



1000W

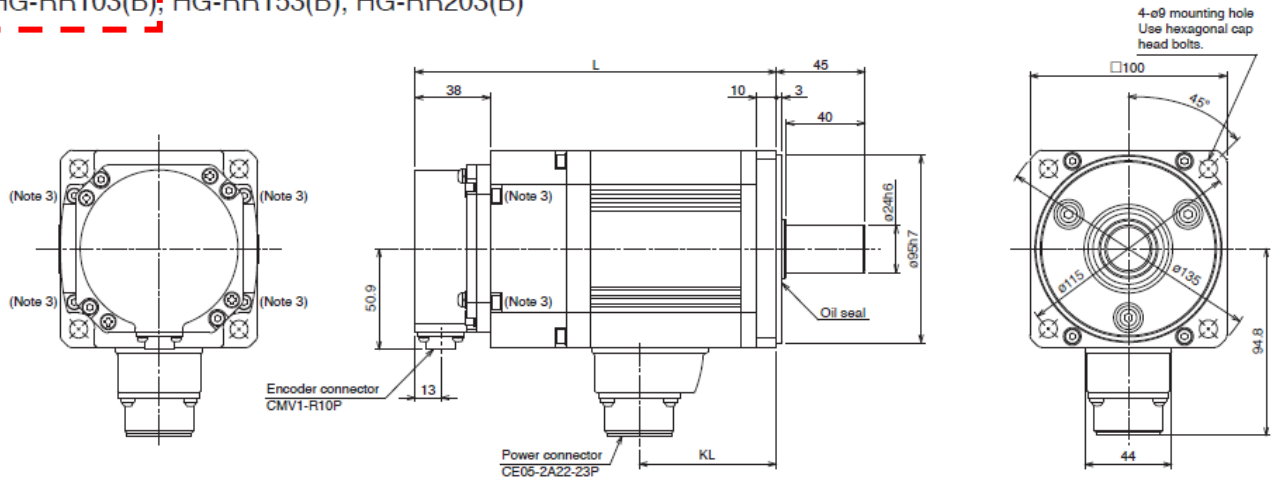
HG-RR Series (Ultra-Low Inertia, Medium Capacity) Specifications

Rotary servo motor model		HG-RR	103(B)	153(B)	203(B)	353(B)	503(B)
Compatible servo amplifier model		MR-J4-	Refer to "Combinations of Rotary Servo Motor and Servo Amplifier" on p. 2-5 in this catalog.				
Power supply capacity *1		[kVA]	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 ^(Note 3)	[N·m]	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 at continuous rated torque	Standard	[kW/s]	67.4	120	176	150	211
	With electromagnetic brake	[kW/s]	54.8	101	153	105	163
Rated current		[A]	6.1	8.8	14	23	28
Maximum current		[A]	18	23	37	58	70
Regenerative braking frequency *2	MR-J4-	[times/min]	1090	860	710	174	125
Moment of inertia J	Standard	[× 10 ⁻⁴ kg·m ²]	1.50	1.90	2.30	8.30	12.0
	With electromagnetic brake	[× 10 ⁻⁴ kg·m ²]	1.85	2.25	2.65	11.8	15.5
Recommended load to motor inertia ratio ^(Note 1)			5 times or less				
Speed/position detector			Absolute/incremental 22-bit encoder (resolution: 4194304 pulses/rev)				
Oil seal			Installed				
Thermistor			None				
Insulation class			155 (F)				
Structure			Totally enclosed, natural cooling (IP rating: IP65) ^(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: 10 %RH to 80 %RH (non-condensing), storage: 10 %RH to 90 %RH (non-condensing)				
	Ambience		Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust				
	Altitude		2000 m or less above sea level ^(Note 4)				
Vibration resistance *4			X: 24.5 m/s ² Y: 24.5 m/s ²				
Vibration rank			V10 *5				
Compliance with global standards			Refer to "Compliance with Global Standards and Regulations" on p. 55 in this catalog.				
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
Mass	Standard	[kg]	3.9	5.0	6.2	12	17
	With electromagnetic brake	[kg]	6.0	7.0	8.3	15	21



HG-RR Series Dimensions (Note 1, 5)

● HG-RR103(B), HG-RR153(B), HG-RR203(B)

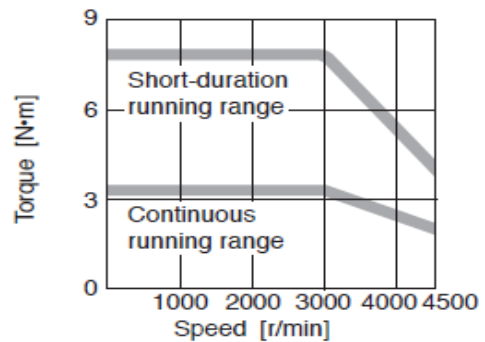


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Model	Variable dimensions (Note 4)	
	L	KL
HG-RR103(B)	145.5 (183)	69.5
HG-RR153(B)	170.5 (208)	94.5
HG-RR203(B)	195.5 (233)	119.5

HG-RR103(B) (Note 1, 2, 3)



HG-RR Series Special Shaft End Specifications

Motors with the following specifications are also available.

Key shaft (without key) (Note 1, 2)

Model	Variable dimensions								
	S	R	Q	W	QK	QL	U	r	Y
HG-RR103(B)K, 153(B)K, 203(B)K	24h6	45	40	8 ⁰ _{-0.036}	25	5	4 ^{+0.2} ₀	4	M8 screw Depth: 20
HG-RR353(B)K, 503(B)K	28h6	63	58	8 ⁰ _{-0.036}	53	3	4 ^{+0.2} ₀	4	

- Notes: 1. Do not use servo motors with key shafts for applications that start/stop frequently because the key shaft may break and cause an accident.
 2. A key is not supplied with the servo motor. The key shall be installed by the user.

