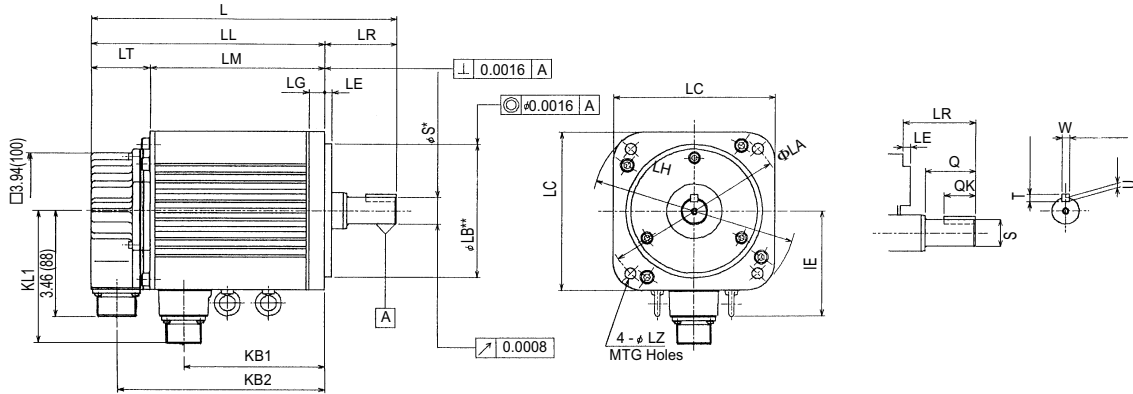


200V Three-phase Sigma II Servo Systems

Dimensions in inches (mm)

(1) 17-Bit Incremental/Absolute Encoder

SGMGH Servomotors

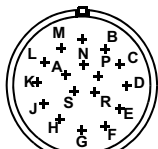


Type SGMGH-	L	LL	LM	LR	LT	KB1	KB2	IE	KL1	Flange Dimensions						Shaft End Dimension						Approximate Mass lb _r (kg)	Allowable Radial Load lb _r (N)	Allowable Thrust Load lb _r (N)	
										FLA	FLB**	LC	LE	LG	FLH	FLZ	FS*	Q	QK	W	T				U
05A□A61	7.72 (196)	5.43 (138)	3.62 (92)			2.56 (65)	4.61 (117)										0.75 (19)	1.57 (40)	0.98 (25)	0.20 (5)	0.20 (5)	0.12 (3)	12.1 (5.5)	110 (490)	22 (98)
09A□A61	8.62 (219)	6.34 (161)	4.53 (115)	2.28 (58)	1.81 (46)	3.46 (88)	5.51 (140)		4.29 (109)	5.71 (145)	4.33 (110)	5.12 (130)	0.24 (6)	0.47 (12)	6.5 (165)	0.35 (9)							16.8 (7.6)		
13A□A61	9.57 (243)	7.28 (185)	5.47 (139)			4.41 (112)	6.46 (164)										0.87 (22)			0.24 (6)	0.24 (6)	0.14 (3.5)	21.2 (9.6)	154 (686)	77 (343)
20A□A61	9.65 (245)	6.54 (166)	4.69 (119)			3.5 (89)	5.71 (145)																30.9 (14)	265 (1176)	
30A□A61	10.67 (271)	7.56 (192)	5.71 (145)	3.11 (79)	1.85 (47)	4.53 (115)	6.73 (171)		5.51 (140)								1.38 (35)	2.99 (76)	2.36 (60)	0.39 (10)			39.7 (18)	331 (1470)	110 (490)
44A□A61	12.01 (305)	8.9 (226)	7.05 (179)			5.87 (149)	8.07 (205)			7.87 (200)	4.5 (114.3)	7.09 (180)	0.13 (3.2)	0.71 (18)	9.06 (230)	0.53 (13.5)						0.31 (8)	50.7 (23)		
55A□A61	14.69 (373)	10.24 (260)	8.39 (213)			6.85 (174)	9.41 (239)	4.92 (125)	5.91 (150)														66.1 (30)		
75A□A61	17.6 (447)	13.15 (334)	11.3 (287)	4.45 (113)	1.85 (47)	9.76 (248)	12.32 (313)										1.65 (42)	4.33 (110)	3.54 (90)	0.47 (12)			88.2 (40)	397 (1764)	132 (588)
1AA□A61	17.87 (454)	13.31 (338)	11.46 (291)			9.88 (251)	12.48 (317)	5.59 (142)	6.61 (168)	9.25 (235)	7.87 (200)	8.66 (220)	0.16 (4)		10.6 (270)								127 (57.5)		
1EA□A61	22.56 (573)	17.99 (457)	15.28 (388)	4.57 (116)	2.72 (69)	13.50 (343)	17.13 (435)										2.17 (55)			0.63 (16)	0.39 (10)	0.24 (6)	189.6 (86)	1125 (4998)	485 (2156)

- Note:
- SGMGH-05A□A to 44A□A do not contain eyebolts.
 - Dimensions are the same when using either incremental or absolute encoders (with or without optional shaft seal).
 - Tolerances on the dimensions of flange type LB and of shaft extensions S are based on JIS (Japanese Industrial Standard) B0401 "Limits and Fits for Engineering."

Specified Tolerances					
Dimension	*φS		**φLB		
	Unit	Diameter	Tolerance	Diameter	Tolerance
in		0.7480, 0.8661	+0.0000-0.0005	4.3307	+0.0000-0.0014
		1.3780	+0.0004-0.0000	4.5000	+0.0000-0.0010
		1.6535	+0.0000-0.0006		
		2.1700	+0.0012+0.0004		
mm		19.000, 22.000	+0.000-0.013	110.000	+0.000-0.035
		35.000	+0.010-0.000		
		42.000	+0.000-0.016	114.300	+0.000-0.025
		55.000	+0.030+0.011		

Encoder Plug

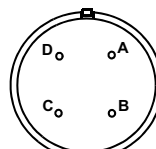


MS3102A20-29P

Connector Wiring on the Encoders

A	—	K	—
B	—	L	—
C	Data +	M	—
D	Data -	N	—
E	—	P	—
F	—	R	—
G	0V	S	Battery - (Note*)
H	+5V _{dc}	T	Battery + (Note*)
J	FG (Frame Ground)		*Note: Used with an absolute encoder only.

Motor Plug



Connector Wiring on the Motor Side

A	U Phase
B	V Phase
C	W Phase
D	Ground Terminal

Non-Environmental Mating Connector:

MS3108B20-29S (L Type)

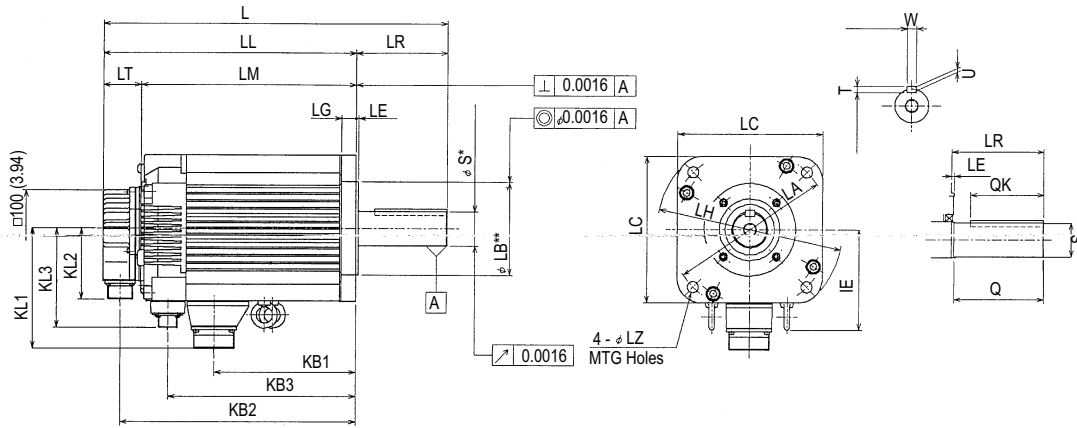
MS3106B20-29S (Straight Type)

Cable Clamps: MS3057-10A

200V Three-phase Sigma II Servo Systems

- 5.5 to 15kW (7.4 to 20hp)

SGMGH Servomotors

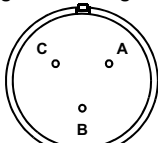


Type SGMGH-	L	LL	LM	LR	LT	KB1	KB2	KB3	IE	KL1	KL2	KL3	Flange Dimensions						Shaft End Dimension					Approximate Mass lb _r (kg)	Allowable Radial Load lb _r (N)	Allowable Thrust Load lb _r (N)	
													ΦLA	ΦLB**	LC	LE	LG	ΦLH	ΦLZ	ΦS*	Q	QK	W				T
55A□A6C	16.69 (424)	12.24 (311)	10.39 (264)	4.45 (113)	1.85 (47)	6.85 (174)	11.42 (290)	9.09 (231)	4.92 (125)	5.91 (150)	3.46 (88)	4.84 (123)	7.87 (200)	4.5 (114.3)	7.09 (180)	0.13 (3.2)	0.71 (18)	9.06 ((230)	1.65 (42)	4.33 (110)	3.54 (90)	0.47 (12)	0.31 (8)	0.20 (5)	77.2 (35)	397 (1764)	132 (588)
75A□A6C	19.61 (498)	15.16 (385)	13.31 (338)	4.45 (113)	1.85 (47)	9.76 (248)	14.33 (364)	12.01 (305)	5.91 (150)	5.91 (150)		5.59 (142)	9.25 (235)	7.87 (200)	8.66 (220)	0.16 (4)	0.79 (20)	10.63 (270)				0.53 (13.5)	0.47 (12)	0.31 (8)	0.20 (5)		
1AA□A6C	19.65 (499)	15.08 (383)	13.39 (340)	4.57 (116)	1.69 (43)	10.16 (258)	14.25 (362)	12.40 (315)	5.59 (142)	6.61 (168)	5.59 (142)	9.25 (235)	7.87 (200)	8.66 (220)	0.16 (4)	0.79 (20)	10.63 (270)	0.53 (13.5)	2.17 (55)	4.33 (110)	3.54 (90)	0.63 (16)	0.39 (10)	0.24 (6)	145 (65.5)	1125 (4998)	485 (2156)
1EA□A6C	25.00 (635)	20.43 (519)	18.62 (473)	4.57 (116)	1.81 (46)	13.50 (343)	19.57 (497)	16.34 (415)	5.59 (142)	6.61 (168)	5.59 (142)	9.25 (235)	7.87 (200)	8.66 (220)	0.16 (4)	0.79 (20)	10.63 (270)	0.53 (13.5)	2.17 (55)	4.33 (110)	3.54 (90)	0.63 (16)	0.39 (10)	0.24 (6)	189.6 (86)	1125 (4998)	485 (2156)

Note: 1. Dimensions are the same when using either incremental or absolute encoders (with or without optional shaft seal).
 2. Tolerances on the dimensions of flange type LB and of shaft extensions S are based on JIS (Japanese Industrial Standard) B0401 "Limits and Fits for Engineering."

Specified Tolerances					
Dimension	*FS		**FLB		
	Unit	Diameter	Tolerance	Diameter	Tolerance
in		1.6535	+0.0000-0.0006	4.5000	+0.0000 -0.0010
		2.1700	+0.0012+0.0004	7.8700	+0.0000 -0.0018
mm		42.000	+0.000 -0.016	114.300	+0.000 -0.025
		55.000	+0.030 +0.011	200.000	+0.0000 -0.046

Plug for Holding Brake



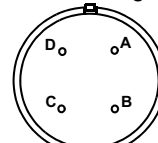
MS3102A1056-3P

Connector Wiring on the Brake, Motor Side

A	Brake Terminal
B	Brake Terminal
C	—

Non-Environmental Mating Connector:
 MS3108A1056-3S (L Type)
 MS3106A1056-3S (Straight Type)
 Cable Clamp: MS3057-4A

Motor Plug



Connector Wiring on the Power, Motor Side

A	U Phase
B	V Phase
C	W Phase
D	Ground Terminal