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## **Series Nomenclature of**

## **AC SERVO MOTOR SIGMA-7mini Series (SGM7M Type)**

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## 1. MOTOR TYPE

### 1.1. Model Description

#### 1.1.1. Product Covered:

##### 1) Standard

Component-AC Servo Motors, Series SGM7M, followed by B3, B5, B9, A1, A2 or A3, followed by E or A, followed by C, 2, N, D, 3, P or S followed by A, followed by 2 or A, followed by 1 or C, followed by H, J, K, or Blank, may be followed by additional letters and or numbers.

##### 2) With Gear(Motor output variation are only 3 types,A1, A2, and A3)

Component-AC Servo Motors, Series SGM7M, followed by A1, A2 or A3, followed by E or A, followed by C, 2, N, D, 3, P or S followed by AJ, followed by 1, 2, 3, A, B or C, followed by 0, 2, 6 or 8, followed by 1 or C, followed by H, J, K, or Blank, may be followed by additional letters and or numbers.

##### 3) Exclusive Design for Customer

Component-AC Servo Motors, Series SGM7M, followed by B3, B5, B9, A1, A2 or A3, followed by E or A, followed by C, 2, N, D, 3, P or S, followed by A, K, AJ or KJ, 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	Motor Phases	Rated Current [A <sub>rms</sub> ]	Rated Output [W]
SGM7M-B3Exxxx	48 [V <sub>DC</sub> ]	3	1.5	3.3
SGM7M-B5Exxxx			1.5	5.5
SGM7M-B9Exxxx			1.7	11
SGM7M-A1Exxxx	48 [V <sub>DC</sub> ]	3	2.5	11
SGM7M-A2Exxxx			2.5	22
SGM7M-A3Exxxx			2.7	33
SGM7M-A1Axxxx	200 [V <sub>AC</sub> ]	3	0.83	11
SGM7M-A2Axxxx			0.82	22
SGM7M-A3Axxxx			0.90	33

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

### 1.1.3. Series Nomenclature:

#### 1)Standard

SGM7M -  $\frac{B3}{a} \frac{E}{b} \frac{3}{c} \frac{A}{d} \frac{2}{e} \frac{1}{f} \frac{H}{g} \frac{H}{h}$

Letters	Items	(Group)	
a	Motor type	SGM7M	

Letters	Items	(Group)	Rated Output[W]
b	Motor Output	B3	3.3
		B5	5.5
		B9	11
		A1	11
		A2	22
		A3	33

Letters	Items	(Group)	Power Supply Voltages[V]
c	Power Supply	E	48 [V <sub>DC</sub> ]
		A	200 [V <sub>AC</sub> ] (Motor output variations are only 3 types, A1, A2, and A3)

Letters	Items	(Group)	Design Revision Order
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
		S	20bit Serial Absolute Value High Speed

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	Standard

Letters	Items	(Group)	Shaft Type
f	Shaft Type	2	Straight (without keyway)
		A	Straight (with a flat key seat)

Letters	Items	(Group)	Optional Specifications
g	Optional Specifications	1	Without Option
		C	With Brake (24V <sub>DC</sub> ) (Motor output variation are only 3 types,A1, A2, and A3)

Letters	Items	(Group)	Optional Specifications
h	Lead wire length Specification	Blank	300mm
		H	500mm
		J	1000mm
		K	1500mm

2) With Gear(Motor output variation are only 3 types,A1, A2, and A3)

SGM7M   -   A1   E   3   AJ   A   2   1   H  
               a                b        c        d        e        f        g        h        i

Letters	Items	(Group)	
a	Motor type	SGM7M	

Letters	Items	(Group)	Rated Output[W]
b	Motor Output	A1	11
		A2	22
		A3	33

Letters	Items	(Group)	Power Supply Voltages[V]
c	Power Supply	E	48 [V <sub>DC</sub> ]
		A	200 [V <sub>AC</sub> ]

Letters	Items	(Group)	Design Revision Order
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
		S	20bit Serial Absolute Value High Speed

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	AJ	With Gear

Letters	Items	(Group)	Reduction Ratio
f	Reduction Ratio	1 or A	1/5
		2 or B	1/16
		3 or C	1/25

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 (tapped hole)

Letters	Items	(Group)	Optional Specifications
h	Optional Specifications	1	Without Option
		C	With Brake (24VDC)

Letters	Items	(Group)	Optional Specifications
i	Lead wire length Specification	Blank	300mm
		H	500mm
		J	1000mm
		K	1500mm

### 3)Exclusive design for customer

SGM7M - B3 E 3 A - \* \* \* \*

a b c d e g h i j

Letters	Items	(Group)	
a	Motor type	SGM7M	

Letters	Items	(Group)	Rated Output[W]
b	Motor Output	B3	3.3
		B5	5.5
		B9	11
		A1	11
		A2	22
		A3	33

Letters	Items	(Group)	Power Supply Voltages[V]
c	Power Supply	E	48 [V <sub>DC</sub> ]
		A	200 [V <sub>AC</sub> ] (Motor output variations are only 3 types, A1, A2, and A3)

Letters	Items	(Group)	Design Revision Order
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
		S	20bit Serial Absolute Value High Speed

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	Standard
		K	Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		AJ	With Gear (Motor output variation are only 3 types,A1, A 2, and A3)
		KJ	With gear Rating specifications, IP specifications, encod er and/or connector are changed for standar d. (Motor output variation are only 3 types,A1, A 2, and A3)

Letters	Items	(Group)	Customer Code
g, h	Customer Code	A - Z	-

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