

## Servomotor Ratings and Specifications

Time Rating:	Continuous	Enclosure:	Totally-enclosed, self-cooled	Maximum Rotational Speed:	5000rpm
Insulation:	Class F		IP67 (except for shaft opening)		
Vibration:	15 $\mu$ m or less	Ambient Temperature:	0 to 40°C	Excitation:	Permanent magnet
Withstand Voltage:	1500V <sub>ac</sub>	Ambient Humidity:	20 to 80%	Drive Method:	Direct drive
Insulation Resistance:	10M $\Omega$ minimum at 500V <sub>DC</sub>		(non-condensing)	Mounting:	Flange-mounted
		Rated Speed:	3000rpm	Painting Color:	Muncell notation N1.5

Amplifier System Voltage	MOTORS: SGM5H-	Rated Output*	Rated Torque*		Instantaneous Peak Torque*		Rated Current*	Instantaneous Maximum Current*
		kW (hp)	N • m	KG • cm (lb • in)	N • m	KG • cm (lb • in)	A <sub>rms</sub>	A <sub>rms</sub>
200V <sub>ac</sub>	10A□A	1.0 (1.3)	3.18	32.4 (28.2)	9.54	97.2 (84.4)	5.7	17
	15A□A	1.5 (2.0)	4.9	50 (43.4)	14.7	150 (130)	9.7	28
	20A□A	2.0 (2.7)	6.36	65 (56.4)	19.1	195 (169)	12.7	42
	30A□A	3.0 (4.0)	9.8	100 (87)	29.4	300 (260)	18.8	56
	40A□A	4.0 (5.4)	12.6	129 (112)	37.8	387 (336)	25.4	77
	50A□A	5.0 (6.7)	15.8	161 (140)	47.6	486 (422)	28.6	84

MOTORS SGM5H-	Torque Constant	Moment of Inertia		Holding Brake (at 20°C)					Allowable Load Inertia	Rated Power Rate*	Rated Angular Acceleration*	Inertia Time Constant	Inductive Time Constant
				Capacity	Torque	Coil Resistance	Rated Current	Additional Inertia					
				W	N • m	$\Omega$	A	lb <sub>f</sub> • in • s <sup>2</sup> × 10 <sup>-3</sup>					
	$\frac{\text{lb}_f \cdot \text{in}}{\text{A}_{\text{rms}}}$ $\left(\frac{\text{N} \cdot \text{m}}{\text{A}_{\text{rms}}}\right)$	lb <sub>f</sub> • in • s <sup>2</sup> × 10 <sup>-3</sup>	KG • m <sup>2</sup> × 10 <sup>-4</sup>										
10A□A	5.6 (0.64)	1.54	1.74	7.0	7.84	82.0	0.29	0.289	8.7	57.9	18250	0.87	7.1
15A□A	5.0 (0.56)	2.19	2.47						12.4	97.2	19840	0.71	7.7
20A□A	4.8 (0.55)	2.82	3.19						16.0	127	19970	0.58	8.3
30A□A	5.1 (0.57)	6.20	7.00	9.85	20.0	58.5	0.41	1.89	35.0	137	14000	0.74	13.0
40A□A	4.9 (0.53)	8.50	9.60						48.0	166	13160	0.60	14.1
50A□A	5.4 (0.60)	10.9	12.3						61.5	202	12780	0.57	14.7

\* These items and torque-speed characteristics quoted in combination with an SGD5H servo amplifier at an armature winding temperature of 20°C.

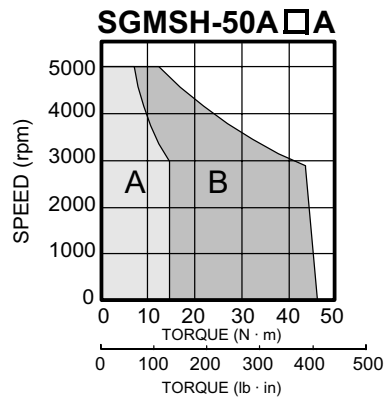
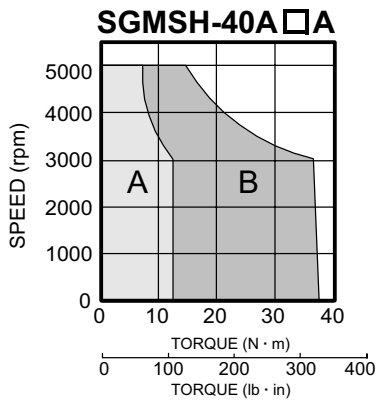
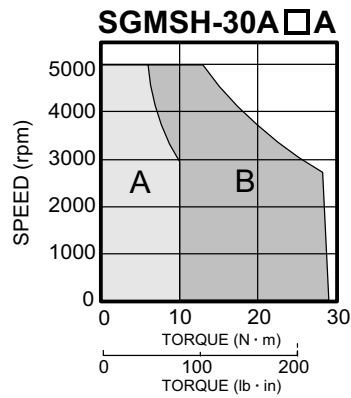
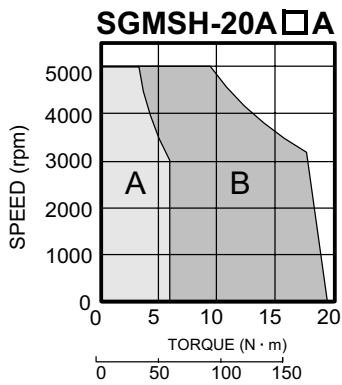
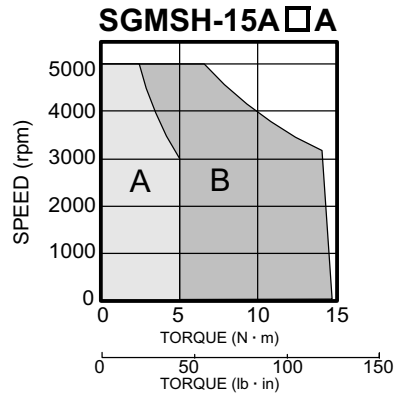
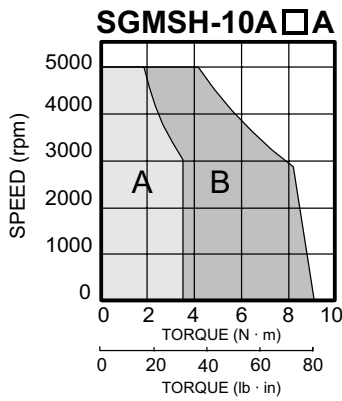
Note: These characteristics can be obtained when the following heat sinks (steel plates) are used for cooling purposes:

Type 10A□A to 20A□A: (11.81 × 11.81 × 0.47 (in)) (300 × 300 × 12 (mm))

Type 30A□A to 50A□A: (15.75 × 15.75 × 0.79 (in)) (400 × 400 × 20 (mm))

## Speed / Torque Curves

200V



**A : CONTINUOUS DUTY ZONE**

**B : INTERMITTENT DUTY ZONE**