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Series Nomenclature of

AC SERVO MOTOR SIGMA-7 Series (SGM7A, SGM7J, SGM7G, SGM7P Type)

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1. SGM7A MODEL

1.1 Model Description

1.1.1 Product Covered:

1) Standard

Component-AC Servo Motors, Series SGM7A, followed by A5, A8, 01, C2, 02, 04, 06, 08, 10, 15, 20, 25, 30, 40, 50 or 70, followed by A or D, followed by C, 2, N, D, 3, P, 8, F, 7, 9, S, or 6, followed by A, C, D, F or L, followed by 2, 3, 4, 5, 6, 8, B, S or K, followed by 1, B, C, D, E, S, F, G or H, followed by B, C, F, G, H, J or Blank, may be followed by additional letters and or numbers.

2) With Gear

Component-AC Servo Motors, Series SGM7A, followed by A5, A8, 01, C2, 02, 04, 06, 08, 10, 15, 20, 25, 30, 40, 50 or 70, followed by A or D, followed by C, 2, N, D, 3, P, 8, F, 7, 9, S, or 6, followed by AH, CH, DH, FH or LH, may be followed by additional letters and or numbers.

3) Exclusive Design for Customer

Component-AC Servo Motors, Series SGM7A, followed by A5, A8, 01, C2, 02, 04, 06, 08, 10, 15, 20, 25, 30, 40, 50 or 70, followed by A or D, followed by C, 2, N, D, 3, P, 8, F, 7, 9, S, or 6, followed by A, C, D, F, L, V, W, K, Y, Z, AH, CH, DH, FH, KH, LH, YH or ZH may be followed by “-”, may be followed by any letter A-Z, may be followed by any letter A-Z or number 0-9.

1.1.2 Electrical Ratings:

SERVO MOTOR	Voltage [V _{rms}]	Phases	Rated Current [A _{rms}]	Rated Output [W]
SGM7A-A5Axxxxx	200	3	0.57	50
SGM7A-A8Axxxxx			0.72	80
SGM7A-01Axxxxx			0.89	100
SGM7A-C2Axxxxx			1.5	150
SGM7A-02Axxxxx			1.5	200
SGM7A-04Axxxxx			2.4	400
SGM7A-06Axxxxx			4.5	600
SGM7A-08Axxxxx			4.4	750
SGM7A-10Axxxxx			6.4	1000
SGM7A-15Axxxxx			9.3	1500
SGM7A-20Axxxxx			12.1	2000
SGM7A-25Axxxxx			15.6	2500
SGM7A-30Axxxxx			17.9	3000
SGM7A-40Axxxxx			25.4	4000
SGM7A-50Axxxxx			27.6	5000
SGM7A-70Axxxxx			38.3	7000
SGM7A-02Dxxxxx	400	3	1.2	200
SGM7A-04Dxxxxx			1.2	400
SGM7A-08Dxxxxx			2.2	750
SGM7A-10Dxxxxx			3.2	1000
SGM7A-15Dxxxxx			4.7	1500
SGM7A-20Dxxxxx			6.1	2000
SGM7A-25Dxxxxx			7.4	2500
SGM7A-30Dxxxxx			8.9	3000
SGM7A-40Dxxxxx			12.5	4000
SGM7A-50Dxxxxx			13.8	5000
SGM7A-70Dxxxxx			22.3	7000

“x” represents variations in model number as described in product covered and series nomenclature which do not affect electrical construction or rating. Refer to ” Product Covered” or “Series Nomenclature” .

1.1.3. Series Nomenclature:

1) Standard

SGM7A - 01 A D A 2 1 □
a b c d e f g h

Letters	Items	(Group)	
a	Motor type	SGM7A	

Letters	Items	(Group)	Rated Output [W]
b	Motor Output	A5	50
		A8	80
		01	100
		C2	150
		02	200
		04	400
		06	600
		08	750
		10	1000
		15	1500
		20	2000
		25	2500
		30	3000
		40	4000
		50	5000
		70	7000

Letters	Items	(Group)	Power Supply Voltages[Vrms]
c	Power Supply	A	200
		D	400

Letters	Items	(Group)	Encoder Type
d	Encoder	C	17bit Serial Incremental
		2	17bit Serial Absolute Value
		N	17bit Serial Absolute Value with Safety function
		D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		P	20bit Serial Absolute Value with Safety function
		8	20bit Serial Absolute value with a large-capacity condenser
		F	24bit Serial Incremental
		7	24bit Serial Absolute Value
		9	24bit Serial Absolute Value with a large-capacity condenser
		S	20bit Serial Absolute Value High Speed
		6	24bit Serial Batteryless Absolute Value

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	For Global, Standard
		C	For China, Standard.
		D	For Global(outside Japan), Standard.
		F	For EU, Standard with M connector.
		L	For China, Standard.

Letters	Items	(Group)	Shaft Type
f	Shaft Type	2	Straight (without keyway)
		3	1/10 Conical shaft ends, With Sunk Key
		4	Straight (with keyway)
		5	1/10 Conical shaft ends, With Woodruff Key
		6	Straight (with keyway and tapped hole)
		8	Straight (tapped hole)
		B	Straight (with double flat key seat)
		S	Straight (without keyway($\phi 6$ or $\phi 16$))
		K	Straight (with keyway and tapped hole ($\phi 6$ or $\phi 16$))

Letters	Items	(Group)	Optional Specifications
g	Optional Specifications	1	Without Option
		B	With Brake (90V)
		C	With Brake (24V)
		S	With Shaft Seal
		D	With Brake (90V) and Shaft Seal
		E	With Brake (24V) and Shaft Seal
		F	With oil seal (V type)
		G	With oil seal (V type) and with Brake (90V)
		H	With oil seal (V type) and with Brake (24V)

Letters	Items	(Group)	Optional Specifications
h	Design of connection	Blank	Standard
		B	With right-angle support (Right)
		C	With right-angle support (Left)
		F	Cable type 1 (Right)
		G	Cable type 1 (Left)
		H	Cable type 2 (Right)
		J	Cable type 2 (Left)

2) With Gear

SGM7A - 01 A D AH 1 2 C
a b c d e f g h

Letters	Items	(Group)	
a	Motor type	SGM7A	

Letters	Items	(Group)	Rated Output [W]
b	Motor Output	A5	50
		A8	80
		01	100
		C2	150
		02	200
		04	400
		06	600
		08	750
		10	1000
		15	1500
		20	2000
		25	2500
		30	3000
		40	4000
		50	5000
		70	7000

Letters	Items	(Group)	Power Supply Voltages [Vrms]
c	Power Supply	A	200
		D	400

Letters	Items	(Group)	Encoder Type
d	Encoder	C	17bit Serial Incremental
		2	17bit Serial Absolute Value
		N	17bit Serial Absolute Value with Safety function
		D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		P	20bit Serial Absolute Value with Safety function
		8	20bit Serial Absolute value with a large-capacity condenser
		F	24bit Serial Incremental
		7	24bit Serial Absolute Value
		9	24bit Serial Absolute Value with a large-capacity condenser
		S	20bit Serial Absolute Value High Speed
		6	24bit Serial Batteryless Absolute Value

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	AH	For Global, Standard with Non-backlash Gear.
		CH	For China, Standard with Non-backlash Gear.
		DH	For Global(outside Japan), Standard with Non-backlash Gear.
		FH	For EU, Standard with Non-backlash Gear and M connector.
		LH	For China, Standard with Non-backlash Gear.

Letters	Items	(Group)	Reduction Ratio
f	Reduction Ratio	1	1/5
		2	1/9
		5	1/20
		7	1/33 or 1/29
		8	1/45
		B	1/11
		C	1/21

Letters	Items	(Group)	Shaft Type
g	Shaft Type	0	Flange Type (without keyway)
		2	Straight (without keyway)
		4	Straight (with keyway)
		6	Straight (with keyway and tapped hole)
		8	Straight (with tapped hole)

Letters	Items	(Group)	Optional Specifications
h	Optional Specifications	1	Without Option
		B	With Brake (90V)
		C	With Brake (24V)

3) Exclusive Design for Customer

SGM7A - 01 A D AH - * * * *

a b c d e f g h i

Letters	Items	(Group)	
a	Motor type	SGM7A	

Letters	Items	(Group)	Rated Output [W]
b	Motor Output	A5	50
		A8	80
		01	100
		C2	150
		02	200
		04	400
		06	600
		08	750
		10	1000
		15	1500
		20	2000
		25	2500
		30	3000
		40	4000
		50	5000
		70	7000

Letters	Items	(Group)	Power Supply Voltages [Vrms]
c	Power Supply	A	200
		D	400

Letters	Items	(Group)	Encoder Type
d	Encoder	C	17bit Serial Incremental
		2	17bit Serial Absolute Value
		N	17bit Serial Absolute Value with Safety function
		D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		P	20bit Serial Absolute Value with Safety function
		8	20bit Serial Absolute value with a large-capacity condenser
		F	24bit Serial Incremental
		7	24bit Serial Absolute Value
		9	24bit Serial Absolute Value with a large-capacity condenser
		S	20bit Serial Absolute Value High Speed
		6	24bit Serial Batteryless Absolute Value

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	For Global, Standard.
		C	For China, Standard.
		D	For Global(outside Japan), Standard.
		F	For EU, Standard with M connector.
		L	For China, Standard.
		V	For Global, winding and output are the same as a standard. The characteristic is different.
		W	For Global, winding and the characteristic differ from a standard. Output is the same as a standard.
		AH	For Global, standard with Non-backlash Gear.
		CH	For China, Standard with Non-backlash Gear.
		DH	For Global(outside Japan), Standard with Non-backlash Gear.
		FH	For EU, Standard with Non-backlash Gear and M connector.
		LH	For China, Standard with Non-backlash Gear.

		K	For Global, Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		VH	For Global, with non-backlash gear. Winding and output are the same as a standard. The characteristic is different.
		WH	For Global, with non-backlash gear. Winding and the characteristic differ from a standard. Output is the same as a standard.
		KH	For Global, with non-backlash gear. Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		Y	For China, Winding and the characteristic differ from a standard. Output is the same as a standard.
		YH	For China, With non-backlash gear. Winding and the characteristic differ from a standard. Output is the same as a standard.
		Z	For Global(outside Japan), Winding and the characteristic differ from a standard. Output is the same as a standard.
		ZH	For Global(outside Japan), With non-backlash gear. Winding and the characteristic differ from a standard. Output is the same as a standard.

Letters	Items	(Group)	Customer Code
f	Customer Code	A-Z	-
g			

Letters	Items	(Group)	Design Revision Order For Customer
h	Design Revision Order For Customer	A-Z or 0-9	-
i			

2. SGM7J TYPE

2.1 Model Description

2.1.1 Product Covered:

1) Standard

Component-AC Servo Motors, Series SGM7J, followed by A3, A5, A8, 01, C2, 02, 04, 06, 08 or 15, followed by A, D or E, followed by C, 2, N, D, 3, P, 8, F, 7, 9, I, S, 6, or J, followed by A, C, D, L or F followed by 2, 6, 8, B, S or K, followed by 1, C, E or S, be followed by additional letters and or numbers.

2) With Gear

Component-AC Servo Motors, Series SGM7J, followed by A3, A5, A8, 01, C2, 02, 04, 06, 08 or 15, followed by A, D or E, followed by C, 2, N, D, 3, P, 8, F, 7, 9, I, S, 6, or J, followed by AH, CH, DH, LH or FH may be followed by additional letters and or numbers.

3) Exclusive Design for Customer

Component-AC Servo Motors, Series SGM7J, followed by A3, A5, A8, 01, C2, 02, 04, 06, 08 or 15, followed by A, D or E, followed by C, 2, N, D, 3, P, 8, F, 7, 9, I, S, 6, or J, followed by A, C, D, L, K, V, W, Y, Z, F, AH, CH, DH, LH, KH, VH, WH, YH, ZH or FH followed by “-”, may be followed by any letter A-Z, may be followed by any letter A-Z or number 0-9.

2.1.2 Electrical Ratings:

SERVO MOTOR	Voltage	Phases	Rated Current [A _{rms}]	Rated Output [W]
SGM7J-A5Axxxxx	200 [V _{rms}]	3	0.55	50
SGM7J-A8Axxxxx			0.69	80
SGM7J-01Axxxxx			0.85	100
SGM7J-C2Axxxxx			1.6	150
SGM7J-02Axxxxx			1.6	200
SGM7J-04Axxxxx			2.5	400
SGM7J-06Axxxxx			4.2	600
SGM7J-08Axxxxx			4.4	750
SGM7J-02Dxxxxx	400 [V _{rms}]	3	1.5	200
SGM7J-04Dxxxxx			1.4	400
SGM7J-08Dxxxxx			2.2	750
SGM7J-15Dxxxxx			4.5	1500
SGM7J-A3Exxxxx	48 [V _{dc}]	3	1.6	30
SGM7J-01Exxxxx			2.9	100

“x” represents variations in model number as described in product covered and series nomenclature which do not affect electrical construction or rating. Refer to ” Product Covered” or “Series Nomenclature” .

2.1.3. Series Nomenclature:

1) Standard

SGM7J - 01 A D A 2 1
a b c d e f g

Letters	Items	(Group)	
a	Motor type	SGM7J	

Letters	Items	(Group)	Rated Output [W]
b	Motor Output	A3	30
		A5	50
		A8	80
		01	100
		C2	150
		02	200
		04	400
		06	600
		08	750
		15	1500

Letters	Items	(Group)	Power Supply Voltages
c	Power Supply for Servo amp	A	200 [V _{rms}]
		D	400 [V _{rms}]
		E	48 [V _{DC}]

Letters	Items	(Group)	Encoder Type
d	Encoder	C	17bit Serial Incremental
		2	17bit Serial Absolute Value
		N	17bit Serial Absolute Value with Safety function
		D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		P	20bit Serial Absolute Value with Safety function
		8	20bit Serial Absolute value with a large-capacity condenser
		F	24bit Serial Incremental
		7	24bit Serial Absolute Value
		9	24bit serial Absolute Value with a large-capacity condenser
		I	22bit Serial Absolute Value
		S	20bit Serial Absolute Value High Speed
		6	24bit Serial Batteryless Absolute Value
		J	22bit Serial Batteryless Absolute Value

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	For Global, Standard.
		C	For China, Standard with cables.
		D	For Global(outside Japan), Standard.
		L	For China, Standard.
		F	For EU, Standard with M connector.

Letters	Items	(Group)	Shaft Type
f	Shaft Type	2	Straight (without keyway)
		6	Straight (with keyway and tapped hole)
		8	Straight (tapped hole)
		B	Straight (with double flat key seat)
		S	Straight (without keyway($\phi 6$ or $\phi 16$))
		K	Straight (with keyway and tapped hole ($\phi 6$ or $\phi 16$))

Letters	Items	(Group)	Optional Specifications
g	Optional Specifications	1	Without Option
		C	With Brake (24V)
		S	With Shaft Seal
		E	With Brake (24V) and Shaft Seal

2) With Gear

SGM7J - 01 A D AH 1 2 C
a b c d e f g h

Letters	Items	(Group)	
a	Motor type	SGM7J	

Letters	Items	(Group)	Rated Output [W]
b	Motor Output	A3	30
		A5	50
		A8	80
		01	100
		C2	150
		02	200
		04	400
		06	600
		08	750
		15	1500

Letters	Items	(Group)	Power Supply Voltages
c	Power Supply for Servo amp	A	200 [V _{rms}]
		D	400 [V _{rms}]
		E	48 [V _{DC}]

Letters	Items	(Group)	Encoder Type
d	Encoder	C	17bit Serial Incremental
		2	17bit Serial Absolute Value
		N	17bit Serial Absolute Value with Safety function
		D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		P	20bit Serial Absolute Value with Safety function
		8	20bit Serial Absolute value with a large-capacity condenser
		F	24bit Serial Incremental
		7	24bit Serial Absolute Value
		9	24bit Serial Absolute Value with a large-capacity condenser
		I	22bit Serial Absolute Value
		S	20bit Serial Absolute Value High Speed
		6	24bit Serial Batteryless Absolute Value
		J	22bit Serial Batteryless Absolute Value

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	AH	For Global, Standard with Non-backlash Gear
		CH	For China, Standard with Non-backlash Gear and cables.
		DH	For Global(outside Japan), Standard with Non-backlash Gear.
		LH	For China, Standard with Non-backlash Gear.
		FH	For EU, Standard with Non-backlash Gear and M connector.

Letters	Items	(Group)	Reduction Ratio
f	Reduction Ratio	1	1/5
		2	1/9
		7	1/33
		B	1/11
		C	1/21

Letters	Items	(Group)	Shaft Type
g	Shaft Type	0	Flange Type (without keyway)
		2	Straight (without keyway)
		6	Straight (with keyway and tapped hole)
		8	Straight (with tapped hole)

Letters	Items	(Group)	Optional Specifications
h	Optional Specifications	1	Without Option
		B	With Brake (90V)
		C	With Brake (24V)

3) Exclusive Design for Customer

SGM7J - 01 A D AH - * * * *

a b c d e f g h i

Letters	Items	(Group)	
a	Motor type	SGM7J	

Letters	Items	(Group)	Rated Output [W]
b	Motor Output	A3	30
		A5	50
		A8	80
		01	100
		C2	150
		02	200
		04	400
		06	600
		08	750
		15	1500

Letters	Items	(Group)	Power Supply Voltages
c	Power Supply for Servo amp	A	200 [V _{rms}]
		D	400 [V _{rms}]
		E	48 [V _{DC}]

Letters	Items	(Group)	Encoder Type
d	Encoder	C	17bit Serial Incremental
		2	17bit Serial Absolute Value
		N	17bit Serial Absolute Value with Safety function
		D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		P	20bit Serial Absolute Value with Safety function
		8	20bit Serial Absolute value with a large-capacity condenser
		F	24bit Serial Incremental
		7	24bit Serial Absolute Value
		9	24bit Serial Absolute Value with a large-capacity condenser
		I	22bit Serial Absolute Value
		S	20bit Serial Absolute Value High Speed
		6	24bit Serial Batteryless Absolute Value
		J	22bit Serial Batteryless Absolute Value

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	For Global, Standard.
		C	For China, Standard with cables.
		D	For Global(outside Japan), Standard.
		L	For China, Standard.
		V	For Global, Winding and output are the same as a standard. The characteristic is different.
		W	For Global, Winding and the characteristic differ from a standard. Output is the same as a standard.
		F	For EU, Standard with M connector.
		AH	For Global, Standard with Non-backlash Gear
		CH	For China, Standard with Non-backlash Gear , and cables.
		DH	For Global(outside Japan), Standard with Non-backlash Gear.
		LH	For China, Standard with Non-backlash Gear.
		K	For Global, Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		VH	For Global, With non-backlash gear Winding and output are the same as a standard. The characteristic is different.
		WH	For Global, With non-backlash gear Winding and the characteristic differ from a standard. Output is the same as a standard.
		KH	For Global, With non-backlash gear. Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		Y	For China, Winding and the characteristic differ from a standard. Output is the same as a standard.

		YH	For China, With non-backlash gear. Winding and the characteristic differ from a standard. Output is the same as a standard.
		Z	For Global(outside Japan), Winding and the characteristic differ from a standard. Output is the same as a standard.
		ZH	For Global(outside Japan), With non-backlash gear. Winding and the characteristic differ from a standard. Output is the same as a standard.
		FH	For EU, Standard with Non-backlash Gear and M connector.

Letters	Items	(Group)	Customer Code
f	Customer Code	A-Z	-
g			

Letters	Items	(Group)	Design Revision Order For Customer
h	Design Revision Order For Customer	A-Z or 0-9	-
i			

3. SGM7G TYPE

3.1 Model Description

3.1.1 Product Covered:

1) Standard

Component—AC Servo Motors, Series SGM7G, followed by any number from 03 to 1E, followed by A or D, followed by C, 2, N, D, 3, P, F, 7, 8, 9, I, S, or 6, followed by A, C, D, B, H, L, N, P, M, U, T, S, F, R or Q followed by 2, 3, 4, 5, 6, 8, S, K, T, or U, followed by 1, B, C, S, D, E, F, G or H, followed by B, C or Blank, be followed by additional letters and or numbers.

2) Exclusive Design for Customer (Case1)

Component—AC Servo Motors, Series SGM7G, followed by any number from 03 to 1E followed by A or D, followed by C, 2, N, D, 3, P, F, 7, 8, 9, I, S, or 6, followed by A, C, D, B, H, L, N, P, M, U, T, S, V, W, Y, Z, F, R, K or Q followed by “-“, may be followed by any letter A–Z, may be followed by any letter A–Z or number 0–9.

3) Exclusive Design for Customer (Case2)

Component—AC Servo Motors, Series SGM7G, followed by any number from 03 to 1E followed by A or D, followed by C, 2, N, D, 3, P, F, 7, 8, 9, I, S, or 6, followed by A, C, D, B, H, L, N, P, M, U, T, S, V, W, Y, Z, F, R, K or Q followed by 2, 3, 4, 5, 6 or 8, followed by 1, B, C, S, D, E, F, G or H, followed by B, C or Blank, followed by “-“, may be followed by any letter A–Z, may be followed by any letter A–Z or number 0–9.

4) With Gear

Component—AC Servo Motors, Series SGM7G, followed by any number from 03 to 1E, followed by A or D, followed by C, 2, N, D, 3, P, F, 7, 8, 9, I, S, or 6, followed by A, C, D, B, H, L, N, P, M, U, T, S, F, R or Q followed by H, E or F, followed by 1, 2, 5, 7, 8, A, B or C, followed by 2, 3, 4, 5, 6 or 8, followed by 1, B or C, be followed by additional letters and or numbers.

5) Exclusive Design for Customer with Gear

Component—AC Servo Motors, Series SGM7G, followed by any number from 03 to 1E followed by A or D, followed by C, 2, N, D, 3, P, F, 7, 8, 9, I, S, or 6, followed by A, C, D, B, H, L, N, P, M, U, T, S, V, W, Y, Z, F, R, K or Q followed by H, E or F, followed by “-“, may be followed by any letter A–Z, may be followed by any letter A–Z or number 0–9.

3.1.2 Electrical Ratings:

SERVO MOTOR	Voltage [V _{rms}]	Phases	Rated Output [kW]	SERVO MOTOR	Voltage [V _{rms}]	Phases	Rated Output [kW]
SGM7G-03AxAxxx	200	3	0.3	SGM7G-05AxUxxx	200	3	0.45
SGM7G-05AxAxxx			0.45	SGM7G-09AxUxxx			0.85
SGM7G-09AxAxxx			0.85	SGM7G-13AxUxxx			1.3
SGM7G-13AxAxxx			1.3	SGM7G-20AxUxxx			1.8
SGM7G-20AxAxxx			1.8	SGM7G-30AxUxxx			2.9
SGM7G-30AxAxxx			2.9	SGM7G-44AxUxxx			4.4
SGM7G-44AxAxxx			4.4	SGM7G-03AxLxxx			0.3
SGM7G-55AxAxxx			5.5	SGM7G-12AxLxxx			1.2
SGM7G-75AxAxxx			7.5				
SGM7G-1AAxAxxx			11				
SGM7G-1EAxAxxx			15				
SGM7G-03AxBxxx			0.3				
SGM7G-06AxBxxx			0.6				
SGM7G-09AxBxxx			0.9				
SGM7G-12AxBxxx			1.2				
SGM7G-20AxBxxx			2.0				
SGM7G-30AxBxxx			3.0				
SGM7G-40AxBxxx			4.0				
SGM7G-55AxBxxx			5.5				
SGM7G-05AxLxxx			0.45				
SGM7G-20AxLxxx			1.8				
SGM7G-05AxMxxx			0.45				
SGM7G-09AxMxxx			0.85				
SGM7G-13AxMxxx			1.3				
SGM7G-20AxMxxx			1.8				
SGM7G-30AxMxxx			2.9				
SGM7G-44AxMxxx			4.4				
SGM7G-55AxMxxx			5.5				
SGM7G-75AxMxxx			7.5				

SERVO MOTOR	Voltage [V _{rms}]	Phases	Rated Output [kW]	SERVO MOTOR	Voltage [V _{rms}]	Phases	Rated Output [kW]
SGM7G-03DxAxxx	400	3	0.3	SGM7G-13DxUxxx	400	3	1.3
SGM7G-05DxAxxx			0.45	SGM7G-20DxUxxx			1.8
SGM7G-09DxAxxx			0.85	SGM7G-30DxUxxx			2.9
SGM7G-13DxAxxx			1.3	SGM7G-44DxUxxx			4.4
SGM7G-20DxAxxx			1.8	SGM7G-05DxRxxx			0.45
SGM7G-30DxAxxx			2.9	SGM7G-09DxRxxx			0.85
SGM7G-44DxAxxx			4.4	SGM7G-13DxRxxx			1.3
SGM7G-55DxAxxx			5.5	SGM7G-20DxRxxx			1.8
SGM7G-75DxAxxx			7.5	SGM7G-30DxRxxx			2.9
SGM7G-1ADxAxxx			11	SGM7G-44DxRxxx			4.4
SGM7G-1EDxAxxx			15	SGM7G-05DxQxxx			0.45
SGM7G-03DxBxxx			0.3	SGM7G-20DxQxxx			1.8
SGM7G-06DxBxxx			0.6				
SGM7G-09DxBxxx			0.9				
SGM7G-12DxBxxx			1.2				
SGM7G-20DxBxxx			2.0				
SGM7G-30DxBxxx			3.0				
SGM7G-40DxBxxx			4.0				
SGM7G-55DxBxxx			5.5				
SGM7G-05DxLxxx			0.45				
SGM7G-20DxLxxx			1.8				
SGM7G-05DxMxxx			0.45				
SGM7G-09DxMxxx			0.85				
SGM7G-13DxMxxx			1.3				
SGM7G-20DxMxxx			1.8				
SGM7G-30DxMxxx			2.9				
SGM7G-44DxMxxx			4.4				
SGM7G-55DxMxxx			5.5				
SGM7G-75DxMxxx			7.5				
SGM7G-05DxUxxx			0.45				
SGM7G-09DxUxxx			0.85				

“x” represents variations in model number as described in product covered and series nomenclature which do not affect electrical construction or rating. Refer to ” Product Covered” or “Series Nomenclature” .

2.1.3. Series Nomenclature:

1) Standard

SGM7G - 03 A E A 2 1 □

a b c d e f g h

Letters	Items	(Group)	
a	Motor type	SGM7G	

Letters	Items	(Group)	Rated Output [kW]	
b	Motor Output	–	Rated Speed 1500 min ⁻¹	Rated Speed 1000 min ⁻¹
		03	0.3	0.3
		05	0.45	N. A
		06	N. A	0.6
		09	0.85	0.9
		12	N. A	1.2
		13	1.3	N. A
		20	1.8	2.0
		30	2.9	3.0
		40	N. A	4.0
		44	4.4	N. A
		55	5.5	5.5
		75	7.5	N. A
		1A	11	N. A
		1E	15	N. A

Letters	Items	(Group)	Power Supply Voltages [Vrms]
c	Power Supply	A	200
		D	400

Letters	Items	(Group)	Encoder Type
d	Encoder	C	17bit Serial Incremental
		2	17bit Serial Absolute Value
		N	17bit Serial Absolute Value with Safty function
		D	20bit Serial Incremental
		3	20bit Serial Absolute Value

	P	20bit Serial Absolute Value with Safty function
	F	24bit Serial Incremental
	7	24bit Serial Absolute Value
	8	20bit Serial Absolute value with a large-capacity condenser
	9	24bit Serial Absolute Value with a large-capacity condenser
	I	22bit Serial Absolute Value
	S	20bit Serial Absolute Value High Speed
	6	24bit Serial Batteryless Absolute Value

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	For Global, the Standard type. Rated Speed 1500min ⁻¹ .
		C	For China, output is the same as A type.
		D	For Global (outside Japan), output is the same as A type.
		B	For Global, the Associate Standard type. Rated Speed 1000min ⁻¹ .
		H	For China, output is the same as B type.
		L	For Global, output is the same as A (0.45, 1.8kW) or B (0.3, 1.2kW) type. The frame size is larger than a standard.
		N	For China, output and frame size are the same as L type.
		P	For Global (outside Japan), output and frame size are the same as L type.
		M	For Global, output is the same as A type. The max speed and max torque are larger than A type.
		U	For Global, output is the same as A type. The max speed is larger than A type.
		S	For China, output is the same as U type.
		T	For Global (outside Japan), output is the same as U type.
		F	Output is the same as A type. For EU, with M connector.
		R	Output is the same as A type. The max speed is larger than A type. For EU, with M connector.

		Q	For Global, output is the same as L (0.45, 1.8kW) type. The frame size is larger than A type. For EU, with M connector.
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Letters	Items	(Group)	Shaft Type
f	Shaft Type	2	Straight (without keyway)
		3	1/10 Conical shaft ends, With Sunk Key
		4	Straight (with keyway)
		5	1/10 Conical shaft ends, With Woodruff Key
		6	Straight (with keyway and tapped hole)
		8	Straight (tapped hole)
		S	Straight (without keyway), small size
		K	Straight (with keyway and tapped hole) Small size
		T	Straight (tapped hole), small size
		U	Straight (with keyway), small size

Letters	Items	(Group)	Optional Specifications
g	Optional Specifications	1	Without Option
		B	With Brake (90V)
		C	With Brake (24V)
		S	With oil seal (S type)
		D	With oil seal (S type) and with Brake (90V)
		E	With oil seal (S type) and with Brake (24V)
		F	With oil seal (V type)
		G	With oil seal (V type) and with Brake (90V)
		H	With oil seal (V type) and with Brake (24V)

Letters	Items	(Group)	Optional Specifications
h	Design of connection	Blank	Standard
		B	With right angle support
		C	With left angle support

2) Exclusive Design for Customer (case 1)

SGM7G - 03 A F A - * * * *

a b c d e f g h i

a to d. same as standard

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	For Global, the Standard type. Rated Speed 1500min ⁻¹ .
		C	For China, output is the same as A type.
		D	For Global (outside Japan), output is the same as A type.
		B	For Global, the Associate Standard type. Rated Speed 1000min ⁻¹ .
		H	For China, output is the same as B type.
		L	For Global, output is the same as A (0.45, 1.8kW) or B (0.3, 1.2kW) type. The frame size is larger than a standard.
		N	For China, output and frame size are the same as L type.
		P	For Global (outside Japan), output and frame size are the same as L type.
		M	For Global, output is the same as A type. The max speed and max torque are larger than A type.
		U	For Global, output is the same as A type. The max speed is larger than A type.
		S	For China, output is the same as U type.
		T	For Global (outside Japan), output is the same as U type.
		V	For Global, winding is the same as A type. The characteristic is different.
		W	For Global, winding and the characteristic differ from A type.
		Y	For China, output is the same as W type.
		Z	For Global (outside Japan), output is the same as W type.
		F	Output is the same as A type. For EU, with M connector.

		R	Output is the same as A type. The max speed is larger than A type. For EU, with M connector.
		K	For, Global, Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		Q	For Global, output is the same as L (0.45, 1.8kW) type. The frame size is larger than A type. For EU, with M connector.

Letters	Items	(Group)	Customer Code
f	Customer Code	A-Z	-
g			

Letters	Items	(Group)	Design Revision Order For Customer
h	Design Revision Order For Customer	A-Z or 0-9	-
i			

3) Exclusive Design for Customer (case 2)

SGM7G - 03 A F A 2 1 □ - * *
 a b c d e f g h i j

a to h. same as standard

Letters	Items	(Group)	Customer Code
i	Customer Code	A-Z	-

Letters	Items	(Group)	Design Revision Order For Customer
j	Design Revision Order For Customer	A-Z or 0-9	-

4) With Gear

SGM7G - 03 A F A H 1 4 1
a b c d e k l m n

a to e. same as standard

Letters	Items	(Group)	Optional Specifications
k	Gear Type	E	Standard Backlash Gear (with foot)
		F	Standard Backlash Gear (flange mount)
		H	Low-backlash gear

Letters	Items	(Group)	Reduction Ratio
l	Reduction Ratio (Low-backlash Gear)	1	1/5
		2	1/9
		5	1/20
		7	1/29
		8	1/45
	Reduction Ratio (Standard Backlash Gear)	A	1/6
		B	1/11
		C	1/21
		7	1/29

Letters	Items	(Group)	Shaft Type
m	Shaft Type	2	Straight (without keyway)
		3	1/10 Conical shaft ends, With Sunk Key
		4	Straight (with keyway)
		5	1/10 Conical shaft ends, With Woodruff Key
		6	Straight (with keyway and tapped hole)
		8	Straight (tapped hole)

Letters	Items	(Group)	Optional Specifications
n	Optional Specifications	1	Without Option
		B	With Brake (90V)
		C	With Brake (24V)

5) Exclusive Design for Customer with Gear

SGM7G - 03 A F A H - * * * *

a b c d e k f g h i

a to e. same as standard Exclusive Design for Customer

Letters	Items	(Group)	Optional Specifications
k	Gear Type	E	Standard Backlash Gear (with foot)
		F	Standard Backlash Gear (flange mount)
		H	Low-backlash gear

Letters	Items	(Group)	Customer Code
f	Customer Code	A-Z	-
g			

Letters	Items	(Group)	Design Revision Order For Customer
h	Design Revision Order For Customer	A-Z or 0-9	-
i			

4. SGM7P TYPE

4.1 Model Description

4.1.1 Product Covered:

1) Standard

Component-AC Servo Motors, Series SGM7P, followed by A8, 01, 02, 04, 08 or 15 followed by A, followed by C, 2, N, D, 3, P, 8, F, 7, 9, S, or 6, followed by A, D, E, or J, followed by 2, 4, 6, 8, A or B, followed by 1, C, E, S, 1D, CD, SD, ED, 1H, CH, SH, EH, 1E, CE, SE, EE, 1J, CJ, SJ, EJ, 1F, CF, SF, EF, 1K, CK, SK, EK, 1G, CG, SG or EG, may be followed by additional letters and or numbers.

2) With Gear

Component-AC Servo Motors, Series SGM7P, followed by A8, 01, 02, 04, 08, or 15, followed by A, followed by C, 2, N, D, 3, P, 8, F, 7, 9, S, or 6, followed by AH or DH, followed by 1, 2, 7, B or C, followed by 0, 2, 6 or 8, followed by 1, C, 1D, CD, 1H, CH, 1E, CE, 1J, CJ, 1F, CF, 1K, CK, 1G or CG, may be followed by additional letters and or numbers.

3) Exclusive Design for Customer

Component-AC Servo Motors, Series SGM7P, followed by A8, 01, 02, 04, 08 or 15, followed by A, followed by F C, 2, N, D, 3, P, 8, F, 7, 9, S, or 6, followed by A, D, E, J, K, V, W, Y, Z, AH, DH, KH, VH, WH, YH or ZH, followed by “-”, may be followed by any letter A-Z, may be followed by any letter A-Z or number 0-9

4.1.2 Electrical Ratings:

SERVO MOTOR	Voltage [V _{rms}]	Phases	Rated Current [A _{rms}]	Rated Output [W]
SGM7P-A8Axxxxx	200	3	0.70	80
SGM7P-01Axxxxx			0.86	100
SGM7P-02Axxxxx			2.0	200
SGM7P-04Axxxxx			2.6	400
SGM7P-08Axxxxx			5.4	750
SGM7P-15Axxxxx			9.2	1500

“x” represents variations in model number as described in product covered and series nomenclature which do not affect electrical construction or rating. Refer to ” Product Covered” or “Series Nomenclature” .

4.1.3. Series Nomenclature:

1) Standard

SGM7P - 01 A D A 2 1
a b c d e f g

Letters	Items	(Group)	
a	Motor type	SGM7P	

Letters	Items	(Group)	Rated Output [W]
b	Motor Output	A8	80
		01	100
		02	200
		04	400
		08	750
		15	1500

Letters	Items	(Group)	Power Supply Voltages[Vrms]
c	Power Supply	A	200

Letters	Items	(Group)	Encoder Type
d	Encoder	C	17bit Serial Incremental
		2	17bit Serial Absolute Value
		N	17bit Serial Absolute Value with Safety function
		D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		P	20bit Serial Absolute Value with Safety function
		8	20bit Serial Absolute value with a large-capacity condenser
		F	24bit Serial Incremental
		7	24bit Serial Absolute Value
		9	24bit Serial Absolute Value with a large-capacity condenser
		S	20bit Serial Absolute Value High Speed
		6	24bit Serial Batteryless Absolute Value

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	For Global, Standard.
		E	For Global, IP67
		D	For Global(outside Japan), Standard.
		J	For Global(outside Japan), IP67.

Letters	Items	(Group)	Shaft Type
f	Shaft Type	2	Straight (without keyway)
		4	Straight (with keyway)
		6	Straight (with keyway and tapped hole)
		8	Straight (tapped hole)
		A	Straight (with single flat key seat)
		B	Straight (with double flat key seat)

Letters	Items	(Group)	Optional Specifications
g (from 80 to 400W)	Optional Specifications	1	Without Option
		C	With Brake (24V)
		S	With Shaft Seal
		E	With Brake (24V) and Shaft Seal

Letters	Items	(Group)				Optional Specifications	
		Lead wire length					
		300mm	500mm	1000mm	1500mm		
g (750, 1500W)	Optional Specifications	1	1H	1J	1K	Standard connector	without option
		C	CH	C J	CK		with brake(24V)
		S	SH	S J	SK		with shaft seal
		E	EH	E J	EK		with brake(24V) and shaft seal
		1D	1E	1F	1G	Drip- proofed connector	without option
		CD	CE	CF	CG		with brake(24V)
		SD	SE	SF	SG		with shaft seal
		ED	EE	EF	EG		with brake(24V) and shaft seal

2) With Gear

SGM7P - 01 A D AH 1 2 C
a b c d e f g h

Letters	Items	(Group)	
a	Motor type	SGM7P	

Letters	Items	(Group)	Rated Output [W]
b	Motor Output	A8	80
		01	100
		02	200
		04	400
		08	750
		15	1500

Letters	Items	(Group)	Power Supply Voltages [Vrms]
c	Power Supply	A	200

Letters	Items	(Group)	Encoder Type
d	Encoder	C	17bit Serial Incremental
		2	17bit Serial Absolute Value
		N	17bit Serial Absolute Value with Safety function
		D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		P	20bit Serial Absolute Value with Safety function
		8	20bit Serial Absolute value with a large-capacity condenser
		F	24bit Serial Incremental
		7	24bit Serial Absolute Value
		9	24bit Serial Absolute Value with a large-capacity condenser
		S	20bit Serial Absolute Value High Speed
		6	24bit Serial Batteryless Absolute Value

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	AH	For Global, Standard with Non-backlash Gear.
		DH	For Global (outside Japan) with Non-backlash Gear.

Letters	Items	(Group)	Reduction Ratio
f	Reduction Ratio	1	1/5
		2	1/9
		7	1/33
		B	1/11
		C	1/21

Letters	Items	(Group)	Shaft Type
g	Shaft Type	0	Flange Type (without keyway)
		2	Straight (without keyway)
		6	Straight (with keyway and tapped hole)
		8	Straight (with tapped hole)

Letters	Items	(Group)	Optional Specifications
h (from 80 to 400W)	Optional Specifications	1	Without Option
		C	With Brake (24V)

Letters	Items	(Group)				Optional Specifications	
		Lead wire length					
		300mm	500mm	1000mm	1500mm		
h (750, 1500W)	Optional Specifications	1	1H	1J	1K	Standard	without option
		C	CH	C J	CK	connector	with brake (24V)
		1D	1E	1F	1G	Drip -	without option
		CD	CE	CF	CG	proofed	with brake (24V)

3) Exclusive Design for Customer

SGM7P - 01 A D AH - * * * *

a b c d e f g h i

Letters	Items	(Group)	
a	Motor type	SGM7P	

Letters	Items	(Group)	Rated Output [W]
b	Motor Output	A8	80
		01	100
		02	200
		04	400
		08	750
		15	1500

Letters	Items	(Group)	Power Supply Voltages [Vrms]
c	Power Supply	A	200

Letters	Items	(Group)	Encoder Type
d	Encoder	C	17bit Serial Incremental
		2	17bit Serial Absolute Value
		N	17bit Serial Absolute Value with Safety function
		D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		P	20bit Serial Absolute Value with Safety function
		8	20bit Serial Absolute value with a large-capacity condenser
		F	24bit Serial Incremental
		7	24bit Serial Absolute Value
		9	24bit Serial Absolute Value with a large-capacity condenser
		S	20bit Serial Absolute Value High Speed
		6	24bit Serial Batteryless Absolute Value

Letters	Items	(Group)	Design Revision Order
E	Design Revision Order	A	For Global, Standard.
		AH	For Global, Standard with Non-backlash Gear
		E	For Global, IP67.
		D	For Global(outside Japan), standard.
		DH	For Global(outside Japan), with Non-backlash Gear.
		J	For Global(outside Japan), IP67.
		V	For Global, winding and output are the same as a standard. The characteristic is different.
		W	For Global, winding and the characteristic differ from a standard. Output is the same as a standard.
		VH	For Global, standard with Non-backlash Gear. Winding and output are the same as a standard. The characteristic is different.
		WH	For Global, with Non-backlash Gear. Winding and the characteristic differ from a standard. Output is the same as a standard.
		K	For Global, Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		KH	For Global, with non-backlash gear. Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		Y	For China, Winding and the characteristic differ from a standard. Output is the same as a standard.
		YH	For China, With non-backlash gear. Winding and the characteristic differ from a standard. Output is the same as a standard.
		Z	For Global(outside Japan), Winding and the characteristic differ from a standard. Output is the same as a standard.

		ZH	For Global(outside Japan), With non-backlash gear. Winding and the characteristic differ from a standard. Output is the same as a standard.
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Letters	Items	(Group)	Customer Code
f	Customer Code	A-Z	-
g			

Letters	Items	(Group)	Design Revision Order For Customer
h	Design Revision Order For Customer	A-Z or 0-9	-
i			