



1500W

Rotary servo motor model		HG-JR	53(B)	73(B)	103(B)	153(B)	203(B)	353(B)	503(B)	703(B)	903(B)
Compatible servo amplifier model		MR-J4- MR-J4W_-	Refer to "Combinations of Rotary Servo Motor and Servo Amplifier" on pp. 2-4 and 2-5 in this catalog.								
Power supply capacity *1		[kVA]	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 4)	5.0	7.0	9.0
	Rated torque (Note 3)	[N·m]	1.6	2.4	3.2	4.8	6.4	10.5 <11.1> (Note 4)	15.9	22.3	28.6
Maximum torque		[N·m]	4.8 <6.4> (Note 5)	7.2 <9.6> (Note 5)	9.6 <12.7> (Note 5)	14.3 <19.1> (Note 5)	19.1 <25.5> (Note 5)	32.0 <44.6> (Note 5)	47.7 <63.7> (Note 5)	66.8 <78.0> (Note 5)	85.8
Rated speed		[r/min]	3000								
Maximum speed		[r/min]	6000						5000		
Permissible instantaneous speed		[r/min]	6900						5750		
Power rate at continuous rated torque	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 4)	27	34	41
Maximum current		[A]	9.0 <12> (Note 5)	17 <23> (Note 5)	17 <23> (Note 5)	32 <43> (Note 5)	32 <43> (Note 5)	51 <71> (Note 5)	81 <108> (Note 5)	103 <134> (Note 5)	134
Regenerative braking frequency *2	MR-J4-	[times/min]	67 <137> (Note 5)	98 <511> (Note 5)	76 <396> (Note 5)	271 <271> (Note 5)	206 <206> (Note 5)	73 <98> (Note 5)	68 <89> (Note 5, 9)	56 (Note 9)	204 (Note 5, 9)
	MR-J4W_-	[times/min]	328 <328> (Note 5)	237	186	-	-	-	-	-	-
Moment of inertia J	Standard	[× 10 ⁻⁴ kg·m ²]	1.52	2.09	2.65	3.79	4.92	13.2	19.0	43.3	55.8
	With electromagnetic brake	[× 10 ⁻⁴ kg·m ²]	2.02	2.59	3.15	4.29	5.42	15.4	21.2	52.9	65.4
Recommended load to motor inertia ratio (Note 1)			10 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: IP67) (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 7)								
Vibration resistance *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
Vibration rank			V10 *6								
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]	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
Mass	Standard	[kg]	3.0	3.7	4.5	5.9	7.5	13	18	29	36
	With electromagnetic brake	[kg]	4.4	5.1	5.9	7.3	8.9	15	20	35	42

