectors do not interfere with the machine side because the total length of the replacement model is shorter than that of the former model.
	HF-SP502(4)(B)G1(H) 1/11	HG-SR502(4)(B)G1(H) 1/11		
	HF-SP502(4)(B)G1(H) 1/17	HG-SR502(4)(B)G1(H) 1/17		
	HF-SP502(4)(B)G1(H) 1/29	HG-SR502(4)(B)G1(H) 1/29		
	HF-SP502(4)(B)G1(H) 1/35	HG-SR502(4)(B)G1(H) 1/35		
	HF-SP502(4)(B)G1(H) 1/43	HG-SR502(4)(B)G1(H) 1/43		
	HF-SP502(4)(B)G1(H) 1/59	HG-SR502(4)(B)G1(H) 1/59		
	HF-SP702(4)(B)G1(H) 1/6	HG-SR702(4)(B)G1(H) 1/6		
	HF-SP702(4)(B)G1(H) 1/11	HG-SR702(4)(B)G1(H) 1/11		
	HF-SP702(4)(B)G1(H) 1/17	HG-SR702(4)(B)G1(H) 1/17		
	HF-SP702(4)(B)G1(H) 1/29	HG-SR702(4)(B)G1(H) 1/29		
	HF-SP702(4)(B)G1(H) 1/35	HG-SR702(4)(B)G1(H) 1/35		
	HF-SP702(4)(B)G1(H) 1/43	HG-SR702(4)(B)G1(H) 1/43		
	HF-SP702(4)(B)G1(H) 1/59	HG-SR702(4)(B)G1(H) 1/59		
Medium capacity, medium inertia HF-SP series With flange-output type gear reducer for high precision applications, flange mounting (G5)  (4): 400 V specifications (B): With electromagnetic brake	HF-SP52(4)(B)G5 1/5	HG-SR52(4)(B)G5 1/5	○	▪ Check that the servo motor connectors do not interfere with the machine side because the total length of the replacement model is shorter than that of the former model.
	HF-SP52(4)(B)G5 1/11	HG-SR52(4)(B)G5 1/11		
	HF-SP52(4)(B)G5 1/21	HG-SR52(4)(B)G5 1/21		
	HF-SP52(4)(B)G5 1/33	HG-SR52(4)(B)G5 1/33		
	HF-SP52(4)(B)G5 1/45	HG-SR52(4)(B)G5 1/45		
	HF-SP102(4)(B)G5 1/5	HG-SR102(4)(B)G5 1/5		
	HF-SP102(4)(B)G5 1/11	HG-SR102(4)(B)G5 1/11		
	HF-SP102(4)(B)G5 1/21	HG-SR102(4)(B)G5 1/21		
	HF-SP102(4)(B)G5 1/33	HG-SR102(4)(B)G5 1/33		
	HF-SP102(4)(B)G5 1/45	HG-SR102(4)(B)G5 1/45		
	HF-SP152(4)(B)G5 1/5	HG-SR152(4)(B)G5 1/5		
	HF-SP152(4)(B)G5 1/11	HG-SR152(4)(B)G5 1/11		
	HF-SP152(4)(B)G5 1/21	HG-SR152(4)(B)G5 1/21		
	HF-SP152(4)(B)G5 1/33	HG-SR152(4)(B)G5 1/33		
	HF-SP152(4)(B)G5 1/45	HG-SR152(4)(B)G5 1/45		
	HF-SP202(4)(B)G5 1/5	HG-SR202(4)(B)G5 1/5		
	HF-SP202(4)(B)G5 1/11	HG-SR202(4)(B)G5 1/11		
	HF-SP202(4)(B)G5 1/21	HG-SR202(4)(B)G5 1/21		
	HF-SP202(4)(B)G5 1/33	HG-SR202(4)(B)G5 1/33		
	HF-SP202(4)(B)G5 1/45	HG-SR202(4)(B)G5 1/45		
	HF-SP352(4)(B)G5 1/5	HG-SR352(4)(B)G5 1/5		
	HF-SP352(4)(B)G5 1/11	HG-SR352(4)(B)G5 1/11		
	HF-SP352(4)(B)G5 1/21	HG-SR352(4)(B)G5 1/21		
	HF-SP502(4)(B)G5 1/5	HG-SR502(4)(B)G5 1/5		
	HF-SP502(4)(B)G5 1/11	HG-SR502(4)(B)G5 1/11		
	HF-SP702(4)(B)G5 1/5	HG-SR702(4)(B)G5 1/5		

■ HF-SP Series

Series	Former model	Replacement model example	Mounting compatibility (O: Compatible)	Precaution
Medium capacity, medium inertia HF-SP series With shaft-output type reducer for high precision applications, flange mounting (G7)  (4): 400 V specifications (B): With electromagnetic brake	HF-SP52(4)(B)G7 1/5	HG-SR52(4)(B)G7 1/5	O	▪ Check that the servo motor connectors do not interfere with the machine side because the total length of the replacement model is shorter than that of the former model.
	HF-SP52(4)(B)G7 1/11	HG-SR52(4)(B)G7 1/11		
	HF-SP52(4)(B)G7 1/21	HG-SR52(4)(B)G7 1/21		
	HF-SP52(4)(B)G7 1/33	HG-SR52(4)(B)G7 1/33		
	HF-SP52(4)(B)G7 1/45	HG-SR52(4)(B)G7 1/45		
	HF-SP102(4)(B)G7 1/5	HG-SR102(4)(B)G7 1/5		
	HF-SP102(4)(B)G7 1/11	HG-SR102(4)(B)G7 1/11		
	HF-SP102(4)(B)G7 1/21	HG-SR102(4)(B)G7 1/21		
	HF-SP102(4)(B)G7 1/33	HG-SR102(4)(B)G7 1/33		
	HF-SP102(4)(B)G7 1/45	HG-SR102(4)(B)G7 1/45		
	HF-SP152(4)(B)G7 1/5	HG-SR152(4)(B)G7 1/5		
	HF-SP152(4)(B)G7 1/11	HG-SR152(4)(B)G7 1/11		
	HF-SP152(4)(B)G7 1/21	HG-SR152(4)(B)G7 1/21		
	HF-SP152(4)(B)G7 1/33	HG-SR152(4)(B)G7 1/33		
	HF-SP152(4)(B)G7 1/45	HG-SR152(4)(B)G7 1/45		
	HF-SP202(4)(B)G7 1/5	HG-SR202(4)(B)G7 1/5		
	HF-SP202(4)(B)G7 1/11	HG-SR202(4)(B)G7 1/11		
	HF-SP202(4)(B)G7 1/21	HG-SR202(4)(B)G7 1/21		
	HF-SP202(4)(B)G7 1/33	HG-SR202(4)(B)G7 1/33		
	HF-SP202(4)(B)G7 1/45	HG-SR202(4)(B)G7 1/45		
	HF-SP352(4)(B)G7 1/5	HG-SR352(4)(B)G7 1/5		
	HF-SP352(4)(B)G7 1/11	HG-SR352(4)(B)G7 1/11		
	HF-SP352(4)(B)G7 1/21	HG-SR352(4)(B)G7 1/21		
	HF-SP502(4)(B)G7 1/5	HG-SR502(4)(B)G7 1/5		
	HF-SP502(4)(B)G7 1/11	HG-SR502(4)(B)G7 1/11		
	HF-SP702(4)(B)G7 1/5	HG-SR702(4)(B)G7 1/5		



# ■ HC-RP Series

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
Medium capacity, ultra-low inertia HC-RP series  (B): With electromagnetic brake	HC-RP103(B) HC-RP153(B) HC-RP203(B) HC-RP353(B) HC-RP503(B)	HG-RR103(B) HG-RR153(B) HG-RR203(B) HG-RR353(B) HG-RR503(B)	○	
Medium capacity, ultra-low inertia HC-RP series With flange-output type gear reducer for high precision applications, flange mounting (G5)  (B): With electromagnetic brake	HC-RP103(B)G5 1/5 ◇ HC-RP103(B)G5 1/11 ◇ HC-RP103(B)G5 1/21 ◇ HC-RP103(B)G5 1/33 ◇ HC-RP103(B)G5 1/45 ◇ HC-RP153(B)G5 1/5 HC-RP153(B)G5 1/11 HC-RP153(B)G5 1/21 HC-RP153(B)G5 1/33 HC-RP153(B)G5 1/45 HC-RP203(B)G5 1/5 ◇ HC-RP203(B)G5 1/11 ◇ HC-RP203(B)G5 1/21 ◇ HC-RP203(B)G5 1/33 ◇ HC-RP203(B)G5 1/45 ◇ HC-RP353(B)G5 1/5 ◇ HC-RP353(B)G5 1/11 ◇ HC-RP353(B)G5 1/21 ◇ HC-RP353(B)G5 1/33 ◇ HC-RP503(B)G5 1/5 HC-RP503(B)G5 1/11 HC-RP503(B)G5 1/21	HG-SR102(B)G5 1/5 HG-SR102(B)G5 1/11 HG-SR102(B)G5 1/21 HG-SR102(B)G5 1/33 HG-SR102(B)G5 1/45 HG-SR152(B)G5 1/5 HG-SR152(B)G5 1/11 HG-SR152(B)G5 1/21 HG-SR152(B)G5 1/33 HG-SR152(B)G5 1/45 HG-SR202(B)G5 1/5 HG-SR202(B)G5 1/11 HG-SR202(B)G5 1/21 HG-SR202(B)G5 1/33 HG-SR202(B)G5 1/45 HG-SR352(B)G5 1/5 HG-SR352(B)G5 1/11 HG-SR352(B)G5 1/21 HG-SR352(B)G5 1/21 ◆ HG-SR502(B)G5 1/5 HG-SR502(B)G5 1/11 HG-SR502(B)G5 1/11 ◆	(*1)	<ul style="list-style-type: none"> <li>▪ A geared servo motor is not available in HG-RR series. Please replace the HC-RP geared servo motor with HG-SR geared servo motor. The maximum speed differs between these two series, and thus check the specifications when selecting a replacement model.</li> <li>▪ Check the output torque because the gear reduction ratio of the gear reducers marked with ◆ is significantly different from that of the former model.</li> <li>▪ When replacing the models marked with ◇, note that the capacity of the compatible servo amplifiers is different between the former and replacement models. Please select a servo amplifier as follows: For HG-SR102, MR-J4-100_ For HG-SR202, MR-J4-200_ For HG-SR352, MR-J4-350_</li> </ul>
Medium capacity, ultra-low inertia HC-RP series With shaft-output type reducer for high precision applications, flange mounting (G7)  (B): With electromagnetic brake	HC-RP103(B)G7 1/5 ◇ HC-RP103(B)G7 1/11 ◇ HC-RP103(B)G7 1/21 ◇ HC-RP103(B)G7 1/33 ◇ HC-RP103(B)G7 1/45 ◇ HC-RP153(B)G7 1/5 HC-RP153(B)G7 1/11 HC-RP153(B)G7 1/21 HC-RP153(B)G7 1/33 HC-RP153(B)G7 1/45 HC-RP203(B)G7 1/5 ◇ HC-RP203(B)G7 1/11 ◇ HC-RP203(B)G7 1/21 ◇ HC-RP203(B)G7 1/33 ◇ HC-RP203(B)G7 1/45 ◇ HC-RP353(B)G7 1/5 ◇ HC-RP353(B)G7 1/11 ◇ HC-RP353(B)G7 1/21 ◇ HC-RP353(B)G7 1/33 ◇ HC-RP503(B)G7 1/5 HC-RP503(B)G7 1/11 HC-RP503(B)G7 1/21	HG-SR102(B)G7 1/5 HG-SR102(B)G7 1/11 HG-SR102(B)G7 1/21 HG-SR102(B)G7 1/33 HG-SR102(B)G7 1/45 HG-SR152(B)G7 1/5 HG-SR152(B)G7 1/11 HG-SR152(B)G7 1/21 HG-SR152(B)G7 1/33 HG-SR152(B)G7 1/45 HG-SR202(B)G7 1/5 HG-SR202(B)G7 1/11 HG-SR202(B)G7 1/21 HG-SR202(B)G7 1/33 HG-SR202(B)G7 1/45 HG-SR352(B)G7 1/5 HG-SR352(B)G7 1/11 HG-SR352(B)G7 1/21 HG-SR352(B)G7 1/21 ◆ HG-SR502(B)G7 1/5 HG-SR502(B)G7 1/11 HG-SR502(B)G7 1/11 ◆	(*1)	<ul style="list-style-type: none"> <li>▪ A geared servo motor is not available in HG-RR series. Please replace the HC-RP geared servo motor with HG-SR geared servo motor. The maximum speed differs between these two series, and thus check the specifications when selecting a replacement model.</li> <li>▪ Check the output torque because the gear reduction ratio of the gear reducers marked with ◆ is significantly different from that of the former model.</li> <li>▪ When replacing the models marked with ◇, note that the capacity of the compatible servo amplifiers is different between the former and replacement models. Please select a servo amplifier as follows: For HG-SR102, MR-J4-100_ For HG-SR202, MR-J4-200_ For HG-SR352, MR-J4-350_</li> </ul>

\*1. For the mounting dimensions, refer to "2.2.4 Comparison of Mounting Dimensions of Geared Rotary Servo Motors".

■ HC-LP/UP and HF-JP Series

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
Medium capacity, low inertia HC-LP series (B): With electromagnetic brake	HC-LP52(B) ◇	HG-JR73(B)	(*1)	<ul style="list-style-type: none"> <li>When replacing the models marked with ◇, note that the capacity of the compatible servo amplifiers is different between the former and replacement models. Please select a servo amplifier as follows:                For HG-JR73, MR-J4-70_                For HG-JR153, MR-J4-200_                For HG-JR353, MR-J4-350_</li> <li>The power and electromagnetic brake connectors are different between the former and replacement models. For details, refer to the catalog or Instruction Manual.</li> </ul>
	HC-LP102(B) ◇	HG-JR153(B)		
	HC-LP152(B) ◇	HG-JR353(B)		
	HC-LP202(B)	HG-JR353(B)		
	HC-LP302(B)	HG-JR503(B)		
Medium capacity, flat type HC-UP series (B): With electromagnetic brake	HC-UP72(B)	HG-UR72(B)	○	
	HC-UP152(B)	HG-UR152(B)		
	HC-UP202(B)	HG-UR202(B)		
	HC-UP352(B)	HG-UR352(B)		
	HC-UP502(B)	HG-UR502(B)		
Medium/large capacity, low inertia HF-JP series (4): 400 V specifications (B): With electromagnetic brake	HF-JP53(4)(B)	HG-JR53(4)(B)	○	
	HF-JP73(4)(B)	HG-JR73(4)(B)		
	HF-JP103(4)(B)	HG-JR103(4)(B)		
	HF-JP153(4)(B)	HG-JR153(4)(B)		
	HF-JP203(4)(B)	HG-JR203(4)(B)		
	HF-JP353(4)(B)	HG-JR353(4)(B)		
	HF-JP503(4)(B)	HG-JR503(4)(B)		
	HF-JP703(4)(B)	HG-JR703(4)(B)		
	HF-JP903(4)(B)	HG-JR903(4)(B)		
	HF-JP11K1M(4)(B)	HG-JR11K1M(4)(B)		
	HF-JP15K1M(4)(B)	HG-JR15K1M(4)(B)		

\*1. For the mounting dimensions, refer to "2.2.3 Detailed Comparison of Mounting Dimensions of Rotary Servo Motors".

# ■ HA-LP Series

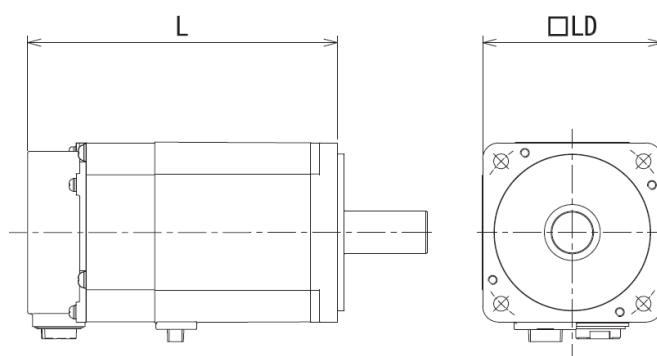
Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
Medium/large capacity, low inertia HA-LP 1000 r/min series  (4): 400 V specifications (B): With electromagnetic brake	HA-LP601(4)(B)	HG-JR601(4)(B)	(*1)	<ul style="list-style-type: none"><li>For replacement of the models marked with ◇, lay a new encoder cable because the motor thermal wiring is different from the former model.</li><li>When replacing the models marked with ◆, note that the capacity of the compatible drive units is different between the former and replacement models. Please select a drive unit as follows: For HG-JR30K1M(4), MR-J4-DU30K_4 For HG-JR37K1M4, MR-J4-DU37K_4 For HG-JR45K1M4, MR-J4-DU45K_4</li></ul>
	HA-LP801(4)(B)	HG-JR801(4)(B)		
	HA-LP12K1(4)(B)	HG-JR12K1(4)(B)		
	HA-LP15K1(4) ◇	HG-JR15K1(4)		
	HA-LP20K1(4) ◇	HG-JR20K1(4)		
	HA-LP25K1(4) ◇	HG-JR25K1(4)		
	HA-LP30K1(4) ◇	HG-JR30K1(4)		
	HA-LP37K1(4) ◇	HG-JR37K1(4)		
	HA-LP601(4)(B)	HG-JR601(4)R(B)-S	○ (*2)	
	HA-LP801(4)(B)	HG-JR801(4)R(B)-S		
	HA-LP12K1(4)(B)	HG-JR12K1(4)R(B)-S		
	HA-LP15K1(4) ◇	HG-JR15K1(4)R-S		
	HA-LP20K1(4) ◇	HG-JR20K1(4)R-S		
	HA-LP25K1(4) ◇	HG-JR25K1(4)R-S		
HA-LP30K1(4) ◇	HG-JR30K1(4)R-S			
HA-LP37K1(4) ◇	HG-JR37K1(4)R-S			
Medium/large capacity, low inertia HA-LP 1500 r/min series  (4): 400 V specifications (B): With electromagnetic brake	HA-LP701M(4)(B)	HG-JR701M(4)(B)	(*1)	
	HA-LP11K1M(4)(B)	HG-JR11K1M(4)(B)		
	HA-LP15K1M(4)(B)	HG-JR15K1M(4)(B)		
	HA-LP22K1M(4) ◇	HG-JR22K1M(4)		
	HA-LP30K1M(4) ◇	HG-JR30K1M(4)		
	HA-LP37K1M(4) ◇	HG-JR37K1M(4)		
	HA-LP45K1M4 ◇	HG-JR45K1M4		
	HA-LP50K1M4 ◇	HG-JR55K1M4		
	HA-LP701M(4)(B)	HG-JR701M(4)R(B)-S	○ (*2)	
	HA-LP11K1M(4)(B)	HG-JR11K1M(4)R(B)-S (□250)		
	HA-LP15K1M(4)(B)	HG-JR15K1M(4)R(B)-S		
	HA-LP22K1M(4) ◇	HG-JR22K1M(4)R-S		
	HA-LP30K1M(4) ◇	HG-JR30K1M(4)R-S		
	HA-LP37K1M(4) ◇	HG-JR37K1M(4)R-S		
HA-LP45K1M4 ◇	HG-JR45K1M4R-S			
HA-LP50K1M4 ◇	HG-JR55K1M4R-S			
Medium/large capacity, low inertia HA-LP 2000 r/min series  (4): 400 V specifications (B): With electromagnetic brake	HA-LP502	HG-SR502	(*1)	
	HA-LP702	HG-SR702		
	HA-LP11K2(4)(B)	HG-JR11K1M(4)(B)		
	HA-LP15K2(4)(B)	HG-JR15K1M(4)(B)		
	HA-LP22K2(4)(B)	HG-JR22K1M(4)		
	HA-LP30K2(4) ◇	HG-JR22K1M(4)		
	HA-LP37K2(4) ◇ ◆	HG-JR30K1M(4)		
	HA-LP45K24 ◇ ◆	HG-JR37K1M4		
	HA-LP55K24 ◇ ◆	HG-JR45K1M4	○ (*2)	
	HA-LP502	HG-SR502R-S		
	HA-LP702	HG-SR702R-S		
	HA-LP11K2(4)(B)	HG-JR11K1M(4)R(B)-S (□200)		
	HA-LP15K2(4)(B)	HG-JR11K1M(4)R(B)-S (□250)		
	HA-LP22K2(4)(B)	HG-JR15K1M(4)R(B)-S		
	HA-LP30K2(4) ◇	HG-JR22K1M(4)R-S		
	HA-LP37K2(4) ◇ ◆	HG-JR30K1M(4)R-S		
	HA-LP45K24 ◇ ◆	HG-JR37K1M4R-S		
	HA-LP55K24 ◇ ◆	HG-JR45K1M4R-S		

\*1. For the mounting dimensions, refer to "2.2.3 Detailed Comparison of Mounting Dimensions of Rotary Servo Motors".

\*2. Only the mounting sizes of the flange and the shaft-end are compatible.  
These servo motors are made to order. For the motor models and delivery time, contact your local sales office.

\*3. Foot-mounting is not available in HG-JR series.

## 2.2.2 Comparison of Mounting Dimensions of Rotary Servo Motors



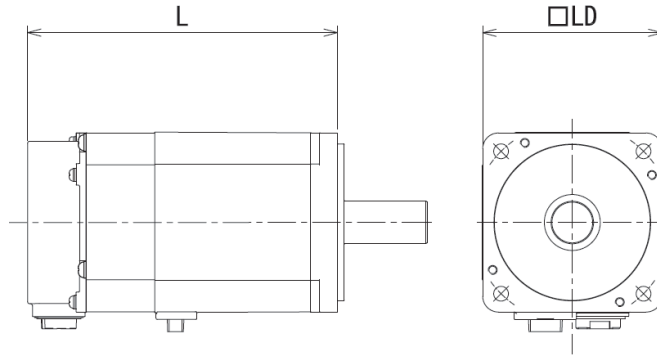
### ■ HF-KP/MP/SP and HC-RP Series

( ): With electromagnetic brake [Unit: mm]

Former model			Replacement model			Precaution
Model	L	LD	Replacement model example	L	LD	
HF-KP053(B) HF-MP053(B)	66.4 (107.5)	40	HG-KR053(B) HG-MR053(B)	66.4 (107)	40	(*2)
HF-KP13(B) HF-MP13(B)	82.4 (123.5)		HG-KR13(B) HG-MR13(B)	82.4 (123)		
HF-KP23(B) HF-MP23(B)	76.6 (116.1)	60	HG-KR23(B) HG-MR23(B)	76.6 (113.4)	60	
HF-KP43(B) HF-MP43(B)	98.5 (138)		HG-KR43(B) HG-MR43(B)	98.3 (135.1)		
HF-KP73(B) HF-MP73(B)	113.8 (157)	80	HG-KR73(B) HG-MR73(B)	112 (152.3)	80	
HF-SP51(B)	140.5 (175)	130	HG-SR51(B)	132.5 (167)	130	
HF-SP81(B)	162.5 (197)		HG-SR81(B)	146.5 (181)		
HF-SP121(B)	143.5 (193)	176	HG-SR121(B)	138.5 (188)	176	
HF-SP201(B)	183.5 (233)		HG-SR201(B)	162.5 (212)		
HF-SP301(B)	203.5 (253)		HG-SR301(B)	178.5 (228)		
HF-SP421(B)	263.5 (313)		HG-SR421(B)	218.5 (268)		
HF-SP52(B) HF-SP524(B)	118.5 (153)	130	HG-SR52(B) HG-SR524(B)	118.5 (153)	130	
HF-SP102(B) HF-SP1024(B)	140.5 (175)		HG-SR102(B) HG-SR1024(B)	132.5 (167)		
HF-SP152(B) HF-SP1524(B)	162.5 (197)		HG-SR152(B) HG-SR1524(B)	146.5 (181)		
HF-SP202(B) HF-SP2024(B)	143.5 (193)	176	HG-SR202(B) HG-SR2024(B)	138.5 (188)	176	
HF-SP352(B) HF-SP3524(B)	183.5 (233)		HG-SR352(B) HG-SR3524(B)	162.5 (212)		
HF-SP502(B) HF-SP5024(B)	203.5 (253)		HG-SR502(B) HG-SR5024(B)	178.5 (228)		
HF-SP702(B) HF-SP7024(B)	263.5 (313)		HG-SR702(B) HG-SR7024(B)	218.5 (268)		
HC-RP103(B)	145.5 (183.5)		100	HG-RR103(B)		145.5 (183)
HC-RP153(B)	170.5 (208.5)	HG-RR153(B)		170.5 (208)		
HC-RP203(B)	195.5 (233.5)	HG-RR203(B)		195.5 (233)		
HC-RP353(B)	215.5 (252.5)	130	HG-RR353(B)	215.5 (252)	130	
HC-RP503(B)	272.5 (309.5)		HG-RR503(B)	272.5 (309)		

\*1. For the dimensions not listed here, refer to the catalog or Instruction Manual.

\*2. The mounting dimensions are partially different between the former and replacement model. For the detailed dimensions, refer to "2.2.3 Detailed Comparison of Mounting Dimensions of Rotary Servo Motors".



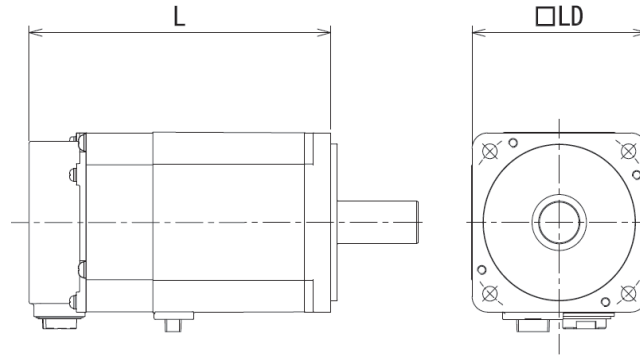
### ■HC-LP/UP and HF-JP Series

( ): With electromagnetic brake [Unit: mm]

Former model			Replacement model			Precaution
Model	L	LD	Replacement model example	L	LD	
HC-LP52(B)	144 (177)	130	HG-JR73(B)	145.5 (191)	90	(*2)
HC-LP102(B)	164 (197)		HG-JR153(B)	199.5 (245)	130	
HC-LP152(B)	191.5 (224.5)		HG-JR353(B)	213 (251.5)		
HC-LP202(B)	198.5 (246.5)	176	HG-JR353(B)	213 (251.5)	176	
HC-LP302(B)	248.5 (296.5)		HG-JR503(B)	267 (305.5)		
HC-UP72(B)	109 (142.5)	176	HG-UR72(B)	109 (142.5)	176	
HC-UP152(B)	118.5 (152)		HG-UR152(B)	118.5 (152)		
HC-UP202(B)	116.5 (159.5)	220	HG-UR202(B)	116.5 (159.5)	220	
HC-UP352(B)	140.5 (183.5)		HG-UR352(B)	140.5 (183.5)		
HC-UP502(B)	164.5 (207.5)		HG-UR502(B)	164.5 (207.5)		
HF-JP53(B)	127.5 (173)	90	HG-JR53(B)	127.5 (173)	90	
HF-JP534(B)			HG-JR534(B)			
HF-JP73(B)	HG-JR73(B)		145.5 (191)			
HF-JP734(B)	HG-JR734(B)					
HF-JP103(B)	HG-JR103(B)		163.5 (209)			
HF-JP1034(B)	HG-JR1034(B)					
HF-JP153(B)	HG-JR153(B)		199.5 (245)			
HF-JP1534(B)	HG-JR1534(B)					
HF-JP203(B)	HG-JR203(B)		235.5 (281)			
HF-JP2034(B)	HG-JR2034(B)					
HF-JP353(B)	213 (251.5)	130	HG-JR353(B)	213 (251.5)	130	
HF-JP3534(B)			HG-JR3534(B)			
HF-JP503(B)	267 (305.5)		HG-JR503(B)	267 (305.5)		
HF-JP5034(B)		HG-JR5034(B)				
HF-JP703(B)	263.5 (313)	176	HG-JR703(B)	263.5 (313)	176	
HF-JP7034(B)			HG-JR7034(B)			
HF-JP903	303.5 (353)		HG-JR903	303.5 (353)		
HF-JP9034(B)		HG-JR9034(B)				
HF-JP11K1M(B)	339.5 (412)	220	HG-JR11K1M(B)	339.5 (412)	220	
HF-JP11K1M4(B)			HG-JR11K1M4(B)			
HF-JP15K1M(B)			439.5 (512)	HG-JR15K1M(B)		
HF-JP15K1M4(B)	HG-JR15K1M4(B)					

\*1. For the dimensions not listed here, refer to the catalog or Instruction Manual.

\*2. No mounting compatibility. For the detailed dimensions, refer to "2.2.3 Detailed Comparison of Mounting Dimensions of Rotary Servo Motors".



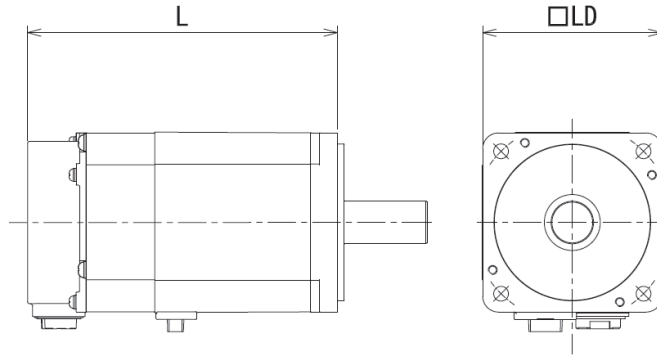
# ■HA-LP Series

( ): With electromagnetic brake [Unit: mm]

Former model			Replacement model			Precaution
Model	L	LD	Replacement model example	L	LD	
HA-LP601(B) HA-LP6014(B)	480 (550)	200	HG-JR601(B) HG-JR6014(B)	299.5 (372)	220	(*2)
			HG-JR601R(B)-S HG-JR6014R(B)-S	399 (472)	200	
HA-LP801(B) HA-LP8014(B)	495 (610)	250	HG-JR801(B) HG-JR8014(B)	339.5 (412)	220	(*2)
			HG-JR801R(B)-S HG-JR8014R(B)-S	354 (427)	250	
HA-LP12K1(B) HA-LP12K14(B)	555 (670)		HG-JR12K1(B) HG-JR12K14(B)	439.5 (512)	220	(*2)
			HG-JR12K1R(B)-S HG-JR12K14R(B)-S	454 (527)	250	
HA-LP15K1 HA-LP15K14	605	280	HG-JR15K1 HG-JR15K14	476	250	(*2)
			HG-JR15K1R-S HG-JR15K14R-S	493	280	
HA-LP20K1 HA-LP20K14	650		HG-JR20K1 HG-JR20K14	538	250	(*2)
			HG-JR20K1R-S HG-JR20K14R-S	555	280	
HA-LP25K1 HA-LP25K14	640	350	HG-JR25K1 HG-JR25K14	600	250	(*2)
			HG-JR25K1R-S HG-JR25K14R-S	617	350	
HA-LP30K1 HA-LP30K14	685		HG-JR30K1 HG-JR30K14	600	280	(*2)
			HG-JR30K1R-S HG-JR30K14R-S	610	350	
HA-LP37K1 HA-LP37K14	785		HG-JR37K1 HG-JR37K14	664	280	(*2)
			HG-JR37K1R-S HG-JR37K14R-S	674	350	

\*1. For the dimensions not listed here, refer to the catalog or Instruction Manual.

\*2. No mounting compatibility. For the detailed dimensions, refer to "2.2.3 Detailed Comparison of Mounting Dimensions of Rotary Servo Motors".



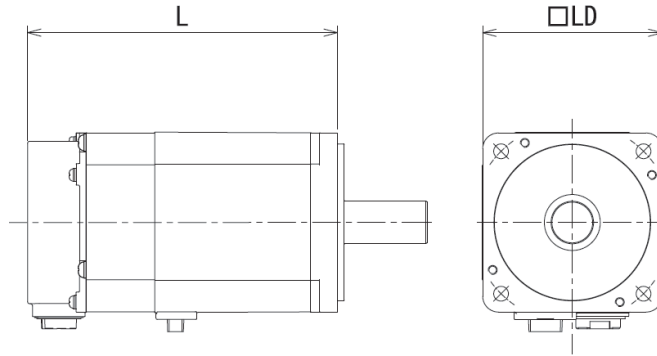
## ■HA-LP Series

( ): With electromagnetic brake [Unit: mm]

Former model			Replacement model			Precaution
Model	L	LD	Replacement model example	L	LD	
HA-LP701M(B) HA-LP701M4(B)	480 (550)	200	HG-JR701M(B) HG-JR701M4(B) HG-JR701MR(B)-S HG-JR701M4R(B)-S	299.5 (372) 399 (472)	220 200	(*2)
HA-LP11K1M(B) HA-LP11K1M4(B)	495 (610)	250	HG-JR11K1M(B) HG-JR11K1M4(B) HG-JR11K1MR(B)-S (□250) HG-JR11K1M4R(B)-S (□250)	339.5 (412) 354 (427)	220 250	(*2)
HA-LP15K1M(B) HA-LP15K1M4(B)	555 (670)		HG-JR15K1M(B) HG-JR15K1M4(B) HG-JR15K1MR(B)-S HG-JR15K1M4R(B)-S	439.5 (512) 454 (526.5)	220 250	(*2)
HA-LP22K1M HA-LP22K1M4	605	280	HG-JR22K1M HG-JR22K1M4 HG-JR22K1MR-S HG-JR22K1M4R-S	476 488	250 280	(*2)
HA-LP30K1M	660		HG-JR30K1M HG-JR30K1MR-S	538 555	250 280	(*2)
HA-LP30K1M4	650		HG-JR30K1M4 HG-JR30K1M4R-S	538 555	250 280	(*2)
HA-LP37K1M HA-LP37K1M4	640	350	HG-JR37K1M HG-JR37K1M4 HG-JR37K1MR-S HG-JR37K1M4R-S	600 617	250 350	(*2)
HA-LP45K1M4	685		HG-JR45K1M4 HG-JR45K1M4R-S	600 610	280 350	(*2)
HA-LP50K1M4	785		HG-JR55K1M4 HG-JR55K1M4R-S	664 674	280 350	(*2)

\*1. For the dimensions not listed here, refer to the catalog or Instruction Manual.

\*2. No mounting compatibility. For the detailed dimensions, refer to "2.2.3 Detailed Comparison of Mounting Dimensions of Rotary Servo Motors".



# ■HA-LP Series

( ) : With electromagnetic brake [Unit: mm]

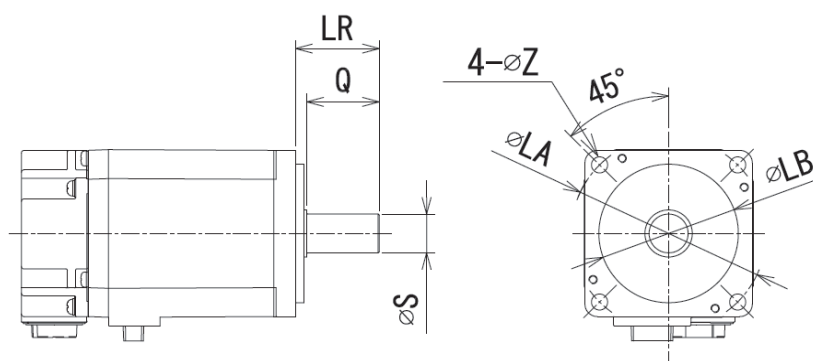
Former model			Replacement model			Precaution
Model	L	LD	Replacement model example	L	LD	
HA-LP502	298	200	HG-SR502	178.5	176	(*2)
			HG-SR502R-S	207	200	
HA-LP702	340		HG-SR702	218.5	176	(*2)
			HG-SR702R-S	247	200	
HA-LP11K2(B) HA-LP11K24(B)	480 (550)		HG-JR11K1M(B) HG-JR11K1M4(B)	339.5 (412)	220	(*2)
		250	HG-JR11K1MR(B)-S (□200) HG-JR11K1M4R(B)-S (□200)	439 (512)	200	
HA-LP15K2(B) HA-LP15K24(B)	495 (610)		HG-JR11K1M(B) HG-JR11K1M4(B)	339.5 (412)	220	(*2)
			HG-JR11K1MR(B)-S (□250) HG-JR11K1M4R(B)-S (□250)	354 (427)	250	
HA-LP22K2(B) HA-LP22K24(B)	555 (670)		HG-JR15K1M(B) HG-JR15K1M4(B)	439.5 (512)	220	(*2)
			HG-JR15K1MR(B)-S HG-JR15K1M4R(B)-S	454 (526.5)	250	
HA-LP30K2	615	280	HG-JR22K1M	476	250	(*2)
			HG-JR22K1MR-S	493	280	
HA-LP30K24	605		HG-JR22K1M4	476	250	(*2)
			HG-JR22K1M4R-S	493	280	
HA-LP37K2	660		HG-JR30K1M	538	250	(*2)
		350	HG-JR30K1MR-S	555	280	
HA-LP37K24	650		HG-JR30K1M4	538	250	(*2)
			HG-JR30K1M4R-S	555	280	
HA-LP45K24	640		HG-JR37K1M4	600	250	(*2)
			HG-JR37K1M4R-S	617	350	
HA-LP55K24	685		HG-JR45K1M4	600	280	(*2)
			HG-JR45K1M4R-S	610	350	

\*1. For the dimensions not listed here, refer to the catalog or Instruction Manual.

\*2. No mounting compatibility. For the detailed dimensions, refer to "2.2.3 Detailed Comparison of Mounting Dimensions of Rotary Servo Motors".



## 2.2.3 Detailed Comparison of Mounting Dimensions of Rotary Servo Motors



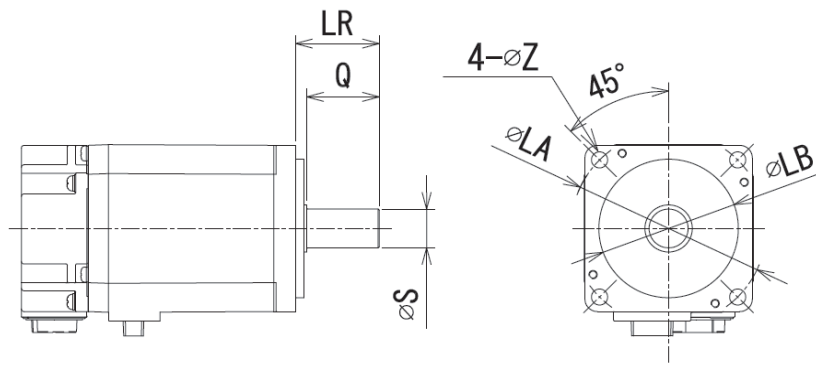
### ■ HF-KP/MP/SP and HC-RP Series

( ): With electromagnetic brake [Unit: mm]

Model	Former model						Replacement model example	Replacement model					
	LA	LB	LR	Q	S	Z		LA	LB	LR	Q	S	Z
HF-KP053(B) HF-MP053(B)	46	30	25	21.5	8	4.5	HG-KR053(B) HG-MR053(B)	46	30	25	21.5	8	4.5
HF-KP13(B) HF-MP13(B)	46	30	25	21.5	8	4.5	HG-KR13(B) HG-MR13(B)	46	30	25	21.5	8	4.5
HF-KP23(B) HF-MP23(B)	70	50	30	27	14	5.8	HG-KR23(B) HG-MR23(B)	70	50	30	26	14	5.8
HF-KP43(B) HF-MP43(B)	70	50	30	27	14	5.8	HG-KR43(B) HG-MR43(B)	70	50	30	26	14	5.8
HF-KP73(B) HF-MP73(B)	90	70	40	37	19	6.6	HG-KR73(B) HG-MR73(B)	90	70	40	36	19	6.6
HF-SP51(B) HF-SP81(B)	145	110	55	50	24	9	HG-SR51(B) HG-SR81(B)	145	110	55	50	24	9
HF-SP121(B)	200	114.3	79	75	35	13.5	HG-SR121(B)	200	114.3	79	75	35	13.5
HF-SP201(B)	200	114.3	79	75	35	13.5	HG-SR201(B)	200	114.3	79	75	35	13.5
HF-SP301(B)	200	114.3	79	75	35	13.5	HG-SR301(B)	200	114.3	79	75	35	13.5
HF-SP421(B)	200	114.3	79	75	35	13.5	HG-SR421(B)	200	114.3	79	75	35	13.5
HF-SP52(B) HF-SP524(B)	145	110	55	50	24	9	HG-SR52(B) HG-SR524(B)	145	110	55	50	24	9
HF-SP102(B) HF-SP1024(B)	145	110	55	50	24	9	HG-SR102(B) HG-SR1024(B)	145	110	55	50	24	9
HF-SP152(B) HF-SP1524(B)	145	110	55	50	24	9	HG-SR152(B) HG-SR1524(B)	145	110	55	50	24	9
HF-SP202(B) HF-SP2024(B)	200	114.3	79	75	35	13.5	HG-SR202(B) HG-SR2024(B)	200	114.3	79	75	35	13.5
HF-SP352(B) HF-SP3524(B)	200	114.3	79	75	35	13.5	HG-SR352(B) HG-SR3524(B)	200	114.3	79	75	35	13.5
HF-SP502(B) HF-SP5024(B)	200	114.3	79	75	35	13.5	HG-SR502(B) HG-SR5024(B)	200	114.3	79	75	35	13.5
HF-SP702(B) HF-SP7024(B)	200	114.3	79	75	35	13.5	HG-SR702(B) HG-SR7024(B)	200	114.3	79	75	35	13.5
HC-RP103(B)	115	95	45	40	24	9	HG-RR103(B)	115	95	45	40	24	9
HC-RP153(B)	115	95	45	40	24	9	HG-RR153(B)	115	95	45	40	24	9
HC-RP203(B)	115	95	45	40	24	9	HG-RR203(B)	115	95	45	40	24	9
HC-RP353(B)	145	110	63	58	28	9	HG-RR353(B)	145	110	63	58	28	9
HC-RP503(B)	145	110	63	58	28	9	HG-RR503(B)	145	110	63	58	28	9

\*1. For the dimensions not listed here, refer to the catalog or Instruction Manual.

\*2. The changed dimensions are shown with shading.



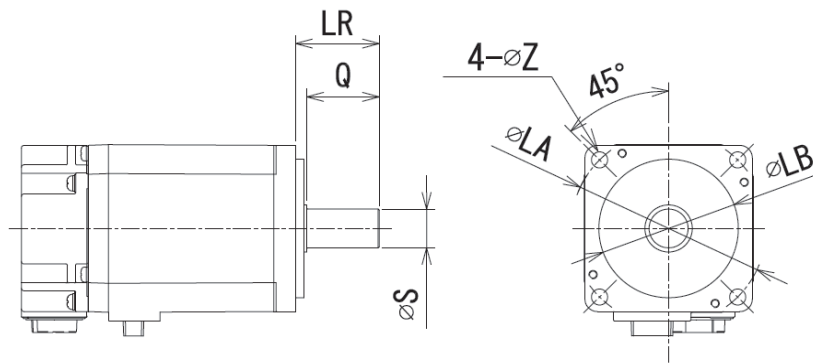
# ■HC-LP/UP and HF-JP Series

( ): With electromagnetic brake [Unit: mm]

Model	Former model						Replacement model example	Replacement model					
	LA	LB	LR	Q	S	Z		LA	LB	LR	Q	S	Z
HC-LP52(B)	145	110	55	50	24	9	HG-JR73(B)	100	80	40	30	16	6.6
HC-LP102(B)	145	110	55	50	24	9	HG-JR153(B)	100	80	40	30	16	6.6
HC-LP152(B)	145	110	55	50	24	9	HG-JR353(B)	145	110	55	50	28	9
HC-LP202(B)	200	114.3	79	75	35	13.5	HG-JR353(B)	145	110	55	50	28	9
HC-LP302(B)	200	114.3	79	75	35	13.5	HG-JR503(B)	145	110	55	50	28	9
HC-UP72(B)	200	114.3	55	50	22	13.5	HG-UR72(B)	200	114.3	55	50	22	13.5
HC-UP152(B)	200	114.3	55	50	28	13.5	HG-UR152(B)	200	114.3	55	50	28	13.5
HC-UP202(B)	235	200	65	60	35	13.5	HG-UR202(B)	235	200	65	60	35	13.5
HC-UP352(B)	235	200	65	60	35	13.5	HG-UR352(B)	235	200	65	60	35	13.5
HC-UP502(B)	235	200	65	60	35	13.5	HG-UR502(B)	235	200	65	60	35	13.5
HF-JP53(B)	100	80	40	30	16	6.6	HG-JR53(B)	100	80	40	30	16	6.6
HF-JP534(B)	100	80	40	30	16	6.6	HG-JR534(B)	100	80	40	30	16	6.6
HF-JP73(B)	100	80	40	30	16	6.6	HG-JR73(B)	100	80	40	30	16	6.6
HF-JP734(B)	100	80	40	30	16	6.6	HG-JR734(B)	100	80	40	30	16	6.6
HF-JP103(B)	100	80	40	30	16	6.6	HG-JR103(B)	100	80	40	30	16	6.6
HF-JP1034(B)	100	80	40	30	16	6.6	HG-JR1034(B)	100	80	40	30	16	6.6
HF-JP153(B)	100	80	40	30	16	6.6	HG-JR153(B)	100	80	40	30	16	6.6
HF-JP1534(B)	100	80	40	30	16	6.6	HG-JR1534(B)	100	80	40	30	16	6.6
HF-JP203(B)	100	80	40	30	16	6.6	HG-JR203(B)	100	80	40	30	16	6.6
HF-JP2034(B)	100	80	40	30	16	6.6	HG-JR2034(B)	100	80	40	30	16	6.6
HF-JP353(B)	145	110	55	50	28	9	HG-JR353(B)	145	110	55	50	28	9
HF-JP3534(B)	145	110	55	50	28	9	HG-JR3534(B)	145	110	55	50	28	9
HF-JP503(B)	145	110	55	50	28	9	HG-JR503(B)	145	110	55	50	28	9
HF-JP5034(B)	145	110	55	50	28	9	HG-JR5034(B)	145	110	55	50	28	9
HF-JP703(B)	200	114.3	79	75	35	13.5	HG-JR703(B)	200	114.3	79	75	35	13.5
HF-JP7034(B)	200	114.3	79	75	35	13.5	HG-JR7034(B)	200	114.3	79	75	35	13.5
HF-JP903	200	114.3	79	75	35	13.5	HG-JR903	200	114.3	79	75	35	13.5
HF-JP9034(B)	200	114.3	79	75	35	13.5	HG-JR9034(B)	200	114.3	79	75	35	13.5
HF-JP11K1M(B)	235	200	116	110	55	13.5	HG-JR11K1M(B)	235	200	116	110	55	13.5
HF-JP11K1M4(B)	235	200	116	110	55	13.5	HG-JR11K1M4(B)	235	200	116	110	55	13.5
HF-JP15K1M(B)	235	200	116	110	55	13.5	HG-JR15K1M(B)	235	200	116	110	55	13.5
HF-JP15K1M4(B)	235	200	116	110	55	13.5	HG-JR15K1M4(B)	235	200	116	110	55	13.5

\*1. For the dimensions not listed here, refer to the catalog or Instruction Manual.

\*2. The changed dimensions are shown with shading.



# ■HA-LP Series

( ): With electromagnetic brake [Unit: mm]

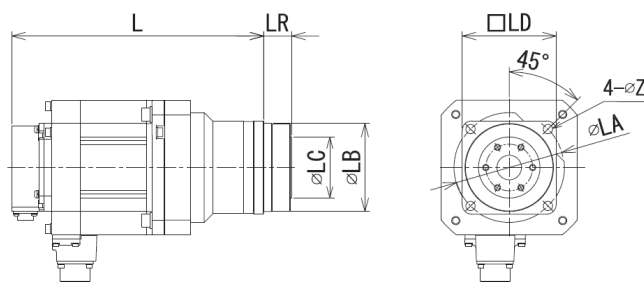
Model	Former model						Replacement model example	Replacement model					
	LA	LB	LR	Q	S	Z		LA	LB	LR	Q	S	Z
HA-LP601(B) HA-LP6014(B)	215	180	85	80	42	14.5	HG-JR601(B) HG-JR6014(B)	235	200	85	79	42	13.5
HA-LP801(B) HA-LP8014(B)	265	230	110	100	55	14.5	HG-JR801(B) HG-JR8014(B)	235	200	116	110	55	13.5
HA-LP12K1(B) HA-LP12K14(B)	265	230	110	100	55	14.5	HG-JR12K1(B) HG-JR12K14(B)	235	200	116	110	55	13.5
HA-LP15K1 HA-LP15K14	300	250	140	140	60	19	HG-JR15K1 HG-JR15K14	265	230	140	130	65	24
HA-LP20K1 HA-LP20K14	300	250	140	140	60	19	HG-JR20K1 HG-JR20K14	265	230	140	130	65	24
HA-LP25K1 HA-LP25K14	350	300	140	140	65	19	HG-JR25K1 HG-JR25K14	265	230	140	130	65	24
HA-LP30K1 HA-LP30K14	350	300	140	140	65	19	HG-JR30K1 HG-JR30K14	300	250	140	140	80	24
HA-LP37K1 HA-LP37K14	350	300	170	170	80	19	HG-JR37K1 HG-JR37K14	300	250	140	140	80	24
HA-LP701M(B) HA-LP701M4(B)	215	180	85	80	42	14.5	HG-JR701M(B) HG-JR701M4(B)	235	200	85	79	42	13.5
HA-LP11K1M(B) HA-LP11K1M4(B)	265	230	110	100	55	14.5	HG-JR11K1M(B) HG-JR11K1M4(B)	235	200	116	110	55	13.5
HA-LP15K1M(B) HA-LP15K1M4(B)	265	230	110	100	55	14.5	HG-JR15K1M(B) HG-JR15K1M4(B)	235	200	116	110	55	13.5
HA-LP22K1M HA-LP22K1M4	300	250	140	140	60	19	HG-JR22K1M HG-JR22K1M4	265	230	140	130	65	24
HA-LP30K1M HA-LP30K1M4	300	250	140	140	60	19	HG-JR30K1M HG-JR30K1M4	265	230	140	130	65	24
HA-LP37K1M HA-LP37K1M4	350	300	140	140	65	19	HG-JR37K1M HG-JR37K1M4	265	230	140	130	65	24
HA-LP45K1M4	350	300	140	140	65	19	HG-JR45K1M4	300	250	140	140	80	24
HA-LP50K1M4	350	300	170	170	80	19	HG-JR55K1M4	300	250	140	140	80	24
HA-LP502	215	180	85	80	42	14.5	HG-SR502	200	114.3	79	75	35	13.5
HA-LP702	215	180	85	80	42	14.5	HG-SR702	200	114.3	79	75	35	13.5
HA-LP11K2(B) HA-LP11K24(B)	215	180	85	80	42	14.5	HG-JR11K1M(B) HG-JR11K1M4(B)	235	200	116	110	55	13.5
HA-LP15K2(B) HA-LP15K24(B)	265	230	110	100	55	14.5	HG-JR11K1M(B) HG-JR11K1M4(B)	235	200	116	110	55	13.5
HA-LP22K2(B) HA-LP22K24(B)	265	230	110	100	55	14.5	HG-JR15K1M(B) HG-JR15K1M4(B)	235	200	116	110	55	13.5
HA-LP30K2 HA-LP30K24	300	250	140	140	60	19	HG-JR22K1M HG-JR22K1M4	265	230	140	130	65	24
HA-LP37K2 HA-LP37K24	300	250	140	140	60	19	HG-JR30K1M HG-JR30K1M4	265	230	140	130	65	24
HA-LP45K24	350	300	140	140	65	19	HG-JR37K1M4	265	230	140	130	65	24
HA-LP55K24	350	300	140	140	65	19	HG-JR45K1M4	300	250	140	140	80	24

\*1. For the dimensions not listed here, refer to the catalog or Instruction Manual.

\*2. The changed dimensions are shown with shading.

\*3. Foot-mounting is not available in HG-JR series.

## 2.2.4 Comparison of Mounting Dimensions of Geared Rotary Servo Motors (For high precision applications: HC-RP\_G5 → HG-SR\_G5)



### ■ HC-RP Series

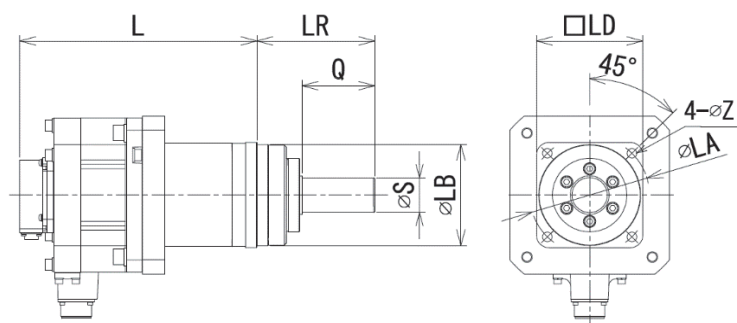
( ): With electromagnetic brake [Unit: mm]

Output (kW)	Reduction ratio	HC-RP series (G5)							Reduction ratio	HG-SR series (G5)						
		L	LR	LA	LB	LC	LD	Z		L	LR	LA	LB	LC	LD	Z
1.0	1/5	227.5 (265.5)	27	105	85	59	90	9	1/5	227.5 (262)	27	105	85	59	90	9
	1/11	227.5 (265.5)	27	105	85	59	90	9	1/11	239.5 (274)	35	135	115	84	120	11
	1/21	255.5 (293.5)	35	135	115	84	120	11	1/21	239.5 (274)	35	135	115	84	120	11
	1/33	255.5 (293.5)	35	135	115	84	120	11	1/33	255.5 (290)	53	190	165	122	170	14
	1/45	268.5 (306.5)	53	190	165	122	170	14	1/45	255.5 (290)	53	190	165	122	170	14
1.5	1/5	252.5 (290)	27	105	85	59	90	9	1/5	241.5 (276)	27	105	85	59	90	9
	1/11	280.5 (318.5)	35	135	115	84	120	11	1/11	253.5 (288)	35	135	115	84	120	11
	1/21	280.5 (318.5)	35	135	115	84	120	11	1/21	269.5 (304)	53	190	165	122	170	14
	1/33	293.5 (331.5)	53	190	165	122	170	14	1/33	269.5 (304)	53	190	165	122	170	14
	1/45	293.5 (331.5)	53	190	165	122	170	14	1/45	269.5 (304)	53	190	165	122	170	14
2.0	1/5	277.5 (315.5)	27	105	85	59	90	9	1/5	267.5 (317)	35	135	115	84	120	11
	1/11	305.5 (343.5)	35	135	115	84	120	11	1/11	267.5 (317)	35	135	115	84	120	11
	1/21	318.5 (365.5)	53	190	165	122	170	14	1/21	287.5 (337)	53	190	165	122	170	14
	1/33	318.5 (365.5)	53	190	165	122	170	14	1/33	287.5 (337)	53	190	165	122	170	14
	1/45	318.5 (365.5)	53	190	165	122	170	14	1/45	287.5 (337)	53	190	165	122	170	14
3.5	1/5	344.5 (381.5)	35	135	115	84	120	11	1/5	291.5 (341)	35	135	115	84	120	11
	1/11	344.5 (381.5)	35	135	115	84	120	11	1/11	311.5 (361)	53	190	165	122	170	14
	1/21	364.5 (401.5)	53	190	165	122	170	14	1/21	311.5 (361)	53	190	165	122	170	14
	1/33	364.5 (401.5)	53	190	165	122	170	14	1/21	311.5 (361)	53	190	165	122	170	14
5.0	1/5	401.5 (438.5)	35	135	115	84	120	11	1/5	327.5 (377)	53	190	165	122	170	14
	1/11	421.5 (458.5)	53	190	165	122	170	14	1/11	327.5 (377)	53	190	165	122	170	14
	1/21	421.5 (458.5)	53	190	165	122	170	14	1/11	327.5 (377)	53	190	165	122	170	14

\*1. For the dimensions not listed here, refer to the catalog or Instruction Manual.

\*2. The changed dimensions are shown with shading.

(For high precision applications: HC-RP\_G7 → HG-SR\_G7)



# ■ HC-RP Series

( ): With electromagnetic brake [Unit: mm]

Output (kW)	HC-RP series (G7)									HG-SR series (G7)								
	Reduction ratio	L	LR	Q	S	LA	LB	LD	Z	Reduction ratio	L	LR	Q	S	LA	LB	LD	Z
1.0	1/5	227.5 (265.5)	80	42	25	105	85	90	9	1/5	227.5 (262)	80	42	25	105	85	90	9
	1/11	227.5 (265.5)	80	42	25	105	85	90	9	1/11	239.5 (274)	133	82	40	135	115	120	11
	1/21	255.5 (293.5)	133	82	40	135	115	120	11	1/21	239.5 (274)	133	82	40	135	115	120	11
	1/33	255.5 (293.5)	133	82	40	135	115	120	11	1/33	255.5 (290)	156	82	50	190	165	170	14
	1/45	268.5 (306.5)	156	82	50	190	165	170	14	1/45	255.5 (290)	156	82	50	190	165	170	14
1.5	1/5	252.5 (290.5)	80	42	25	105	85	90	9	1/5	241.5 (276)	80	42	25	105	85	90	9
	1/11	280.5 (318.5)	133	82	40	135	115	120	11	1/11	253.5 (288)	133	82	40	135	115	120	11
	1/21	280.5 (318.5)	133	82	40	135	115	120	11	1/21	269.5 (304)	156	82	50	190	165	170	14
	1/33	293.5 (331.5)	156	82	50	190	165	170	14	1/33	269.5 (304)	156	82	50	190	165	170	14
	1/45	293.5 (331.5)	156	82	50	190	165	170	14	1/45	269.5 (304)	156	82	50	190	165	170	14
2.0	1/5	277.5 (315.5)	80	42	25	105	85	90	9	1/5	267.5 (317)	133	82	40	135	115	120	11
	1/11	305.5 (343.5)	133	82	40	135	115	120	11	1/11	267.5 (317)	133	82	40	135	115	120	11
	1/21	318.5 (356.5)	156	82	50	190	165	170	14	1/21	287.5 (337)	156	82	50	190	165	170	14
	1/33	318.5 (356.5)	156	82	50	190	165	170	14	1/33	287.5 (337)	156	82	50	190	165	170	14
	1/45	318.5 (356.5)	156	82	50	190	165	170	14	1/45	287.5 (337)	156	82	50	190	165	170	14
3.5	1/5	344.5 (381.5)	133	82	40	135	115	120	11	1/5	291.5 (341)	133	82	40	135	115	120	11
	1/11	344.5 (381.5)	133	82	40	135	115	120	11	1/11	311.5 (361)	156	82	50	190	165	170	14
	1/21	364.5 (401.5)	156	82	50	190	165	170	14	1/21	311.5 (361)	156	82	50	190	165	170	14
	1/33	364.5 (401.5)	156	82	50	190	165	170	14	1/21	311.5 (361)	156	82	50	190	165	170	14
5.0	1/5	401.5 (438.5)	133	82	40	135	115	120	11	1/5	327.5 (377)	156	82	50	190	165	170	14
	1/11	421.5 (458.5)	156	82	50	190	165	170	14	1/11	327.5 (377)	156	82	50	190	165	170	14
	1/21	421.5 (458.5)	156	82	50	190	165	170	14	1/11	327.5 (377)	156	82	50	190	165	170	14

\*1. For the dimensions not listed here, refer to the catalog or Instruction Manual.

\*2. The changed dimensions are shown with shading.

## 2.2.5 Comparison of Actual Reduction Ratios for Geared Rotary Servo Motors

When the HF-KP or the HF-MP\_G1 is replaced with the HG-KR\_G1, the electronic gear must be set because the actual reduction ratio of some models is different from that of the former models.

(For general industrial machines: HF-KP, HF-MP\_G1 → HG-KR\_G1)

Output (W)	Reduction ratio	Actual reduction ratio	
		HF-KP and HF-MP series (G1)	HG-KR series (G1)
50	1/5	9/44	9/44
	1/12	49/576	49/576
	1/20	25/484	25/484
100	1/5	9/44	9/44
	1/12	49/576	49/576
	1/20	25/484	25/484
200	1/5	19/96	19/96
	1/12	25/288	961/11664
	1/20	253/5000	513/9984
400	1/5	19/96	19/96
	1/12	25/288	961/11664
	1/20	253/5000	7/135
750	1/5	1/5	1/5
	1/12	525/6048	7/87
	1/20	625/12544	625/12544

\*1. The differences in actual reduction ratios are shown with shading.

\*2. A geared servo motor is not available in HG-MR series. Please replace the HF-MP geared servo motor with HG-KR geared servo motor.

## 2.2.6 Comparison of Moment of Inertia

### ■ HF-KP Series

( ): With electromagnetic brake

Series	Former model			Replacement model		
	Model	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio	Replacement model example	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio
Small capacity, low inertia HF-KP series  (B): With electromagnetic brake	HF-KP053(B)	0.052 (0.054)	15 times or less	HG-KR053(B)	0.0450 (0.0472)	17 times or less
	HF-KP13(B)	0.088 (0.090)		HG-KR13(B)	0.0777 (0.0837)	
	HF-KP23(B)	0.24 (0.31)	24 times or less	HG-KR23(B)	0.221 (0.243)	26 times or less
	HF-KP43(B)	0.42 (0.50)	22 times or less	HG-KR43(B)	0.371 (0.393)	25 times or less
	HF-KP73(B)	1.43 (1.63)	15 times or less	HG-KR73(B)	1.26 (1.37)	17 times or less
Small capacity, low inertia HF-KP series With gear reducer for general industrial machines (G1)  (B): With electromagnetic brake	HF-KP053(B)G1 1/5	0.089 (0.091)	5 times or less	HG-KR053(B)G1 1/5	0.0820 (0.0840)	5 times or less
	HF-KP053(B)G1 1/12	0.111 (0.113)		HG-KR053(B)G1 1/12	0.104 (0.106)	
	HF-KP053(B)G1 1/20	0.093 (0.095)		HG-KR053(B)G1 1/20	0.0860 (0.0880)	
	HF-KP13(B)G1 1/5	0.125 (0.127)		HG-KR13(B)G1 1/5	0.115 (0.121)	
	HF-KP13(B)G1 1/12	0.147 (0.149)		HG-KR13(B)G1 1/12	0.137 (0.143)	
	HF-KP13(B)G1 1/20	0.129 (0.131)	7 times or less	HG-KR13(B)G1 1/20	0.119 (0.125)	7 times or less
	HF-KP23(B)G1 1/5	0.400 (0.470)		HG-KR23(B)G1 1/5	0.375 (0.397)	
	HF-KP23(B)G1 1/12	0.450 (0.520)		HG-KR23(B)G1 1/12	0.418 (0.440)	
	HF-KP23(B)G1 1/20	0.420 (0.490)		HG-KR23(B)G1 1/20	0.391 (0.413)	
	HF-KP43(B)G1 1/5	0.570 (0.650)		HG-KR43(B)G1 1/5	0.525 (0.547)	
	HF-KP43(B)G1 1/12	0.620 (0.700)	5 times or less	HG-KR43(B)G1 1/12	0.568 (0.590)	5 times or less
	HF-KP43(B)G1 1/20	0.930 (1.01)		HG-KR43(B)G1 1/20	0.881 (0.903)	
	HF-KP73(B)G1 1/5	1.85 (2.05)		HG-KR73(B)G1 1/5	1.68 (1.79)	
	HF-KP73(B)G1 1/12	2.52 (2.72)		HG-KR73(B)G1 1/12	2.35 (2.46)	
	HF-KP73(B)G1 1/20	2.58 (2.78)		HG-KR73(B)G1 1/20	2.41 (2.52)	

\*1. For the motor specifications not listed here, refer to the catalog or Instruction Manual.

If the load to motor inertia ratio exceeds the indicated value, contact your local sales office.

■ HF-KP Series

( ): With electromagnetic brake

Series	Former model			Replacement model		
	Model	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio	Replacement model example	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio
Small capacity, low inertia HF-KP series With flange-output type gear reducer for high precision applications, flange mounting (G5)  (B): With electromagnetic brake	HF-KP053(B)G5 1/5	0.120 (0.122)	10 times or less	HG-KR053(B)G5 1/5	0.113 (0.115)	10 times or less
	HF-KP053(B)G5 1/11	0.112 (0.114)		HG-KR053(B)G5 1/11	0.105 (0.107)	
	HF-KP053(B)G5 1/21	0.103 (0.105)		HG-KR053(B)G5 1/21	0.0960 (0.0980)	
	HF-KP053(B)G5 1/33	0.097 (0.099)		HG-KR053(B)G5 1/33	0.0900 (0.0920)	
	HF-KP053(B)G5 1/45	0.097 (0.099)		HG-KR053(B)G5 1/45	0.0900 (0.0920)	
	HF-KP13(B)G5 1/5	0.156 (0.158)		HG-KR13(B)G5 1/5	0.146 (0.152)	
	HF-KP13(B)G5 1/11	0.148 (0.150)	14 times or less	HG-KR13(B)G5 1/11	0.138 (0.144)	14 times or less
	HF-KP13(B)G5 1/21	0.139 (0.141)		HG-KR13(B)G5 1/21	0.129 (0.135)	
	HF-KP13(B)G5 1/33	0.150 (0.152)		HG-KR13(B)G5 1/33	0.140 (0.146)	
	HF-KP13(B)G5 1/45	0.149 (0.151)		HG-KR13(B)G5 1/45	0.139 (0.145)	
	HF-KP23(B)G5 1/5	0.441 (0.511)		HG-KR23(B)G5 1/5	0.422 (0.444)	
	HF-KP23(B)G5 1/11	0.443 (0.513)		HG-KR23(B)G5 1/11	0.424 (0.446)	
	HF-KP23(B)G5 1/21	0.738 (0.808)		HG-KR23(B)G5 1/21	0.719 (0.741)	
	HF-KP23(B)G5 1/33	0.692 (0.762)		HG-KR23(B)G5 1/33	0.673 (0.695)	
	HF-KP23(B)G5 1/45	0.691 (0.761)		HG-KR23(B)G5 1/45	0.672 (0.694)	
	HF-KP43(B)G5 1/5	0.621 (0.701)		HG-KR43(B)G5 1/5	0.572 (0.594)	
	HF-KP43(B)G5 1/11	0.996 (1.08)		HG-KR43(B)G5 1/11	0.947 (0.969)	
	HF-KP43(B)G5 1/21	0.918 (0.998)		HG-KR43(B)G5 1/21	0.869 (0.891)	
	HF-KP43(B)G5 1/33	0.970 (1.05)		HG-KR43(B)G5 1/33	0.921 (0.943)	
	HF-KP43(B)G5 1/45	0.964 (1.04)		HG-KR43(B)G5 1/45	0.915 (0.937)	
	HF-KP73(B)G5 1/5	2.08 (2.28)	10 times or less	HG-KR73(B)G5 1/5	1.91 (2.02)	10 times or less
	HF-KP73(B)G5 1/11	1.99 (2.19)		HG-KR73(B)G5 1/11	1.82 (1.93)	
	HF-KP73(B)G5 1/21	2.18 (2.38)		HG-KR73(B)G5 1/21	2.01 (2.12)	
	HF-KP73(B)G5 1/33	1.96 (2.16)		HG-KR73(B)G5 1/33	1.79 (1.90)	
	HF-KP73(B)G5 1/45	1.96 (2.16)		HG-KR73(B)G5 1/45	1.79 (1.90)	
Small capacity, low inertia HF-KP series With shaft-output type reducer for high precision applications, flange mounting (G7)  (B): With electromagnetic brake	HF-KP053(B)G7 1/5	0.126 (0.128)	10 times or less	HG-KR053(B)G7 1/5	0.119 (0.121)	10 times or less
	HF-KP053(B)G7 1/11	0.113 (0.115)		HG-KR053(B)G7 1/11	0.106 (0.108)	
	HF-KP053(B)G7 1/21	0.103 (0.105)		HG-KR053(B)G7 1/21	0.0960 (0.0980)	
	HF-KP053(B)G7 1/33	0.097 (0.099)		HG-KR053(B)G7 1/33	0.0900 (0.0920)	
	HF-KP053(B)G7 1/45	0.097 (0.099)		HG-KR053(B)G7 1/45	0.0900 (0.0920)	
	HF-KP13(B)G7 1/5	0.162 (0.164)	14 times or less	HG-KR13(B)G7 1/5	0.152 (0.158)	14 times or less
	HF-KP13(B)G7 1/11	0.149 (0.151)		HG-KR13(B)G7 1/11	0.139 (0.145)	
	HF-KP13(B)G7 1/21	0.139 (0.141)		HG-KR13(B)G7 1/21	0.129 (0.135)	
	HF-KP13(B)G7 1/33	0.151 (0.153)		HG-KR13(B)G7 1/33	0.141 (0.147)	
	HF-KP13(B)G7 1/45	0.149 (0.151)		HG-KR13(B)G7 1/45	0.139 (0.145)	
	HF-KP23(B)G7 1/5	0.447 (0.517)		HG-KR23(B)G7 1/5	0.428 (0.450)	
	HF-KP23(B)G7 1/11	0.443 (0.513)		HG-KR23(B)G7 1/11	0.424 (0.446)	
	HF-KP23(B)G7 1/21	0.740 (0.810)		HG-KR23(B)G7 1/21	0.721 (0.743)	
	HF-KP23(B)G7 1/33	0.693 (0.763)		HG-KR23(B)G7 1/33	0.674 (0.696)	
	HF-KP23(B)G7 1/45	0.691 (0.761)		HG-KR23(B)G7 1/45	0.672 (0.694)	
	HF-KP43(B)G7 1/5	0.627 (0.707)		HG-KR43(B)G7 1/5	0.578 (0.600)	
	HF-KP43(B)G7 1/11	1.00 (1.08)		HG-KR43(B)G7 1/11	0.955 (0.977)	
	HF-KP43(B)G7 1/21	0.920 (1.00)		HG-KR43(B)G7 1/21	0.871 (0.893)	
	HF-KP43(B)G7 1/33	0.976 (1.06)		HG-KR43(B)G7 1/33	0.927 (0.949)	
	HF-KP43(B)G7 1/45	0.967 (1.05)		HG-KR43(B)G7 1/45	0.918 (0.940)	
	HF-KP73(B)G7 1/5	2.12 (2.32)	10 times or less	HG-KR73(B)G7 1/5	1.95 (2.06)	10 times or less
	HF-KP73(B)G7 1/11	2.00 (2.20)		HG-KR73(B)G7 1/11	1.83 (1.94)	
	HF-KP73(B)G7 1/21	2.20 (2.40)		HG-KR73(B)G7 1/21	2.03 (2.14)	
	HF-KP73(B)G7 1/33	1.97 (2.17)		HG-KR73(B)G7 1/33	1.80 (1.91)	
	HF-KP73(B)G7 1/45	1.96 (2.16)		HG-KR73(B)G7 1/45	1.79 (1.90)	

\*1. For the motor specifications not listed here, refer to the catalog or Instruction Manual.  
If the load to motor inertia ratio exceeds the indicated value, contact your local sales office.

■ HF-MP Series

( ): With electromagnetic brake

Series	Former model			Replacement model		
	Model	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio	Replacement model example	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio
Small capacity, ultra-low inertia HF-MP series  (B): With electromagnetic brake	HF-MP053(B)	0.019 (0.025)	30 times or less	HG-MR053(B)	0.0162 (0.0224)	35 times or less
	HF-MP13(B)	0.032 (0.039)		HG-MR13(B)	0.0300 (0.0362)	32 times or less
	HF-MP23(B)	0.088 (0.12)		HG-MR23(B)	0.0865 (0.109)	
	HF-MP43(B)	0.15 (0.18)		HG-MR43(B)	0.142 (0.164)	
	HF-MP73(B)	0.60 (0.70)		HG-MR73(B)	0.586 (0.694)	
Small capacity, ultra-low inertia HF-MP series With gear reducer for general industrial machines (G1)  (B): With electromagnetic brake	HF-MP053(B)G1 1/5	0.056 (0.062)	25 times or less	HG-KR053(B)G1 1/5	0.0820 (0.0840)	5 times or less
	HF-MP053(B)G1 1/12	0.078 (0.084)		HG-KR053(B)G1 1/12	0.104 (0.106)	
	HF-MP053(B)G1 1/20	0.060 (0.066)		HG-KR053(B)G1 1/20	0.0860 (0.0880)	
	HF-MP13(B)G1 1/5	0.069 (0.076)		HG-KR13(B)G1 1/5	0.115 (0.121)	
	HF-MP13(B)G1 1/12	0.091 (0.089)		HG-KR13(B)G1 1/12	0.137 (0.143)	
	HF-MP13(B)G1 1/20	0.073 (0.080)		HG-KR13(B)G1 1/20	0.119 (0.125)	7 times or less
	HF-MP23(B)G1 1/5	0.248 (0.280)		HG-KR23(B)G1 1/5	0.375 (0.397)	
	HF-MP23(B)G1 1/12	0.298 (0.330)		HG-KR23(B)G1 1/12	0.418 (0.440)	
	HF-MP23(B)G1 1/20	0.268 (0.300)		HG-KR23(B)G1 1/20	0.391 (0.413)	
	HF-MP43(B)G1 1/5	0.300 (0.330)		HG-KR43(B)G1 1/5	0.525 (0.547)	
	HF-MP43(B)G1 1/12	0.350 (0.380)		HG-KR43(B)G1 1/12	0.568 (0.590)	5 times or less
	HF-MP43(B)G1 1/20	0.660 (0.690)		HG-KR43(B)G1 1/20	0.881 (0.903)	
	HF-MP73(B)G1 1/5	1.02 (1.12)		HG-KR73(B)G1 1/5	1.68 (1.79)	
	HF-MP73(B)G1 1/12	1.69 (1.79)		HG-KR73(B)G1 1/12	2.35 (2.46)	
	HF-MP73(B)G1 1/20	1.75 (1.85)		HG-KR73(B)G1 1/20	2.41 (2.52)	

\*1. For the motor specifications not listed here, refer to the catalog or Instruction Manual.  
If the load to motor inertia ratio exceeds the indicated value, contact your local sales office.



■ HF-MP Series

( ): With electromagnetic brake

Series	Former model			Replacement model		
	Model	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio	Replacement model example	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio
Small capacity, ultra-low inertia HF-MP series With flange-output type gear reducer for high precision applications, flange mounting (G5)  (B): With electromagnetic brake	HF-MP053(B)G5 1/5	0.087 (0.093)	25 times or less	HG-KR053(B)G5 1/5	0.113 (0.115)	10 times or less
	HF-MP053(B)G5 1/11	0.079 (0.085)		HG-KR053(B)G5 1/11	0.105 (0.107)	
	HF-MP053(B)G5 1/21	0.070 (0.076)		HG-KR053(B)G5 1/21	0.0960 (0.0980)	
	HF-MP053(B)G5 1/33	0.064 (0.070)		HG-KR053(B)G5 1/33	0.0900 (0.0920)	
	HF-MP053(B)G5 1/45	0.064 (0.070)		HG-KR053(B)G5 1/45	0.0900 (0.0920)	
	HF-MP13(B)G5 1/5	0.100 (0.107)		HG-KR13(B)G5 1/5	0.146 (0.152)	
	HF-MP13(B)G5 1/11	0.092 (0.099)		HG-KR13(B)G5 1/11	0.138 (0.144)	
	HF-MP13(B)G5 1/21	0.083 (0.090)		HG-KR13(B)G5 1/21	0.129 (0.135)	
	HF-MP13(B)G5 1/33	0.094 (0.101)		HG-KR13(B)G5 1/33	0.140 (0.146)	
	HF-MP13(B)G5 1/45	0.093 (0.100)		HG-KR13(B)G5 1/45	0.139 (0.145)	
	HF-MP23(B)G5 1/5	0.289 (0.321)		HG-KR23(B)G5 1/5	0.422 (0.444)	14 times or less
	HF-MP23(B)G5 1/11	0.291 (0.323)		HG-KR23(B)G5 1/11	0.424 (0.446)	
	HF-MP23(B)G5 1/21	0.586 (0.618)		HG-KR23(B)G5 1/21	0.719 (0.741)	
	HF-MP23(B)G5 1/33	0.540 (0.572)		HG-KR23(B)G5 1/33	0.673 (0.695)	
	HF-MP23(B)G5 1/45	0.539 (0.571)		HG-KR23(B)G5 1/45	0.672 (0.694)	
	HF-MP43(B)G5 1/5	0.351 (0.381)		HG-KR43(B)G5 1/5	0.572 (0.594)	
	HF-MP43(B)G5 1/11	0.726 (0.756)		HG-KR43(B)G5 1/11	0.947 (0.969)	
	HF-MP43(B)G5 1/21	0.648 (0.678)		HG-KR43(B)G5 1/21	0.869 (0.891)	
	HF-MP43(B)G5 1/33	0.700 (0.730)		HG-KR43(B)G5 1/33	0.921 (0.943)	
	HF-MP43(B)G5 1/45	0.694 (0.724)		HG-KR43(B)G5 1/45	0.915 (0.937)	
	HF-MP73(B)G5 1/5	1.25 (1.35)		HG-KR73(B)G5 1/5	1.91 (2.02)	10 times or less
	HF-MP73(B)G5 1/11	1.16 (1.26)		HG-KR73(B)G5 1/11	1.82 (1.93)	
	HF-MP73(B)G5 1/21	1.35 (1.45)		HG-KR73(B)G5 1/21	2.01 (2.12)	
	HF-MP73(B)G5 1/33	1.13 (1.23)		HG-KR73(B)G5 1/33	1.79 (1.90)	
Small capacity, ultra-low inertia HF-MP series With shaft-output type reducer for high precision applications, flange mounting (G7)  (B): With electromagnetic brake	HF-MP053(B)G7 1/5	0.093 (0.099)	25 times or less	HG-KR053(B)G7 1/5	0.119 (0.121)	10 times or less
	HF-MP053(B)G7 1/11	0.080 (0.086)		HG-KR053(B)G7 1/11	0.106 (0.108)	
	HF-MP053(B)G7 1/21	0.070 (0.076)		HG-KR053(B)G7 1/21	0.0960 (0.0980)	
	HF-MP053(B)G7 1/33	0.064 (0.070)		HG-KR053(B)G7 1/33	0.0900 (0.0920)	
	HF-MP053(B)G7 1/45	0.064 (0.070)		HG-KR053(B)G7 1/45	0.0900 (0.0920)	
	HF-MP13(B)G7 1/5	0.106 (0.113)		HG-KR13(B)G7 1/5	0.152 (0.158)	
	HF-MP13(B)G7 1/11	0.093 (0.100)		HG-KR13(B)G7 1/11	0.139 (0.145)	
	HF-MP13(B)G7 1/21	0.083 (0.090)		HG-KR13(B)G7 1/21	0.129 (0.135)	
	HF-MP13(B)G7 1/33	0.095 (0.102)		HG-KR13(B)G7 1/33	0.141 (0.147)	
	HF-MP13(B)G7 1/45	0.093 (0.100)		HG-KR13(B)G7 1/45	0.139 (0.145)	
	HF-MP23(B)G7 1/5	0.295 (0.327)		HG-KR23(B)G7 1/5	0.428 (0.450)	14 times or less
	HF-MP23(B)G7 1/11	0.291 (0.323)		HG-KR23(B)G7 1/11	0.424 (0.446)	
	HF-MP23(B)G7 1/21	0.588 (0.620)		HG-KR23(B)G7 1/21	0.721 (0.743)	
	HF-MP23(B)G7 1/33	0.541 (0.573)		HG-KR23(B)G7 1/33	0.674 (0.696)	
	HF-MP23(B)G7 1/45	0.539 (0.571)		HG-KR23(B)G7 1/45	0.672 (0.694)	
	HF-MP43(B)G7 1/5	0.357 (0.387)		HG-KR43(B)G7 1/5	0.578 (0.600)	
	HF-MP43(B)G7 1/11	0.734 (0.764)		HG-KR43(B)G7 1/11	0.955 (0.977)	
	HF-MP43(B)G7 1/21	0.650 (0.680)		HG-KR43(B)G7 1/21	0.871 (0.893)	
	HF-MP43(B)G7 1/33	0.706 (0.736)		HG-KR43(B)G7 1/33	0.927 (0.949)	
	HF-MP43(B)G7 1/45	0.697 (0.727)		HG-KR43(B)G7 1/45	0.918 (0.940)	
	HF-MP73(B)G7 1/5	1.29 (1.39)		HG-KR73(B)G7 1/5	1.95 (2.06)	10 times or less
	HF-MP73(B)G7 1/11	1.17 (1.27)		HG-KR73(B)G7 1/11	1.83 (1.94)	
	HF-MP73(B)G7 1/21	1.37 (1.47)		HG-KR73(B)G7 1/21	2.03 (2.14)	
	HF-MP73(B)G7 1/33	1.14 (1.24)		HG-KR73(B)G7 1/33	1.80 (1.91)	
	HF-MP73(B)G7 1/45	1.13 (1.23)		HG-KR73(B)G7 1/45	1.79 (1.90)	

\*1. For the motor specifications not listed here, refer to the catalog or Instruction Manual.  
If the load to motor inertia ratio exceeds the indicated value, contact your local sales office.

■ HF-SP Series

( ): With electromagnetic brake

Series	Former model			Replacement model		
	Model	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio	Replacement model example	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio
Medium capacity, medium inertia HF-SP series  (B): With electromagnetic brake	HF-SP51(B)	11.9 (14.0)	15 times or less	HG-SR51(B)	11.6 (13.8)	17 times or less
	HF-SP81(B)	17.8 (20.0)		HG-SR81(B)	16.0 (18.2)	15 times or less
	HF-SP121(B)	38.3 (47.9)		HG-SR121(B)	46.8 (56.5)	
	HF-SP201(B)	75.0 (84.7)		HG-SR201(B)	78.6 (88.2)	
	HF-SP301(B)	97.0 (107)		HG-SR301(B)	99.7 (109)	
	HF-SP421(B)	154 (164)		HG-SR421(B)	151 (161)	
	HF-SP52(B)	6.1 (8.3)		HG-SR52(B)	7.26 (9.48)	17 times or less
	HF-SP524(B)			HG-SR524(B)		
	HF-SP102(B)	11.9 (14.0)		HG-SR102(B)	11.6 (13.8)	17 times or less
	HF-SP1024(B)			HG-SR1024(B)		
	HF-SP152(B)	17.8 (20.0)		HG-SR152(B)	16.0 (18.2)	15 times or less
	HF-SP1524(B)			HG-SR1524(B)		
	HF-SP202(B)	38.3 (47.9)		HG-SR202(B)	46.8 (56.5)	
	HF-SP2024(B)			HG-SR2024(B)		
	HF-SP352(B)	75.0 (84.7)		HG-SR352(B)	78.6 (88.2)	
	HF-SP3524(B)			HG-SR3524(B)		
	HF-SP502(B)	97.0 (107)		HG-SR502(B)	99.7 (109)	15 times or less
	HF-SP5024(B)			HG-SR5024(B)		
	HF-SP702(B)	154 (164)		HG-SR702(B)	151 (161)	15 times or less
	HF-SP7024(B)			HG-SR7024(B)		

\*1. For the motor specifications not listed here, refer to the catalog or Instruction Manual.  
If the load to motor inertia ratio exceeds the indicated value, contact your local sales office.

■ HF-SP Series

( ): With electromagnetic brake

Series	Former model			Replacement model		
	Model	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio	Replacement model example	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio
Medium capacity, medium inertia HF-SP series With gear reducer for general industrial machines  (4): 400 V specifications (B): With electromagnetic brake  G1: Flange-mounting G1H: Foot-mounting	HF-SP52(4)(B)G1(H) 1/6	7.10 (9.30)	4 times or less	HG-SR52(4)(B)G1(H) 1/6	8.08 (10.3)	4 times or less
	HF-SP52(4)(B)G1(H) 1/11	6.70 (8.80)		HG-SR52(4)(B)G1(H) 1/11	7.65 (9.85)	
	HF-SP52(4)(B)G1(H) 1/17	6.60 (8.70)		HG-SR52(4)(B)G1(H) 1/17	7.53 (9.73)	
	HF-SP52(4)(B)G1(H) 1/29	6.50 (8.70)		HG-SR52(4)(B)G1(H) 1/29	7.47 (9.67)	
	HF-SP52(4)(B)G1(H) 1/35	7.30 (9.40)		HG-SR52(4)(B)G1(H) 1/35	8.26 (10.5)	
	HF-SP52(4)(B)G1(H) 1/43	7.30 (9.40)		HG-SR52(4)(B)G1(H) 1/43	8.22 (10.4)	
	HF-SP52(4)(B)G1(H) 1/59	7.20 (9.40)		HG-SR52(4)(B)G1(H) 1/59	8.18 (10.4)	
	HF-SP102(4)(B)G1(H) 1/6	15.4 (17.5)		HG-SR102(4)(B)G1(H) 1/6	14.8 (17.0)	
	HF-SP102(4)(B)G1(H) 1/11	13.9 (16.0)		HG-SR102(4)(B)G1(H) 1/11	13.3 (15.5)	
	HF-SP102(4)(B)G1(H) 1/17	13.5 (15.6)		HG-SR102(4)(B)G1(H) 1/17	12.9 (15.1)	
	HF-SP102(4)(B)G1(H) 1/29	13.2 (15.3)		HG-SR102(4)(B)G1(H) 1/29	12.6 (14.8)	
	HF-SP102(4)(B)G1(H) 1/35	13.2 (15.3)		HG-SR102(4)(B)G1(H) 1/35	12.6 (14.8)	
	HF-SP102(4)(B)G1(H) 1/43	14.3 (16.5)		HG-SR102(4)(B)G1(H) 1/43	13.8 (16.0)	
	HF-SP102(4)(B)G1(H) 1/59	20.3 (22.4)		HG-SR102(4)(B)G1(H) 1/59	19.1 (21.3)	
	HF-SP152(4)(B)G1(H) 1/6	21.3 (23.4)		HG-SR152(4)(B)G1(H) 1/6	19.2 (21.4)	
	HF-SP152(4)(B)G1(H) 1/11	19.8 (21.9)		HG-SR152(4)(B)G1(H) 1/11	17.7 (19.9)	
	HF-SP152(4)(B)G1(H) 1/17	19.4 (21.6)		HG-SR152(4)(B)G1(H) 1/17	17.3 (19.5)	
	HF-SP152(4)(B)G1(H) 1/29	20.4 (22.6)		HG-SR152(4)(B)G1(H) 1/29	18.4 (20.6)	
	HF-SP152(4)(B)G1(H) 1/35	20.4 (22.5)		HG-SR152(4)(B)G1(H) 1/35	18.3 (20.5)	
	HF-SP152(4)(B)G1(H) 1/43	26.3 (28.4)		HG-SR152(4)(B)G1(H) 1/43	23.6 (25.8)	
	HF-SP152(4)(B)G1(H) 1/59	26.2 (28.3)		HG-SR152(4)(B)G1(H) 1/59	23.5 (25.7)	
	HF-SP202(4)(B)G1(H) 1/6	42.1 (51.7)		HG-SR202(4)(B)G1(H) 1/6	50.0 (59.4)	
	HF-SP202(4)(B)G1(H) 1/11	40.5 (50.2)		HG-SR202(4)(B)G1(H) 1/11	48.4 (57.8)	
	HF-SP202(4)(B)G1(H) 1/17	40.2 (49.8)		HG-SR202(4)(B)G1(H) 1/17	48.1 (57.5)	
	HF-SP202(4)(B)G1(H) 1/29	46.9 (56.6)		HG-SR202(4)(B)G1(H) 1/29	54.8 (64.2)	
	HF-SP202(4)(B)G1(H) 1/35	46.7 (56.4)		HG-SR202(4)(B)G1(H) 1/35	54.5 (63.9)	
	HF-SP202(4)(B)G1(H) 1/43	46.4 (56.1)		HG-SR202(4)(B)G1(H) 1/43	54.3 (63.7)	
	HF-SP202(4)(B)G1(H) 1/59	46.4 (56.0)		HG-SR202(4)(B)G1(H) 1/59	54.2 (63.6)	
	HF-SP352(4)(B)G1(H) 1/6	84.4 (94.0)		HG-SR352(4)(B)G1(H) 1/6	87.1 (96.5)	
	HF-SP352(4)(B)G1(H) 1/11	80.1 (89.8)		HG-SR352(4)(B)G1(H) 1/11	82.8 (92.2)	
	HF-SP352(4)(B)G1(H) 1/17	78.8 (88.5)		HG-SR352(4)(B)G1(H) 1/17	81.5 (90.9)	
	HF-SP352(4)(B)G1(H) 1/29	83.9 (93.6)		HG-SR352(4)(B)G1(H) 1/29	86.6 (96.0)	
	HF-SP352(4)(B)G1(H) 1/35	83.7 (93.3)		HG-SR352(4)(B)G1(H) 1/35	86.3 (95.7)	
	HF-SP352(4)(B)G1(H) 1/43	101.9 (111.5)		HG-SR352(4)(B)G1(H) 1/43	105 (114)	
	HF-SP352(4)(B)G1(H) 1/59	101.3 (110.9)		HG-SR352(4)(B)G1(H) 1/59	104 (113)	
	HF-SP502(4)(B)G1(H) 1/6	121.2 (130.8)		HG-SR502(4)(B)G1(H) 1/6	126 (135)	
	HF-SP502(4)(B)G1(H) 1/11	108.9 (118.5)		HG-SR502(4)(B)G1(H) 1/11	114 (123)	
	HF-SP502(4)(B)G1(H) 1/17	104.8 (114.5)		HG-SR502(4)(B)G1(H) 1/17	110 (119)	
	HF-SP502(4)(B)G1(H) 1/29	135.6 (145.3)		HG-SR502(4)(B)G1(H) 1/29	141 (150)	
	HF-SP502(4)(B)G1(H) 1/35	135.1 (144.8)		HG-SR502(4)(B)G1(H) 1/35	140 (150)	
	HF-SP502(4)(B)G1(H) 1/43	134.1 (143.8)		HG-SR502(4)(B)G1(H) 1/43	139 (149)	
	HF-SP502(4)(B)G1(H) 1/59	132.9 (142.6)		HG-SR502(4)(B)G1(H) 1/59	138 (147)	
	HF-SP702(4)(B)G1(H) 1/6	177.4 (187.0)		HG-SR702(4)(B)G1(H) 1/6	177 (187)	
	HF-SP702(4)(B)G1(H) 1/11	190.2 (199.9)		HG-SR702(4)(B)G1(H) 1/11	190 (199)	
	HF-SP702(4)(B)G1(H) 1/17	182.7 (192.4)		HG-SR702(4)(B)G1(H) 1/17	182 (192)	
	HF-SP702(4)(B)G1(H) 1/29	192.3 (202.0)		HG-SR702(4)(B)G1(H) 1/29	192 (202)	
	HF-SP702(4)(B)G1(H) 1/35	191.8 (201.5)		HG-SR702(4)(B)G1(H) 1/35	192 (201)	
	HF-SP702(4)(B)G1(H) 1/43	269.8 (278.3)		HG-SR702(4)(B)G1(H) 1/43	267 (277)	
	HF-SP702(4)(B)G1(H) 1/59	268.0 (276.5)		HG-SR702(4)(B)G1(H) 1/59	266 (275)	

\*1. For the motor specifications not listed here, refer to the catalog or Instruction Manual.  
If the load to motor inertia ratio exceeds the indicated value, contact your local sales office.

■ HF-SP Series

( ): With electromagnetic brake

Series	Former model			Replacement model		
	Model	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio	Replacement model example	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio
Medium capacity, medium inertia HF-SP series With flange-output type gear reducer for high precision applications, flange mounting (G5)  (4): 400 V specifications (B): With electromagnetic brake	HF-SP52(4)(B)G5 1/5	6.75 (8.95)	10 times or less	HG-SR52(4)(B)G5 1/5	7.91 (10.1)	10 times or less
	HF-SP52(4)(B)G5 1/11	6.66 (8.86)		HG-SR52(4)(B)G5 1/11	7.82 (10.0)	
	HF-SP52(4)(B)G5 1/21	9.00 (11.2)		HG-SR52(4)(B)G5 1/21	10.2 (12.4)	
	HF-SP52(4)(B)G5 1/33	8.80 (11.0)		HG-SR52(4)(B)G5 1/33	9.96 (12.2)	
	HF-SP52(4)(B)G5 1/45	8.80 (11.0)		HG-SR52(4)(B)G5 1/45	9.96 (12.2)	
	HF-SP102(4)(B)G5 1/5	12.6 (14.7)		HG-SR102(4)(B)G5 1/5	12.3 (14.5)	
	HF-SP102(4)(B)G5 1/11	15.2 (17.3)		HG-SR102(4)(B)G5 1/11	14.9 (17.1)	
	HF-SP102(4)(B)G5 1/21	14.8 (16.9)		HG-SR102(4)(B)G5 1/21	14.5 (16.7)	
	HF-SP102(4)(B)G5 1/33	16.6 (18.7)		HG-SR102(4)(B)G5 1/33	16.3 (18.5)	
	HF-SP102(4)(B)G5 1/45	16.5 (18.6)		HG-SR102(4)(B)G5 1/45	16.2 (18.4)	
	HF-SP152(4)(B)G5 1/5	18.5 (20.7)		HG-SR152(4)(B)G5 1/5	16.7 (18.9)	
	HF-SP152(4)(B)G5 1/11	21.1 (23.3)		HG-SR152(4)(B)G5 1/11	19.3 (21.5)	
	HF-SP152(4)(B)G5 1/21	23.5 (25.7)		HG-SR152(4)(B)G5 1/21	21.7 (23.9)	
	HF-SP152(4)(B)G5 1/33	22.5 (24.7)		HG-SR152(4)(B)G5 1/33	20.7 (22.9)	
	HF-SP152(4)(B)G5 1/45	22.4 (24.6)		HG-SR152(4)(B)G5 1/45	20.6 (22.8)	
	HF-SP202(4)(B)G5 1/5	42.9 (52.5)		HG-SR202(4)(B)G5 1/5	51.4 (61.1)	
	HF-SP202(4)(B)G5 1/11	42.7 (52.3)		HG-SR202(4)(B)G5 1/11	51.2 (60.9)	
	HF-SP202(4)(B)G5 1/21	44.7 (54.3)		HG-SR202(4)(B)G5 1/21	53.2 (62.9)	
	HF-SP202(4)(B)G5 1/33	43.7 (53.3)		HG-SR202(4)(B)G5 1/33	52.2 (61.9)	
	HF-SP202(4)(B)G5 1/45	43.7 (53.3)		HG-SR202(4)(B)G5 1/45	52.2 (61.9)	
	HF-SP352(4)(B)G5 1/5	79.6 (89.3)		HG-SR352(4)(B)G5 1/5	83.2 (92.8)	
	HF-SP352(4)(B)G5 1/11	83.1 (92.8)		HG-SR352(4)(B)G5 1/11	86.7 (96.3)	
	HF-SP352(4)(B)G5 1/21	81.4 (91.1)		HG-SR352(4)(B)G5 1/21	85.0 (94.6)	
	HF-SP502(4)(B)G5 1/5	107.1 (117.1)		HG-SR502(4)(B)G5 1/5	110 (119)	
	HF-SP502(4)(B)G5 1/11	105.1 (115.1)		HG-SR502(4)(B)G5 1/11	108 (117)	
	HF-SP702(4)(B)G5 1/5	164.1 (174.1)		HG-SR702(4)(B)G5 1/5	161 (171)	
Medium capacity, medium inertia HF-SP series With shaft-output type reducer for high precision applications, flange mounting (G7)  (4): 400 V specifications (B): With electromagnetic brake	HF-SP52(4)(B)G7 1/5	6.79 (8.99)	10 times or less	HG-SR52(4)(B)G7 1/5	7.95 (10.2)	10 times or less
	HF-SP52(4)(B)G7 1/11	6.66 (8.86)		HG-SR52(4)(B)G7 1/11	7.82 (10.0)	
	HF-SP52(4)(B)G7 1/21	9.00 (11.2)		HG-SR52(4)(B)G7 1/21	10.2 (12.4)	
	HF-SP52(4)(B)G7 1/33	8.80 (11.0)		HG-SR52(4)(B)G7 1/33	9.96 (12.2)	
	HF-SP52(4)(B)G7 1/45	8.80 (11.0)		HG-SR52(4)(B)G7 1/45	9.96 (12.2)	
	HF-SP102(4)(B)G7 1/5	12.6 (14.7)		HG-SR102(4)(B)G7 1/5	12.3 (14.5)	
	HF-SP102(4)(B)G7 1/11	15.3 (17.4)		HG-SR102(4)(B)G7 1/11	15.0 (17.2)	
	HF-SP102(4)(B)G7 1/21	14.8 (16.9)		HG-SR102(4)(B)G7 1/21	14.5 (16.7)	
	HF-SP102(4)(B)G7 1/33	16.6 (18.7)		HG-SR102(4)(B)G7 1/33	16.3 (18.5)	
	HF-SP102(4)(B)G7 1/45	16.6 (18.7)		HG-SR102(4)(B)G7 1/45	16.3 (18.5)	
	HF-SP152(4)(B)G7 1/5	18.5 (20.7)		HG-SR152(4)(B)G7 1/5	16.7 (18.9)	
	HF-SP152(4)(B)G7 1/11	21.2 (23.4)		HG-SR152(4)(B)G7 1/11	19.4 (21.6)	
	HF-SP152(4)(B)G7 1/21	23.5 (25.7)		HG-SR152(4)(B)G7 1/21	21.7 (23.9)	
	HF-SP152(4)(B)G7 1/33	22.5 (24.7)		HG-SR152(4)(B)G7 1/33	20.7 (22.9)	
	HF-SP152(4)(B)G7 1/45	22.5 (24.7)		HG-SR152(4)(B)G7 1/45	20.7 (22.9)	
	HF-SP202(4)(B)G7 1/5	43.2 (52.8)		HG-SR202(4)(B)G7 1/5	51.7 (61.4)	
	HF-SP202(4)(B)G7 1/11	42.8 (52.4)		HG-SR202(4)(B)G7 1/11	51.3 (61.0)	
	HF-SP202(4)(B)G7 1/21	44.8 (54.4)		HG-SR202(4)(B)G7 1/21	53.3 (63.0)	
	HF-SP202(4)(B)G7 1/33	43.7 (53.3)		HG-SR202(4)(B)G7 1/33	52.2 (61.9)	
	HF-SP202(4)(B)G7 1/45	43.7 (53.3)		HG-SR202(4)(B)G7 1/45	52.2 (61.9)	
	HF-SP352(4)(B)G7 1/5	79.9 (89.6)		HG-SR352(4)(B)G7 1/5	83.5 (93.1)	
	HF-SP352(4)(B)G7 1/11	83.4 (93.1)		HG-SR352(4)(B)G7 1/11	87.0 (96.6)	
	HF-SP352(4)(B)G7 1/21	81.5 (91.2)		HG-SR352(4)(B)G7 1/21	85.1 (94.7)	
	HF-SP502(4)(B)G7 1/5	108.5 (118.5)		HG-SR502(4)(B)G7 1/5	111 (121)	
	HF-SP502(4)(B)G7 1/11	105.4 (115.4)		HG-SR502(4)(B)G7 1/11	108 (117)	
	HF-SP702(4)(B)G7 1/5	165.5 (175.5)		HG-SR702(4)(B)G7 1/5	163 (173)	

\*1. For the motor specifications not listed here, refer to the catalog or Instruction Manual.  
If the load to motor inertia ratio exceeds the indicated value, contact your local sales office.

■ HC-RP Series

( ): With electromagnetic brake

Series	Former model			Replacement model		
	Model	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio	Replacement model example	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio
Medium capacity, ultra-low inertia HC-RP series  (B): With electromagnetic brake	HC-RP103(B)	1.50 (1.85)	5 times or less	HG-RR103(B)	1.50 (1.85)	5 times or less
	HC-RP153(B)	1.90 (2.25)		HG-RR153(B)	1.90 (2.25)	
	HC-RP203(B)	2.30 (2.65)		HG-RR203(B)	2.30 (2.65)	
	HC-RP353(B)	8.30 (11.8)		HG-RR353(B)	8.30 (11.8)	
	HC-RP503(B)	12.0 (15.5)		HG-RR503(B)	12.0 (15.5)	
Medium capacity, ultra-low inertia HC-RP series With flange-output type gear reducer for high precision applications, flange mounting (G5)  (B): With electromagnetic brake	HC-RP103(B)G5 1/5	2.33 (2.68)	5 times or less	HG-SR102(B)G5 1/5	12.3 (14.5)	10 times or less
	HC-RP103(B)G5 1/11	2.25 (2.60)		HG-SR102(B)G5 1/11	14.9 (17.1)	
	HC-RP103(B)G5 1/21	4.40 (4.75)		HG-SR102(B)G5 1/21	14.5 (16.7)	
	HC-RP103(B)G5 1/33	4.20 (4.55)		HG-SR102(B)G5 1/33	16.3 (18.5)	
	HC-RP103(B)G5 1/45	6.10 (6.45)		HG-SR102(B)G5 1/45	16.2 (18.4)	
	HC-RP153(B)G5 1/5	2.73 (3.08)		HG-SR152(B)G5 1/5	16.7 (18.9)	
	HC-RP153(B)G5 1/11	5.20 (5.55)		HG-SR152(B)G5 1/11	19.3 (21.5)	
	HC-RP153(B)G5 1/21	4.80 (5.15)		HG-SR152(B)G5 1/21	21.7 (23.9)	
	HC-RP153(B)G5 1/33	6.60 (6.95)		HG-SR152(B)G5 1/33	20.7 (22.9)	
	HC-RP153(B)G5 1/45	6.50 (6.85)		HG-SR152(B)G5 1/45	20.6 (22.8)	
	HC-RP203(B)G5 1/5	3.13 (3.48)		HG-SR202(B)G5 1/5	51.4 (61.1)	
	HC-RP203(B)G5 1/11	5.60 (5.95)		HG-SR202(B)G5 1/11	51.2 (60.9)	
	HC-RP203(B)G5 1/21	8.00 (8.35)		HG-SR202(B)G5 1/21	53.2 (62.9)	
	HC-RP203(B)G5 1/33	7.00 (7.35)		HG-SR202(B)G5 1/33	52.2 (61.9)	
	HC-RP203(B)G5 1/45	6.90 (7.25)		HG-SR202(B)G5 1/45	52.2 (61.9)	
	HC-RP353(B)G5 1/5	13.2 (16.7)		HG-SR352(B)G5 1/5	83.2 (92.8)	
	HC-RP353(B)G5 1/11	13.0 (16.5)		HG-SR352(B)G5 1/11	86.7 (96.3)	
	HC-RP353(B)G5 1/21	15.0 (18.5)				
	HC-RP353(B)G5 1/33	14.1 (17.6)		HG-SR352(B)G5 1/21	85.0 (94.6)	
	HC-RP503(B)G5 1/5	16.9 (20.4)		HG-SR502(B)G5 1/5	110 (119)	
	HC-RP503(B)G5 1/11	20.5 (24.0)		HG-SR502(B)G5 1/11	108 (117)	
	HC-RP503(B)G5 1/21	18.7 (22.2)				
Medium capacity, ultra-low inertia HC-RP series With shaft-output type reducer for high precision applications, flange mounting (G7)  (B): With electromagnetic brake	HC-RP103(B)G7 1/5	2.37 (2.72)	5 times or less	HG-SR102(B)G7 1/5	12.3 (14.5)	10 times or less
	HC-RP103(B)G7 1/11	2.25 (2.60)		HG-SR102(B)G7 1/11	15.0 (17.2)	
	HC-RP103(B)G7 1/21	4.40 (4.75)		HG-SR102(B)G7 1/21	14.5 (16.7)	
	HC-RP103(B)G7 1/33	4.20 (4.55)		HG-SR102(B)G7 1/33	16.3 (18.5)	
	HC-RP103(B)G7 1/45	6.20 (6.55)		HG-SR102(B)G7 1/45	16.3 (18.5)	
	HC-RP153(B)G7 1/5	2.77 (3.12)		HG-SR152(B)G7 1/5	16.7 (18.9)	
	HC-RP153(B)G7 1/11	5.30 (5.65)		HG-SR152(B)G7 1/11	19.4 (21.6)	
	HC-RP153(B)G7 1/21	4.80 (5.15)		HG-SR152(B)G7 1/21	21.7 (23.9)	
	HC-RP153(B)G7 1/33	6.60 (6.95)		HG-SR152(B)G7 1/33	20.7 (22.9)	
	HC-RP153(B)G7 1/45	6.60 (6.95)		HG-SR152(B)G7 1/45	20.7 (22.9)	
	HC-RP203(B)G7 1/5	3.17 (3.52)		HG-SR202(B)G7 1/5	51.7 (61.4)	
	HC-RP203(B)G7 1/11	5.70 (6.05)		HG-SR202(B)G7 1/11	51.3 (61.0)	
	HC-RP203(B)G7 1/21	8.00 (8.35)		HG-SR202(B)G7 1/21	53.3 (63.0)	
	HC-RP203(B)G7 1/33	7.00 (7.35)		HG-SR202(B)G7 1/33	52.2 (61.9)	
	HC-RP203(B)G7 1/45	7.00 (7.35)		HG-SR202(B)G7 1/45	52.2 (61.9)	
	HC-RP353(B)G7 1/5	13.5 (17.0)		HG-SR352(B)G7 1/5	83.5 (93.1)	
	HC-RP353(B)G7 1/11	13.1 (16.6)		HG-SR352(B)G7 1/11	87.0 (96.6)	
	HC-RP353(B)G7 1/21	15.1 (18.6)				
	HC-RP353(B)G7 1/33	14.1 (17.6)		HG-SR352(B)G7 1/21	85.1 (94.7)	
	HC-RP503(B)G7 1/5	17.2 (20.7)		HG-SR502(B)G7 1/5	111 (121)	
	HC-RP503(B)G7 1/11	20.7 (24.2)				
	HC-RP503(B)G7 1/21	18.8 (22.3)		HG-SR502(B)G7 1/11	108 (117)	

\*1. For the motor specifications not listed here, refer to the catalog or Instruction Manual.  
If the load to motor inertia ratio exceeds the indicated value, contact your local sales office.

■ HC-LP/UP and HF-JP Series

( ): With electromagnetic brake

Series	Former model			Replacement model		
	Model	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio	Replacement model example	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio
Medium capacity, low inertia HC-LP series  (B): With electromagnetic brake	HC-LP52(B)	3.10 (5.20)	10 times or less	HG-JR73(B)	2.09 (2.59)	10 times or less
	HC-LP102(B)	4.62 (6.72)		HG-JR153(B)	3.79 (4.29)	
	HC-LP152(B)	6.42 (8.52)		HG-JR353(B)	13.2 (15.4)	
	HC-LP202(B)	22.0 (32.0)				
	HC-LP302(B)	36.0 (46.0)				
Medium capacity, flat type HC-UP series  (B): With electromagnetic brake	HC-UP72(B)	10.4 (12.5)	15 times or less	HG-UR72(B)	10.4 (12.5)	15 times or less
	HC-UP152(B)	22.1 (24.2)		HG-UR152(B)	22.1 (24.2)	
	HC-UP202(B)	38.2 (46.8)		HG-UR202(B)	38.2 (46.8)	
	HC-UP352(B)	76.5 (85.1)		HG-UR352(B)	76.5 (85.1)	
	HC-UP502(B)	115 (124)		HG-UR502(B)	115 (124)	
Medium/large capacity, low inertia HF-JP series  (B): With electromagnetic brake	HF-JP53(B)	1.52 (2.02)	10 times or less	HG-JR53(B)	1.52 (2.02)	10 times or less
	HF-JP534(B)					
	HF-JP73(B)	2.09 (2.59)		HG-JR73(B)	2.09 (2.59)	
	HF-JP734(B)					
	HF-JP103(B)	2.65 (3.15)		HG-JR103(B)	2.65 (3.15)	
	HF-JP1034(B)					
	HF-JP153(B)	3.79 (4.29)		HG-JR153(B)	3.79 (4.29)	
	HF-JP1534(B)					
	HF-JP203(B)	4.92 (5.42)		HG-JR203(B)	4.92 (5.42)	
	HF-JP2034(B)					
	HF-JP353(B)	13.2 (15.4)		HG-JR353(B)	13.2 (15.4)	
	HF-JP3534(B)					
	HF-JP503(B)	19.0 (21.2)		HG-JR503(B)	19.0 (21.2)	
	HF-JP5034(B)					
	HF-JP703(B)	43.3 (52.9)		HG-JR703(B)	43.3 (52.9)	
	HF-JP7034(B)					
	HF-JP903(B)	55.8 (65.4)		HG-JR903(B)	55.8 (65.4)	
	HF-JP9034(B)					
	HF-JP11K1M(B)	220 (240)		HG-JR11K1M(B)	220 (240)	
	HF-JP11K1M4(B)					
	HF-JP15K1M(B)	315 (336)		HG-JR15K1M(B)	315 (336)	
	HF-JP15K1M4(B)					

\*1. For the motor specifications not listed here, refer to the catalog or Instruction Manual.  
If the load to motor inertia ratio exceeds the indicated value, contact your local sales office.

■ HA-LP Series

( ): With electromagnetic brake

Series	Former model			Replacement model		
	Model	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio	Replacement model example	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio
Medium/large capacity, low inertia HA-LP 1000 r/min series  (B): With electromagnetic brake	HA-LP601(B) HA-LP6014(B)	105 (113)	10 times or less	HG-JR601(B) HG-JR6014(B)	176 (196)	10 times or less
	HA-LP801(B) HA-LP8014(B)	220 (293)		HG-JR801(B) HG-JR8014(B)	220 (240)	
	HA-LP12K1(B) HA-LP12K14(B)	295 (369)		HG-JR12K1(B) HG-JR12K14(B)	315 (336)	
	HA-LP15K1 HA-LP15K14	550		HG-JR15K1 HG-JR15K14	489	
	HA-LP20K1 HA-LP20K14	650		HG-JR20K1 HG-JR20K14	627	
	HA-LP25K1 HA-LP25K14	1080		HG-JR25K1 HG-JR25K14	764	
	HA-LP30K1 HA-LP30K14	1310		HG-JR30K1 HG-JR30K14	1377	
	HA-LP37K1 HA-LP37K14	1870		HG-JR37K1 HG-JR37K14	1637	
	HA-LP701M(B) HA-LP701M4(B)	105 (113)		HG-JR701M(B) HG-JR701M4(B)	176 (196)	
	HA-LP11K1M(B) HA-LP11K1M4(B)	220 (293)		HG-JR11K1M(B) HG-JR11K1M4(B)	220 (240)	
Medium/large capacity, low inertia HA-LP 1500 r/min series  (B): With electromagnetic brake	HA-LP15K1M(B) HA-LP15K1M4(B)	295 (369)		HG-JR15K1M(B) HG-JR15K1M4(B)	315 (336)	
	HA-LP22K1M HA-LP22K1M4	550		HG-JR22K1M HG-JR22K1M4	489	
	HA-LP30K1M HA-LP30K1M4	650		HG-JR30K1M HG-JR30K1M4	627	
	HA-LP37K1M HA-LP37K1M4	1080		HG-JR37K1M HG-JR37K1M4	764	
	HA-LP45K1M4 HA-LP50K1M4	1310 1870		HG-JR45K1M4 HG-JR55K1M4	1377 1637	
	HA-LP502 HA-LP702	74.0 94.2		HG-SR502 HG-SR702	99.7 151	15 times or less
	HA-LP11K2(B) HA-LP11K24(B)	105 (113)		HG-JR11K1M(B) HG-JR11K1M4(B)	220 (240)	10 times or less
	HA-LP15K2(B) HA-LP15K24(B)	220 (293)		HG-JR15K1M(B) HG-JR15K1M4(B)	315 (336)	
	HA-LP22K2(B) HA-LP22K24(B)	295 (369)		HG-JR22K1M HG-JR22K1M4	489	
	HA-LP30K2 HA-LP30K24	550		HG-JR30K1M HG-JR30K1M4	627	
	HA-LP37K2 HA-LP37K24	650		HG-JR37K1M4 HG-JR45K1M4	764 1377	
	HA-LP45K24 HA-LP55K24	1080 1310				
Medium/large capacity, low inertia HA-LP 2000 r/min series  (B): With electromagnetic brake						

\*1. For the motor specifications not listed here, refer to the catalog or Instruction Manual.  
If the load to motor inertia ratio exceeds the indicated value, contact your local sales office.

■ HA-LP Series

( ): With electromagnetic brake

Series	Former model			Replacement model				
	Model	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio	Replacement model example	Moment of inertia J × 10 <sup>-4</sup> kg·m <sup>2</sup>	Load to motor inertia ratio		
Medium/large capacity, low inertia HA-LP 1000 r/min series  (B): With electromagnetic brake	HA-LP601(B) HA-LP6014(B)	105 (113)	10 times or less	HG-JR601R(B)-S HG-JR6014R(B)-S	198 (218)	10 times or less		
	HA-LP801(B) HA-LP8014(B)	220 (293)		HG-JR801R(B)-S HG-JR8014R(B)-S	228 (248)			
	HA-LP12K1(B) HA-LP12K14(B)	295 (369)		HG-JR12K1R(B)-S HG-JR12K14R(B)-S	323 (344)			
	HA-LP15K1 HA-LP15K14	550		HG-JR15K1R-S HG-JR15K14R-S	487			
	HA-LP20K1 HA-LP20K14	650		HG-JR20K1R-S HG-JR20K14R-S	625			
	HA-LP25K1 HA-LP25K14	1080		HG-JR25K1R-S HG-JR25K14R-S	767			
	HA-LP30K1 HA-LP30K14	1310		HG-JR30K1R-S HG-JR30K14R-S	1356			
	HA-LP37K1 HA-LP37K14	1870		HG-JR37K1R-S HG-JR37K14R-S	1650			
	Medium/large capacity, low inertia HA-LP 1500 r/min series  (B): With electromagnetic brake	HA-LP701M(B) HA-LP701M4(B)		105 (113)	HG-JR701MR(B)-S HG-JR701M4R(B)-S		198 (218)	
		HA-LP11K1M(B) HA-LP11K1M4(B)		220 (293)	HG-JR11K1MR(B)-S (□250) HG-JR11K1M4R(B)-S (□250)		228 (248)	
HA-LP15K1M(B) HA-LP15K1M4(B)		295 (369)		HG-JR15K1MR(B)-S HG-JR15K1M4R(B)-S	323 (344)			
HA-LP22K1M HA-LP22K1M4		550		HG-JR22K1MR-S HG-JR22K1M4R-S	487			
HA-LP30K1M HA-LP30K1M4		650		HG-JR30K1MR-S HG-JR30K1M4R-S	625			
HA-LP37K1M HA-LP37K1M4		1080		HG-JR37K1MR-S HG-JR37K1M4R-S	767			
HA-LP45K1M4		1310		HG-JR45K1M4R-S	1356			
HA-LP50K1M4		1870		HG-JR55K1M4R-S	1651			
Medium/large capacity, low inertia HA-LP 2000 r/min series  (B): With electromagnetic brake		HA-LP502 HA-LP702		74.0 94.2	HG-SR502R-S HG-SR702R-S		104 155	15 times or less
		HA-LP11K2(B) HA-LP11K24(B)		105 (113)	HG-JR11K1MR(B)-S (□200) HG-JR11K1M4R(B)-S (□200)		236 (256)	10 times or less
	HA-LP15K2(B) HA-LP15K24(B)	220 (293)		HG-JR11K1MR(B)-S (□250) HG-JR11K1M4R(B)-S (□250)	228 (248)			
	HA-LP22K2(B) HA-LP22K24(B)	295 (369)		HG-JR15K1MR(B)-S HG-JR15K1M4R(B)-S	323 (344)			
	HA-LP30K2 HA-LP30K24	550		HG-JR22K1MR-S HG-JR22K1M4R-S	487			
	HA-LP37K2 HA-LP37K24	650		HG-JR30K1MR-S HG-JR30K1M4R-S	625			
	HA-LP45K24	1080		HG-JR37K1M4R-S	767			
	HA-LP55K24	1310		HG-JR45K1M4R-S	1356			

\*1. For the motor specifications not listed here, refer to the catalog or Instruction Manual.  
If the load to motor inertia ratio exceeds the indicated value, contact your local sales office.



## 2.3 Linear Servo Motor

### 2.3.1 Linear Servo Motor Replacement Model and Compatibility

For the detailed specifications of the linear servo motors, refer to the catalog or Instruction Manual.

#### ■ LM-N Series

Series		Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
LM-N series	Primary side	LM-NP2S-05M	LM-FP2B-06M-1SS0	(*1)	<ul style="list-style-type: none"> <li>The power and thermistor connectors are different between the former and replacement models. For details, refer to "2.3.4 Comparison of Linear Servo Motor Connection Methods".</li> </ul>
		LM-NP2M-10M	LM-FP2D-12M-1SS0		
		LM-NP2L-15M	LM-FP2F-18M-1SS0		
	Secondary side	LM-NS20-360	LM-FS20-480-1SS0		
		LM-NS20-540	LM-FS20-576-1SS0		
	Primary side	LM-NP4S-10M	LM-FP4B-12M-1SS0		
		LM-NP4M-20M	LM-FP4D-24M-1SS0		
		LM-NP4L-30M	LM-FP4F-36M-1SS0		
		LM-NP4G-40M	LM-FP4H-48M-1SS0		
	Secondary side	LM-NS40-360	LM-FS40-480-1SS0		
		LM-NS40-540	LM-FS40-576-1SS0		

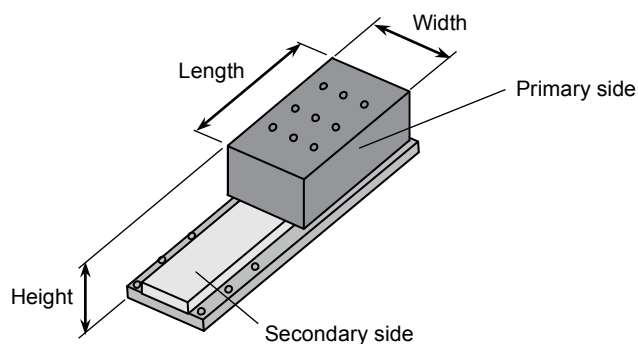
\*1. For the dimensions, refer to "2.3.2 Comparison of Linear Servo Motor Dimensions" and "2.3.3 Comparison of Mounting Dimensions of Linear Servo Motors".

#### ■ LM-H2 Series

Series		Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
LM-H2 series	Primary side	LM-H2P1A-06M-4SS0	LM-H3P2A-07P-BSS0	(*1)	<ul style="list-style-type: none"> <li>When replacing the models marked with ◆, note that the round crimp terminal and wire size are different between the former and replacement models. For details, refer to "2.3.4 Comparison of Linear Servo Motor Connection Methods".</li> </ul>
		LM-H2S10-288-4SS0	LM-H3S20-288-BSS0		
	Secondary side	LM-H2S10-384-4SS0	LM-H3S20-384-BSS0		
		LM-H2S10-480-4SS0	LM-H3S20-480-BSS0		
		LM-H2S10-768-4SS0	LM-H3S20-768-BSS0		
	Primary side	LM-H2P2A-12M-1SS0 ◆	LM-H3P3A-12P-CSS0		
		LM-H2P2B-24M-1SS0	LM-H3P3B-24P-CSS0		
		LM-H2P2C-36M-1SS0	LM-H3P3C-36P-CSS0		
		LM-H2P2D-48M-1SS0	LM-H3P3D-48P-CSS0		
	Secondary side	LM-H2S20-288-1SS0	LM-H3S30-288-CSS0		
		LM-H2S20-384-1SS0	LM-H3S30-384-CSS0		
		LM-H2S20-480-1SS0	LM-H3S30-480-CSS0		
		LM-H2S20-768-1SS0	LM-H3S30-768-CSS0		
	Primary side	LM-H2P3A-24M-1SS0 ◆	LM-H3P7A-24P-ASS0		
		LM-H2P3B-48M-1SS0	LM-H3P7B-48P-ASS0		
		LM-H2P3C-72M-1SS0	LM-H3P7C-72P-ASS0		
		LM-H2P3D-96M-1SS0	LM-H3P7D-96P-ASS0		
	Secondary side	LM-H2S30-288-1SS0	LM-H3S70-288-ASS0		
		LM-H2S30-384-1SS0	LM-H3S70-384-ASS0		
		LM-H2S30-480-1SS0	LM-H3S70-480-ASS0		
		LM-H2S30-768-1SS0	LM-H3S70-768-ASS0		

\*1. For the dimensions, refer to "2.3.2 Comparison of Linear Servo Motor Dimensions" and "2.3.3 Comparison of Mounting Dimensions of Linear Servo Motors".

## 2.3.2 Comparison of Linear Servo Motor Dimensions



### ■ LM-N/H2 Series

[Unit: mm]

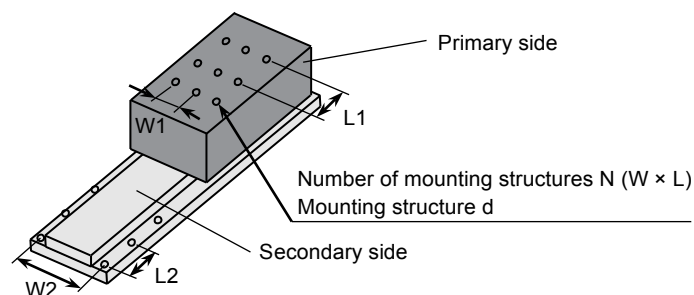
Series		Former model			Replacement model				
		Model	Length	Width	Height (primary side + secondary side)	Replacement model example	Length	Width	Height (primary side + secondary side)
LM-N series	Primary side	LM-NP2S-05M	290	130	70  Primary side: 50 Gap: 0.5 Secondary side: 19.5	LM-FP2B-06M-1SS0	290	128	70  Primary side: 50 Gap: 0.5 Secondary side: 19.5
		LM-NP2M-10M	530			LM-FP2D-12M-1SS0	530		
		LM-NP2L-15M	770			LM-FP2F-18M-1SS0	770		
	Secondary side	LM-NS20-360	360	120		LM-FS20-480-1SS0	480	120	
		LM-NS20-540	540			LM-FS20-576-1SS0	576		
		LM-NP4S-10M	290			LM-FP4B-12M-1SS0	290		
	Primary side	LM-NP4M-20M	530	210	70  Primary side: 50 Gap: 0.5 Secondary side: 19.5	LM-FP4D-24M-1SS0	530	208	70  Primary side: 50 Gap: 0.5 Secondary side: 19.5
		LM-NP4L-30M	770			LM-FP4F-36M-1SS0	770		
		LM-NP4G-40M	1010			LM-FP4H-48M-1SS0	1010		
	Secondary side	LM-NS40-360	360	200		LM-FS40-480-1SS0	480	200	
LM-NS40-540		540	LM-FS40-576-1SS0			576			
LM-H2 series	Primary side	LM-H2P1A-06M-4SS0	128	50		43  Primary side: 31.8 Gap: 0.7 Secondary side: 10.5	LM-H3P2A-07P-BSS0	128	
	Secondary side	LM-H2S10-288-4SS0	288	42	LM-H3S20-288-BSS0		288	42	
		LM-H2S10-384-4SS0	384		LM-H3S20-384-BSS0		384		
		LM-H2S10-480-4SS0	480		LM-H3S20-480-BSS0		480		
		LM-H2S10-768-4SS0	768		LM-H3S20-768-BSS0	768			
	Primary side	LM-H2P2A-12M-1SS0	128	70	43  Primary side: 31.8 Gap: 0.7 Secondary side: 10.5	LM-H3P3A-12P-CSS0	128	65	43  Primary side: 32 Gap: 0.7 Secondary side: 10.3
		LM-H2P2B-24M-1SS0	224			LM-H3P3B-24P-CSS0	224		
		LM-H2P2C-36M-1SS0	320			LM-H3P3C-36P-CSS0	320		
		LM-H2P2D-48M-1SS0	416			LM-H3P3D-48P-CSS0	416		
	Secondary side	LM-H2S20-288-1SS0	288	65		LM-H3S30-288-CSS0	288	60	
		LM-H2S20-384-1SS0	384			LM-H3S30-384-CSS0	384		
		LM-H2S20-480-1SS0	480			LM-H3S30-480-CSS0	480		
		LM-H2S20-768-1SS0	768			LM-H3S30-768-CSS0	768		
	Primary side	LM-H2P3A-24M-1SS0	128	110	48  Primary side: 31.8 Gap: 0.7 Secondary side: 15.5	LM-H3P7A-24P-ASS0	128	100	48  Primary side: 32 Gap: 0.7 Secondary side: 15.3
		LM-H2P3B-48M-1SS0	224			LM-H3P7B-48P-ASS0	224		
		LM-H2P3C-72M-1SS0	320			LM-H3P7C-72P-ASS0	320		
		LM-H2P3D-96M-1SS0	416			LM-H3P7D-96P-ASS0	416		
	Secondary side	LM-H2S30-288-1SS0	288	105		LM-H3S70-288-ASS0	288	95	
		LM-H2S30-384-1SS0	384			LM-H3S70-384-ASS0	384		
		LM-H2S30-480-1SS0	480			LM-H3S70-480-ASS0	480		
		LM-H2S30-768-1SS0	768			LM-H3S70-768-ASS0	768		

\*1. For the dimensions not listed here, refer to the catalog or Instruction Manual.

\*2. For the detailed dimensions, refer to "2.3.3 Comparison of Mounting Dimensions of Linear Servo Motors".

\*3. The changed dimensions are shown with shading.

### 2.3.3 Comparison of Mounting Dimensions of Linear Servo Motors



#### ■ LM-N/H2 Series

[Unit: mm]

Series		Former model					Replacement model				
		Model	L1 or L2	W1 or W2	N (W × L)	d	Replacement model example	L1 or L2	W1 or W2	N (W × L)	d
LM-N series	Primary side	LM-NP2S-05M	90	85	2 × 3	M8	LM-FP2B-06M-1SS0	80	66	2 × 3	M8
		LM-NP2M-10M			2 × 5		LM-FP2D-12M-1SS0			2 × 6	
		LM-NP2L-15M			2 × 8		LM-FP2F-18M-1SS0			2 × 9	
	Secondary side	LM-NS20-360	90	100	2 × 4	φ9	LM-FS20-480-1SS0	96	100	2 × 5	φ9
		LM-NS20-540			2 × 6		LM-FS20-576-1SS0			2 × 6	
	Primary side	LM-NP4S-10M	90	75	3 × 3	M8	LM-FP4B-12M-1SS0	80	73	3 × 3	M8
		LM-NP4M-20M			3 × 5		LM-FP4D-24M-1SS0			3 × 6	
		LM-NP4L-30M			3 × 8		LM-FP4F-36M-1SS0			3 × 9	
		LM-NP4G-40M			3 × 11		LM-FP4H-48M-1SS0			3 × 12	
	Secondary side	LM-NS40-360	90	180	2 × 4	φ9	LM-FS40-480-1SS0	96	180	2 × 5	φ9
		LM-NS40-540			2 × 6		LM-FS40-576-1SS0			2 × 6	
LM-H2 series	Primary side	LM-H2P1A-06M-4SS0	32	(*2)	1 × 3	M5	LM-H3P2A-07P-BSS0	32	(*2)	1 × 3	M5
	Secondary side	LM-H2S10-288-4SS0	48	33	2 × 6	φ4.8	LM-H3S20-288-BSS0	48	33	2 × 6	φ4.8
		LM-H2S10-384-4SS0			2 × 8		LM-H3S20-384-BSS0			2 × 8	
		LM-H2S10-480-4SS0			2 × 10		LM-H3S20-480-BSS0			2 × 10	
		LM-H2S10-768-4SS0			2 × 16		LM-H3S20-768-BSS0			2 × 16	
	Primary side	LM-H2P2A-12M-1SS0	64	24	2 × 2	M5	LM-H3P3A-12P-CSS0	64	13	2 × 2	M5
		LM-H2P2B-24M-1SS0			2 × 3		LM-H3P3B-24P-CSS0			2 × 3	
		LM-H2P2C-36M-1SS0			2 × 5		LM-H3P3C-36P-CSS0			2 × 5	
		LM-H2P2D-48M-1SS0			2 × 6		LM-H3P3D-48P-CSS0			2 × 6	
		LM-H2S20-288-1SS0			2 × 6		LM-H3S30-288-CSS0			2 × 6	
	Secondary side	LM-H2S20-384-1SS0	48	55	2 × 8	φ5.8	LM-H3S30-384-CSS0	48	50	2 × 8	φ5.8
		LM-H2S20-480-1SS0			2 × 10		LM-H3S30-480-CSS0			2 × 10	
		LM-H2S20-768-1SS0			2 × 16		LM-H3S30-768-CSS0			2 × 16	
		LM-H2P3A-24M-1SS0			3 × 2	M5	LM-H3P7A-24P-ASS0		64	3 × 2	M5
	Primary side	LM-H2P3B-48M-1SS0	64	28	3 × 3		LM-H3P7B-48P-ASS0			3 × 3	
		LM-H2P3C-72M-1SS0			3 × 5		LM-H3P7C-72P-ASS0			3 × 5	
		LM-H2P3D-96M-1SS0			3 × 6		LM-H3P7D-96P-ASS0			3 × 6	
		LM-H2S30-288-1SS0			2 × 6	φ5.8	LM-H3S70-288-ASS0	48	85	2 × 6	φ5.8
	Secondary side	LM-H2S30-384-1SS0	48	95	2 × 8		LM-H3S70-384-ASS0			2 × 8	
		LM-H2S30-480-1SS0			2 × 10		LM-H3S70-480-ASS0			2 × 10	
		LM-H2S30-768-1SS0			2 × 16		LM-H3S70-768-ASS0			2 × 16	

\*1. For the dimensions not listed here, refer to the catalog or Instruction Manual.

\*2. The dimensions are not given because the tapped holes for mounting are aligned.

\*3. The changed dimensions are shown with shading.

## 2.3.4 Comparison of Linear Servo Motor Connection Methods

### ■LM-N/H2 Series

Series	Former model				Replacement model							
	Model	Power supply	Overheat protection	For liquid cooling	Replacement model example	Power supply	Overheat protection	For liquid cooling				
LM-N series	LM-NP2S-05M	MS3102A22-23P (Power supply: U, V, and W; grounding: E) (*1)	Thermal protector built in the power connector (G1, G2)	Screw: PT 1/4	LM-FP2B-06M-1SS0	D/MS3106A18-10P (Power supply: U, V, and W; grounding: E) 2PNCT-4 cores Effective length: 1000 mm	Thermal D/MS3106A14S-9P (G1, G2) 2PNCT-2 cores Effective length: 1000 mm	Screw: Rc 1/4				
	LM-NP2M-10M				LM-FP2D-12M-1SS0							
	LM-NP2L-15M				LM-FP2F-18M-1SS0							
	LM-NP4S-10M	MS3102A24-10P (Power supply: U, V, and W; grounding: E) (*1)	Thermal protector built in the power connector (G1, G2)	Screw: PT 3/8	LM-FP4B-12M-1SS0	D/MS3106A24-22P (Power supply: U, V, and W; grounding: E) 2PNCT-4 cores Effective length: 1000 mm						
	LM-NP4M-20M				LM-FP4D-24M-1SS0							
	LM-NP4L-30M				LM-FP4F-36M-1SS0							
	LM-NP4G-40M	MS3101A32-17P (Power supply: U, V, and W; grounding: E) Effective length: 700 mm	Thermal MS3101A10SL-4P Effective length: 700 mm		LM-FP4H-48M-1SS0							
LM-H2 series	LM-H2P1A-06M-4SS0	Round crimp terminal (1.25-4) (Power supply: U, V, and W; grounding: E) 4 wires-AWG20 Effective length: 400 mm	Thermistor Round crimp terminal (1.25-4) (G1, G2) 2 wires-AWG20 Effective length: 400 mm	(*2)	LM-H3P2A-07P-BSS0	Round crimp terminal (1.25-4) (Power supply: U, V, and W; grounding: E) 4 wires-AWG20 Effective length: 400 mm	Thermistor Round crimp terminal (1.25-4) (G1, G2) 2 wires-AWG20 Effective length: 400 mm	(*2)				
	LM-H2P2A-12M-1SS0				LM-H3P3A-12P-CSS0	Round crimp terminal (1.25-4) (Power supply: U, V, and W; grounding: E) 4 wires-AWG16 Effective length: 400 mm						
	LM-H2P2B-24M-1SS0	Round crimp terminal (1.25-4) (Power supply: U, V, and W; grounding: E) 4 wires-AWG16 Effective length: 400 mm			LM-H3P3B-24P-CSS0	Round crimp terminal (2-4) (Power supply: U, V, and W; grounding: E) 4 wires-AWG14 Effective length: 400 mm						
	LM-H2P2C-36M-1SS0				LM-H3P3C-36P-CSS0							
	LM-H2P2D-48M-1SS0				LM-H3P3D-48P-CSS0							
	LM-H2P3A-24M-1SS0	Round crimp terminal (1.25-4) (Power supply: U, V, and W; grounding: E) 4 wires-AWG20 Effective length: 400 mm			LM-H3P7A-24P-ASS0	Round crimp terminal (2-4) (Power supply: U, V, and W; grounding: E) 4 wires-AWG14 Effective length: 400 mm						
	LM-H2P3B-48M-1SS0	Round crimp terminal (2-4) (Power supply: U, V, and W; grounding: E)			LM-H3P7B-48P-ASS0							
	LM-H2P3C-72M-1SS0	4 wires-AWG14 Effective length: 400 mm			LM-H3P7C-72P-ASS0							
	LM-H2P3D-96M-1SS0				LM-H3P7D-96P-ASS0							

\*1. Cableless type.

\*2. This series is natural cooling type and has no connection for liquid cooling.

## 2.3.5 Comparison of Magnetic Attraction Force/Mass of Linear Servo Motors

### ■ LM-N/H2 Series

Series		Former model			Replacement model		
		Model	Magnetic attraction force [N]	Mass [kg]	Replacement model example	Magnetic attraction force [N]	Mass [kg]
LM-N series	Primary side	LM-NP2S-05M	3750	8.5	LM-FP2B-06M-1SS0	4500	9.0
		LM-NP2M-10M	7500	15	LM-FP2D-12M-1SS0	9000	18
		LM-NP2L-15M	11250	22	LM-FP2F-18M-1SS0	13500	27
	Secondary side	LM-NS20-360	(*)1	5.0	LM-FS20-480-1SS0	(*)1	7.0
		LM-NS20-540	(*)1	7.5	LM-FS20-576-1SS0	(*)1	9.0
	Primary side	LM-NP4S-10M	7500	14.5	LM-FP4B-12M-1SS0	9000	14
		LM-NP4M-20M	15000	27	LM-FP4D-24M-1SS0	18000	28
		LM-NP4L-30M	22500	40	LM-FP4F-36M-1SS0	27000	42
		LM-NP4G-40M	30000	53	LM-FP4H-48M-1SS0	36000	56
	Secondary side	LM-NS40-360	(*)1	9.0	LM-FS40-480-1SS0	(*)1	12
		LM-NS40-540	(*)1	13.5	LM-FS40-576-1SS0	(*)1	15
LM-H2 series	Primary side	LM-H2P1A-06M-4SS0	500	0.9	LM-H3P2A-07P-BSS0	630	0.9
		LM-H2S10-288-4SS0	(*)1	0.6	LM-H3S20-288-BSS0	(*)1	0.7
	Secondary side	LM-H2S10-384-4SS0	(*)1	0.8	LM-H3S20-384-BSS0	(*)1	0.9
		LM-H2S10-480-4SS0	(*)1	1.0	LM-H3S20-480-BSS0	(*)1	1.1
		LM-H2S10-768-4SS0	(*)1	1.6	LM-H3S20-768-BSS0	(*)1	1.8
	Primary side	LM-H2P2A-12M-1SS0	1000	1.4	LM-H3P3A-12P-CSS0	1100	1.3
		LM-H2P2B-24M-1SS0	1900	2.5	LM-H3P3B-24P-CSS0	2200	2.3
		LM-H2P2C-36M-1SS0	2700	3.6	LM-H3P3C-36P-CSS0	3300	3.3
		LM-H2P2D-48M-1SS0	3500	4.7	LM-H3P3D-48P-CSS0	4400	4.3
	Secondary side	LM-H2S20-288-1SS0	(*)1	1.1	LM-H3S30-288-CSS0	(*)1	1.0
		LM-H2S20-384-1SS0	(*)1	1.4	LM-H3S30-384-CSS0	(*)1	1.4
		LM-H2S20-480-1SS0	(*)1	1.8	LM-H3S30-480-CSS0	(*)1	1.7
		LM-H2S20-768-1SS0	(*)1	2.9	LM-H3S30-768-CSS0	(*)1	2.7
	Primary side	LM-H2P3A-24M-1SS0	2000	2.4	LM-H3P7A-24P-ASS0	2200	2.2
		LM-H2P3B-48M-1SS0	3700	4.3	LM-H3P7B-48P-ASS0	4400	3.9
		LM-H2P3C-72M-1SS0	5300	6.2	LM-H3P7C-72P-ASS0	6600	5.6
		LM-H2P3D-96M-1SS0	7000	8.1	LM-H3P7D-96P-ASS0	8800	7.3
	Secondary side	LM-H2S30-288-1SS0	(*)1	3.2	LM-H3S70-288-ASS0	(*)1	2.8
		LM-H2S30-384-1SS0	(*)1	4.3	LM-H3S70-384-ASS0	(*)1	3.7
		LM-H2S30-480-1SS0	(*)1	5.3	LM-H3S70-480-ASS0	(*)1	4.7
		LM-H2S30-768-1SS0	(*)1	8.5	LM-H3S70-768-ASS0	(*)1	7.4

\*1. The magnetic attraction force is not given because it depends on the primary side.

## 2.3.6 Comparison of Linear Encoders Compatible with Linear Servo Motors

### ■ LM-N Series

The following linear encoders are also compatible with the LM-F series: AT343A and ST741A (manufactured by Mitutoyo) and SL710 (manufactured by Magescale)

Linear encoder type	Model	
	Linear encoder compatible with LM-N series	Linear encoder compatible with LM-F series
Absolute type	<ul style="list-style-type: none"> <li>●Mitutoyo Corporation AT343A, AT543A, ST741A</li> <li>●Heidenhain Corporation LC 491M</li> </ul>	<ul style="list-style-type: none"> <li>●Magescale Co., Ltd. SR77, SR87</li> <li>●Mitutoyo Corporation AT343A, AT543A-SC, AT545A-SC, ST741A, ST742A, ST743A, ST744A, ST748A</li> <li>●Renishaw Inc. RESOLUTE RL40M</li> <li>●Heidenhain Corporation LC 493M, LC 193M, LIC 4193M, LIC 4195M, LIC 4197M, LIC 4199M</li> </ul>
Incremental type	<ul style="list-style-type: none"> <li>●Magescale Co., Ltd. SL710 + PL101R + MJ830, SH13 + MJ830</li> <li>●Renishaw Inc. RGH26P, RGH26Q, RGH26R</li> <li>●Heidenhain Corporation APE391M + LIDA48□</li> </ul>	<ul style="list-style-type: none"> <li>●Magescale Co., Ltd. SR75, SR85, SL710 + PL101-RM/RHM</li> <li>●Heidenhain Corporation LIDA 483 + EIB 392M (Number of divisions: 16384), LIDA 485 + EIB 392M (Number of divisions: 16384), LIDA 487 + EIB 392M (Number of divisions: 16384), LIDA 489 + EIB 392M (Number of divisions: 16384), LIDA 287 + EIB 392M (Number of divisions: 16384), LIDA 289 + EIB 392M (Number of divisions: 16384), LIF 481 + EIB 392M (Number of divisions: 4096), LIP 581 + EIB 392M (Number of divisions: 4096)</li> <li>●NIDEC SANKYO CORPORATION PSLH041</li> </ul>

### ■ LM-H2 Series

The following linear encoders are also compatible with the LM-H3 series: AT343A, AT543A-SC, ST741A, ST742A, ST743A, and ST744A (manufactured by Mitutoyo), LC 493M, LC 193M, LIDA 485 + EIB 392M, and LIDA 487 + EIB 392M (manufactured by Heidenhain), and SR75, SR77, SR85, SR87, and SL710 (manufactured by Magescale)

Linear encoder type	Model	
	Linear encoder compatible with LM-H2 series	Linear encoder compatible with LM-H3 series
Absolute type	<ul style="list-style-type: none"> <li>●Magescale Co., Ltd. SR77, SR87</li> <li>●Mitutoyo Corporation AT343A, AT543A-SC, AT545A-SC, ST741A, ST742A, ST743A, ST744A</li> <li>●Heidenhain Corporation LC 493M, LC 193M</li> </ul>	<ul style="list-style-type: none"> <li>●Magescale Co., Ltd. SR77, SR87</li> <li>●Mitutoyo Corporation AT343A, AT543A-SC, AT545A-SC, ST741A, ST742A, ST743A, ST744A, ST748A</li> <li>●Renishaw Inc. RESOLUTE RL40M</li> <li>●Heidenhain Corporation LC 493M, LC 193M, LIC 4193M, LIC 4195M, LIC 4197M, LIC 4199M</li> </ul>
Incremental type	<ul style="list-style-type: none"> <li>●Magescale Co., Ltd. SR75, SR85, SL710 + PL101-R/RH + MJ830, SL710 + PL101-R/RH + MJ831</li> <li>●Renishaw Inc. RGH26P, RGH26Q, RGH26R</li> <li>●Heidenhain Corporation LIDA 485 + EIB 392M, LIDA 487 + EIB 392M</li> </ul>	<ul style="list-style-type: none"> <li>●Magescale Co., Ltd. SR75, SR85, SL710 + PL101-RM/RHM</li> <li>●Heidenhain Corporation LIDA 483 + EIB 392M (Number of divisions: 16384), LIDA 485 + EIB 392M (Number of divisions: 16384), LIDA 487 + EIB 392M (Number of divisions: 16384), LIDA 489 + EIB 392M (Number of divisions: 16384), LIDA 287 + EIB 392M (Number of divisions: 16384), LIDA 289 + EIB 392M (Number of divisions: 16384), LIF 481 + EIB 392M (Number of divisions: 4096), LIP 581 + EIB 392M (Number of divisions: 4096)</li> <li>●NIDEC SANKYO CORPORATION PSLH041</li> </ul>

## 2.4 Regenerative Option

### 2.4.1 200 V Class/100 V Class

<Combination and regenerative power for the MR-J3 series>

Servo amplifier model	Built-in regenerative resistor [W]	Permissible regenerative power of regenerative option [W]								
		MR-RB								
		032 [40 Ω]	12 [40 Ω]	30 [13 Ω]	3N [9 Ω]	31 [6.7 Ω]	32 [40 Ω]	(*)1 50 [13 Ω]	(*)1 5N [9 Ω]	(*)1 51 [6.7 Ω]
MR-J3-10A(1)/B(1)/T(1)		30								
MR-J3-20A(1)/B(1)/T(1)	10	30	100							
MR-J3-40A(1)/B(1)/T(1)	10	30	100							
MR-J3-60A/B/T	10	30	100							
MR-J3-70A/B/T	20	30	100				300			
MR-J3-100A/B/T	20	30	100				300			
MR-J3-200A(N)/B(N)/T(N)(-RT)	100			300				500		
MR-J3-350A/B/T	100			300				500		
MR-J3-500A/B/T	130					300				500
MR-J3-700A/B/T	170					300				500

Servo amplifier model	Built-in regenerative resistor [W]	(*)2 Standard accessory [External]	Permissible regenerative power of regenerative option [W]							
			MR-RB							
			(*)2 5E [6 Ω]	(*)2 5R [3.2 Ω]	(*)2 9P [4.5 Ω]	(*)2 9F [3 Ω]	(*)2 9T [2.5 Ω]	139 [1.3 Ω]	(*)3 137 [1.3 Ω]	
MR-J3-11KA/B/T		GRZG400-1.5 Ω × 4 500 (800)	500 (800)							
MR-J3-11KA-LR/B-LR/T-LR		GRZG400-0.8 Ω × 4 500 (800)		500 (800)						
MR-J3-15KA/B/T		GRZG400-0.95 Ω × 5 850 (1300)			850 (1300)					
MR-J3-15KA-LR/B-LR/T-LR		GRZG400-0.6 Ω × 5 850 (1300)				850 (1300)				
MR-J3-22KA/B/T						850 (1300)				
MR-J3-DU30KA/B								1300	3900	
MR-J3-DU37KA/B								1300	3900	

\*1. Always install a cooling fan.

\*2. The value in the parentheses is applicable when a cooling fan is installed.

\*3. The value of MR-RB137 is the resultant resistance of three units.

<Combination and regenerative power for the MR-J4 series (replacement model)>

Servo amplifier model	Built-in regenerative resistor [W]	Permissible regenerative power of regenerative option [W]								
		MR-RB								
		032 [40 Ω]	12 [40 Ω]	30 [13 Ω]	3N [9 Ω]	31 [6.7 Ω]	32 [40 Ω]	(*)1 50 [13 Ω]	(*)1 5N [9 Ω]	(*)1 51 [6.7 Ω]
MR-J4-10A(1)/B(1)/T(1)		30								
MR-J4-20A(1)/B(1)/T(1)	10	30	100							
MR-J4-40A(1)/B(1)/T(1)	10	30	100							
MR-J4-60A(1)/B(1)/T(1)	10	30	100							
MR-J4-70A(1)/B(1)/T(1)	20	30	100				300			
MR-J4-100A(1)/B(1)/T(1)	20	30	100				300			
MR-J4-200A(1)/B(1)/T(1)	100			300				500		
MR-J4-350A(1)/B(1)/T(1)	100				300				500	
MR-J4-500A(1)/B(1)/T(1)	130					300				500
MR-J4-700A(1)/B(1)/T(1)	170					300				500

Servo amplifier model	Built-in regenerative resistor [W]	(*)2 Standard accessory [External]	Permissible regenerative power of regenerative option [W]						
			MR-RB						
			(*)2 5E [6 Ω]	(*)2 5R [3.2 Ω]	(*)2 9P [4.5 Ω]	(*)2 9F [3 Ω]	(*)2 9T [2.5 Ω]	139 [1.3 Ω]	(*)3 137 [1.3 Ω]
MR-J4-11KA(1)/B(1)/T(1)		GRZG400-0.8 Ω × 4 500 (800)		500 (800)					
MR-J4-15KA(1)/B(1)/T(1)		GRZG400-0.6 Ω × 5 850 (1300)				850 (1300)			
MR-J4-22KA(1)/B(1)/T(1)		GRZG400-0.5 Ω × 5 850 (1300)					850 (1300)		
MR-J4-DU30KA/B								1300	3900
MR-J4-DU37KA/B								1300	3900

\*1. Always install a cooling fan.

\*2. The value in the parentheses is applicable when a cooling fan is installed.

\*3. The value of MR-RB137 is the resultant resistance of three units.

\*4. The changed combinations are shown with shading.

\*5. Parameter settings (PA02 for MR-J4) may be required depending on the regenerative option models. For details, refer to the Instruction Manual.



## 2.4.2 400 V Class

### <Combination and regenerative power for the MR-J3 series>

Servo amplifier model	Built-in regenerative resistor [W]	Permissible regenerative power of regenerative option [W]							
		MR-RB							
		1H-4 [82 Ω]	(*)1 3M-4 [120 Ω]	(*)1 3G-4 [47 Ω]	(*)1 34-4 [26 Ω]	(*)1 3U-4 [22 Ω]	(*)1 5G-4 [47 Ω]	(*)1 54-4 [26 Ω]	(*)1 5U-4 [22 Ω]
MR-J3-60A4/B4/T4	15	100	300						
MR-J3-100A4/B4/T4	15	100	300						
MR-J3-200A4/B4/T4	100			300			500		
MR-J3-350A4/B4/T4	100			300			500		
MR-J3-500A4/B4/T4	130				300			500	
MR-J3-700A4/B4/T4	170				300			500	

Servo amplifier model	Built-in regenerative resistor [W]	(*)2 Standard accessory [External]	Permissible regenerative power of regenerative option [W]							
			MR-RB							
			(*)2 5K-4 [10 Ω]	(*)2 6B-4 [20 Ω]	(*)2 60-4 [12.5 Ω]	(*)2 6K-4 [10 Ω]	136-4 [5 Ω]	137-4 [4 Ω]	(*)3 138-4 [5 Ω]	(*)3 13V-4 [4 Ω]
MR-J3-11KA4/B4/T4		GRZG400-5 Ω × 4 500 (800)		500 (800)						
MR-J3-11KA4-LR/B4-LR/T4-LR		GRZG400-5 Ω × 4 500 (800)		500 (800)						
MR-J3-15KA4/B4/T4		GRZG400-2.5 Ω × 5 850 (1300)			850 (1300)					
MR-J3-15KA4-LR/B4-LR/T4-LR		GRZG400-2 Ω × 5 850 (1300)				850 (1300)				
MR-J3-22KA4/B4/T4						850 (1300)				
MR-J3-DU30KA4/B4							1300		3900	
MR-J3-DU37KA4/B4							1300		3900	
MR-J3-DU45KA4/B4							1300		3900	
MR-J3-DU55KA4/B4							1300		3900	

\*1. Always install a cooling fan.

\*2. The value in the parentheses is applicable when a cooling fan is installed.

\*3. The value of MR-RB138-4 is the resultant resistance of three units.

<Combination and regenerative power for the MR-J4 series (replacement model)>

Servo amplifier model	Built-in regenerative resistor [W]	Permissible regenerative power of regenerative option [W]							
		MR-RB							
		1H-4 [82 Ω]	(*1) 3M-4 [120 Ω]	(*1) 3G-4 [47 Ω]	(*1) 34-4 [26 Ω]	(*1) 3U-4 [22 Ω]	(*1) 5G-4 [47 Ω]	(*1) 54-4 [26 Ω]	(*1) 5U-4 [22 Ω]
MR-J4-60A4/B4/GF4	15	100	300						
MR-J4-100A4/B4/GF4	15	100	300						
MR-J4-200A4/B4/GF4	100			300			500		
MR-J4-350A4/B4/GF4	100			300			500		
MR-J4-500A4/B4/GF4	130				300			500	
MR-J4-700A4/B4/GF4	170					300			500

Servo amplifier model	Built-in regenerative resistor [W]	(*2) Standard accessory [External]	Permissible regenerative power of regenerative option [W]							
			MR-RB							
			(*2) 5K-4 [10 Ω]	(*2) 6B-4 [20 Ω]	(*2) 60-4 [12.5 Ω]	(*2) 6K-4 [10 Ω]	136-4 [5 Ω]	137-4 [4 Ω]	(*3) 138-4 [5 Ω]	(*3) 13V-4 [4 Ω]
MR-J4-11KA4/B4/GF4		GRZG400-2.5 Ω × 4 500 (800)	500 (800)							
MR-J4-15KA4/B4/GF4		GRZG400-2.0 Ω × 5 850 (1300)				850 (1300)				
MR-J4-22KA4/B4/GF4		GRZG400-2.0 Ω × 5 850 (1300)				850 (1300)				
MR-J4-DU30KA4/B4								1300		3900
MR-J4-DU37KA4/B4								1300		3900
MR-J4-DU45KA4/B4								1300		3900
MR-J4-DU55KA4/B4								1300		3900

\*1. Always install a cooling fan.

\*2. The value in the parentheses is applicable when a cooling fan is installed.

\*3. The value of MR-RB138-4 is the resultant resistance of three units.

\*4. The changed combinations are shown with shading.

\*5. Parameter settings (PA02 for MR-J4) may be required depending on the regenerative option models. For details, refer to the Instruction Manual.

## 2.5 Dynamic Brake Option

Model	Applicable servo amplifier	
DBU-11K	MR-J3-11KA/B/T	MR-J4-11KA/B/GF
DBU-15K	MR-J3-15KA/B/T	MR-J4-15KA/B/GF
DBU-22K	MR-J3-22KA/B/T	
DBU-22K-R1	-	MR-J4-22KA/B/GF
DBU-37K	MR-J3-DU30KA/B MR-J3-DU37KA/B	
DBU-37K-R1	-	MR-J4-DU30KA/B MR-J4-DU37KA/B
DBU-11K-4	MR-J3-11KA4/B4/T4	MR-J4-11KA4/B4/GF4
DBU-22K-4	MR-J3-15KA4/B4/T4 MR-J3-22KA4/B4/T4	MR-J4-15KA4/B4/GF4 MR-J4-22KA4/B4/GF4
DBU-55K-4	MR-J3-DU30KA4/B4 MR-J3-DU37KA4/B4 MR-J3-DU45KA4/B4 MR-J3-DU55KA4/B4	
DBU-55K-4-R5	-	MR-J4-DU30KA4/B4 MR-J4-DU37KA4/B4 MR-J4-DU45KA4/B4 MR-J4-DU55KA4/B4

\*1. The changed combinations are shown with shading.

## 2.6 Cable Option

○: Compatible

Application		MR-J3 series	MR-J4 series	Compatibility	Precaution
Encoder cable		MR-J3ENCBL_M-A_-	←	○	Use the same combination. _M: Cable length _A_: Leading direction _-: Bending life
		MR-J3JCBL03M-A_-L	←	○	
		MR-EKCBL_M-	←	○	
		MR-J3JSCBL03M-A_-L	←	○	
		MR-J3ENSCBL_M-	←	○	
		MR-ENECBL_M-H	MR-ENECBL_M-H(-MTH)	(*1)	Use MR-ENECBL_M-H-MTH for the servo amplifier of 22 kW or more and for the drive unit. _: Cable length
Encoder connector set		MR-ECNM	←	○	Use the same combination.
		MR-J3SCNS	←	(*1)	Use the same combination for the servo amplifier of 15 kW or less.
			MR-ENECNS	(*1)	MR-ENECNS is required for the servo amplifier of 22 kW or more.
			MR-ENCNS2	○	The screw-type is added.
		MR-J3SCNSA	←	○	Use the same combination.
		MR-ENECNS	MR-ENCNS2A	○	The screw-type is added.
SSCNET optical communication cable		MR-J3BUS_M	←	○	Use the same combination. _M: Cable length
		MR-J3BUS_M_-	←	○	_: Bending life
Connector set for SSCNET optical communication		MR-J3BCN1	←	○	Use the same combination.
Junction terminal block cable	For CN1 of type A	MR-J2M-CN1TBL_M	←	○	Use the same combination. _: Cable length
Connector set		MR-J3CN1	←	○	Use the same combination.
Junction terminal block	For CN3 of type B	MR-TB50	←	○	Use the same combination.
Junction terminal block cable		MR-J2HBUS_M	←	○	Use the same combination. _: Cable length
Connector set		MR-CCN1	←	○	Use the same combination.
Servo motor power cable		MR-PWS1CBL_M-A_-	←	○	Use the same combination. _M: Cable length
		MR-PWS2CBL03M-A_-L	←	○	A_: Leading direction _-: Bending life
Power connector set (Servo motor-side power connector)		MR-PWCNS4	←	○	Use the same combination.
		MR-PWCNS5	←	○	
		MR-PWCNS3	←	○	
Electromagnetic brake cable		MR-BKS1CBL_M-A_-	←	○	Use the same combination. _M: Cable length
		MR-BKS2CBL03M-A_-L	←	○	A_: Leading direction _-: Bending life
Electromagnetic brake connector set		MR-BKCNS1	←	○	Use the same combination.
			MR-BKCNS2	○	The screw-type is added.
		MR-BKCNS1A	←	○	Use the same combination.
			MR-BKCNS2A	○	The screw-type is added.
Servo amplifier power connector (1 kW or less)	CNP1	54928-0670	06JFAT-SAXGDK-H7.5	(*2)	Along with the change of the manufacturer, the connector shape is changed.  The model in the parentheses is used for MR-J3-200_(-RT).
	CNP2	54927-0520	05JFAT-SAXGDK-H5.0	(*2)	
	CNP3	54928-0370	03JFAT-SAXGDK-H7.5	(*2)	
Servo amplifier power connector (2 kW)	CNP1	721-207/026-000 (PC4/6-STF-7.62-CRWH)	06JFAT-SAXGFK-XL	(*2)	
	CNP2	721-205/026-000 (54927-0520)	05JFAT-SAXGDK-H5.0	(*2)	
	CNP3	721-203/026-000 (PC4/3-STF-7.62-CRWH)	03JFAT-SAXGFK-XL	(*2)	
Servo amplifier power connector (3.5 kW)	CNP1	PC4/6-STF-7.62-CRWH	06JFAT-SAXGFK-XL	(*2)	
	CNP2	54927-0520	05JFAT-SAXGDK-H5.0	(*2)	
	CNP3	PC4/3-STF-7.62-CRWH	03JFAT-SAXGFK-XL	(*2)	
CN5 communication cable		MR-J3USBCBL3M	←	○	Use the same combination.
Junction battery cable		MR-J3BTCBL03M	MR-BT6V2CBL_M	(*3)	_: Cable length
Monitor cable		MR-J3CN6CBL1M	←	○	Use the same combination.
Protection coordination cable		MR-J3CDL05M	←	○	Use the same combination.
CN40/CN40A connector set (for 30 kW or more)		MR-J2CN1-A	←	○	Use the same combination.
Terminal connector		MR-J3-TM	-	○	Not required
Magnetic contactor wiring connector		(*4)	(*4)	○	Use the same combination. Socket: GFKC 2.5/2-STF-7.62

○: Compatible

Application	MR-J3 series	MR-J4 series	Compatibility	Precaution
Digital I/O connector	(*4)	(*4)	○	Use the same combination. Connector: 17JE23090-02(D8A)K11-CG
STO cable	-	MR-D05UDL3M-B	(*5)	When not using the STO function, attach the supplied short-circuit connector to CN8 (STO input signal connector).

\*1. Use MR-ENECBL\_M-H-MTH cable or MR-ENECNS connector set for the servo amplifier of 22 kW or more and for the drive unit.

\*2. No mounting compatibility. The power connectors are supplied with the MR-J4 series servo amplifier. Replace the existing connectors with the supplied ones.

\*3. Use the battery dedicated to each series.

\*4. The connector is supplied with the converter unit.

\*5. The production of the MR-D05UDL3M-B will be continued.

### 3. COMPARISON OF FUNCTIONS

#### 3.1 Comparison of MR-J3 Series (Type A/B and DIO Command/Serial Communication Operation with Type T) and MR-J4 Series (Type A/B)

Item		MR-J3 series	MR-J4 series
1	Capacity range	(A) General-purpose interface (B) SSCNET III interface (100 V class) 0.1 kW to 0.4 kW (200 V class) 0.1 kW to 37 kW (400 V class) 0.6 kW to 55 kW (T) Built-in positioning function (100 V class) 0.1 kW to 0.4 kW (200 V class) 0.1 kW to 22 kW (400 V class) 0.6 kW to 22 kW	(100 V class) 0.1 kW to 0.4 kW (200 V class) 0.1 kW to 37 kW (400 V class) 0.6 kW to 55 kW
2	Internal regenerative resistor	(A) General-purpose interface (B) SSCNET III interface Built-in (0.2 kW to 7 kW) External (11 kW to 55 kW) (T) Built-in positioning function Built-in (0.2 kW to 7 kW) External (11 kW to 22 kW)	Built-in (0.2 kW to 7 kW) External (11 kW to 55 kW)
3	Dynamic brake	(A) General-purpose interface (B) SSCNET III interface Built-in (0.1 kW to 7 kW) External (11 kW to 55 kW) (T) Built-in positioning function Built-in (0.1 kW to 7 kW) External (11 kW to 22 kW)	Built-in (0.1 kW to 7 kW) External (11 kW to 55 kW) Coasting distance may be different between the two series. (*1)
4	Control circuit power supply	(100 V class) 1-phase 100 V AC to 120 V AC (200 V class) 1-phase 200 V AC to 230 V AC (400 V class) 1-phase 380 V AC to 480 V AC	(100 V class) 1-phase 100 V AC to 120 V AC (200 V class) 1-phase 200 V AC to 240 V AC (400 V class) 1-phase 380 V AC to 480 V AC
5	Main circuit power supply	(A) General-purpose interface (B) SSCNET III interface (100 V class) 1-phase 100 V AC to 120 V AC (200 V class) 1-phase 200 V AC to 230 V AC (0.1 kW to 0.75 kW) 3-phase 200 V AC to 230 V AC (0.1 kW to 37 kW) (400 V class) 3-phase 380 V AC to 480 V AC (T) Built-in positioning function (100 V class) 1-phase 100 V AC to 120 V AC (200 V class) 1-phase 200 V AC to 230 V AC (0.1 kW to 0.75 kW) 3-phase 200 V AC to 230 V AC (0.1 kW to 22 kW) (400 V class) 3-phase 380 V AC to 480 V AC	(100 V class) 1-phase 100 V AC to 120 V AC (200 V class) 1-phase 200 V AC to 240 V AC (0.1 kW to 2 kW) 3-phase 200 V AC to 240 V AC (0.1 kW to 37 kW) (400 V class) 3-phase 380 V AC to 480 V AC
6	Interface power supply	External supply required	External supply required
7	Auto tuning	Real-time auto tuning: 32 steps Advanced gain search	Real-time auto tuning: 40 steps One-touch tuning
8	Control mode	(A) General-purpose interface • Position control mode (pulse command) • Speed control mode (analog command) • Torque control mode (analog command) (B) SSCNET III interface (50 Mbps) • Position control mode • Speed control mode (T) Built-in positioning function • Position control mode	(A) General-purpose interface • Position control mode (pulse command) • Speed control mode (analog command) • Torque control mode (analog command) (B) SSCNET III/H interface (150 Mbps) • Position control mode • Speed control mode • Torque control mode (A-RJ) General-purpose interface/built-in positioning function • Position control mode • Speed control mode (analog command) • Torque control mode (analog command)  <J3 compatibility mode> (B) SSCNET III interface (50 Mbps) • Position control mode • Speed control mode
9	Maximum input pulse (Type A)	Differential pulse: 1 Mpps Command pulse: Sink	Differential pulse: 4 Mpps Command pulse: Sink
10	Number of DIO points (excluding EM1)	(A) General-purpose interface DI: 9 points, DO: 6 points (B) SSCNET III interface DI: 3 points, DO: 3 points (T) Built-in positioning function DI: 3 points, DO: 3 points	(A) General-purpose interface DI: 9 points, DO: 6 points (B) SSCNET III interface DI: 3 points, DO: 3 points (A-RJ) General-purpose interface/built-in positioning function DI: 11 points, DO: 8 points

Item		MR-J3 series	MR-J4 series
11	Encoder pulse output	A/B/Z-phase (differential) (A) General-purpose interface Z-phase (open-collector)	A/B/Z-phase (differential) (A) General-purpose interface Z-phase (open-collector)
12	DIO interface	Input/output: Sink/source	Input/output: Sink/source
13	Analog input/output	(A) General-purpose interface (Input) 2 ch 10-bit torque, 14-bit speed or equivalent (Output) 10-bit or equivalent × 2 ch (B) SSCNET III interface (Output) 10-bit or equivalent × 2 ch	(A) General-purpose interface (Input) 2 ch 10-bit torque, 14-bit speed or equivalent (Output) 10-bit or equivalent × 2 ch (B) SSCNET III interface (Output) 10-bit or equivalent × 2 ch
14	Number of internal speed commands (Type A)	7 points	7 points
15	Parameter setting method	MR Configurator (SETUP221) MR Configurator2 (A) Push buttons	MR Configurator2 (A) Push buttons
16	Setup S/W communication	USB	USB
17	Servo motor (Encoder resolution)	HF- _P series (18-bit ABS) HC- _P series (18-bit ABS) HA- _P series (18-bit ABS)	HG series (22-bit ABS)
18	Servo motor maximum torque	HF-KP 350%	HG-KR 350%
		HF-MP 300%	HG-MR 300%
		HF-SP 300%	HG-SR 300%
		HC-LP 300%	HG-JR 300%
		HC-RP 250%	HG-RR 250%
		HC-UP 300%	HG-UR 300%
		HF-JP 300%	HG-JR 300%
		HA-LP 250%	HG-JR 300%
19	Button (Type A)	4 buttons	4 buttons
20	LED display	(A) 7-segment 5-digit (B) 7-segment 3-digit (T) 7-segment 3-digit	(A) 7-segment 5-digit (B) 7-segment 3-digit (A-RJ) 7-segment 5-digit
21	Advanced vibration suppression control	Available	Available (II 3 inertia vibration suppression)
22	Adaptive filter II	Available	Available
23	Notch filter	Available (2 pieces)	Available (5 pieces)
24	Tough drive	Unavailable	Available
25	Drive recorder	Unavailable	Available
26	Forced stop	EM1 (DB stop)	EM1 (DB stop)/EM2 (deceleration to a stop)

\*1. For the coasting distance, refer to "Dynamic brake characteristics" in the Instruction Manual.

\*2. For the comparison of the servo system networks, refer to "Transition from MELSERVO-J3 Series to J4 Series Handbook".

\*3. The changed functions are shown with shading.

### 3.2 Comparison of MR-J3 Series (CC-Link Communication with Type T) and MR-J4 Series (Type GF)

Item		MR-J3 series	MR-J4 series
1	Capacity range	(100 V class) 0.1 kW to 0.4 kW (200 V class) 0.1 kW to 22 kW (400 V class) 0.6 kW to 22 kW	(*1) (200 V class) 0.1 kW to 22 kW (400 V class) 0.6 kW to 22 kW
2	Internal regenerative resistor	Built-in (0.2 kW to 7 kW) External (11 kW to 22 kW)	Built-in (0.2 kW to 7 kW) External (11 kW to 22 kW)
3	Dynamic brake	Built-in (0.1 kW to 7 kW) External (11 kW to 22 kW)	Built-in (0.1 kW to 7 kW) External (11 kW to 22 kW) Coasting distance may be different between the two series. (*2)
4	Control circuit power supply	(100 V class) 1-phase 100 V AC to 120 V AC (200 V class) 1-phase 200 V AC to 230 V AC (400 V class) 1-phase 380 V AC to 480 V AC	(100 V class) (*1) (200 V class) 1-phase 200 V AC to 240 V AC (400 V class) 1-phase 380 V AC to 480 V AC
5	Main circuit power supply	(100 V class) 1-phase 100 V AC to 120 V AC (200 V class) 1-phase 200 V AC to 230 V AC (0.1 kW to 0.75 kW) 3-phase 200 V AC to 230 V AC (0.1 kW to 22 kW) (400 V class) 3-phase 380 V AC to 480 V AC	(100 V class) (*1) (200 V class) 1-phase 200 V AC to 240 V AC (0.1 kW to 2 kW) 3-phase 200 V AC to 240 V AC (0.1 kW to 22 kW) (400 V class) 3-phase 380 V AC to 480 V AC
6	Interface power supply	External supply required	External supply required
7	Auto tuning	Real-time auto tuning: 32 steps Advanced gain search	Real-time auto tuning: 40 steps One-touch tuning
8	Control mode	CC-Link compatible built-in positioning function ▪ Point table positioning operation ▪ Indexer positioning operation ▪ Speed control operation	CC-Link IE compatible built-in positioning function ▪ Point table positioning operation ▪ Indexer positioning operation (*3)
9	Number of DIO points (excluding EM1)	DI: 3 points, DO: 3 points	DI: 3 points, DO: 3 points
10	Encoder pulse output	A/B/Z-phase (differential)	A/B/Z-phase (differential) General-purpose interface Z-phase (open-collector)
11	DIO interface	Input/output: Sink/source	Input/output: Sink/source
12	Analog input/output	-	(Output) 10-bit or equivalent × 2 ch
13	Parameter setting method	MR Configurator (SETUP221) MR Configurator2	MR Configurator2
14	Setup S/W communication	USB	USB
15	Servo motor (Encoder resolution)	HF- _P series (18-bit ABS) HC- _P series (18-bit ABS) HA- _P series (18-bit ABS)	HG series (22-bit ABS)
16	Servo motor maximum torque	HF-KP 350%	HG-KR 350%
		HF-MP 300%	HG-MR 300%
		HF-SP 300%	HG-SR 300%
		HC-LP 300%	HG-JR 300%
		HC-RP 250%	HG-RR 250%
		HC-UP 300%	HG-UR 300%
		HF-JP 300%	HG-JR 300%
		HA-LP 250%	HG-JR 300%
17	LED display	7-segment 3-digit	7-segment 3-digit
18	Advanced vibration suppression control	Available	Available (II 3 inertia vibration suppression)
19	Adaptive filter II	Available	Available
20	Notch filter	Available (2 pieces)	Available (5 pieces)
21	Tough drive	Unavailable	Available
22	Drive recorder	Unavailable	Available
23	Forced stop	EM1 (DB stop)	EM1 (DB stop)/EM2 (deceleration to a stop)

\*1. The MR-J4- \_GF1, which is compatible with a 1-phase 100 V AC power supply, will be available in the future.

\*2. For the coasting distance, refer to "Dynamic brake characteristics" in the Instruction Manual.

\*3. Speed control operation will be available in the future.

\*4. The changed functions are shown with shading.



## Appendix 3: Precautions for Replacing MR-J3W Series with MR-J4 Series

### 1. OUTLINE

This section describes the changes when the system is upgraded by replacing the MR-J3W series with the MR-J4 series. Some models have different mounting dimensions. For details, refer to this document.

### 2. REPLACEMENT MODEL

This section describes the basic models for replacing the servo amplifier and servo motor as a set.

#### 2.1 Servo Amplifier

##### 2.1.1 Servo Amplifier Replacement Model and Compatibility

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
200 V AC SSCNET interface	MR-J3W-22B	MR-J4W2-22B	○	For the detailed specifications and functional differences, refer to "3. COMPARISON OF FUNCTIONS".
	MR-J3W-44B	MR-J4W2-44B	○	
	MR-J3W-77B	MR-J4W2-77B	(*1)	
	MR-J3W-1010B	MR-J4W2-1010B	(*1)	

\*1. For the mounting dimensions, refer to "2.1.2 Comparison of Servo Amplifier Dimensions".

Series	Former model	Replacement model example	Mounting compatibility (○: Compatible)	Precaution
48 V DC/24 V DC SSCNET interface	MR-J3W-0303BN6	MR-J4W2-0303B6	○	For the detailed specifications and functional differences, refer to "3. COMPARISON OF FUNCTIONS".

##### 2.1.2 Comparison of Servo Amplifier Dimensions

The following table shows the dimension comparisons between the MR-J3W series and MR-J4 series. Note the following: For the servo amplifiers of 200 W/400 W, the number of mounting screws has been changed. For the servo amplifiers of 750 W/1 kW, the width, clearance between mounting screws in the horizontal direction, and the number of mounting screws have been changed.

Comparison of dimensions (comparison between the same capacity models) [Unit: mm]

MR-J3W series model	MR-J4W2 series model	Height		Width		Depth		Clearance between mounting screws	
		J3W	J4W2	J3W	J4W2	J3W	J4W2	J3W	J4W2
MR-J3W-22B	MR-J4W2-22B	168	168	60	60	195	195	156 (Vertical)/ 48 (Horizontal) (4 places)	156 (Vertical) (2 places)
MR-J3W-44B	MR-J4W2-44B								
MR-J3W-77B	MR-J4W2-77B	168	168	100	85 (*1)	195	195	156 (Vertical)/ 88 (Horizontal) (4 places)	156 (Vertical)/ 73 (Horizontal) (3 places)
MR-J3W-1010B	MR-J4W2-1010B								
MR-J3W-0303BN6	MR-J4W2-0303B6	168	168	30	30	100	100	156 (Vertical) (2 places)	156 (Vertical) (2 places)

\*1. The width has been partially changed.

\*2. The clearance between mounting screws and the number of screws have been changed.

\*3. The changed dimensions are shown with shading.

### 2.2 Regenerative Option

<Combination and regenerative power for the MR-J3W series>

Servo amplifier model	Regenerative power [W]			
	MR-RB14 [26 Ω]	MR-RB34 [26 Ω]	MR-RB3B [20 Ω]	MR-RB3N [9 Ω]
MR-J3W-22B	100	300	300	
MR-J3W-44B				
MR-J3W-77B				
MR-J3W-1010B			300	
MR-J3W-0303BN6				

\*1. The MR-J3W-0303BN6 is not compatible with the regenerative option.

### <Combination and regenerative power for the MR-J4 series (replacement model)>

Servo amplifier model	Regenerative power [W]				
	MR-RB14 [26 Ω]	MR-RB34 [26 Ω]	MR-RB3B [20 Ω]	MR-RB3N [9 Ω]	
MR-J4W2-22B	100				
MR-J4W2-44B					
MR-J4W2-77B					
MR-J4W2-1010B				300	
MR-J4W2-0303B6				300	

\*1. The MR-J4W2-0303B6 is not compatible with the regenerative option.

Parameter setting (PA02 for MR-J4) is required depending on the regenerative option models. For details, refer to the Instruction Manual.

## 2.3 Cable Option

### 2.3.1 200 V Class

Application	MR-J3W series	MR-J4 series	Compatibility (○: Compatible)	Precaution
Encoder cable	MR-J3ENCBL_M-A_-	←	○	Use the same combination. _M: Cable length _A_: Leading direction _ -: Bending life
	MR-J3CBL03M-A_-L	←	○	
	MR-EKCB_L_M-	←	○	
	MR-J3SCBL03M-A_-L	←	○	
	MR-J3ENSCBL_M-	←	○	
Encoder connector set	MR-ECNM	←	○	Use the same combination.
	MR-J3SCNS	←	○	Use the same combination.
		MR-ENCNS2	○	The screw-type is added.
	MR-J3SCNSA	←	○	Use the same combination.
Servo motor power cable	MR-PWS1CBL_M-A_-	←	○	Use the same combination. _M: Cable length _ -: Bending life
		←	○	
	MR-PWS2CBL03M-A_-L	←	○	
Power connector set (Servo motor-side power connector)	MR-PWCNS1	←	○	Use the same combination.
	MR-PWCNS4	←	○	
	MR-PWCNS5	←	○	
Electromagnetic brake cable	MR-BKS1CBL_M-A_-	←	○	Use the same combination. _M: Cable length _ -: Bending life
	MR-BKS2CBL03M-A_-L	←	○	
Electromagnetic brake connector set	MR-BKCNS1	←	○	Use the same combination.
		MR-BKCNS2	○	The screw-type is added.
	MR-BKCNS1A	←	○	Use the same combination.
		MR-BKCNS2A	○	The screw-type is added.
	MR-BKCN	←	○	Use the same combination.

### 2.3.2 48 V Class/24 V Class

Application	MR-J3W-0303BN6	MR-J4W2-0303B6	Compatibility (○: Compatible)	Precaution
Encoder cable	MR-J3W03ENCBL_M-A-H	←	○	Use the same combination. _M: Cable length
Encoder connector set	MR-J3W03CN2-2P	←	○	Use the same combination.
	MR-J3W03CN2-20P	←	○	Use the same combination.
Servo motor power cable	MR-J3W03PWCBL_M-A-H	MR-J4W03PWCBL_M-A-H	(*1)	_M: Cable length
	MR-J3W03PWBRCBL_M-A-H	MR-J4W03PWBRCBL_M-A-H	(*1)	_ -: Bending life
Power connector set	MR-J3W03CNP2-2P	MR-J4W03CNP2-2P	(*1)	
	MR-J3W03CNP2-20P	MR-J4W03CNP2-20P	(*1)	

\*1. No mounting compatibility. The servo amplifier-side connector is supplied with the MR-J4 series servo amplifier. Replace the existing connector with the supplied one.

### 3. COMPARISON OF FUNCTIONS

#### 3.1 Comparison of MR-J3W Series and MR-J4 Series (Type B, 200 V Class)

Item		MR-J3W series	MR-J4 series
1	Capacity range	MR-J3W-22B	MR-J4W2-22B
		200 W (A-axis)/200 W (B-axis)	200 W (A-axis)/200 W (B-axis)
		MR-J3W-44B	MR-J4W2-44B
		400 W (A-axis)/400 W (B-axis)	400 W (A-axis)/400 W (B-axis)
2	Internal regenerative resistor	MR-J3W-77B	MR-J4W2-77B
		750 W (A-axis)/750 W (B-axis)	750 W (A-axis)/750 W (B-axis)
		MR-J3W-1010B	MR-J4W2-1010B
		1 kW (A-axis)/1 kW (B-axis)	1 kW (A-axis)/1 kW (B-axis)
3	Dynamic brake	Built-in	Built-in Coasting distance may differ.
4	Control circuit power supply	1-phase 200 V AC to 230 V AC	1-phase 200 V AC to 240 V AC
5	Main circuit power supply	1-phase 200 V AC to 230 V AC (MR-J3W-22B/-44B only) 3-phase 200 V AC to 230 V AC	1-phase 200 V AC to 240 V AC (MR-J4W2-22B/-44B/-77B only) 3-phase 200 V AC to 240 V AC
6	Interface power supply	External supply required (24 V DC)	External supply required (24 V DC)
7	Auto tuning	Real-time auto tuning: 32 steps Advanced gain search	Real-time auto tuning: 40 steps One-touch tuning
8	Control mode	SSCNET III interface (50 Mbps) ▪ Position control mode ▪ Speed control mode	SSCNET III/H interface (150 Mbps) ▪ Position control mode ▪ Speed control mode ▪ Torque control mode
			<J3 compatibility mode> SSCNET III interface (50 Mbps) ▪ Position control mode ▪ Speed control mode
9	Number of DIO points (excluding EM1)	SSCNET III interface DI: 6 points, DO: 4 points	SSCNET III/H interface DI: 6 points, DO: 4 points
10	Encoder pulse output	A/B-phase (differential) × 2 axes	A/B-phase (differential) × 2 axes
11	DIO interface	Input/output: Sink/source	Input/output: Sink/source
12	Analog monitor	10 bits or equivalent × 2 ch	MO1 and MO2 are not supported. (*1)
13	Parameter setting method	Setup software (SETUP221) MR Configurator2	MR Configurator2
14	Setup software communication	USB	USB
15	Servo motor (Encoder resolution)	HF- _P series (18-bit ABS) HC- _P series (18-bit ABS) HA- _P series (18-bit ABS)	HG series (22-bit ABS)
16	Motor maximum torque	HF-KP 350%	HG-KR 350%
		HF-MP 300%	HG-MR 300%
		HF-SP 300%	HG-SR 300%
		HC-UP 300%	HG-UR 300%
		HF-JP 300%	HG-JR 300%
		(When HF-JP53 and MR-J3W-1010B are used together: 400%) HC-LP 300%	(When HG-JR53 and MR-J4W2-1010B are used together: 400%)
17	LED display	7-segment 3-digit	7-segment 3-digit
18	Advanced vibration suppression control	Available	Available (II 3 inertia vibration suppression)
19	Adaptive filter II	Available	Available
20	Notch filter	Available (2 pieces)	Available (5 pieces)
21	Tough drive	Unavailable	Available
22	Drive recorder	Unavailable	Available
23	Forced stop	EM1 (DB stop)	EM1 (DB stop)/EM2 (deceleration to a stop)

\*1. To use the analog monitors (MO1 and MO2), please consider replacing the existing servo amplifier with two MR-J4 single-axis servo amplifiers.

\*2. The changed functions are shown with shading.

### 3.2 Comparison of MR-J3W Series and MR-J4 Series (Type B, 48 V Class/24 V Class)

Item		MR-J3W-0303BN6	MR-J4W2-0303B6
1	Capacity range	10 W/20 W/30 W	10 W/20 W/30 W
2	Internal regenerative resistor	Built-in (1.3 W)	Built-in (1.3 W)
3	Dynamic brake	Built-in (Electronic type)	Built-in (Electronic type)
4	Control circuit power supply	24 V DC	24 V DC
5	Main circuit power supply	48 V DC/24 V DC	48 V DC/24 V DC
6	Interface power supply	External supply required (24 V DC)	External supply required (24 V DC)
7	Auto tuning	Real-time auto tuning: 32 steps Advanced gain search	Real-time auto tuning: 40 steps One-touch tuning
8	Control mode	SSCNET III interface (50 Mbps) ▪ Position control mode ▪ Speed control mode	SSCNET III/H interface (150 Mbps) ▪ Position control mode ▪ Speed control mode ▪ Torque control mode
			<J3 compatibility mode> SSCNET III interface (50 Mbps) ▪ Position control mode ▪ Speed control mode
9	Number of DIO points (excluding EM1)	SSCNET III interface DI: 6 points, DO: 4 points	SSCNET III/H interface DI: 6 points, DO: 4 points
10	Encoder pulse output	A/B-phase (differential) × 2 axes	A/B-phase (differential) × 2 axes
11	DIO interface	Input/output: Sink/source	Input/output: Sink/source
12	Analog monitor	10 bits or equivalent × 2 ch	10 bits or equivalent × 2 ch
13	Parameter setting method	Setup software (SETUP221) MR Configurator2	MR Configurator2
14	Setup software communication	USB	USB
15	Servo motor	HG-AK series	HG-AK series
16	LED display	7-segment 3-digit	7-segment 3-digit
17	Advanced vibration suppression control	Available	Available (II 3 inertia vibration suppression)
18	Adaptive filter II	Available	Available
19	Notch filter	Available (2 pieces)	Available (5 pieces)
20	Tough drive	Unavailable	Available (except for instantaneous power failure tough drive)
21	Drive recorder	Unavailable	Available
22	Forced stop	EM1 (DB stop)	EM1 (DB stop)/EM2 (deceleration to a stop)
23	DIN rail mounting	Not supported	Supported

\*1. The changed functions are shown with shading.