








MR-J4 Rotary Servo Motors

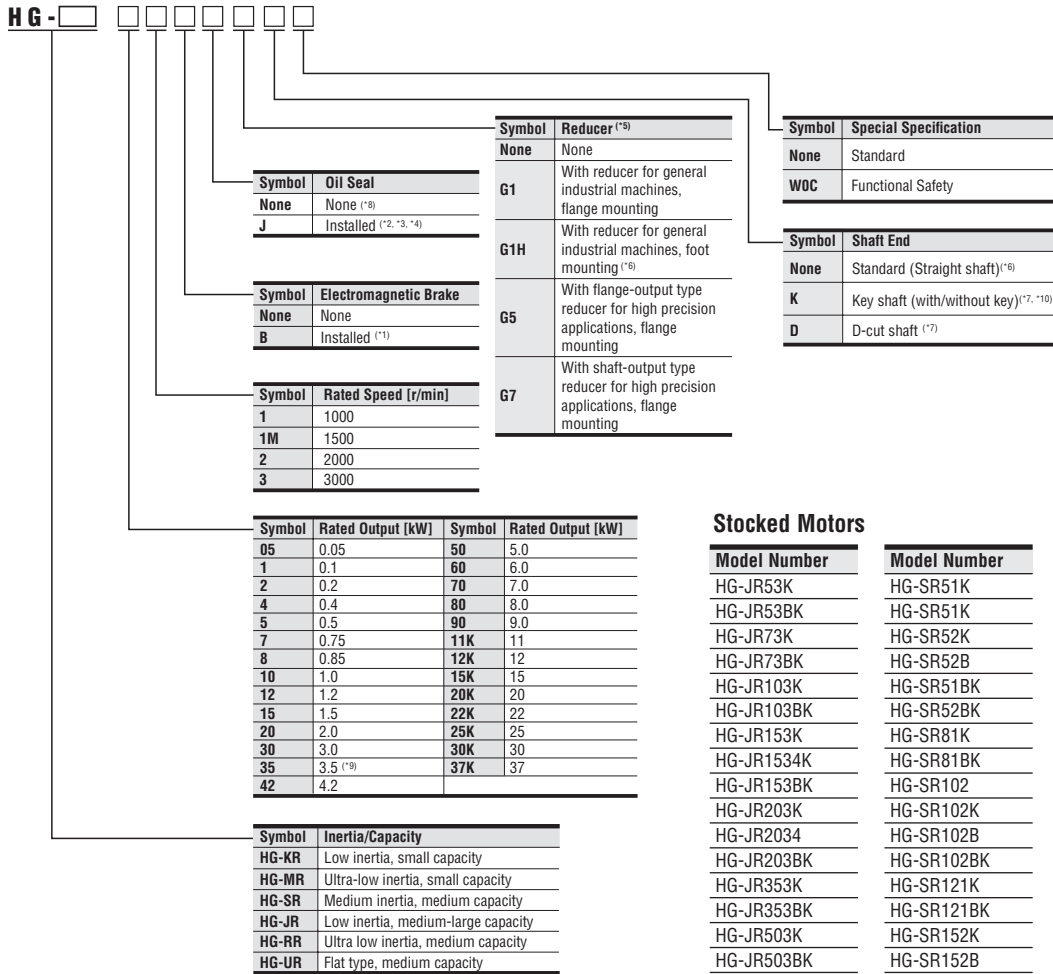
X = Available
- = Not Available

Rotary Servo Motor Series	Rated Speed (Max. r/min)	Rated Output Capacity (kW) (*1)	Servo Motor Type			Protective Degree (*3)	Compatible Series	Features	Application Examples	
			Electromagnetic Brake Available	With Reducer (G1) (*2)	With Reducer (G5, G7) (*2)					
Small Capacity	HG-KR 	3000 (6000)	5 Types 0.05, 0.1, 0.2, 0.4, 0.75	X	X	X	IP65	HF-KP	Low inertia, perfect for general industrial machines	<ul style="list-style-type: none"> Belt Drive Robots Mounters Sewing Machines X-Y Tables Food Processing Machines Semiconductor manufacturing devices Knitting and embroidery machines
	HG-MR 	3000 (6000)	5 Types 0.05, 0.1, 0.2, 0.4, 0.75	X	-	-	IP65	HF-MP	Ultra-low inertia Well suited for high-throughput operations	<ul style="list-style-type: none"> Inserters Mounters
Medium Capacity	HG-SR 	1000 (1500)	6 Types 0.5, 0.85, 1.2, 2.0, 3.0, 4.2	X	-	-	IP67	HF-SP	Medium inertia This series is available with two rated speeds	<ul style="list-style-type: none"> Material handling systems Robots X-Y tables
		2000 (3000)	14 types 0.5, 1.0, 1.5, 2.0, 3.5, 5.0, 7.0 0.5, 1.0, 1.5, 2.0, 3.5, 5.0, 7.0	X	X	X	IP67			
Medium/Large Capacity	HG-JR 	3000 (6000: 0.5-5 kW 5000: 7, 9 kW)	18 types 0.5, 0.75, 1.0, 1.5, 2.0, 3.5, 5.0, 7.0, 9.0 0.5, 0.75, 1.0, 1.5, 2.0, 3.5, 5.0, 7.0, 9.0	X	-	-	IP67	HF-JP	Low inertia Well suited for high-throughput and high-acceleration/ deceleration operations	<ul style="list-style-type: none"> Food packaging machines Printing machines
		1500 (3000: 11-15 kW 2500: 22 kW_)	14 types 7.0, 11, 15, 22, 30, 37 7.0, 11, 15, 22, 30, 37, 45, 55	X (*5)	-	-	IP67/ IP44 (*4)	HF-JP HA-LP		<ul style="list-style-type: none"> Injection molding machines Press machines
		1000 (2000: 6-12 kW 1500: 15-37 kW_)	16 types 6.0, 8.0, 12, 15, 20, 25, 30, 37 6.0, 8.0, 12, 15, 20, 25, 30, 37	X (*5)	-	-	IP67/ IP44 (*4)	HA-LP		
Medium Capacity	HG-RR 	3000 (4500)	5 types 1.0, 1.5, 2.0, 3.5, 5.0	X	-	-	IP65	HC-RP	Ultra-low inertia Well suited for high-throughput operations	<ul style="list-style-type: none"> Ultra-high-throughput material handling systems
Medium Capacity, Flat Type	HG-UR 	2000 (3000: 0.75-2 kW 2500: 3.5, 5 kW)	5 types 0.75, 1.5, 2.0, 3.5, 5.0	X	-	-	IP65	HC-UP	Flat type The flat design makes this unit well suited for situations where the installation space is limited	<ul style="list-style-type: none"> Robots Food processing machines
Ultra Small Capacity	HG-AK 	6000	3 types 10W, 20W, 30W	X	-	-	IP55	-	Ultra compact	<ul style="list-style-type: none"> Assembly Robots Positioning

Notes:

- For 400 V.
- G1 for general industrial machines. G5 and G7 for high precision applications.
- The shaft-through portion is excluded. Refer to the asterisk 7 of "Annotations for Rotary Servo Motor Specifications" in the MR-J4 Brochure. For geared Servo Motor, IP rating of the reducer portion is equivalent to IP44.
- For HG-JR1500 r/min series, 15 kW or smaller is rated IP67, and 22 kW or larger is rated IP44. For HG-JR 1000 r/min series, 12 kW or smaller is rated IP67, and 15 kW or larger is rated IP44.
- The Servo Motor with electromagnetic brake is not available for HG-JR 1500 r/min series 22 kW or larger, and 1000 r/min series 15 kW or larger.

Servo Motor Selection 200V/100V (Example Part No. = HG-KR053BG1)
 Not all options available for every motor.

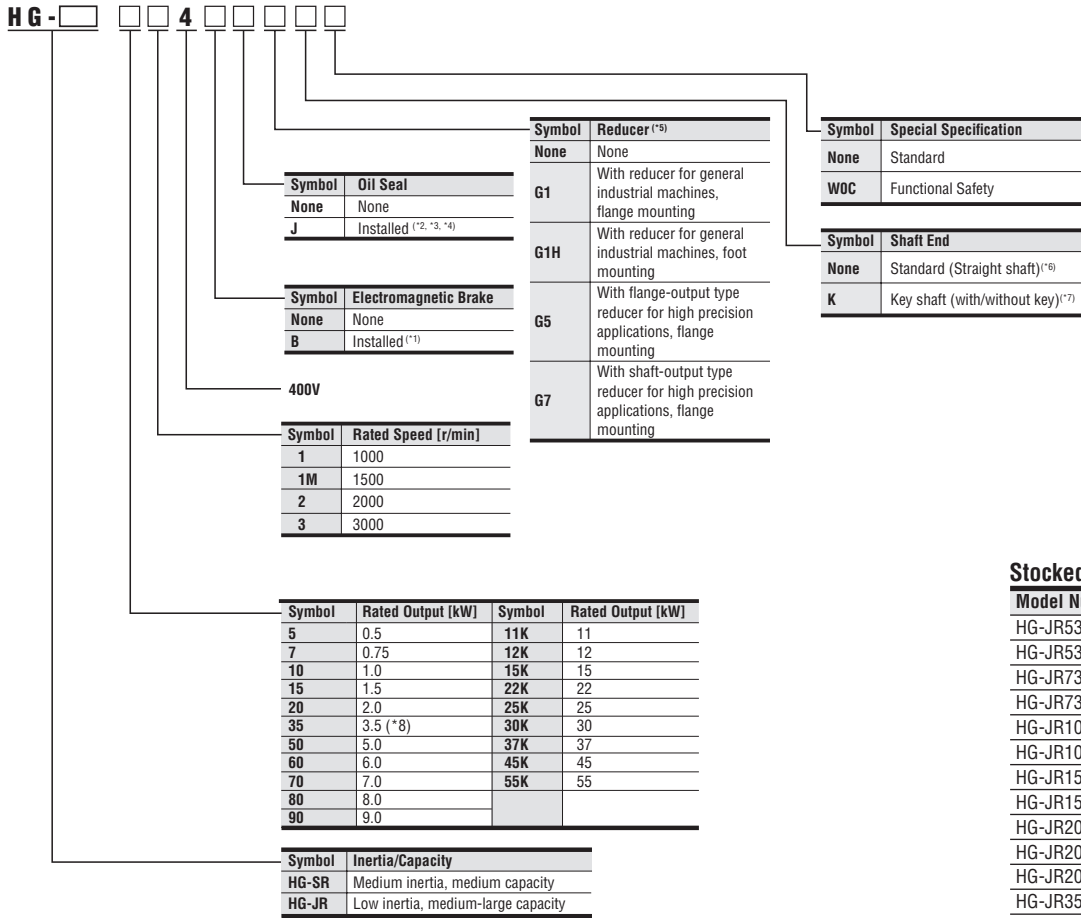


Stocked Motors

Model Number	Model Number	Model Number	Model Number
HG-JR53K	HG-SR51K	HG-KR053	HG-UR72K
HG-JR53BK	HG-SR51K	HG-KR053D	HG-UR152K
HG-JR73K	HG-SR52K	HG-KR053B	HG-UR202K
HG-JR73BK	HG-SR52B	HG-KR053BD	HG-UR352K
HG-JR103K	HG-SR51BK	HG-KR13	HG-UR502K
HG-JR103BK	HG-SR52BK	HG-KR13D	HG-UR202BK
HG-JR153K	HG-SR81K	HG-KR13B	HG-UR352K
HG-JR1534K	HG-SR81BK	HG-KR13BD	HG-UR352BK
HG-JR153BK	HG-SR102	HG-KR23	HG-UR502K
HG-JR203K	HG-SR102K	HG-KR23K	HG-UR502BK
HG-JR2034	HG-SR102B	HG-KR23B	
HG-JR203BK	HG-SR102BK	HG-KR23BK	
HG-JR353K	HG-SR121K	HG-KR43	
HG-JR353BK	HG-SR121BK	HG-KR43K	
HG-JR503K	HG-SR152K	HG-KR43B	
HG-JR503BK	HG-SR152B	HG-KR43BK	
HG-JR5034BK	HG-SR152BK	HG-KR73	
HG-JR601BK	HG-SR201K	HG-KR73K	
HG-JR703K	HG-SR202K	HG-KR73B	
HG-JR7034K	HG-SR202B	HG-KR73BK	
HG-JR703BK	HG-SR202BK		
HG-JR903K	HG-SR301K	Model Number	
HG-JR903BK	HG-SR301BK	HG-RR103K	
	HG-SR352K	HG-RR103BK	
Model Number	HG-SR352B	HG-RR153K	
HG-MR053D	HG-SR352BK	HG-RR153BK	
HG-MR053B	HG-SR421K	HG-RR203K	
HG-MR053BD	HG-SR421BK	HG-RR203BK	
HG-MR13	HG-SR502K	HG-RR353K	
HG-MR13D	HG-SR502B	HG-RR353BK	
HG-MR13B	HG-SR502BK	HG-RR503K	
HG-MR13BD	HG-SR702K	HG-RR503BK	
HG-MR23	HG-SR702B		
HG-MR23K	HG-SR702BK		
HG-MR23B			
HG-MR23BK			
HG-MR43K			
HG-MR43B			
HG-MR43BK			
HG-MR73			
HG-MR73K			
HG-MR73B			
HG-MR73BK			

- Notes:**
1. Refer to electromagnetic brake specifications of each Servo Motor series in this catalog for the available models and detailed specifications.
 2. Available in 0.1 kW or larger HG-KR/HG-MR series and all HG-SR series. Oil seal is installed in HG-JR series as a standard.
 3. Oil seal is not installed in the geared Servo Motor.
 4. Dimensions for HG-KR/HG-MR series with oil seal are different from those for the standard models. Contact your local sales office for more details.
 5. Refer to "Geared Servo Motor Specifications" in this catalog for the available models and detailed specifications.
 6. Standard HG-SR G1/G1H has a key shaft (with key).
 7. Refer to special shaft end specifications of each Servo Motor series in this catalog for the available models and detailed specifications.
 8. Oil seal is installed in HG-JR, HG-RR, and HG-UR series as a standard.
 9. For HG-JR353(B), the rated output varies depending on the servo amplifier to be combined. Refer to "HG-JR 3000 r/min Series (Low Inertia, Medium Capacity) (200 VClass) Specifications" for details.
 10. Key Shaft option is not available on HG-KR053, HG-KR13, HG-MR053, and HG-MR13 motors

Servo Motor Selection 400V (Example Part No. = HG-SR524B)
 Not all options available for every motor.

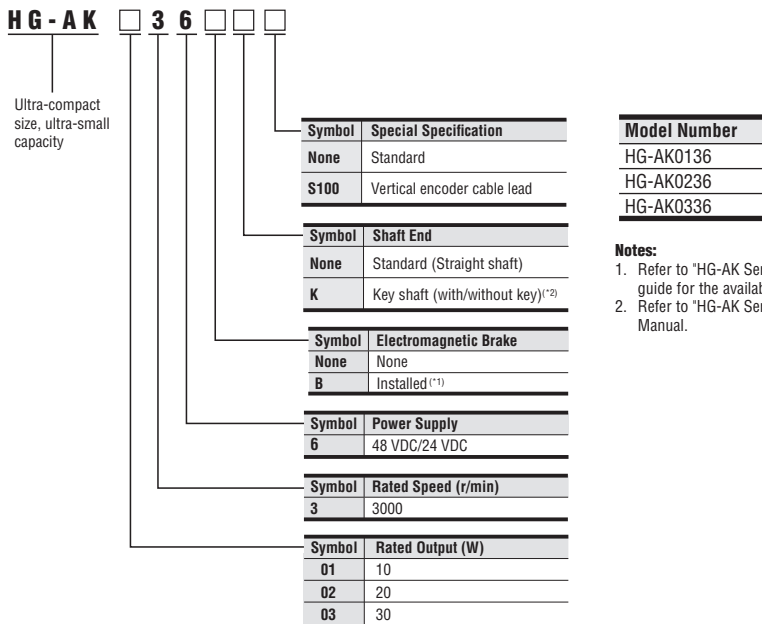


Stocked Motors

Model Number	Model Number
HG-JR534K	HG-SR524K
HG-JR534BK	HG-SR524BK
HG-JR734K	HG-SR1024K
HG-JR734BK	HG-SR1024BK
HG-JR1034K	HG-SR1524K
HG-JR1034BK	HG-SR1524BK
HG-JR1534K	HG-SR2024K
HG-JR1534BK	HG-SR2024BK
HG-JR2034	HG-SR3524
HG-JR2034K	HG-SR3524K
HG-JR2034BK	HG-SR3524BK
HG-JR3534K	HG-SR5024K
HG-JR3534BK	HG-SR5024BK
HG-JR5034	HG-SR7024
HG-JR5034K	HG-SR7024K
HG-JR5034BK	HG-SR7024BK
HG-JR6014K	HG-SR7024BK
HG-JR6014BK	
HG-JR701M4K	
HG-JR7034K	
HG-JR7034BK	
HG-JR9034K	
HG-JR9034BK	
HG-JR11K1M4K	
HG-JR11K1M4BK	

- Notes:**
1. Refer to electromagnetic brake specifications of each Servo Motor series in this catalog for the available models and detailed specifications.
 2. Available in HG-SR series.
 3. Oil seal is not installed in the geared Servo Motor.
 4. Oil seal is installed in HG-JR series as a standard.
 5. Refer to "Geared Servo Motor Specifications" in this catalog for the available models and detailed specifications.
 6. Standard HG-SR G1/G1H has a key shaft (with key).
 7. Refer to special shaft end specifications of each Servo Motor series in this catalog for the available models and detailed specifications.
 8. For HG-JR3534(B), the rated output varies depending on the servo amplifier to be combined. Refer to "HG-JR 3000 r/min Series (Low Inertia, Medium Capacity) (400 V Class) Specifications" for details.

Servo Motor Selection 48VDC/24VDC (Example Part No. = HG-AK0236K)



- Notes:**
1. Refer to "HG-AK Series Electromagnetic Brake Specifications" in this guide for the available models and detailed specifications.
 2. Refer to "HG-AK Series Special Shaft End Specifications" in the User Manual.

Combinations of Rotary Servo Motor and Servo Amplifier (200V/100V Class)

Model Number	MR-J4	MR-J4W2 (*1)	MR-J4W3 (*1)
HG-KR053(B)	MR-J4-10GF(-RJ), MR-J4-10B(-RJ), MR-J4-10B1(-RJ), MR-J4-10A(-RJ), MR-J4-10A1(-RJ), MR-J4-10TM, MR-J4-10TM1	MR-J4W2-22B, MR-J4W2-44B	MR-J4W3-222B, MR-J4W3-444B
HG-KR13(B)	MR-J4-10GF(-RJ), MR-J4-10B(-RJ), MR-J4-10B1(-RJ), MR-J4-10A(-RJ), MR-J4-10A1(-RJ) MR-J4-10TM, MR-J4-10TM1	MR-J4W2-22B, MR-J4W2-44B	MR-J4W3-222B, MR-J4W3-444B
HG-KR23(B)	MR-J4-20GF(-RJ), MR-J4-20B(-RJ), MR-J4-20B1(-RJ), MR-J4-20A(-RJ), MR-J4-20A1(-RJ) MR-J4-20TM, MR-J4-20TM1	MR-J4W2-22B, MR-J4W2-44B	MR-J4W3-222B, MR-J4W3-444B
HG-KR43(B)	MR-J4-40GF(-RJ), MR-J4-40B(-RJ), MR-J4-40B1(-RJ), MR-J4-40A(-RJ), MR-J4-40A1(-RJ) MR-J4-40TM, MR-J4-40TM1	MR-J4W2-44B, MR-J4W2-77B, MR-J4W2-1010B	MR-J4W3-444B
HG-KR73(B)	MR-J4-70GF(-RJ), MR-J4-70B(-RJ), MR-J4-70A(-RJ), MR-J4-70TM	MR-J4W2-77B, MR-J4W2-1010B	-
HG-MR053(B)	MR-J4-10GF(-RJ), MR-J4-10B(-RJ), MR-J4-10B1(-RJ), MR-J4-10A(-RJ), MR-J4-10A1(-RJ), MR-J4-10TM, MR-J4-10TM1	MR-J4W2-22B, MR-J4W2-44B	MR-J4W3-222B, MR-J4W3-444B
HG-MR13(B)	MR-J4-10GF(-RJ), MR-J4-10B(-RJ), MR-J4-10B1(-RJ), MR-J4-10A(-RJ), MR-J4-10A1(-RJ), MR-J4-10TM, MR-J4-10TM1	MR-J4W2-22B, MR-J4W2-44B	MR-J4W3-222B, MR-J4W3-444B
HG-MR23(B)	MR-J4-20GF(-RJ), MR-J4-20B(-RJ), MR-J4-20B1(-RJ), MR-J4-20A(-RJ), MR-J4-20A1(-RJ), MR-J4-20TM, MR-J4-20TM1	MR-J4W2-22B, MR-J4W2-44B	MR-J4W3-222B, MR-J4W3-444B
HG-MR43(B)	MR-J4-40GF(-RJ), MR-J4-40B(-RJ), MR-J4-40B1(-RJ), MR-J4-40A(-RJ), MR-J4-40A1(-RJ), MR-J4-40TM, MR-J4-40TM1	MR-J4W2-44B, MR-J4W2-77B, MR-J4W2-1010B	MR-J4W3-444B
HG-MR73(B)	MR-J4-70GF(-RJ), MR-J4-70B(-RJ), MR-J4-70A(-RJ), MR-J4-70TM	MR-J4W2-77B, MR-J4W2-1010B	-
HG-SR51(B)	MR-J4-60GF(-RJ), MR-J4-60B(-RJ), MR-J4-60A(-RJ), MR-J4-60TM	MR-J4W2-77B, MR-J4W2-1010B	-
HG-SR81(B)	MR-J4-100GF(-RJ), MR-J4-100B(-RJ), MR-J4-100A(-RJ), MR-J4-100TM	MR-J4W2-1010B	-
HG-SR121(B)	MR-J4-200GF(-RJ), MR-J4-200B(-RJ), MR-J4-200A(-RJ), MR-J4-200TM	-	-
HG-SR201(B)	MR-J4-200GF(-RJ), MR-J4-200B(-RJ), MR-J4-200A(-RJ), MR-J4-200TM	-	-
HG-SR301(B)	MR-J4-350GF(-RJ), MR-J4-350B(-RJ), MR-J4-350A(-RJ), MR-J4-350TM	-	-
HG-SR421(B)	MR-J4-500GF(-RJ), MR-J4-500B(-RJ), MR-J4-500A(-RJ), MR-J4-500TM	-	-
HG-SR52(B)	MR-J4-60GF(-RJ), MR-J4-60B(-RJ), MR-J4-60A(-RJ), MR-J4-60TM	MR-J4W2-77B, MR-J4W2-1010B	-
HG-SR102(B)	MR-J4-100GF(-RJ), MR-J4-100B(-RJ), MR-J4-100A(-RJ), MR-J4-100TM	MR-J4W2-1010B	-
HG-SR152(B)	MR-J4-200GF(-RJ), MR-J4-200B(-RJ), MR-J4-200A(-RJ), MR-J4-200TM	-	-
HG-SR202(B)	MR-J4-200GF(-RJ), MR-J4-200B(-RJ), MR-J4-200A(-RJ), MR-J4-200TM	-	-
HG-SR352(B)	MR-J4-350GF(-RJ), MR-J4-350B(-RJ), MR-J4-350A(-RJ), MR-J4-350TM	-	-
HG-SR502(B)	MR-J4-500GF(-RJ), MR-J4-500B(-RJ), MR-J4-500A(-RJ), MR-J4-500TM	-	-
HG-SR702(B)	MR-J4-700GF(-RJ), MR-J4-700B(-RJ), MR-J4-700A(-RJ), MR-J4-700TM	-	-
HG-JR53(B)	MR-J4-60GF(-RJ), MR-J4-60B(-RJ), MR-J4-60A(-RJ), MR-J4-60TM	MR-J4W2-77B	-
HG-JR73(B)	MR-J4-70GF(-RJ), MR-J4-70B(-RJ), MR-J4-70A(-RJ), MR-J4-70TM	MR-J4W2-77B, MR-J4W2-1010B	-
HG-JR103(B)	MR-J4-100GF(-RJ), MR-J4-100B(-RJ), MR-J4-100A(-RJ), MR-J4-100TM	MR-J4W2-1010B	-

Note 1: Any combination of the servo motors is possible as long as the servo motors are compatible with the servo amplifier. Refer to "Combinations of Multi-Axis Servo Amplifier and Servo Motors/Servo Motors" in this guide.

Combinations of Rotary Servo Motor and Servo Amplifier (200V Class)

Model Number	MR-J4	MR-J4W2 (*1)	MR-J4W3 (*1)
HG-JR153(B)	MR-J4-200GF(-RJ), MR-J4-200B(-RJ), MR-J4-200A(-RJ), MR-J4-200TM	-	-
HG-JR203(B)	MR-J4-200GF(-RJ), MR-J4-200B(-RJ), MR-J4-200A(-RJ), MR-J4-200TM	-	-
HG-JR353(B)	MR-J4-350GF(-RJ), MR-J4-350B(-RJ), MR-J4-350A(-RJ), MR-J4-350TM	-	-
HG-JR503(B)	MR-J4-500GF(-RJ), MR-J4-500B(-RJ), MR-J4-500A(-RJ), MR-J4-500TM	-	-
HG-JR703(B)	MR-J4-700GF(-RJ), MR-J4-700B(-RJ), MR-J4-DU900B(-RJ), MR-J4-700A(-RJ), MR-J4-700TM		
HG-JR903(B)	MR-J4-11KGF(-RJ), MR-J4-11KB(-RJ), MR-J4-DU900B(-RJ), MR-J4-11KA(-RJ), MR-J4-11KTM		
HG-JR601(B)	MR-J4-700GF(-RJ), MR-J4-700B(-RJ), MR-J4-DU900B(-RJ), MR-J4-700A(-RJ), MR-J4-700TM		
HG-JR801(B)	MR-J4-11KGF(-RJ), MR-J4-11KB(-RJ), MR-J4-DU900B(-RJ), MR-J4-11KA(-RJ), MR-J4-11KTM		
HG-JR12K1(B)	MR-J4-11KGF(-RJ), MR-J4-11KB(-RJ), MR-J4-DU11KB(-RJ), MR-J4-11KA(-RJ), MR-J4-11KTM		
HG-JR15K1	MR-J4-15KGF(-RJ), MR-J4-15KB(-RJ), MR-J4-DU15KB(-RJ), MR-J4-15KA(-RJ), MR-J4-15KTM		
HG-JR20K1	MR-J4-22KGF(-RJ), MR-J4-22KB(-RJ), MR-J4-DU22KB(-RJ), MR-J4-22KA(-RJ), MR-J4-22KTM		
HG-JR25K1	MR-J4-22KGF(-RJ), MR-J4-22KB(-RJ), MR-J4-DU22KB(-RJ), MR-J4-22KA(-RJ), MR-J4-22KTM		
HG-JR30K1	MR-J4-DU30KB(-RJ), MR-J4-DU30KA(-RJ)	-	-
HG-JR37K1	MR-J4-DU37KB(-RJ), MR-J4-DU37KA(-RJ)	-	-
HG-JR701M(B)	MR-J4-700GF(-RJ), MR-J4-700B(-RJ), MR-J4-DU900B(-RJ), MR-J4-700A(-RJ), MR-J4-700TM		
HG-JR11K1M(B)	MR-J4-11KGF(-RJ), MR-J4-11KB(-RJ), MR-J4-DU11KB(-RJ), MR-J4-11KA(-RJ), MR-J4-11KTM		
HG-JR15K1M(B)	MR-J4-15KGF(-RJ), MR-J4-15KB(-RJ), MR-J4-DU15KB(-RJ), MR-J4-15KA(-RJ), MR-J4-15KTM		
HG-JR22K1M	MR-J4-22KGF(-RJ), MR-J4-22KB(-RJ), MR-J4-DU22KB(-RJ), MR-J4-22KA(-RJ), MR-J4-22KTM		
HG-JR30K1M	MR-J4-DU30KB(-RJ), MR-J4-DU30KA(-RJ)	-	-
HG-JR37K1M	MR-J4-DU37KB(-RJ), MR-J4-DU37KA(-RJ)	-	-
HG-RR103(B)	MR-J4-200GF(-RJ), MR-J4-200B(-RJ), MR-J4-200A(-RJ), MR-J4-200TM	-	-
HG-RR153(B)	MR-J4-200GF(-RJ), MR-J4-200B(-RJ), MR-J4-200A(-RJ), MR-J4-200TM	-	-
HG-RR203(B)	MR-J4-350GF(-RJ), MR-J4-350B(-RJ), MR-J4-350A(-RJ), MR-J4-350TM	-	-
HG-RR353(B)	MR-J4-500GF(-RJ), MR-J4-500B(-RJ), MR-J4-500A(-RJ), MR-J4-500TM	-	-
HG-RR503(B)	MR-J4-500GF(-RJ), MR-J4-500B(-RJ), MR-J4-500A(-RJ), MR-J4-500TM	-	-
HG-UR72(B)	MR-J4-70GF(-RJ), MR-J4-70B(-RJ), MR-J4-70A(-RJ), MR-J4-70TM	MR-J4W2-77B MR-J4W2-1010B	-
HG-UR152(B)	MR-J4-200GF(-RJ), MR-J4-200B(-RJ), MR-J4-200A(-RJ), MR-J4-200TM	-	-
HG-UR202(B)	MR-J4-350GF(-RJ), MR-J4-350B(-RJ), MR-J4-350A(-RJ), MR-J4-350TM	-	-
HG-UR352(B)	MR-J4-500GF(-RJ), MR-J4-500B(-RJ), MR-J4-500A(-RJ), MR-J4-500TM	-	-
HG-UR502(B)	MR-J4-500GF(-RJ), MR-J4-500B(-RJ), MR-J4-500A(-RJ), MR-J4-500TM	-	-

Note 1: Any combination of the servo motors is possible as long as the servo motors are compatible with the servo amplifier. Refer to "Combinations of Multi-Axis Servo Amplifier and Servo Motors" Servo Motors" in this guide.

Combinations of Rotary Servo Motor and Servo Amplifier (400V Class)

Model Number	MR-J4	MR-J4W2	MR-J4W3
HG-SR524(B)	MR-J4-60GF4(-RJ), MR-J4-60B4(-RJ), MR-J4-60A4(-RJ), MR-J4-60TM4	-	-
HG-SR1024(B)	MR-J4-100GF4(-RJ), MR-J4-100B4(-RJ), MR-J4-100A4(-RJ), MR-J4-100TM4	-	-
HG-SR1524(B)	MR-J4-200GF4(-RJ), MR-J4-200B4(-RJ), MR-J4-200A4(-RJ), MR-J4-200TM4	-	-
HG-SR2024(B)	MR-J4-200GF4(-RJ), MR-J4-200B4(-RJ), MR-J4-200A4(-RJ), MR-J4-200TM4	-	-
HG-SR3524(B)	MR-J4-350GF4(-RJ), MR-J4-350B4(-RJ), MR-J4-350A4(-RJ), MR-J4-350TM4	-	-
HG-SR5024(B)	MR-J4-500GF4(-RJ), MR-J4-500B4(-RJ), MR-J4-500A4(-RJ), MR-J4-500TM4	-	-
HG-SR7024(B)	MR-J4-700GF4(-RJ), MR-J4-700B4(-RJ), MR-J4-DU900B4(-RJ), MR-J4-700A4(-RJ), MR-J4-700TM4		
HG-JR534(B)	MR-J4-60GF4(-RJ), MR-J4-60B4(-RJ), MR-J4-60A4(-RJ), MR-J4-60TM4	-	-
HG-JR734(B)	MR-J4-100GF4(-RJ), MR-J4-100B4(-RJ), MR-J4-100A4(-RJ), MR-J4-100TM4	-	-
HG-JR1034(B)	MR-J4-100GF4(-RJ), MR-J4-100B4(-RJ), MR-J4-100A4(-RJ), MR-J4-100TM4	-	-
HG-JR1534(B)	MR-J4-200GF4(-RJ), MR-J4-200B4(-RJ), MR-J4-200A4(-RJ), MR-J4-200TM4	-	-
HG-JR2034(B)	MR-J4-200GF4(-RJ), MR-J4-200B4(-RJ), MR-J4-200A4(-RJ), MR-J4-200TM4	-	-
HG-JR3534(B)	MR-J4-350GF4(-RJ), MR-J4-350B4(-RJ), MR-J4-350A4(-RJ), MR-J4-350TM4	-	-
HG-JR5034(B)	MR-J4-500GF4(-RJ), MR-J4-500B4(-RJ), MR-J4-500A4(-RJ), MR-J4-500TM4	-	-
HG-JR7034(B)	MR-J4-700GF4(-RJ), MR-J4-700B4(-RJ), MR-J4-DU900B4(-RJ), MR-J4-700A4(-RJ), MR-J4-700TM4		
HG-JR9034(B)	MR-J4-11KGF4(-RJ), MR-J4-11KB4(-RJ), MR-J4-DU900B4(-RJ), MR-J4-11KA4(-RJ), MR-J4-11KTM4		
HG-JR6014(B)	MR-J4-700GF4(-RJ), MR-J4-700B4(-RJ), MR-J4-DU900B4(-RJ), MR-J4-700A4(-RJ), MR-J4-700TM4		
HG-JR8014(B)	MR-J4-11KGF4(-RJ), MR-J4-11KB4(-RJ), MR-J4-DU900B4(-RJ), MR-J4-11KA4(-RJ), MR-J4-11KTM4		
HG-JR12K14(B)	MR-J4-11KGF4(-RJ), MR-J4-11KB4(-RJ), MR-J4-DU11KB4(-RJ), MR-J4-11KA4(-RJ), MR-J4-11KTM4		
HG-JR15K14	MR-J4-15KGF4(-RJ), MR-J4-15KB4(-RJ), MR-J4-DU15KB4(-RJ), MR-J4-15KA4(-RJ), MR-J4-15KTM4		
HG-JR20K14	MR-J4-22KGF4(-RJ), MR-J4-22KB4(-RJ), MR-J4-DU22KB4(-RJ), MR-J4-22KA4(-RJ), MR-J4-22KTM4		
HG-JR25K14	MR-J4-22KGF4(-RJ), MR-J4-22KB4(-RJ), MR-J4-DU22KB4(-RJ), MR-J4-22KA4(-RJ), MR-J4-22KTM4		
HG-JR30K14	MR-J4-DU30KB4(-RJ), MR-J4-DU30KA4(-RJ)	-	-
HG-JR37K14	MR-J4-DU37KB4(-RJ), MR-J4-DU37KA4(-RJ)	-	-
HG-JR701M4(B)	MR-J4-700GF4(-RJ), MR-J4-700B4(-RJ), MR-J4-DU900B4(-RJ), MR-J4-700A4(-RJ), MR-J4-700TM4		
HG-JR11K1M4(B)	MR-J4-11KGF4(-RJ), MR-J4-11KB4(-RJ), MR-J4-DU11KB4(-RJ), MR-J4-11KA4(-RJ), MR-J4-11KTM4		
HG-JR15K1M4(B)	MR-J4-15KGF4(-RJ), MR-J4-15KB4(-RJ), MR-J4-DU15KB4(-RJ), MR-J4-15KA4(-RJ), MR-J4-15KTM4		
HG-JR22K1M4	MR-J4-22KGF4(-RJ), MR-J4-22KB4(-RJ), MR-J4-DU22KB4(-RJ), MR-J4-22KA4(-RJ), MR-J4-22KTM4		
HG-JR30K1M4	MR-J4-DU30KB4(-RJ), MR-J4-DU30KA4(-RJ)	-	-
HG-JR37K1M4	MR-J4-DU37KB4(-RJ), MR-J4-DU37KA4(-RJ)	-	-
HG-JR45K1M4	MR-J4-DU45KB4(-RJ), MR-J4-DU45KA4(-RJ)	-	-
HG-JR55K1M4	MR-J4-DU55KB4(-RJ), MR-J4-DU55KA4(-RJ)	-	-

Combinations of HG-AK Rotary Servo Motor and Servo Amplifier (48 VDC/24 VDC Class)

Model Number	MR-J4	MR-J4W2	MR-J4W3
HG-AK0136(B)	MR-J4-03A6(-RJ)	MR-J4W2-0303B6	-
HG-AK0236(B)	MR-J4-03A6(-RJ)	MR-J4W2-0303B6	-
HG-AK0336(B)	MR-J4-03A6(-RJ)	MR-J4W2-0303B6	-

Combinations of HG-JR Servo Motor Series and Servo Amplifier (200V Class) for Increasing the Maximum Torque to 400% of the Rated Torque The following combination of the HG-JR servo motor and the servo amplifier increases the maximum torque from 300% to 400% of the rated torque.

Model Number	MR-J4	MR-J4W2 (*1)	MR-J4W3 (*1)
HG-JR53(B) (*2)	MR-J4-100GF(-RJ), MR-J4-100B(-RJ), MR-J4-100A(-RJ), MR-J4-100TM	MR-J4W2-1010B	-
HG-JR73(B) (*2)	MR-J4-200GF(-RJ), MR-J4-200B(-RJ), MR-J4-200A(-RJ), MR-J4-200TM	-	-
HG-JR103(B) (*2)	MR-J4-200GF(-RJ), MR-J4-200B(-RJ), MR-J4-200A(-RJ), MR-J4-200TM	-	-
HG-JR153(B)	MR-J4-350GF(-RJ), MR-J4-350B(-RJ), MR-J4-350A(-RJ), MR-J4-350TM	-	-
HG-JR203(B)	MR-J4-350GF(-RJ), MR-J4-350B(-RJ), MR-J4-350A(-RJ), MR-J4-350TM	-	-
HG-JR353(B)	MR-J4-500GF(-RJ), MR-J4-500B(-RJ), MR-J4-500A(-RJ), MR-J4-500TM	-	-
HG-JR503(B)	MR-J4-700GF(-RJ), MR-J4-700B(-RJ), MR-J4-700A(-RJ), MR-J4-700TM	-	-

Notes:

- Any combination of the servo motors is possible as long as the servo motors are compatible with the servo amplifier. Refer to "Combinations of Multi-Axis Servo Amplifier and Servo Motors".
- When 1-phase 200 VAC input is used, increasing the maximum torque to 400% is not possible with HG-JR servo motor series.

Combinations of HG-JR Servo Motor Series and Servo Amplifier (400 V Class) for Increasing the Maximum Torque to 400% of the Rated Torque The following combination of the HG-JR servo motor and the servo amplifier increases the maximum torque from 300% to 400% of the rated torque.

Model Number	MR-J4	MR-J4W2 (*1)	MR-J4W3 (*1)
HG-JR534(B)	MR-J4-100GF4(-RJ), MR-J4-100B4(-RJ), MR-J4-100A4(-RJ), MR-J4-100TM4	MR-J4W2-1010B	-
HG-JR734(B)	MR-J4-200GF4(-RJ), MR-J4-200B4(-RJ), MR-J4-200A4(-RJ), MR-J4-200TM4	-	-
HG-JR1034(B)	MR-J4-200GF4(-RJ), MR-J4-200B4(-RJ), MR-J4-200A4(-RJ), MR-J4-200TM4	-	-
HG-JR1534(B)	MR-J4-350GF4(-RJ), MR-J4-350B4(-RJ), MR-J4-350A4(-RJ), MR-J4-350TM4	-	-
HG-JR2034(B)	MR-J4-350GF4(-RJ), MR-J4-350B4(-RJ), MR-J4-350A4(-RJ), MR-J4-350TM4	-	-
HG-JR3534(B)	MR-J4-500GF4(-RJ), MR-J4-500B4(-RJ), MR-J4-500A4(-RJ), MR-J4-500TM4	-	-
HG-JR5034(B)	MR-J4-700GF4(-RJ), MR-J4-700B4(-RJ), MR-J4-700A4(-RJ), MR-J4-700TM4	-	-

Note 1: Any combination of the servo motors is possible as long as the servo motors are compatible with the servo amplifier. Refer to "Combinations of Multi-Axis Servo Amplifier and Servo Motors".

Combinations of Servo Motor with Functional Safety and Servo Amplifier (200V Class)

The safety observation function can be expanded with the combination of the servo motor with functional safety, MR-J4-B-RJ/MR-J4-A-RJ servo amplifier, and MR-D30 functional safety unit. The servo motors with functional safety are available in HG-KR/HG-SR/HG-JR series. The specifications and dimensions of the servo motors with functional safety are the same as the standard. Combine MR-D30 with the following servo amplifiers to expand the safety observation function by using the servo motors with functional safety.

Model Number	MR-J4	MR-J4W2	MR-J4W3
HG-KR053W0C	MR-J4-10GF-RJ, MR-J4-10B-RJ, MR-J4-10B1-RJ, MR-J4-10A-RJ, MR-J4-10A1-RJ, MR-J4-10TM, MR-J4-10TM1	-	-
HG-KR13W0C	MR-J4-10GF-RJ, MR-J4-10B-RJ, MR-J4-10B1-RJ, MR-J4-10A-RJ, MR-J4-10A1-RJ, MR-J4-10TM, MR-J4-10TM1	-	-
HG-KR23W0C	MR-J4-20GF-RJ, MR-J4-20B-RJ, MR-J4-20B1-RJ, MR-J4-20A-RJ, MR-J4-20A1-RJ, MR-J4-20TM, MR-J4-20TM1	-	-
HG-KR43W0C	MR-J4-40GF-RJ, MR-J4-40B-RJ, MR-J4-40B1-RJ, MR-J4-40A-RJ, MR-J4-40A1-RJ, MR-J4-40TM, MR-J4-40TM1	-	-
HG-KR73W0C	MR-J4-70GF-RJ, MR-J4-70B-RJ, MR-J4-70A-RJ, MR-J4-70TM	-	-
HG-SR51W0C	MR-J4-60GF-RJ, MR-J4-60B-RJ, MR-J4-60A-RJ, MR-J4-60TM	-	-
HG-SR81W0C	MR-J4-100GF-RJ, MR-J4-100B-RJ, MR-J4-100A-RJ, MR-J4-100TM	-	-
HG-SR121W0C	MR-J4-200GF-RJ, MR-J4-200B-RJ, MR-J4-200A-RJ, MR-J4-200TM	-	-
HG-SR201W0C	MR-J4-200GF-RJ, MR-J4-200B-RJ, MR-J4-200A-RJ, MR-J4-200TM	-	-
HG-SR301W0C	MR-J4-350GF-RJ, MR-J4-350B-RJ, MR-J4-350A-RJ, MR-J4-350TM	-	-
HG-SR421W0C	MR-J4-500GF-RJ, MR-J4-500B-RJ, MR-J4-500A-RJ, MR-J4-500TM	-	-
HG-SR52W0C	MR-J4-60GF-RJ, MR-J4-60B-RJ, MR-J4-60A-RJ, MR-J4-60TM	-	-
HG-SR102W0C	MR-J4-100GF-RJ, MR-J4-100B-RJ, MR-J4-100A-RJ, MR-J4-100TM	-	-
HG-SR152W0C	MR-J4-200GF-RJ, MR-J4-200B-RJ, MR-J4-200A-RJ, MR-J4-200TM	-	-
HG-SR202W0C	MR-J4-200GF-RJ, MR-J4-200B-RJ, MR-J4-200A-RJ, MR-J4-200TM	-	-
HG-SR352W0C	MR-J4-350GF-RJ, MR-J4-350B-RJ, MR-J4-350A-RJ, MR-J4-350TM	-	-
HG-SR502W0C	MR-J4-500GF-RJ, MR-J4-500B-RJ, MR-J4-500A-RJ, MR-J4-500TM	-	-
HG-SR702W0C	MR-J4-700GF-RJ, MR-J4-700B-RJ, MR-J4-DU900B-RJ (*3), MR-J4-700A-RJ, MR-J4-700TM	-	-
HG-JR53W0C	MR-J4-60GF-RJ, MR-J4-100GF-RJ (*1, *2), MR-J4-60B-RJ, MR-J4-100B-RJ (*1, *2), MR-J4-60A-RJ, MR-J4-100A-RJ (*1, *2), MR-J4-60TM, MR-J4-100TM	-	-
HG-JR73W0C	MR-J4-70GF-RJ, MR-J4-200GF-RJ (*1, *2), MR-J4-70B-RJ, MR-J4-200B-RJ (*1, *2), MR-J4-70A-RJ, MR-J4-200A-RJ (*1, *2), MR-J4-70TM, MR-J4-200TM	-	-
HG-JR103W0C	MR-J4-100GF-RJ, MR-J4-200GF-RJ (*1, *2), MR-J4-100B-RJ, MR-J4-200B-RJ (*1, *2), MR-J4-100A-RJ, MR-J4-200A-RJ (*1, *2), MR-J4-100TM, MR-J4-200TM	-	-
HG-JR153W0C	MR-J4-200GF-RJ, MR-J4-350GF-RJ (*1), MR-J4-200B-RJ, MR-J4-350B-RJ (*1), MR-J4-200A-RJ, MR-J4-350A-RJ (*1), MR-J4-200TM, MR-J4-350TM	-	-
HG-JR203W0C	MR-J4-200GF-RJ, MR-J4-350GF-RJ (*1), MR-J4-200B-RJ, MR-J4-350B-RJ (*1), MR-J4-200A-RJ, MR-J4-350A-RJ (*1), MR-J4-200TM, MR-J4-350TM	-	-
HG-JR353W0C	MR-J4-350GF-RJ, MR-J4-500GF-RJ (*1), MR-J4-350B-RJ, MR-J4-500B-RJ (*1), MR-J4-350A-RJ, MR-J4-500A-RJ (*1), MR-J4-350TM, MR-J4-500TM	-	-
HG-JR503W0C	MR-J4-500GF-RJ, MR-J4-700GF-RJ (*1), MR-J4-500B-RJ, MR-J4-700B-RJ (*1), MR-J4-DU900B-RJ (*1), MR-J4-500A-RJ, MR-J4-700A-RJ (*1), MR-J4-500TM, MR-J4-700TM	-	-
HG-JR703W0C	MR-J4-700GF-RJ, MR-J4-700B-RJ, MR-J4-DU900B-RJ (*3), MR-J4-700A-RJ, MR-J4-700TM	-	-
HG-JR903W0C	MR-J4-11KF-RJ, MR-J4-11KB-RJ, MR-J4-DU900B(-RJ), MR-J4-11KA-RJ, MR-J4-11KTM	-	-
HG-JR701MW0C	MR-J4-700GF-RJ, MR-J4-700B-RJ, MR-J4-DU900B-RJ (*3), MR-J4-700A-RJ, MR-J4-700TM	-	-
HG-JR11K1MW0C	MR-J4-11KF-RJ, MR-J4-11KB-RJ, MR-J4-DU11KB-RJ, MR-J4-11KA-RJ, MR-J4-11KTM	-	-
HG-JR15K1MW0C	MR-J4-15KF-RJ, MR-J4-15KB-RJ, MR-J4-DU15KB-RJ, MR-J4-15KA-RJ, MR-J4-15KTM	-	-
HG-JR22K1MW0C	MR-J4-22KF-RJ, MR-J4-22KB-RJ, MR-J4-DU22KB-RJ, MR-J4-22KA-RJ, MR-J4-22KTM	-	-

Notes:

1. This combination increases the maximum torque from 300% to 400% of the rated torque.
2. When a 1-phase 200 VAC input is used, increasing the maximum torque to 400% is not possible with HG-JR servo motor series.
3. The maximum torque can be increased when the "Selection of maximally increasing torque function with drive unit" is enabled with a parameter.

Combinations of Servo Motors with Functional Safety and Servo Amplifier (400V Class)

Model Number	MR-J4	MR-J4W2	MR-J4W3
HG-SR524W0C	MR-J4-60GF4-RJ, MR-J4-60B4-RJ, MR-J4-60A4-RJ, MR-J4-60TM4	-	-
HG-SR1024W0C	MR-J4-100GF4-RJ, MR-J4-100B4-RJ, MR-J4-100A4-RJ, MR-J4-100TM4	-	-
HG-SR1524W0C	MR-J4-200GF4-RJ, MR-J4-200B4-RJ, MR-J4-200A4-RJ, MR-J4-200TM4	-	-
HG-SR2024W0C	MR-J4-200GF4-RJ, MR-J4-200B4-RJ, MR-J4-200A4-RJ, MR-J4-200TM4	-	-
HG-SR3524W0C	MR-J4-350GF4-RJ, MR-J4-350B4-RJ, MR-J4-350A4-RJ, MR-J4-350TM4	-	-
HG-SR5024W0C	MR-J4-500GF4-RJ, MR-J4-500B4-RJ, MR-J4-500A4-RJ, MR-J4-500TM4	-	-
HG-SR7024W0C	MR-J4-700GF4-RJ, MR-J4-700B4-RJ, MR-J4-DU900B4-RJ (*2), MR-J4-700A4-RJ, MR-J4-700TM4	-	-
HG-JR534W0C	MR-J4-60GF4-RJ, MR-J4-100GF4-RJ (*1), MR-J4-60B4-RJ, MR-J4-100B4-RJ (*1), MR-J4-60A4-RJ, MR-J4-100A4-RJ (*1), MR-J4-60TM4, MR-J4-100TM4	-	-
HG-JR734W0C	MR-J4-100GF4-RJ, MR-J4-200GF4-RJ (*1), MR-J4-100B4-RJ, MR-J4-200B4-RJ (*1), MR-J4-100A4-RJ, MR-J4-200A4-RJ (*1), MR-J4-100TM4, MR-J4-200TM4	-	-
HG-JR1034W0C	MR-J4-100GF4-RJ, MR-J4-200GF4-RJ (*1), MR-J4-100B4-RJ, MR-J4-200B4-RJ (*1), MR-J4-100A4-RJ, MR-J4-200A4-RJ (*1), MR-J4-100TM4, MR-J4-200TM4	-	-
HG-JR1534W0C	MR-J4-200GF4-RJ, MR-J4-350GF4-RJ (*1), MR-J4-200B4-RJ, MR-J4-350B4-RJ (*1), MR-J4-200A4-RJ, MR-J4-350A4-RJ (*1), MR-J4-200TM4, MR-J4-350TM4	-	-
HG-JR2034W0C	MR-J4-200GF4-RJ, MR-J4-350GF4-RJ (*1), MR-J4-200B4-RJ, MR-J4-350B4-RJ (*1), MR-J4-200A4-RJ, MR-J4-350A4-RJ (*1), MR-J4-200TM4, MR-J4-350TM4	-	-
HG-JR3534W0C	MR-J4-350GF4-RJ, MR-J4-500GF4-RJ (*1), MR-J4-350B4-RJ, MR-J4-500B4-RJ (*1), MR-J4-350A4-RJ, MR-J4-500A4-RJ (*1), MR-J4-350TM4, MR-J4-500TM4	-	-
HG-JR5034W0C	MR-J4-500GF4-RJ, MR-J4-700GF4-RJ (*1), MR-J4-500B4-RJ, MR-J4-700B4-RJ (*1), MR-J4-DU900B4-RJ (*1), MR-J4-500A4-RJ, MR-J4-700A4-RJ (*1), MR-J4-500TM4, MR-J4-700TM4	-	-
HG-JR7034W0C	MR-J4-700GF4-RJ, MR-J4-700B4-RJ, MR-J4-DU900B4-RJ (*2), MR-J4-700A4-RJ, MR-J4-700TM4	-	-
HG-JR9034W0C	MR-J4-11KGF4-RJ, MR-J4-11KB4-RJ, MR-J4-DU900B4-RJ, MR-J4-11KA4-RJ, MR-J4-11KTM4	-	-
HG-JR701M4W0C	MR-J4-700GF4-RJ, MR-J4-700B4-RJ, MR-J4-DU900B4-RJ (*2), MR-J4-700A4-RJ, MR-J4-11KTM4	-	-
HG-JR11K1M4W0C	MR-J4-11KGF4-RJ, MR-J4-11KB4-RJ, MR-J4-DU11KB4-RJ, MR-J4-11KA4-RJ, MR-J4-11KTM4	-	-
HG-JR15K1M4W0C	MR-J4-15KGF4-RJ, MR-J4-15KB4-RJ, MR-J4-DU15KB4-RJ, MR-J4-15KA4-RJ, MR-J4-15KTM4	-	-
HG-JR22K1M4W0C	MR-J4-22KGF4-RJ, MR-J4-22KB4-RJ, MR-J4-DU22KB4-RJ, MR-J4-22KA4-RJ, MR-J4-22KTM4	-	-

Notes:

1. This combination increases the maximum torque from 300% to 400% of the rated torque.
2. The maximum torque can be increased when the "Selection of maximally increasing torque function with drive unit" is enabled with a parameter.

HG-KR Series 3000 r/min (Low Inertia, Small Capacity) Specifications 200V

Servo Motor Model HG-KR_		053(B)	13(B)	23(B)	43(B)	73(B)
Servo Amplifier Model	MR-J4_	Refer to "Combinations of Servo Motor and Servo Amplifier" in this selection guide				
	MR-J4W_					
Power Supply Capacity (kVA) (*1)		0.3	0.3	0.5	0.9	1.3
Continuous Running Duty	Rated Output (W)	50	100	200	400	750
	Rated Torque (N•m) (Note 3)	0.16	0.32	0.64	1.3	2.4
Maximum Torque (N•m)		0.56	1.1	2.2	4.5	8.4
Rated Speed (r/min)		3000				
Maximum Speed (r/min)		6000				
Permissible Instantaneous Speed (r/min)		6900				
Power Rate Continuous Rated Torque	Standard (kW/s)	5.63	13.0	18.3	43.7	45.2
	With Electromagnetic Brake (kW/s)	5.37	12.1	16.7	41.3	41.6
Rated Current (A)		0.9	0.8	1.3	2.6	4.8
Maximum Current (A)		3.2	2.5	4.6	9.1	17
Regenerative Braking Frequency (*2)	MR-J4- (times/min)	(*4)	(*4)	453	268	157
	MR-J4W_ (times/min)	2500	1350	451	268	393
Moment of inertia J (x10 ⁻⁴ kg•m ²)	Standard	0.0450	0.0777	0.221	0.371	1.26
	With Electromagnetic Brake	0.0472	0.0837	0.243	0.393	1.37
Recommended Load/Motor Inertia Ratio (Note 1)		17 times or less		26 times or less	25 times or less	
Speed/Position Detector		Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)				
Oil Seal		None	None (Servo Motors with oil seal are available. (HG-KR_J))			
Insulation Class		130 (B)				
Structure		Totally enclosed, natural cooling (IP rating: IP65) (Note 2)				
Environment (*3)	Ambient Temperature	0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)				
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)				
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust				
	Elevation / Vibration (*4)	1000 m or less above sea level; X: 49 m/s ² Y: 49 m/s ²				
Vibration Rank		V10 (*6)				
Permissible Load for the Shaft (*5)	L (mm)	25	25	30	30	40
	Radial (N)	88	88	245	245	392
	Thrust (N)	59	59	98	98	147
Weight (kg)	Standard	0.34	0.54	0.91	1.4	2.8
	With Electromagnetic Brake	0.54	0.74	1.3	1.8	3.8

Notes: For MR-J4 Servo Motor notes, please go to page 283

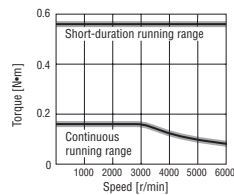
HG-KR 3000 Series Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-KR_		053B	13B	23B	43B	73B
Type		Spring actuated type safety brake				
Rated Voltage		24 VDC ⁰ / ₋₁₀ %				
Power Consumption (W) at 20 °C		6.3	6.3	7.9	7.9	10
Electromagnetic Brake Static Friction Torque (N•m)		0.32	0.32	1.3	1.3	2.4
Permissible Braking Work	Per Braking (J)	5.6	5.6	22	22	64
	Per Hour (J)	56	56	220	220	640
Electromagnetic Brake Life (*2)	Number of Times (Times)	20000				
	Work Per Braking (J)	5.6	5.6	22	22	64

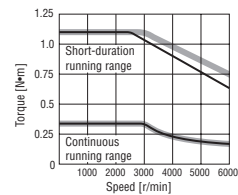
Notes:

- The electromagnetic brake is for holding. It should not be used for deceleration applications.
- Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.

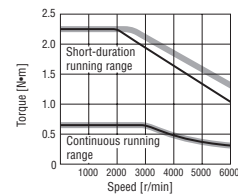
HG-KR053(B) (*1, *2)



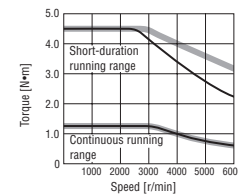
HG-KR13(B) (*1, *2)



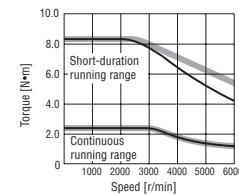
HG-KR23(B) (*1, *2)



HG-KR43(B) (*1, *2)



HG-KR73(B) (*1, *2)



- Notes: 1. —: For 3-phase 200 VAC or 1-phase 230 VAC.
 2. - - - : For 1-phase 200 VAC.
 3. Torque drops when the power supply voltage is below the specified value.

HG-MR Series 3000 r/min (Ultra Low Inertia, Small Capacity) Specifications 200V

Servo Motor Model HG-MR_		053(B)	13(B)	23(B)	43(B)	73(B)
Servo Amplifier Model	MR-J4- MR-J4W_-	Refer to "Combinations of Servo Motor and Servo Amplifier" in this selection guide				
Power Supply Capacity (kVA) (*1)		0.3	0.3	0.5	0.9	1.3
Continuous Running Duty	Rated Output (W)	50	100	200	400	750
	Rated Torque (N•m) (Note 3)	0.16	0.32	0.64	1.3	2.4
Maximum Torque (N•m)		0.48	0.95	1.9	3.8	7.2
Rated Speed (r/min)		3000				
Maximum Speed (r/min)		6000				
Permissible Instantaneous Speed (r/min)		6900				
Power Rate	Standard (kW/s)	15.6	33.8	46.9	114.2	97.3
Continuous Rated Torque	With Electromagnetic Brake (kW/s)	11.3	28.0	37.2	98.8	82.1
Rated Current (A)		1.0	0.9	1.5	2.6	5.8
Maximum Current (A)		3.1	2.5	5.3	9.0	20.0
Regenerative Braking Frequency (*2)	MR-J4- (times/min)	(Note 4)	(Note 4)	1180	713	338
	MR-J4W_- (times/min)	7310	3640	1170	710	846
Moment of Inertia J (x10 ⁻⁴ kg•m ²)	Standard	0.0162	0.0300	0.0865	0.142	0.586
	With Electromagnetic Brake	0.0224	0.0362	0.109	0.164	0.694
Recommended Load/Motor Inertia Ratio (Note 1)		35 times or less		32 times or less		
Speed/Position Detector		Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)				
Oil Seal		None	None (Servo Motors with oil seal are available. (HG-MR_J))			
Insulation Class		130 (B)				
Structure		Totally enclosed, natural cooling (IP rating: IP65) (Note 2)				
Environment (*3)	Ambient Temperature	0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)				
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)				
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust				
	Elevation / Vibration (*4)	1000 m or less above sea level; X: 49 m/s ² Y: 49 m/s ²				
Vibration Rank		V10 (*6)				
Permissible Load for the Shaft (*5)	L (mm)	25	25	30	30	40
	Radial (N)	88	88	245	245	392
	Thrust (N)	59	59	98	98	147
Weight (kg)	Standard	0.34	0.54	0.91	1.4	2.8
	With Electromagnetic Brake	0.54	0.74	1.3	1.8	3.8

Notes: For MR-J4 Servo Motor notes, please go to page 283

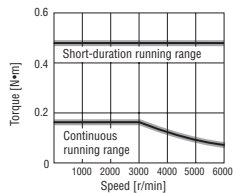
HG-MR 3000 Series Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-MR_	053B	13B	23B	43B	73B	
Type	Spring actuated type safety brake					
Rated Voltage	24 VDC $\pm 10\%$					
Power Consumption (W) at 20°C	6.3	6.3	7.9	7.9	10	
Electromagnetic Brake Static Friction Torque (N•m)	0.32	0.32	1.3	1.3	2.4	
Permissible Braking Work	Per Braking (J)	5.6	5.6	22	22	64
	Per Hour (J)	56	56	220	220	640
Electromagnetic Brake Life (*2)	Number of Times (Times)	20000				
	Work Per Braking (J)	5.6	5.6	22	22	64

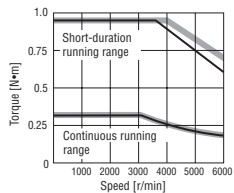
Notes:

- The electromagnetic brake is for holding. It should not be used for deceleration applications.
- Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.

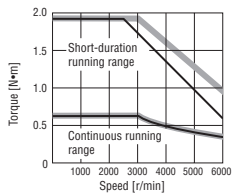
HG-MR053(B) (*1, *2)



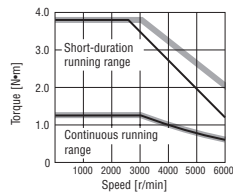
HG-MR13(B) (*1, *2)



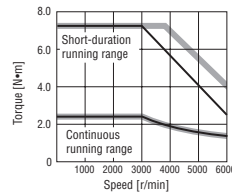
HG-MR23(B) (*1, *2)



HG-MR43(B) (*1, *2)



HG-MR73(B) (*1, *2)



- Notes: 1. — : For 3-phase 200 VAC or 1-phase 230 VAC.
 2. — : For 1-phase 200 VAC.
 3. Torque drops when the power supply voltage is below the specified value.

HG-SR 1000 r/min Series (Medium Inertia, Medium Capacity) Specifications 200V

Servo Motor Model HG-SR_		51(B)	81(B)	121(B)	201(B)	301(B)	421(B)
Servo Amplifier Model	MR-J4- MR-J4W -	Refer to "Combinations of Servo Motor and Servo Amplifier" in this selection guide					
Power Supply Capacity (kVA) (*1)		1.0	1.5	2.1	3.5	4.8	6.3
Continuous Running Duty	Rated Output (kW)	0.5	0.85	1.2	2.0	3.0	4.2
	Rated Torque (N•m) (Note 3)	4.8	8.1	11.5	19.1	28.6	40.1
Maximum Torque (N•m)		14.3	24.4	34.4	57.3	85.9	120
Rated Speed (r/min)		1000					
Maximum Speed (r/min)		1500					
Permissible Instantaneous Speed (r/min)		1725					
Power Rate Continuous Rated Torque	Standard (kW/s)	19.7	41.2	28.1	46.4	82.3	107
	With Electromagnetic Brake (kW/s)	16.5	36.2	23.2	41.4	75.3	99.9
Rated Current (A)		2.8	5.2	7.1	9.4	13	19
Maximum Current (A)		9.0	17	23	30	42	61
Regenerative Braking Frequency (*2)	MR-J4- (times/min)	77	114	191	113	89	76
	MR-J4W_ (times/min)	392	286	-	-	-	-
Moment of Inertia J (x10 ⁻⁴ kg•m ²)	Standard	11.6	16.0	46.8	78.6	99.7	151
	With Electromagnetic Brake	13.8	18.2	56.5	88.2	109	161
Recommended Load/Motor Inertia Ratio (Note 1)		17 times or less		15 times or less			
Speed/Position Detector		Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)					
Oil Seal		None (Servo Motors with oil seal are available. (HG-SR_J))					
Insulation Class		155 (F)					
Structure		Totally enclosed, natural cooling (IP rating: IP67) (Note 2)					
Environment (*3)	Ambient Temperature	0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)					
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)					
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust					
	Elevation	1000 m or less above sea level					
Vibration Rank	Vibration (*4)	X: 24.5 m/s ² Y: 24.5 m/s ²		X: 24.5 m/s ² Y: 49 m/s ²		X: 24.5 m/s ² Y: 29.4 m/s ²	
		V10 (*6)					
Permissible Load for the Shaft (*5)	L (mm)	55	55	79	79	79	79
	Radial (N)	980	980	2058	2058	2058	2058
	Thrust (N)	490	490	980	980	980	980
Weight (kg)	Standard	6.2	7.3	11	16	20	27
	With Electromagnetic Brake	8.2	9.3	17	22	26	33

Notes: For MR-J4 Servo Motor notes, please go to page 283

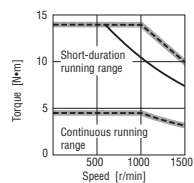
HG-SR 1000 Series Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-SR_		51B	81B	121B	201B	301B	421B
Type		Spring actuated type safety brake					
Rated Voltage		24 VDC ⁰ / ₋₁₀ %					
Power Consumption (W) at 20°C		20	20	34	34	34	34
Electromagnetic Brake Static Friction Torque (N•m)		8.5	8.5	44	44	44	44
Permissible Braking Work	Per Braking (J)	400	400	4500	4500	4500	4500
	Per Hour (J)	4000	4000	45000	45000	45000	45000
Electromagnetic Brake Life (*2)	Number of Times (Times)	20000					
	Work Per Braking (J)	200	200	1000	1000	1000	1000

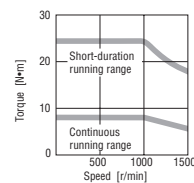
Notes:

- The electromagnetic brake is for holding. It should not be used for deceleration applications.
- Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.

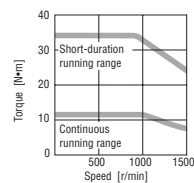
HG-SR51(B) (*1, *2, *3)



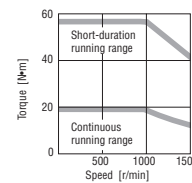
HG-SR81(B) (*1)



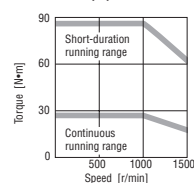
HG-SR121(B) (*1)



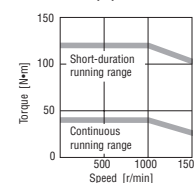
HG-SR201(B) (*1)



HG-SR301(B) (*1)



HG-SR421(B) (*1)



- Notes: 1. — : For 3-phase 200 V AC.
 2. - - - : For 1-phase 230 V AC.
 3. — : For 1-phase 200 V AC.
 This line is drawn only where it differs from the other two lines.
 4. Torque drops when the power supply voltage is below the specified value.

HG-SR 2000 r/min Series (Medium Inertia, Medium Capacity) Specifications 200V

Servo Motor Model HG-SR_	52(B)	102(B)	152(B)	202(B)	352(B)	502(B)	702(B)	
Servo Amplifier Model	MR-J4- MR-J4W -							
		Refer to "Combinations of Servo Motor and Servo Amplifier" in this guide.						
Power Supply Capacity (kVA) (*1)	1.0	1.7	2.5	3.5	5.5	7.5	10	
Continuous Running Duty	Rated Output (kW)	0.5	1.0	1.5	2.0	3.5	7.0	
	Rated Torque (N•m) (Note 3)	2.4	4.8	7.2	9.5	16.7	33.4	
Maximum Torque (N•m)	7.2	14.3	21.5	28.6	50.1	71.6	100	
Rated Speed (r/min)	2000							
Maximum Speed (r/min)	3000							
Permissible Instantaneous Speed (r/min)	3450							
Power Rate Continuous Rated Torque (kW/s)	Standard (kW/s)	7.85	19.7	32.1	19.5	35.5	57.2	74.0
	With Electromagnetic Brake (kW/s)	6.01	16.5	28.2	16.1	31.7	52.3	69.4
Rated Current (A)	2.9	5.6	9.4	9.6	14	22	26	
Maximum Current (A)	9.0	17.4	29	31	45	70	83	
Regenerative Braking Frequency (*2)	MR-J4- (times/min)	31	38	139	47	28	29	25
	MR-J4W - (times/min)	154	96	-	-	-	-	-
Moment of Inertia J (x10 ⁻⁴ kg•m ²)	Standard	7.26	11.6	16.0	46.8	78.6	99.7	151
	With Electromagnetic Brake	9.48	13.8	18.2	56.5	88.2	109	161
Recommended Load/Motor Inertia Ratio (Note 1)	15 times or less	17 times or less		15 times or less				
Speed/Position Detector	Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)							
Oil Seal	None (Servo Motors with oil seal are available. (HG-SR_J))							
Insulation Class	155 (F)							
Structure	Totally enclosed, natural cooling (IP rating: IP67) (Note 2)							
Environment (*3)	Ambient Temperature	0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)						
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)						
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust						
	Elevation	1000 m or less above sea level						
Vibration Rank	Vibration (*4)	X: 24.5 m/s ² Y: 24.5 m/s ²			X: 24.5 m/s ² Y: 49 m/s ²		X: 24.5 m/s ² Y: 29.4 m/s ²	
		V10 (*6)						
Permissible Load for the Shaft (*5)	L (mm)	55	55	55	79	79	79	79
	Radial (N)	980	980	980	2058	2058	2058	2058
	Thrust (N)	490	490	490	980	980	980	980
Weight (kg)	Standard	4.8	6.2	7.3	11	16	20	27
	With Electromagnetic Brake	6.7	8.2	9.3	17	22	26	33

Notes: For MR-J4 Servo Motor notes, please go to page 283

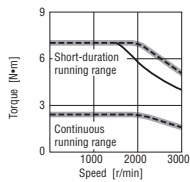
HG-SR 2000 Series Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-SR_	52B	102B	152B	202B	352B	502B	702B	
Type	Spring actuated type safety brake							
Rated Voltage	24 VDC ⁰ %							
Power Consumption (W) at 20 °C	20	20	20	34	34	34	34	
Electromagnetic Brake Static Friction Torque (N•m)	8.5	8.5	8.5	44	44	44	44	
Permissible Braking Work	Per Braking (J)	400	400	400	4500	4500	4500	
	Per Hour (J)	4000	4000	4000	45000	45000	45000	
Electromagnetic Brake Life (*2)	Number of Times (Times)	20000						
	Work Per Braking (J)	200	200	200	1000	1000	1000	1000

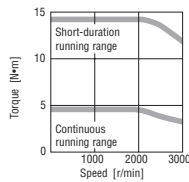
Notes:

- The electromagnetic brake is for holding. It should not be used for deceleration applications.
- Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.

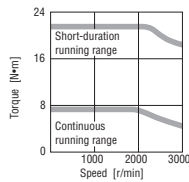
HG-SR52(B) (*1, *2, *3)



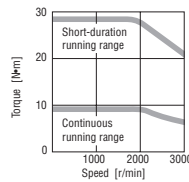
HG-SR102(B) (*1)



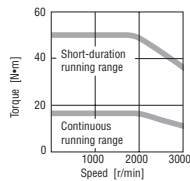
HG-SR152(B) (*1)



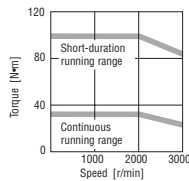
HG-SR202(B) (*1)



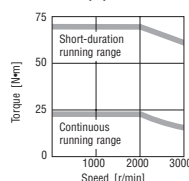
HG-SR352(B) (*1)



HG-SR702(B) (*1)



HG-SR502(B) (*1)



- Notes:
- : For 3-phase 200 V AC.
 - - - : For 1-phase 230 V AC.
 - : For 1-phase 200 V AC.
- This line is drawn only where it differs from the other two lines.
4. Torque drops when the power supply voltage is below the specified value.

HG-SR 2000 r/min Series (Medium Inertia, Medium Capacity) Specifications 400V

Servo Motor Model HG-SR_		524(B)	1024(B)	1524(B)	2024(B)	3524(B)	5024(B)	7024(B)
Servo Amplifier Model	MR-J4-	Refer to "Combinations of Servo Motor and Servo Amplifier" in this guide.						
Power Supply Capacity (kVA) (*1)		1.0	1.7	2.5	3.5	5.5	7.5	10
Continuous Running Duty	Rated Output (kW)	0.5	1.0	1.5	2.0	3.5	5.0	7.0
	Rated Torque (N•m) (Note 3)	2.4	4.8	7.2	9.5	16.7	23.9	33.4
Maximum Torque (N•m)		7.2	14.3	21.5	28.6	50.1	71.6	100
Rated Speed (r/min)		2000						
Maximum Speed (r/min)		3000						
Permissible Instantaneous Speed (r/min)		3450						
Power Rate Continuous Rated Torque (kW/s)	Standard (kW/s)	7.85	19.7	32.1	19.5	35.5	57.2	74.0
	With Electromagnetic Brake (kW/s)	6.01	16.5	28.2	16.1	31.7	52.3	69.4
Rated Current (A)		1.5	2.8	4.7	4.9	7	11	13
Maximum Current (A)		4.5	8.9	17	17	27	42	59
Regenerative Braking Frequency (*2)	MR-J4- (times/min)	46	29	139	47	34	29	25
	Standard	7.26	11.6	16.0	46.8	78.6	99.7	151
Moment of Inertia J (x10 ⁻⁴ kg•m ²)	Standard	7.26	11.6	16.0	46.8	78.6	99.7	151
	With Electromagnetic Brake	9.48	13.8	18.2	56.5	88.2	109	161
Recommended Load/Motor Inertia Ratio (Note 1)		15 times or less		17 times or less		15 times or less		
Speed/Position Detector		Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)						
Oil Seal		None (Servo Motors with oil seal are available. (HG-SR_J))						
Insulation Class		155 (F)						
Structure		Totally enclosed, natural cooling (IP rating: IP67) (Note 2)						
Environment (*3)	Ambient Temperature	0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)						
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)						
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust						
	Elevation	1000 m or less above sea level						
Vibration Rank	Vibration (*4)	X: 24.5 m/s ² Y: 24.5 m/s ²			X: 24.5 m/s ² Y: 49 m/s ²		X: 24.5 m/s ² Y: 29.4 m/s ²	
	V10 (*6)							
Permissible Load for the Shaft (*5)	L (mm)	55	55	55	79	79	79	79
	Radial (N)	980	980	980	2058	2058	2058	2058
	Thrust (N)	490	490	490	980	980	980	980
Weight (kg)	Standard	4.8	6.2	7.3	11	16	20	27
	With Electromagnetic Brake	6.7	8.2	9.3	17	22	26	33

Notes: For MR-J4 Servo Motor notes, please go to page 283

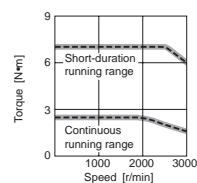
HG-SR 2000 Series (400V) Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-SR_		524B	1024B	1524B	2024B	3524B	5024B	7024B
Type		Spring actuated type safety brake						
Rated Voltage		24 VDC ⁰ / ₋₁₀ %						
Power Consumption (W) at 20°C		20	20	20	34	34	34	34
Electromagnetic Brake Static Friction Torque (N•m)		8.5	8.5	8.5	44	44	44	44
Permissible Braking Work	Per Braking (J)	400	400	400	4500	4500	4500	4500
	Per Hour (J)	4000	4000	4000	45000	45000	45000	45000
Electromagnetic Brake Life (*2)	Number of Times (Times)	20000						
	Work Per Braking (J)	200	200	200	1000	1000	1000	1000

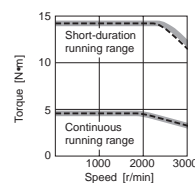
Notes:

- The electromagnetic brake is for holding. It should not be used for deceleration applications.
- Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.

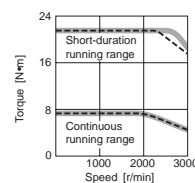
HG-SR524(B) (Note 1, 2)



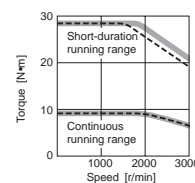
HG-SR1024(B) (Note 1, 2)



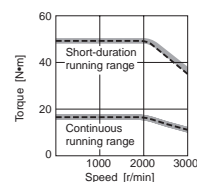
HG-SR1524(B) (Note 1, 2)



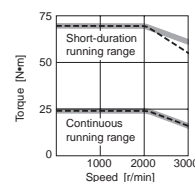
HG-SR2024(B) (Note 1, 2)



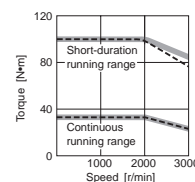
HG-SR3524(B) (Note 1, 2)



HG-SR5024(B) (Note 1, 2)



HG-SR7024(B) (Note 1, 2)



- Notes: 1. — : For 3-phase 400 V AC.
 2. - - - : For 3-phase 380 V AC.
 3. Torque drops when the power supply voltage is below the specified value.

HG-JR 3000 r/min Series (Low Inertia, Medium Capacity) Specifications 200V

Servo Motor Model HG-JR_		53(B)	73(B)	103(B)	153(B)	203(B)	353(B)	503(B)	703(B)	903(B)
Servo Amplifier Model	MR-J4- MR-J4W_	Refer to "Combinations of Servo Motor and Servo Amplifier" in this guide.								
Power Supply Capacity (kVA) (*1)		1.0	1.3	1.7	2.5	3.5	5.5	7.5	10	13
Continuous Running Duty	Rated Output (kW)	0.5	0.75	1.0	1.5	2.0	3.3 <3.5> (Note 5)	5.0	7.0	9.0
	Rated Torque (N•m) (Note 3)	1.6	2.4	3.2	4.8	6.4	10.5 <11.1> (Note 5)	15.9	22.3	28.6
Maximum Torque (N•m) (Note 6)		4.8 <6.4>	7.2 <9.6>	9.6 <12.7>	14.3 <19.1>	19.1 <25.5>	32.0 <44.6>	44.7 <63.7>	66.8	85.8
Rated Speed (r/min)		3000								
Maximum Speed (r/min)		6000								5000
Permissible Instantaneous Speed (r/min)		6900								5750
Power Rate Continuous Rated Torque (kW/s)	Standard (kW/s)	16.7	27.3	38.2	60.2	82.4	83.5	133	115	147
	With Electromagnetic Brake (kW/s)	12.5	22.0	32.2	53.1	74.8	71.6	119	93.9	125
Rated Current (A)		3.0	5.6	5.6	11	11	17 <18> (Note 5)	27	34	41
Maximum Current (A) (Note 5)		9.0 <12>	17 <23>	17 <23>	32 <43>	32 <43>	51 <71>	81 <108>	103	134
Regenerative Braking Frequency (*2, Note 5)	MR-J4- (times/min)	67 <137>	98 <511>	76 <396>	271 <271>	206 <206>	73 <98>	68 <89>	56	204 (Note 7)
	MR-J4W_ (times/min)	328 <328>	237	186	-	-	-	-	-	-
Moment of Inertia J (x10 ⁻⁴ kg•m ²)	Standard	1.52	2.09	2.65	3.79	4.92	13.2	19.0	43.3	55.8
	With Electromagnetic Brake	2.02	2.59	3.15	4.29	5.42	15.4	21.2	52.9	65.4
Recommended Load/Motor Inertia Ratio (Note 1)		10 times or less								
Speed/Position Detector		Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)								
Oil Seal		Attached								
Insulation Class		155 (F)								
Structure		Totally enclosed, natural cooling (IP rating: IP67) (Note 2)								
Environment (*3)	Ambient Temperature	0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)								
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)								
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust								
	Elevation	1000 m or less above sea level								
Vibration Rank	Vibration (*4)	X: 24.5 m/s ² Y: 24.5 m/s ²							X: 24.5 m/s ² Y: 29.4 m/s ²	
		V10 (*6)								
Permissible Load for the Shaft (*5)	L (mm)	40	40	40	40	40	55	55	79	79
	Radial (N)	323	323	323	323	323	980	980	2450	2450
	Thrust (N)	284	284	284	284	284	490	490	980	980
Weight (kg)	Standard	3.0	3.7	4.5	5.9	7.5	13	18	29	36
	With Electromagnetic Brake	4.4	5.1	5.9	7.3	8.9	15	20	35	42

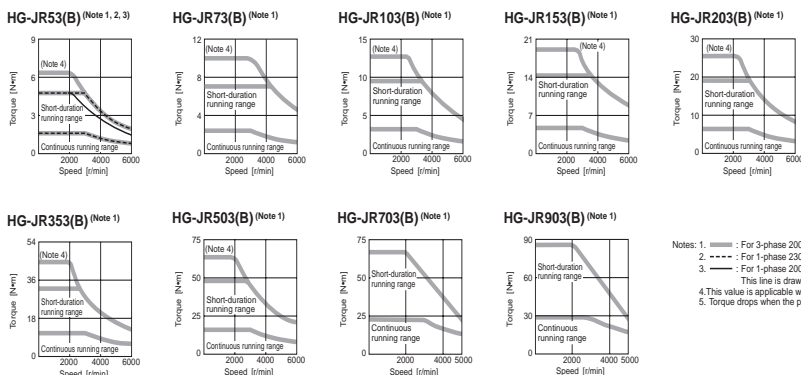
Notes: For MR-J4 Servo Motor notes, please go to page 283

HG-JR 3000 Series (200V) Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-JR_		53B	73B	103B	153B	203B	353B	503B	703B	903B
Type		Spring actuated type safety brake								
Rated Voltage		24 VDC -10 %								
Power Consumption (W) at 20°C		11.7	11.7	11.7	11.7	11.7	23	23	34	34
Electromagnetic Brake Static Friction Torque (N•m)		6.6	6.6	6.6	6.6	6.6	16	16	44	44
Permissible Braking Work	Per Braking (J)	64	64	64	64	64	400	400	4500	4500
	Per Hour (J)	640	640	640	640	640	4000	4000	45000	45000
Electromagnetic Brake Life (*2)	Number of Times (Times)	5000							20000	
	Work Per Braking (J)	64	64	64	64	64	400	400	1000	1000

Notes:

- The electromagnetic brake is for holding. It should not be used for deceleration applications.
- Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.



Notes: 1. ———: For 3-phase 200 V AC.
 2. - - - - : For 1-phase 230 V AC.
 3. ······ : For 1-phase 200 V AC.
 This line is drawn only where it differs from the other two lines.
 4. This value is applicable when the torque is maximally increased. Refer to MR-J4 Brochure for more specifications.
 5. Torque drops when the power supply voltage is below the specified value.

HG-JR 3000 r/min Series (Low Inertia, Medium Capacity) Specifications 400V

Servo Motor Model HG-JR_		534(B)	734(B)	1034(B)	1534(B)	2034(B)	3534(B)	5034(B)	7034(B)	9034(B)
Servo Amplifier Model	MR-J4-	Refer to "Combinations of Servo Motor and Servo Amplifier" in this guide								
Power Supply Capacity (kVA) (*1)		1.0	1.3	1.7	2.5	3.5	5.5	7.5	10	13
Continuous Running Duty	Rated Output (kW)	0.5	0.75	1.0	1.5	2.0	3.3 <3.5> (Note 5)	5.0	7.0	9.0
	Rated Torque (N•m) (Note 3)	1.6	2.4	3.2	4.8	6.4	10.5 <11.1> (Note 5)	15.9	22.3	28.6
Maximum Torque (N•m) (Note 6)		4.8 <6.4>	7.2 <9.6>	9.6 <12.7>	14.3 <19.1>	19.1 <25.5>	32.0 <44.6>	47.2 <63.7>	66.8	85.8
Rated Speed (r/min)		3000								
Maximum Speed (r/min)		6000								5000
Permissible Instantaneous Speed (r/min)		6900								
Power Rate Continuous Rated Torque (kW/s)	Standard (kW/s)	16.7	27.3	38.2	60.2	82.4	83.5	133	115	147
	With Electromagnetic Brake (kW/s)	12.5	22.0	32.2	53.1	74.8	71.6	119	93.9	125
Rated Current (A)		1.5	2.8	2.8	5.4	5.4	8.3 <8.8> (Note 5)	14	17	21
Maximum Current (A) (Note 6)		4.5 <6.0>	8.4 <12>	8.4 <12>	17 <22>	17 <22>	26 <36>	41 <54>	52	67
Regenerative Braking Frequency (*2) (Note 6)	MR-J4- (times/min)	99 <100>	72 <489>	56 <382>	265 <275>	203 <209>	75 <98>	68 <89>	56	205 (Note 7)
Moment of Inertia J (x10 ⁻⁴ kg•m ²)	Standard	1.52	2.09	2.65	3.79	4.92	13.2	19.0	43.3	55.8
	With Electromagnetic Brake	2.02	2.59	3.15	4.29	5.42	15.4	21.2	52.9	65.4
Recommended Load/Motor Inertia Ratio (Note 1)		10 times or less								
Speed/Position Detector		Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)								
Oil Seal		Attached								
Insulation Class		155 (F)								
Structure		Totally enclosed, natural cooling (IP rating: IP67) (Note 2)								
Environment (*3)	Ambient Temperature	0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)								
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)								
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust								
	Elevation	1000 m or less above sea level								
Vibration Rank	Vibration (*4)	X: 24.5 m/s ² Y: 24.5 m/s ²								X: 24.5 m/s ² Y: 29.4 m/s ²
	V10 (*6)	V10 (*6)								
Permissible Load for the Shaft (*5)	L (mm)	40	40	40	40	40	55	55	79	79
	Radial (N)	323	323	323	323	323	980	980	2450	2450
	Thrust (N)	284	284	284	284	284	490	490	980	980
Weight (kg)	Standard	3.0	3.7	4.5	5.9	7.5	13	18	29	36
	With Electromagnetic Brake	4.4	5.1	5.9	7.3	8.9	15	20	35	42

Notes: For MR-J4 Servo Motor notes, please go to page 283

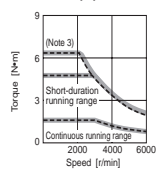
HG-JR 3000 Series (400V) Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-JR_		534B	734B	1034B	1534B	2034B	3534B	5034B	7034B	9034B
Type		Spring actuated type safety brake								
Rated Voltage		24 VDC $\pm 0\%$								
Power Consumption (W) at 20°C		11.7	11.7	11.7	11.7	11.7	23	23	34	34
Electromagnetic Brake Static Friction Torque (N•m)		6.6	6.6	6.6	6.6	6.6	16	16	44	44
Permissible Braking Work	Per Braking (J)	64	64	64	64	64	400	400	4500	4500
	Per Hour (J)	640	640	640	640	640	4000	4000	45000	45000
Electromagnetic Brake Life (*2)	Number of Times (Times)	5000								20000
	Work Per Braking (J)	64	64	64	64	64	400	400	1000	1000

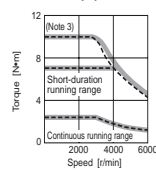
Notes:

- The electromagnetic brake is for holding. It should not be used for deceleration applications.
- Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.

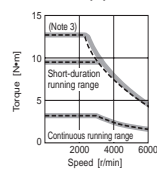
HG-JR534(B) (Note 1, 2)



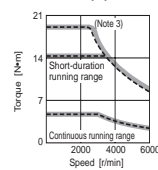
HG-JR734(B) (Note 1, 2)



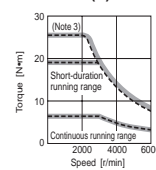
HG-JR1034(B) (Note 1, 2)



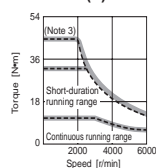
HG-JR1534(B) (Note 1, 2)



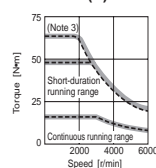
HG-JR2034(B) (Note 1, 2)



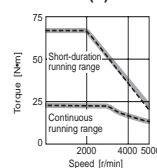
HG-JR3534(B) (Note 1, 2)



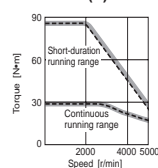
HG-JR5034(B) (Note 1, 2)



HG-JR7034(B) (Note 1, 2)



HG-JR9034(B) (Note 1, 2)



- Notes: 1. ——— : For 3-phase 400 V AC.
 2. - - - : For 3-phase 380 V AC.
 3. This value is applicable when the torque is maximally increased. Refer to "Combinations of HG-JR Servo Motor Series and Servo Amplifier (400 V Class) for Increasing the Maximum Torque to 400% of the Rated Torque" on p. 2-6 in this catalog.
 4. Torque drops when the power supply voltage is below the specified value.

HG-JR 1000 r/min Series (Low Inertia, Medium/Large Capacity) Specifications 200V

Servo Motor Model HG-JR_		601(B)	801(B)	12K1(B)	15K1	20K1	25K1	30K1	37K1	
Servo Amplifier Model	MR-J4-	Refer to "Combinations of Servo Motor and Servo Amplifier" in this guide.								
Power Supply Capacity (kVA) (*1)		8.6	12	18	22	30	38	48	59	
Continuous Running Duty	Rated Output (kW)	6.0	8.0	12	15	20	25	30	37	
	Rated Torque (N•m) (Note 3)	57.3	76.4	115	143	191	239	286	353	
Maximum Torque (N•m)		172	229	345	429	573	717	858	1059	
Rated Speed (r/min)		1000								
Maximum Speed (r/min)		2000			1500					
Permissible Instantaneous Speed (r/min)		2300								
Power Rate at Continuous Rated Torque (kW/s)	Standard (kW/s)	187	265	420	418	582	748	594	761	
	With Electromagnetic Brake (kW/s)	167	243	394	-	-	-	-	-	
Rated Current (A)		31	47	60	67	94	95	121	152	
Maximum Current (A)		108	165	208	231	318	313	399	495	
Regenerative Braking Frequency (*2)	MR-J4- (times/min)	82	322 (Note 7)	224 (Note 7)	234 (Note 7)	183 (Note 7)	150 (Note 7)	-	-	
Moment of Inertia J (x10 ⁻⁴ kg•m ²)	Standard	176	220	315	489	627	764	1377	1637	
	With Electromagnetic Brake	196	240	336	-	-	-	-	-	
Recommended Load/Motor Inertia Ratio (Note 1)		10 times or less								
Speed/Position Detector		Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)								
Oil Seal		Attached								
Insulation Class		155 (F)								
Structure (Note 2)		Totally enclosed, natural cooling (IP rating: IP67)				Totally enclosed, force cooling (IP rating: IP44)				
Environment (*3)	Ambient Temperature	0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)								
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)								
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust								
	Elevation	1000 m or less above sea level								
Vibration Rank	Vibration (*4)	X: 24.5 m/s ² Y: 24.5 m/s ²						X: 9.8 m/s ² Y: 9.8 m/s ²		
		V10 (*6)								
Permissible Load for the Shaft (*5)	L (mm)	116	116	116	140	140	140	140	140	
	Radial (N)	2940	2940	2940	3234	3234	3234	4900	4900	
	Thrust (N)	980	980	980	1470	1470	1470	1960	1960	
Weight (kg)	Standard	53	62	86	120	145	165	215	240	
	With Electromagnetic Brake	65	74	97	-	-	-	-	-	
Cooling Fan	Power Supply	Voltage/Frequency		3-phase 200 VAC to 240 VAC, 50 Hz/60 Hz						
		Input (W)		65 (50 Hz)/85 (60 Hz)				120 (50 Hz)/175 (60 Hz)		
		Rated Current (A)		0.20 (50 Hz)/0.22 (60 Hz)				0.39 (50 Hz)/0.52 (60 Hz)		

Notes: For MR-J4 Servo Motor notes, please go to page 283

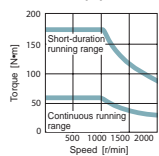
HG-JR 1000 r/min Series (200 V Class) Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-JR_		601B	801B	12K1B
Type		Spring actuated type safety brake		
Rated Voltage		24 VDC -10 %		
Power Consumption (W) at 20°C		32	32	32
Electromagnetic Brake Static Friction Torque (N•m)		126	126	126
Permissible Braking Work	Per Braking (J)	5000	5000	5000
	Per Hour (J)	45200	45200	45200
Electromagnetic Brake Life (*2)	Number of Times (Times)	20000	20000	20000
	Work Per Braking (J)	400	400	400

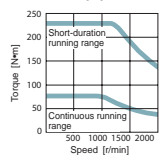
Notes:

- The electromagnetic brake is for holding. It should not be used for deceleration applications.
- Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.

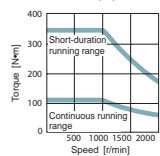
HG-JR601(B) (*1, 2)



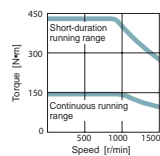
HG-JR801(B) (*1, 2)



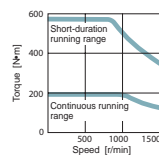
HG-JR12K1(B) (*1, 2)



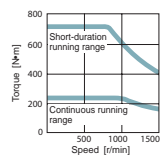
HG-JR15K1 (*1, 2)



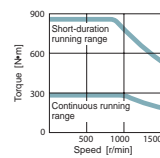
HG-JR20K1 (*1, 2)



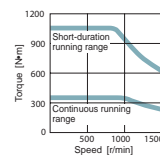
HG-JR25K1 (*1, 2)



HG-JR30K1 (*1, 2)



HG-JR37K1 (*1, 2)



Notes: 1. For 3-phase 200 V AC.
2. Torque drops when the power supply voltage is below the specified value.

HG-JR 1000 r/min Series (Low Inertia, Medium/Large Capacity) Specifications 400V

Servo Motor Model HG-JR_		6014(B)	8014(B)	12K14(B)	15K14	20K14	25K14	30K14	37K14
Servo Amplifier Model	MR-J4-	Refer to "Combinations of Servo Motor and Servo Amplifier" in this guide.							
Power Supply Capacity (kVA) (*1)		8.6	12	18	22	30	38	48	59
Continuous Running Duty	Rated Output (kW)	6.0	8.0	12	15	20	25	30	37
	Rated Torque (N•m) (Note 3)	57.3	76.4	115	143	191	239	286	353
Maximum Torque (N•m)		172	229	345	429	573	717	858	1059
Rated Speed (r/min)		1000							
Maximum Speed (r/min)		2000			1500				
Permissible Instantaneous Speed (r/min)		2300			1725				
Power Rate at Continuous Rated Torque (kW/s)	Standard (kW/s)	187	265	420	418	582	748	594	761
	With Electromagnetic Brake (kW/s)	167	243	394	-	-	-	-	-
Rated Current (A)		16	23	30	33	47	48	60	76
Maximum Current (A)		54	80	104	114	161	160	202	248
Regenerative Braking Frequency (*2)	MR-J4- (times/min)	83	331 (Note 7)	229 (Note 7)	239 (Note 7)	187 (Note 7)	152 (Note 7)	-	-
Moment of Inertia J (x10 ⁻⁴ kg•m ²)	Standard	176	220	315	489	627	764	1377	1637
	With Electromagnetic Brake	196	240	336	-	-	-	-	-
Recommended Load/Motor Inertia Ratio (Note 1)		10 times or less							
Speed/Position Detector		Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)							
Oil Seal		Attached							
Insulation Class		155 (F)							
Structure (Note 2)		Totally enclosed, natural cooling (IP rating: IP67)				Totally enclosed, force cooling (IP rating: IP44)			
Environment (*3)	Ambient Temperature	0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)							
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)							
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust							
	Elevation	1000 m or less above sea level							
Vibration (*4)		X: 24.5 m/s ² Y: 24.5 m/s ²						X: 9.8 m/s ² Y: 9.8 m/s ²	
Vibration Rank		V10 (*6)							
Permissible Load for the Shaft (*5)	L (mm)	116	116	116	140	140	140	140	140
	Radial (N)	2940	2940	2940	3234	3234	3234	4900	4900
	Thrust (N)	980	980	980	1470	1470	1470	1960	1960
Weight (kg)	Standard	53	62	86	120	145	165	215	240
	With Electromagnetic Brake	65	74	97	-	-	-	-	-
Cooling Fan	Power Supply	Voltage/Frequency	-	-	-	3-phase 200 VAC to 240 VAC, 50 Hz/60 Hz			3-phase 380 VAC to 460 VAC, 50 Hz/60 Hz
		Input (W)	-	-	-	65 (50 Hz)/85 (60 Hz)			110 (50 Hz)/150 (60 Hz)
	Rated Current (A)	-	-	-	0.12 (50 Hz)/0.14 (60 Hz)			0.20 (50 Hz)/0.22 (60 Hz)	

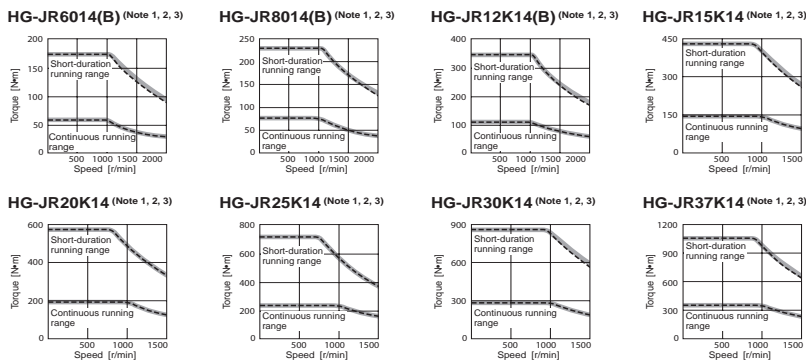
Notes: For MR-J4 Servo Motor notes, please go to page 283

HG-JR 1000 r/min Series (400 V Class) Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-JR_	6014B	8014B	12K14B
Type	Spring actuated type safety brake		
Rated Voltage	24 VDC $\pm 0.1\%$		
Power Consumption (W) at 20°C	32	32	32
Electromagnetic Brake Static Friction Torque (N•m)	126	126	126
Permissible Braking Work	Per Braking (J)	5000	5000
	Per Hour (J)	45200	45200
Electromagnetic Brake Life (*2)	Number of Times (Times)	20000	20000
	Work Per Braking (J)	400	400

Notes:

- The electromagnetic brake is for holding. It should not be used for deceleration applications.
- Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.



HG-JR 1500 r/min Series (Low Inertia, Large Capacity) Specifications 200V

Servo Motor Model HG-JR_		701M(B)	11K1M(B)	15K1M(B)	22K1M	30K1M	37K1M
Servo Amplifier Model	MR-J4-	Refer to "Combinations of Servo Motor and Servo Amplifier" in this guide.					
Power Supply Capacity (kVA) (*1)		10	16	22	33	48	59
Continuous Running Duty	Rated Output (kW)	7.0	11	15	22	30	37
	Rated Torque (N•m) (Note 3)	44.6	70.0	95.5	140	191	236
Maximum Torque (N•m)		134	210	286	420	573	707
Rated Speed (r/min)		1500					
Maximum Speed (r/min)		3000				2500	
Permissible Instantaneous Speed (r/min)		3450				2875	
Power Rate	Standard (kW/s)	113	223	289	401	582	726
	With Electromagnetic Brake (kW/s)	101	204	271	-	-	-
Rated Current (A)		34	61	76	99	139	151
Maximum Current (A)		111	200	246	315	479	561
Regenerative Braking Frequency (*2)	MR-J4- (times/min)	36	143 (Note 7)	162 (Note 7)	104 (Note 7)	-	-
Moment of Inertia J (x10 ⁻⁴ kg•m ²)	Standard	176	220	315	489	627	764
	With Electromagnetic Brake	196	240	336	-	-	-
Recommended Load/Motor Inertia Ratio (Note 1)		10 times or less					
Speed/Position Detector		Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)					
Oil Seal		Attached					
Insulation Class		155 (F)					
Structure (Note 2)		Totally enclosed, natural cooling (IP rating: IP67)			Totally enclosed, force cooling (IP rating: IP44)		
Environment (*3)	Ambient Temperature	0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)					
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)					
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust					
	Elevation	1000 m or less above sea level					
Vibration Rank	Vibration (*4)	X: 24.5 m/s ² Y: 24.5 m/s ²					
		V10 (*6)					
Permissible Load for the Shaft (*5)	L (mm)	116	116	116	140	140	140
	Radial (N)	2940	2940	2940	3234	3234	3234
	Thrust (N)	980	980	980	1470	1470	1470
Weight (kg)	Standard	53	62	86	120	145	165
	With Electromagnetic Brake	65	74	97	-	-	-
Cooling Fan	Voltage/Frequency	-	-	-	3-phase 200 VAC to 240 VAC, 50 Hz/60 Hz		
	Input	-	-	-	65 (50 Hz)/85 (60 Hz)		
	Rated Current	-	-	-	0.20 (50 Hz)/0.22 (60 Hz)		

Notes: For MR-J4 Servo Motor notes, please go to page 283

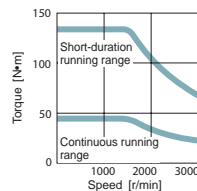
HG-JR 1500 Series Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-JR_		701MB	11K1MB	15K1MB
Type		Spring actuated type safety brake		
Rated Voltage		24 VDC -10%		
Power Consumption (W) at 20°C		32		
Electromagnetic Brake Static Friction Torque (N•m)		126		
Permissible Braking Work	Per Braking (J)	5000		
	Per Hour (J)	45200		
Electromagnetic Brake Life (*2)	Number of Times (Times)	20000		
	Work Per Braking (J)	400		

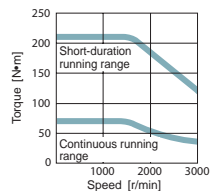
Notes:

1. The electromagnetic brake is for holding. It should not be used for deceleration applications. 2. Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.

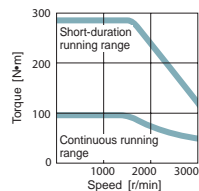
HG-JR701M(B) (*1, *2)



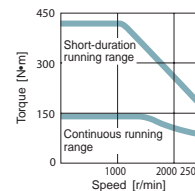
HG-JR11K1M(B) (*1, *2)



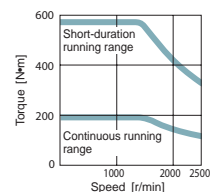
HG-JR15K1M(B) (*1, *2)



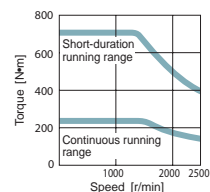
HG-JR22K1M (*1, *2)



HG-JR30K1M (*1, *2)



HG-JR37K1M (*1, *2)



Notes: 1. — : For 3-phase 200 V AC.
2. Torque drops when the power supply voltage is below the specified value.

HG-JR 1500 r/min Series (Low Inertia, Medium/Large Capacity) Specifications 400V

Servo Motor Model HG-JR_		701M4(B)	11K1M4(B)	15K1M4(B)	22K1M4	30K1M4	37K1M4	45K1M4	55K1M4
Servo Amplifier Model	MR-J4-	Refer to "Combinations of Servo Motor and Servo Amplifier" in this guide.							
Power Supply Capacity (kVA) (*1)		10	16	22	33	48	59	71	80
Continuous Running Duty	Rated Output (kW)	7.0	11	15	22	30	37	45	55
	Rated Torque (N•m) (Note *3)	44.6	70.0	95.5	140	191	236	286	350
Maximum Torque (N•m)		134	210	286	420	573	707	859	1050
Rated Speed (r/min)		1500							
Maximum Speed (r/min)		3000				2500			
Permissible Instantaneous Speed (r/min)		3450							
Power Rate Continuous Rated Torque (kW/s)	Standard (kW/s)	113	223	289	401	582	726	596	749
	With Electromagnetic Brake (kW/s)	101	204	271	-	-	-	-	-
Rated Current (A)		17	31	38	50	68	79	85	110
Maximum Current (A)		56	100	123	170	235	263	288	357
Regenerative Braking Frequency (*2)	MR-J4- (times/min)	36	143 (Note 7)	162 (Note 7)	104 (Note 7)	-	-	-	-
Moment of Inertia J (x10 ⁻⁴ kg•m ²)	Standard	176	220	315	489	627	764	1377	1637
	With Electromagnetic Brake	196	240	336	-	-	-	-	-
Recommended Load/Motor Inertia Ratio (Note 1)		10 times or less							
Speed/Position Detector		Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)							
Oil Seal		Attached							
Insulation Class		155 (F)							
Structure (Note 2)		Totally enclosed, natural cooling (IP rating: IP67)				Totally enclosed, force cooling (IP rating: IP44)			
Environment (*3)	Ambient Temperature	0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)							
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)							
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust							
	Elevation	1000 m or less above sea level							
Vibration Rank	Vibration (*4)	X: 24.5 m/s ² Y: 24.5 m/s ²						X: 9.8 m/s ² Y: 9.8 m/s ²	
		V10 (*6)							
Permissible Load for the Shaft (*5)	L (mm)	116	116	116	140	140	140	140	140
	Radial (N)	2940	2940	2940	3234	3234	3234	4900	4900
	Thrust (N)	980	980	980	1470	1470	1470	1960	1960
Weight (kg)	Standard	53	62	86	120	145	165	215	240
	With Electromagnetic Brake	65	74	97	-	-	-	-	-
Cooling Fan	Voltage/Frequency	-	-	-	3-phase 380 VAC to 480 VAC, 50 Hz/60 Hz			3-phase 380 VAC to 460 VAC, 50 Hz/60 Hz	
	Input	-	-	-	65 (50 Hz)/85 (60 Hz)			110 (50 Hz)/150 (60 Hz)	
	Rated Current	-	-	-	0.12 (50 Hz)/0.14 (60 Hz)			0.20 (50 Hz)/0.22 (60 Hz)	

Notes: For MR-J4 Servo Motor notes, please go to page 283

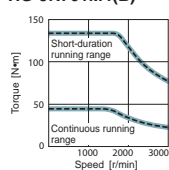
HG-JR 1500 Series Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-JR_		701M4B	11K1M4B	15K1M4B
Type		Spring actuated type safety brake		
Rated Voltage		24 VDC ⁰ / ₋₁₀ %		
Power Consumption (W) at 20°C		32		
Electromagnetic Brake Static Friction Torque (N•m)		126		
Permissible Braking Work	Per Braking (J)	5000		
	Per Hour (J)	45200		
Electromagnetic Brake Life (*2)	Number of Times (Times)	20000		
	Work Per Braking (J)	400		

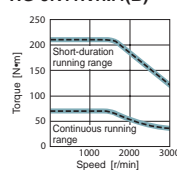
Notes:

1. The electromagnetic brake is for holding. It should not be used for deceleration applications. 2. Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.

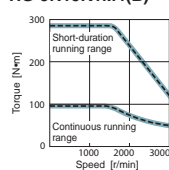
HG-JR701M4(B) (*1, 2, 3)



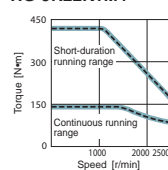
HG-JR11K1M4(B) (*1, 2, 3)



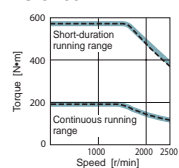
HG-JR15K1M4(B) (*1, 2, 3)



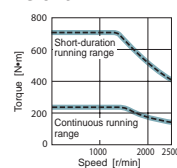
HG-JR22K1M4 (*1, 2, 3)



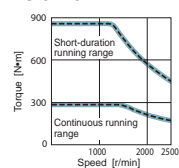
HG-JR30K1M4 (*1, 2, 3)



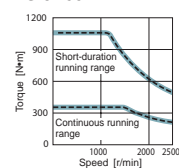
HG-JR37K1M4 (*1, 2, 3)



HG-JR45K1M4 (*1, 2, 3)



HG-JR55K1M4 (*1, 2, 3)



Notes: 1. ——— : For 3-phase 400 V AC.
2. - - - - : For 3-phase 380 V AC.
3. Torque drops when the power supply voltage is below the specified value.

HG-RR Series 3000 r/min (Ultra-Low Inertia, Medium Capacity) Specifications 200V

Servo Motor Model HG-RR_	103(B)	153(B)	203(B)	353(B)	503(B)	
Servo Amplifier Model	MR-J4- Refer to "Combinations of Servo Motor and Servo Amplifier" in this selection guide					
Power Supply Capacity (kVA) (*1)	1.7	2.5	3.5	5.5	7.5	
Continuous Running Duty	Rated Output (kW)	1.0	1.5	2.0	3.5	5.0
	Rated Torque (N•m) (Note 3)	3.2	4.8	6.4	11.1	15.9
Maximum Torque (N•m)	8.0	11.9	15.9	27.9	39.8	
Rated Speed (r/min)	3000					
Maximum Speed (r/min)	4500					
Permissible Instantaneous Speed (r/min)	5175					
Power Rate	Standard (kW/s)	67.4	120	176	150	211
Continuous Rated Torque	With Electromagnetic Brake (kW/s)	54.8	101	153	105	163
Rated Current (A)	6.1					
Maximum Current (A)	18					
Regenerative Braking Frequency (*2)	MR-J4- (times/min)	1090	860	710	174	125
Moment of Inertia J (x10 ⁻⁴ kg•m ²)	Standard	1.5	1.90	2.30	8.30	12.0
	With Electromagnetic Brake	1.85	2.25	2.65	11.8	15.5
Recommended Load/Motor Inertia Ratio (Note 1)	5 times or less					
Speed/Position Detector	Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)					
Oil Seal	Attached					
Insulation Class	155 (F)					
Structure	Totally enclosed, natural cooling (IP rating: IP65) (Note 2)					
Environment (*3)	Ambient Temperature	0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)				
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)				
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust				
	Elevation	1000 m or less above sea level				
Vibration Rank	X: 24.5 m/s ² Y: 24.5 m/s ²					
Permissible Load for the Shaft (*5)	L (mm)	45	45	45	63	63
	Radial (N)	686	686	686	980	980
	Thrust (N)	196	196	196	392	392
Weight (kg)	Standard	3.9	5.0	6.2	12	17
	With Electromagnetic Brake	6.0	7.0	8.3	15	21

Notes: For MR-J4 Servo Motor notes, please go to page 283

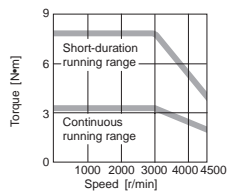
HG-RR 3000 Series Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-RR_	103B	153B	203B	353B	503B
Type	Spring actuated type safety brake				
Rated Voltage	24 VDC -10%				
Power Consumption (W) at 20°C	19	19	19	23	23
Electromagnetic Brake Static Friction Torque (N•m)	7.0	7.0	7.0	17	17
Permissible Braking Work	Per Braking (J)	400			
	Per Hour (J)	4000			
Electromagnetic Brake Life (*2)	Number of Times (Times)	20000			
	Work Per Braking (J)	200			

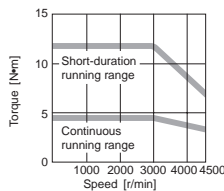
Notes:

- The electromagnetic brake is for holding. It should not be used for deceleration applications.
- Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.

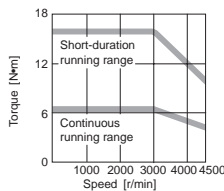
HG-RR103(B) (Note 1)



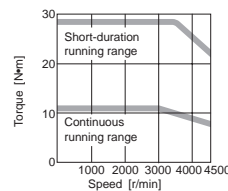
HG-RR153(B) (Note 1)



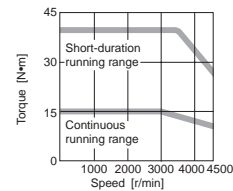
HG-RR203(B) (Note 1)



HG-RR353(B) (Note 1)



HG-RR503(B) (Note 1)



Notes: 1. — : For 3-phase 200 V AC.

2. Torque drops when the power supply voltage is below the specified value.

HG-UR 2000 r/min Series (Flat Type, Medium Capacity) Specifications 200V

Servo Motor Model HG-UR_		72(B)	152(B)	202(B)	352(B)	502(B)
Servo Amplifier Model	MR-J4-__	Refer to "Combinations of Servo Motor and Servo Amplifier" in this selection guide				
	MR-J4W-__					
Power Supply Capacity (kVA) (*1)		1.3	2.5	3.5	5.5	7.5
Continuous Running Duty	Rated Output (kW)	0.75	1.5	2.0	3.5	5.0
	Rated Torque (N•m) (Note 3)	3.6	7.2	9.5	16.7	23.9
Maximum Torque (N•m)		10.7	21.5	28.6	50.1	71.6
Rated Speed (r/min)		2000				
Maximum Speed (r/min)		3000			2500	
Permissible Instantaneous Speed (r/min)		3450			2875	
Power Rate Continuous Rated Torque	Standard (kW/s)	12.3	23.2	23.9	36.5	49.6
	With Electromagnetic Brake (kW/s)	10.3	21.2	19.5	32.8	46.0
Rated Current (A)		5.4	9.7	14	23	28
Maximum Current (A)		16	29	42	69	84
Regenerative Braking Frequency (*2)	MR-J4- (times/min)	53	124	68	44	31
	MR-J4W- (times/min)	107	-	-	-	-
Moment of Inertia J (x10 ⁻⁴ kg•m ²)	Standard	10.4	22.1	38.2	76.5	115
	With Electromagnetic Brake	12.5	24.2	46.8	85.1	124
Recommended Load/Motor Inertia Ratio (Note 1)		15 times or less				
Speed/Position Detector		Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)				
Oil Seal		Attached				
Insulation Class		155 (F)				
Structure		Totally enclosed, natural cooling (IP rating: IP65) (Note 2)				
Environment (*3)	Ambient Temperature	0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)				
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)				
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust				
	Elevation	1000 m or less above sea level				
Vibration (*4)		X: 24.5 m/s ² Y: 24.5 m/s ²		X: 24.5 m/s ² Y: 49 m/s ²		
Vibration Rank		V10 (*6)				
Permissible Load for the Shaft (*5)	L (mm)	55	55	65	65	65
	Radial (N)	637	637	882	1176	1176
	Thrust (N)	490	490	784	784	784
Weight (kg)	Standard	8.0	11	16	20	24
	With Electromagnetic Brake	10	13	22	26	30

Notes: For MR-J4 Servo Motor notes, please go to page 283

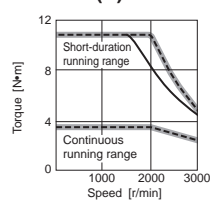
HG-UR 2000 Series Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-UR_	72B	152B	202B	352B	502B	
Type	Spring actuated type safety brake					
Rated Voltage	24 VDC $\pm 10\%$					
Power Consumption (W) at 20°C	19	19	34	34	34	
Electromagnetic Brake Static Friction Torque (N•m)	8.5	8.5	44	44	44	
Permissible Braking Work	Per Braking (J)	400	400	4500	4500	4500
	Per Hour (J)	4000	4000	45000	45000	45000
Electromagnetic Brake Life (*2)	Number of Times (Times)	20000				
	Work Per Braking (J)	200	200	1000	1000	1000

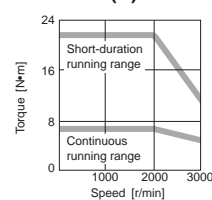
Notes:

- The electromagnetic brake is for holding. It should not be used for deceleration applications.
- Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.

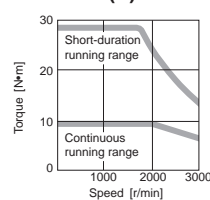
HG-UR72(B) (Note 1, 2, 3)



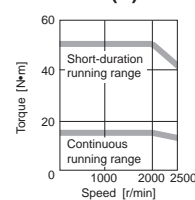
HG-UR152(B) (Note 1)



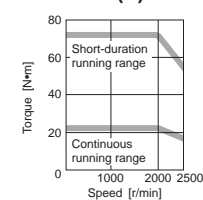
HG-UR202(B) (Note 1)



HG-UR352(B) (Note 1)



HG-UR502(B) (Note 1)



- Notes: 1. ——— : For 3-phase 200 V AC.
 2. - - - - : For 1-phase 230 V AC.
 3. ——— : For 1-phase 200 V AC.
 This line is drawn only where it differs from the other two lines.
 4. Torque drops when the power supply voltage is below the specified value.

HG-AK Series (Ultra-compact Size, Ultra-small Capacity) Specifications (*4)

Servo Motor Model HG-AK		0136(B)	0236(B)	0336(B)
Servo Amplifier Model		Refer to "Combinations of Servo Motor and Servo Amplifier" in this selection guide		
Power Supply Capacity (kVA) (*1)		230	360	480
Continuous Running Duty	Rated Output (W)	10	20	30
	Rated Torque (N•m) (*3)	0.032	0.064	0.095
Maximum Torque (N•m)		0.095	0.191	0.286
Rated Speed (r/min)		3000		
Maximum Speed (r/min)	48 VDC [r/min]	6000		
	24 VDC [r/min]	6000	5000	
Permissible Instantaneous Speed (r/min)	48 VDC [r/min]	6900		
	24 VDC [r/min]	6900	5750	
Power Rate Continuous Rated Torque	Standard (kW/s)	3.54	9.01	14.95
	With Electromagnetic Brake (kW/s)	2.41	6.99	12.32
Rated Current (A)		2.1	2.1	2.2
Maximum Current (A)		6.3	6.3	6.6
Regenerative Braking Frequency (times/min) (*2)		1700	1200	900
Moment of Inertia J (x10 ⁻³ kg•m ²)	Standard	0.0029	0.0045	0.0061
	With Electromagnetic Brake	0.0042	0.0058	0.0074
Recommended Load/Motor Inertia Ratio (Note 1)		30 times or less		
Speed/Position Detector		Absolute/incremental 18-bit encoder (resolution: 262144 pulses/rev)		
Oil Seal		None		
Insulation Class		130 (B)		
Structure		Totally enclosed, natural cooling (IP rating: IP55) (Note 2)		
Environment (*3)	Ambient Temperature	Operation: 0°C to 40°C (non-freezing), storage: -15°C to 70°C (non-freezing)		
	Ambient Humidity	Operation: 80 %RH maximum (non-condensing), storage: 90 %RH maximum (non-condensing)		
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust		
	Elevation	1000 m or less above sea level		
Vibration (*4)		X: 49 m/s ² Y: 49 m/s ²		
Vibration Rank		V10 (*6)		
Permissible Load for the Shaft (*5)	L (mm)	16	16	16
	Radial (N)	34	44	49
	Thrust (N)	14	14	14
Weight (kg)	Standard	0.12	0.14	0.16
	With Electromagnetic Brake	0.22	0.24	0.26

Notes: For MR-J4 Servo Motor notes, please go to page 283

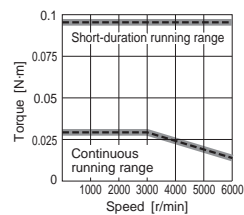
HG-AK Series Electromagnetic Brake Specifications (*1)

Servo Motor Model HG-AK		0136B	0236B	0336B
Type		Spring actuated type safety brake		
Rated Voltage		24 VDC -10 %		
Power Consumption (W) at 20°C		1.8		
Electromagnetic Brake Static Friction Torque (N•m)		0.095		
Permissible Braking Work	Per Braking (J)	4.6		
	Per Hour (J)	46		
Electromagnetic Brake Life (*2)	Number of Times (Times)	20000		
	Work Per Braking (J)	1		

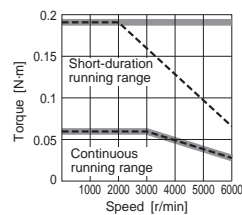
Notes:

- The electromagnetic brake is for holding. It should not be used for deceleration applications.
- Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until the readjustment is needed.

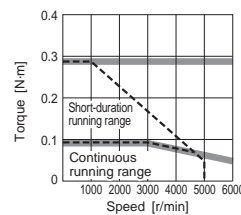
HG-AK0136(B) (Note 1, 2, 3, 4)



HG-AK0236(B) (Note 1, 2, 3, 4)



HG-AK0336(B) (Note 1, 2, 3, 4)



Notes: 1. —: For 48 V DC.

2. - - -: For 24 V DC.

3. Torque drops when the power supply voltage is below the specified value.

4. The torque characteristics are applicable when optional MR-J4W03PWCBL5M-H or MR-J4W03PWBRCBL5M-H is used between the servo amplifier and the servo motor. When an option cable longer than 5 m is used, the torque characteristics in the short-duration running range may be lower because of voltage drop.

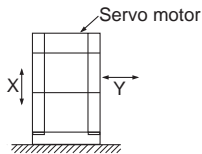
Servo Motor Notes:

- Contact your local sales office if the load to motor inertia ratio exceeds the value in the table.
- The shaft-through portion is excluded. For geared Servo Motor, IP rating of the reducer portion is equivalent to IP44. Refer to the *7 below for the shaft-through portion.
- When unbalanced torque is generated, such as in a vertical lift machine, keep the unbalanced torque of the machine under 70% of the Servo Motor rated torque.
- When the Servo Motor decelerates to a stop from the rated speed, the regenerative frequency will not be limited if the effective torque is within the rated torque range. When the Servo Motor decelerates to a stop from the maximum speed, the regenerative frequency will not be limited if the following requirements are met.
 - HG-KR053(B): The load to motor inertia ratio is 8 times or less, and the effective torque is within the rated torque range.
 - HG-KR13(B): The load to motor inertia ratio is 4 times or less, and the effective torque is within the rated torque range.
 - HG-MR053(B): The load to motor inertia ratio is 24 times or less, and the effective torque is within the rated torque range.
 - HG-MR13(B): The load to motor inertia ratio is 12 times or less, and the effective torque is within the rated torque range.
- The value in angle brackets is applicable when the Servo Motor is used with MR-J4-500B/MR-J4-500B-RJ/MR-J4-500B-RJ010/MR-J4-500A/MR-J4-500A-RJ.
- The value in angle brackets is applicable when the maximum torque is increased. The maximum torque will be increased by changing the servo amplifier to be combined. Refer to "Combinations of HG-JR Servo Motor Series and Servo Amplifier (200 V Class) for Increasing the Maximum Torque to 400% of the Rated Torque" in the User's Guide for the available combinations.
- The value is applicable when the external regenerative resistors, GRZG400- Ω (standard accessory) are used with cooling fans (2 units of 92 mm x 92 mm, minimum airflow: 1.0 m³/min). Note that [Pr. PA02] must be changed.

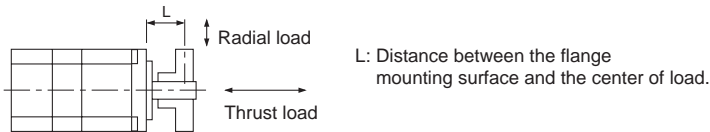
Annotations (*) for Servo Motor Specifications

- The power supply capacity varies depending on the power supply impedance.
- The regenerative braking frequency shows the permissible frequency when the Servo Motor, without a load and a regenerative option, decelerates from the rated speed to a stop. When a load is connected; however, the value will be the table value/(m+1), where m = Moment of inertia of load/Moment of inertia of Servo Motor. When the operating speed exceeds the rated speed, the regenerative braking frequency is inversely proportional to the square of (operating speed/rated speed). Take measures to keep the regenerative power [W] during operation below the tolerable regenerative power [W]. Use caution, especially when the operating speed changes frequently or when the regeneration is constant (as with vertical feeds). Select the most suitable regenerative option for your system with our capacity selection software. Refer to "Regenerative Option" in this catalog for the tolerable regenerative power [W] when regenerative option is used.
- In the environment where the Servo Motor is exposed to oil mist, oil and/or water, a standard specification Servo Motor may not be usable. Contact your local sales office for more details.
- The vibration direction is shown in the diagram below. The numerical value indicates the maximum value of the component (commonly the bracket in the opposite direction of the Servo Motor shaft).

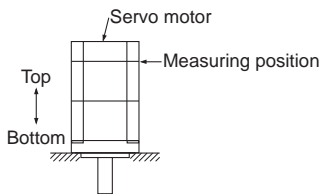
Fretting more likely occurs on the bearing when the Servo Motor stops. Thus, maintain vibration level at approximately one-half of the allowable value.



- Refer to the diagram below for the permissible load for the shaft. Do not apply a load exceeding the value specified in the table on the shaft. The values in the table are applicable when each load is applied singly.



- V10 indicates that the amplitude of the Servo Motor itself is 10 μm or less. The following shows mounting posture and measuring position of the Servo Motor during the measurement:



- Refer to the diagram below for shaft-through portion.

