Servomotor Ratings and Specifications

Time Rating:	Continuous	Enclosure:	Totally-enclosed, self-cooled IP67 (except for shaft opening)	Maximum Rotational Speed*:	0.45 to 7.5kW: 3000rpm 11 and 15kW: 2000rpm
Insulation:	Class F	Ambient Temperature:	0 to 40ºC	Excitation:	Permanent magnet
Vibration:	15μm or less	Ambient Humidity:	20 to 80% (non-condensing)	Drive Method:	Direct drive
Withstand Voltage:	$1500V_{ac}$	Rated Speed*:	1500rpm	Mounting:	Flange-mounted
Insulation Resistance:	10MΩ minimum at $500V_{DC}$				

* Values when the servomotor is combined with an SGDH servo amplifier.

MOTORS: SGMGH-	Rated Output*	Rated Torque*		Instantaneous Peak Torque*		Rated Current*	Instantaneous Maximum Current*
	kW (hp)	N • m	lb_f • in (KG • cm)	N • m	lb_f • in (KG • cm)	A_{rms}	A_{rms}
05A□A	0.45 (0.6)	2.84	25 (29)	8.92	79 (91)	3.8	11
09A□A	0.85 (1.1)	5.39	48 (55)	13.8	122 (141)	7.1	17
13A□A	1.3 (1.7)	8.34	74 (85)	23.3	207 (238)	10.7	28
20A□A	1.8 (2.4)	11.5	102 (117)	28.7	254 (293)	16.7	42
30A□A	2.9 (3.9)	18.6	165 (190)	45.1	400 (460)	23.8	56
44A□A	4.4 (5.9)	28.4	252 (290)	71.1	629 (725)	32.8	84
55A□A	5.5 (7.4)	35.0	310 (357)	87.6	775 (894)	42.1	110
75A□A	7.5 (10)	48.0	425 (490)	119	1053 (1210)	54.7	130
1AA□A	11 (15)	70.0	620 (714)	175	1550(1790)	58.6	140
1EA□A	15 (20)	95.4	845 (974)	224	1988(2290)	78.0	170

* Values when the servomotor is combined with an SGDH servo amplifier.

MOTORS SGMGH-	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					
	$\frac{lb_f \cdot in}{A_{rms}}$ $\left(\frac{N \cdot m}{A_{rms}}\right)$	$lb \cdot in \cdot s^2 \times 10^{-3}$	$KG \cdot m^2 \times 10^{-4}$	W	N • m	W	A	$lb \cdot in \cdot s^2 \times 10^{-3}$	$KG \cdot m^2 \times 10^{-4}$	kW/s	rad/s^2	ms	ms
05A□A	7.3 (0.82)	6.41	7.24	9.85	4.41	58.5	0.41	1.85	36.2	11.2	3930	5.0	5.1
09A□A	7.3 (0.83)	12.3	13.9		12.7				69.5	20.9	3880	3.1	5.3
13A□A	7.4 (0.84)	18.2	20.5						103	33.8	4060	2.8	6.3
20A□A	6.5 (0.73)	28.1	31.7	18.5	43.1	31.1	0.77	7.75	159	41.5	3620	2.2	12.8
30A□A	7.3 (0.82)	40.7	46.0						230	75.3	4050	1.9	12.5
44A□A	8.0 (0.91)	59.8	67.5						338	120	4210	1.3	15.7
55A□A	7.8 (0.88)	78.8	89.0	23.5	72.6	24.5	0.98	7.75	445	137	3930	1.3	16.4
75A□A	8.2 (0.93)	111	125						625	184	3850	1.1	18.4
1AA□A	11 (1.25	249	281	32.0	84.3	18.0	1.33	16.7	1405	174	2490	1.2	22.6
1EA□A	11.7 (1.32)	279	315	35.0	115	16.4	1.46	33.2	1575	289	3030	0.98	27.2

* Values when the servomotor is combined with an SGDH servo amplifier at an armature winding temperature of 20°C.

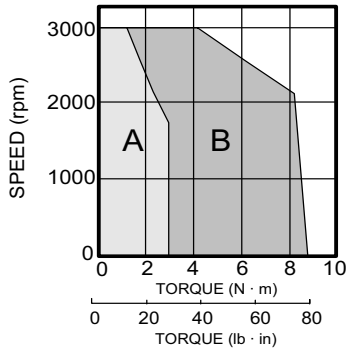
** These characteristics can be obtained when the following heat sinks (steel plates) are used for cooling purposes:

Type 05A□A to 13A□A: $15.75 \times 15.75 \times 0.79$ (in) ($400 \times 400 \times 20$ (mm))
Type 20A□A to 75A□A: $21.65 \times 21.65 \times 1.18$ (in) ($550 \times 550 \times 30$ (mm))
Type 1AA□A to 1EA□A: $25.59 \times 25.59 \times 1.38$ (in) ($650 \times 650 \times 35$ (mm))

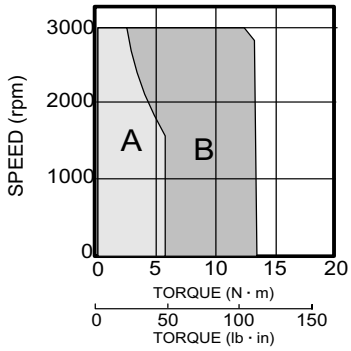
Speed / Torque Curves

200V

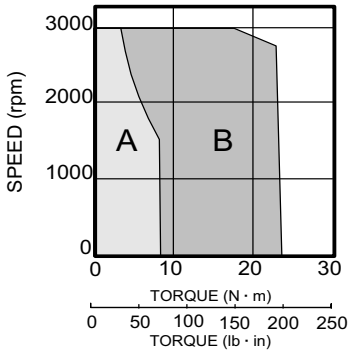
SGMGH-05A□A



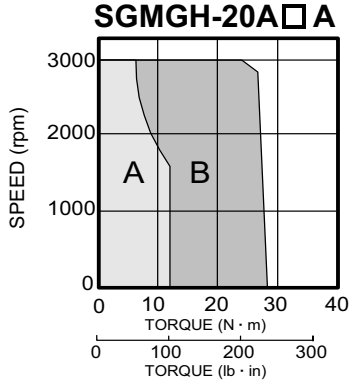
SGMGH-09A□A



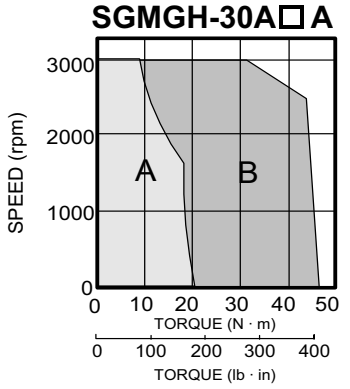
SGMGH-13A□A



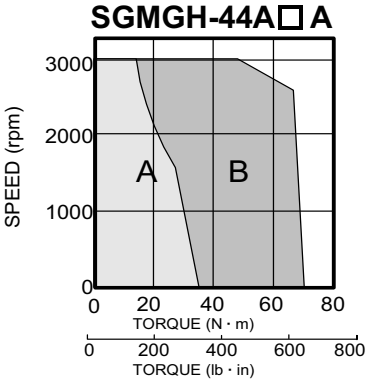
SGMGH-20A□A



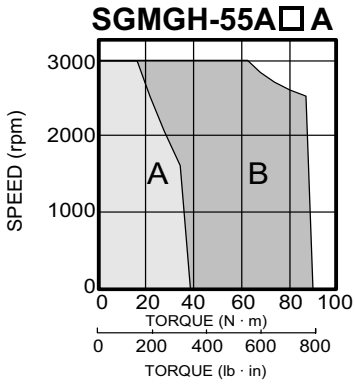
SGMGH-30A□A



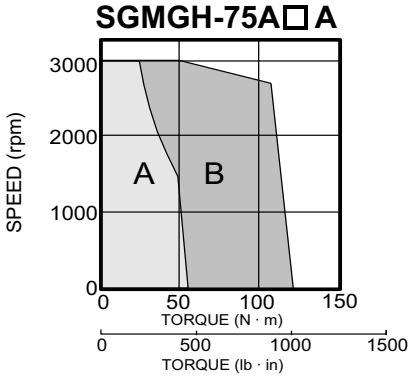
SGMGH-44A□A



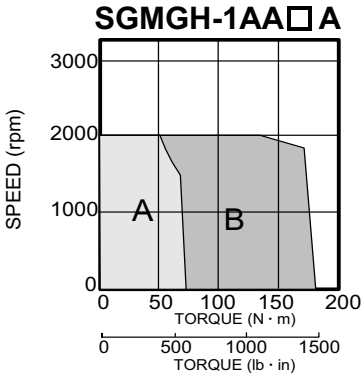
SGMGH-55A□A



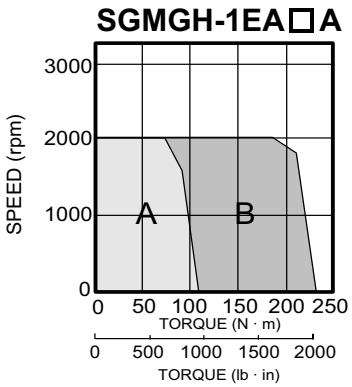
SGMGH-75A□A



SGMGH-1AA□A



SGMGH-1EA□A



A : CONTINUOUS DUTY ZONE

B : INTERMITTENT DUTY ZONE