



Product Service

CERTIFICATE

No. B 17 04 22021 719

**Holder of Certificate: Yaskawa Electric Corp.
Tokyo Plant**480 Kamifujisawa, Iruma
Saitama 358-8555
JAPAN**Production Facility(ies):** 77204, 48921, 48675, 38663, 92439**Certification Mark:****Product:** Electric Motors
AC Servo Motor**Model(s):** 1) SGM7A, 2) SGM7J, 3) SGM7G, 4) SGM7P series
(See Attachment for Nomenclature)**Parameters:**
Rated voltage: 200V(for 1-4)
400V(for 1-3)
48V (for 2)
Rated output power: 1)50W-7kW(200V), 200W-7kW(400V)
2)50W-750W(200V), 200W-1.5kW(400V)
100W(48V)
3)300W-15kW(200V), 300W-15kW(400V)
4)80W-1.5kW
Degree of protection: IP22/IP42/IP44/IP55/IP65/IP67
Protection class: I
Remark:
When installing /inserting the equipment, all requirements
of the mentioned test standard must be fulfilled.**Tested according to:** EN 60034-1:2010
EN 60034-5:2001/A1:2007

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.: 73552978-06**Valid until:** 2022-04-16**Date,** 2017-04-24
(Shigehisa Ishikawa)

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Electrical ratings –
SGM7J series

Motor type	Rated output (W)	Rated torque (N·m)	Rated speed (min ⁻¹)	Max. speed (min ⁻¹)	Rated current (A)	Supply Voltage / Phase	Rated	Thermal class
SGM7J-A5Axxxxx	50	0.159	3000	6000	0.55	200 / 3	CONT.	B
SGM7J-A5A6K-YR11				10000				
SGM7J-A8Axxxxx	80	0.255	3000	6000	0.69	200 / 3	CONT.	B
SGM7J-01Axxxxx	100	0.318	3000	6000	0.85	200 / 3	CONT.	B
SGM7J-C2Axxxxx	150	0.477	3000	6000	1.6	200 / 3	CONT.	B
SGM7J-02Axxxxx	200	0.637	3000	6000	1.6	200 / 3	CONT.	B
SGM7J-04Axxxxx	400	1.27	3000	6000	2.5	200 / 3	CONT.	B
SGM7J-04A6K-YR12								
SGM7J-06Axxxxx	600	1.91	3000	6000	4.2	200 / 3	CONT.	B
SGM7J-08Axxxxx	750	2.39	3000	6000	4.4	200 / 3	CONT.	B
SGM7J-08AXA-OYxx								
SGM7J-02Dxxxxx	200	0.637	3000	6000	1.5	400 / 3	CONT.	B
SGM7J-04Dxxxxx	400	1.27	3000	6000	1.4	400 / 3	CONT.	B
SGM7J-08Dxxxxx	750	2.39	3000	6000	2.2	400 / 3	CONT.	B
SGM7J-15Dxxxxx	1500	4.77	3000	6000	4.5	400 / 3	CONT.	B
SGM7J-01Exxxxx	100	0.318	3000	4500	2.9	48 / 3	CONT.	B

SGM7A series

Motor type	Rated output (W)	Rated torque (N·m)	Rated speed (min ⁻¹)	Max. speed (min ⁻¹)	Rated current (A)	Supply Voltage / Phase	Rated	Thermal class
SGM7A-A5Axxxxx	50	0.159	3000	6000	0.57	200 / 3	CONT.	B
SGM7A-A5Axx-NS12				10000				
SGM7A-A8Axxxxx	80	0.255	3000	6000	0.72	200 / 3	CONT.	B
SGM7A-01Axxxxx	100	0.318	3000	6000	0.89	200 / 3	CONT.	B
SGM7A-01Axx-NS12				10000				
SGM7A-C2Axxxxx	150	0.477	3000	6000	1.5	200 / 3	CONT.	B
SGM7A-C2Axx-NS12				10000				
SGM7A-02Axxxxx	200	0.637	3000	6000	1.5	200 / 3	CONT.	B
SGM7A-04Axxxxx	400	1.27	3000	6000	2.4	200 / 3	CONT.	B
SGM7A-06Axxxxx	600	1.91	3000	6000	4.5	200 / 3	CONT.	B
SGM7A-08Axxxxx	750	2.39	3000	6000	4.4	200 / 3	CONT.	B
SGM7A-10Axxxxx	1000	3.18	3000	6000	6.4	200 / 3	CONT.	B
SGM7A-15Axxxxx	1500	4.90	3000	6000	9.3	200 / 3	CONT.	F
SGM7A-20Axxxxx	2000	6.36	3000	6000	12.1	200 / 3	CONT.	F
SGM7A-25Axxxxx	2500	7.96	3000	6000	15.6	200 / 3	CONT.	F
SGM7A-30Axxxxx	3000	9.80	3000	6000	17.9	200 / 3	CONT.	F
SGM7A-40Axxxxx	4000	12.6	3000	6000	25.4	200 / 3	CONT.	F
SGM7A-50Axxxxx	5000	15.8	3000	6000	27.6	200 / 3	CONT.	F
SGM7A-70Axxxxx	7000	22.3	3000	6000	38.3	200 / 3	CONT.	F
SGM7A-02Dxxxxx	200	0.637	3000	6000	1.2	400 / 3	CONT.	B
SGM7A-04Dxxxxx	400	1.27	3000	6000	1.2	400 / 3	CONT.	B
SGM7A-08Dxxxxx	750	2.39	3000	6000	2.2	400 / 3	CONT.	B
SGM7A-10Dxxxxx	1000	3.18	3000	6000	3.2	400 / 3	CONT.	B
SGM7A-15Dxxxxx	1500	4.90	3000	6000	4.7	400 / 3	CONT.	F
SGM7A-20Dxxxxx	2000	6.36	3000	6000	6.1	400 / 3	CONT.	F
SGM7A-25Dxxxxx	2500	7.96	3000	6000	7.4	400 / 3	CONT.	F
SGM7A-30Dxxxxx	3000	9.80	3000	6000	8.9	400 / 3	CONT.	F
SGM7A-40Dxxxxx	4000	12.6	3000	6000	12.5	400 / 3	CONT.	F
SGM7A-50Dxxxxx	5000	15.8	3000	6000	13.8	400 / 3	CONT.	F
SGM7A-70Dxxxxx	7000	22.3	3000	6000	19.2	400 / 3	CONT.	F

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SGM7G series

Motor type	Rated output (W)	Rated torque (N·m)	Rated speed (min ⁻¹)	Max. speed (min ⁻¹)	Rated current (A)	Supply Voltage / Phase	Rated	Thermal class
SGM7G-03AxAxxx	300	1.96	1500	3000	2.8	200 / 3	CONT.	F
SGM7G-05AxAxxx	450	2.86	1500	3000	3.8	200 / 3	CONT.	F
SGM7G-09AxAxxx	850	5.39	1500	3000	6.9	200 / 3	CONT.	F
SGM7G-13AxAxxx	1300	8.34	1500	3000	10.7	200 / 3	CONT.	F
SGM7G-20AxAxxx	1800	11.5	1500	3000	16.7	200 / 3	CONT.	F
SGM7G-30AxAxxx	2900	18.6	1500	3000	23.8	200 / 3	CONT.	F
SGM7G-44AxAxxx	4400	28.4	1500	3000	32.8	200 / 3	CONT.	F
SGM7G-55AxAxxx	5500	35.0	1500	3000	37.2	200 / 3	CONT.	F
SGM7G-55AXA-OYxx								
SGM7G-75AxAxxx	7500	48.0	1500	3000	54.7	200 / 3	CONT.	F
SGM7G-75AXA-OYxx								
SGM7G-1AAx Axxx	11000	70.0	1500	2000	58.6	200 / 3	CONT.	F
SGM7G-1EAx Axxx	15000	95.4	1500	2000	78.0	200 / 3	CONT.	F
SGM7G-03Ax Bxxx	300	2.86	1000	2000	3.0	200 / 3	CONT.	F
SGM7G-06Ax Bxxx	600	5.68	1000	2000	5.7	200 / 3	CONT.	F
SGM7G-09Ax Bxxx	900	8.62	1000	2000	7.6	200 / 3	CONT.	F
SGM7G-12Ax Bxxx	1200	11.5	1000	2000	11.6	200 / 3	CONT.	F
SGM7G-20Ax Bxxx	2000	19.1	1000	2000	18.5	200 / 3	CONT.	F
SGM7G-30Ax Bxxx	3000	28.4	1000	2000	24.8	200 / 3	CONT.	F
SGM7G-40Ax Bxxx	4000	38.2	1000	2000	30.0	200 / 3	CONT.	F
SGM7G-55Ax Bxxx	5500	52.6	1000	2000	43.2	200 / 3	CONT.	F
SGM7G-03Ax Lxxx	300	2.86	1000	2000	3.0	200 / 3	CONT.	F
SGM7G-05Ax Lxxx	450	2.86	1500	3000	3.8	200 / 3	CONT.	F
SGM7G-12Ax Lxxx	1200	11.5	1000	2000	11.6	200 / 3	CONT.	F
SGM7G-20Ax Lxxx	1800	11.5	1500	3000	15.0	200 / 3	CONT.	F
SGM7G-03Ax Mxxx	300	1.96	1500	5000	4.2	200 / 3	CONT.	F
SGM7G-05Ax Mxxx	450	2.86	1500	5000	5.2	200 / 3	CONT.	F
SGM7G-09Ax Mxxx	850	5.39	1500	4000	6.9	200 / 3	CONT.	F
SGM7G-13Ax Mxxx	1300	8.34	1500	4000	10.7	200 / 3	CONT.	F
SGM7G-20Ax Mxxx	1800	11.5	1500	4000	16.7	200 / 3	CONT.	F
SGM7G-30Ax Mxxx	2900	18.6	1500	4000	23.8	200 / 3	CONT.	F
SGM7G-44Ax Mxxx	4400	28.4	1500	4000	32.8	200 / 3	CONT.	F
SGM7G-55Ax Mxxx	5500	35.0	1500	4000	42.1	200 / 3	CONT.	F
SGM7G-75Ax Mxxx	7500	48.0	1500	4000	54.7	200 / 3	CONT.	F
SGM7G-05Ax Uxxx	450	2.86	1500	5000	5.2	200 / 3	CONT.	F
SGM7G-09Ax Uxxx	850	5.39	1500	4000	6.9	200 / 3	CONT.	F
SGM7G-13Ax Uxxx	1300	8.34	1500	4000	10.7	200 / 3	CONT.	F
SGM7G-20Ax Uxxx	1800	11.5	1500	4000	16.7	200 / 3	CONT.	F
SGM7G-30Ax Uxxx	2900	18.6	1500	4000	23.8	200 / 3	CONT.	F
SGM7G-44Ax Uxxx	4400	28.4	1500	4000	32.8	200 / 3	CONT.	F
SGM7G-03DxAxxx	300	1.96	1500	3000	1.4	400 / 3	CONT.	F
SGM7G-05DxAxxx	450	2.86	1500	3000	1.9	400 / 3	CONT.	F
SGM7G-09DxAxxx	850	5.39	1500	3000	3.5	400 / 3	CONT.	F
SGM7G-13DxAxxx	1300	8.34	1500	3000	5.4	400 / 3	CONT.	F
SGM7G-20DxAxxx	1800	11.5	1500	3000	8.4	400 / 3	CONT.	F
SGM7G-30DxAxxx	2900	18.6	1500	3000	11.9	400 / 3	CONT.	F
SGM7G-44DxAxxx	4400	28.4	1500	3000	16.0	400 / 3	CONT.	F
SGM7G-55DxAxxx	5500	35.0	1500	3000	20.8	400 / 3	CONT.	F
SGM7G-75DxAxxx	7500	48.0	1500	3000	25.7	400 / 3	CONT.	F
SGM7G-1ADxAxxx	11000	70.0	1500	2000	28.1	400 / 3	CONT.	F
SGM7G-1EDxAxxx	15000	95.4	1500	2000	37.2	400 / 3	CONT.	F
SGM7G-03DxBxxx	300	2.86	1000	2000	1.5	400 / 3	CONT.	F
SGM7G-06DxBxxx	600	5.68	1000	2000	2.9	400 / 3	CONT.	F
SGM7G-09DxBxxx	900	8.62	1000	2000	3.8	400 / 3	CONT.	F



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Motor type	Rated output (W)	Rated torque (N·m)	Rated speed (min ⁻¹)	Max. speed (min ⁻¹)	Rated current (A)	Supply Voltage / Phase	Rated	Thermal class
SGM7G-12DxBxxx	1200	11.5	1000	2000	5.4	400 / 3	CONT.	F
SGM7G-20DxBxxx	2000	19.1	1000	2000	8.4	400 / 3	CONT.	F
SGM7G-30DxBxxx	3000	28.4	1000	2000	12.1	400 / 3	CONT.	F
SGM7G-40DxBxxx	4000	38.2	1000	2000	13.9	400 / 3	CONT.	F
SGM7G-55DxBxxx	5500	52.6	1000	2000	18.4	400 / 3	CONT.	F
SGM7G-05DxLxxx	450	2.86	1500	3000	1.9	400 / 3	CONT.	F
SGM7G-20DxLxxx	1800	11.5	1500	3000	7.6	400 / 3	CONT.	F
SGM7G-03DxMxxx	300	1.96	1500	5000	2.1	400 / 3	CONT.	F
SGM7G-05DxMxxx	450	2.86	1500	5000	2.6	400 / 3	CONT.	F
SGM7G-09DxMxxx	850	5.39	1500	4000	3.5	400 / 3	CONT.	F
SGM7G-13DxMxxx	1300	8.34	1500	4000	5.4	400 / 3	CONT.	F
SGM7G-20DxMxxx	1800	11.5	1500	4000	8.4	400 / 3	CONT.	F
SGM7G-30DxMxxx	2900	18.6	1500	4000	11.9	400 / 3	CONT.	F
SGM7G-44DxMxxx	4400	28.4	1500	4000	16.0	400 / 3	CONT.	F
SGM7G-55DxMxxx	5500	35.0	1500	4000	20.8	400 / 3	CONT.	F
SGM7G-75DxMxxx	7500	48.0	1500	4000	25.7	400 / 3	CONT.	F
SGM7G-05DxUxxx	450	2.86	1500	5000	2.6	400 / 3	CONT.	F
SGM7G-09DxUxxx	850	5.39	1500	4000	3.5	400 / 3	CONT.	F
SGM7G-13DxUxxx	1300	8.34	1500	4000	5.4	400 / 3	CONT.	F
SGM7G-20DxUxxx	1800	11.5	1500	4000	8.4	400 / 3	CONT.	F
SGM7G-30DxUxxx	2900	18.6	1500	4000	11.9	400 / 3	CONT.	F
SGM7G-44DxUxxx	4400	28.4	1500	4000	16.0	400 / 3	CONT.	F
SGM7G-05DxRxxx	450	2.86	1500	5000	2.6	400 / 3	CONT.	F
SGM7G-09DxRxxx	850	5.39	1500	5000	5.3	400 / 3	CONT.	F
SGM7G-13DxRxxx	1300	8.34	1500	5000	8.3	400 / 3	CONT.	F
SGM7G-20DxRxxx	1800	11.5	1500	5000	10.1	400 / 3	CONT.	F
SGM7G-30DxRxxx	2900	18.6	1500	4500	14.4	400 / 3	CONT.	F
SGM7G-44DxRxxx	4400	28.4	1500	4500	19.3	400 / 3	CONT.	F

Notes:

- Design revision order [C] [D] [F] are same as [A]
- Design revision order [H] is same as [B]
- Design revision order [N] [P] are same as [L]
- Design revision order [S] [T] are same as [U]

SGM7P series

Motor type	Rated output (W)	Rated torque (N·m)	Rated speed (min ⁻¹)	Max. speed (min ⁻¹)	Rated current (A)	Supply Voltage / Phase	Rated	Thermal class
SGM7P-A8Axxxxx	80	0.255	3000	6000	0.70	200 / 3	CONT.	B
SGM7P-01Axxxxx	100	0.318	3000	6000	0.86	200 / 3	CONT.	B
SGM7P-02Axxxxx	200	0.637	3000	6000	2.0	200 / 3	CONT.	B
SGM7P-04Axxxxx	400	1.27	3000	6000	2.6	200 / 3	CONT.	B
SGM7P-08Axxxxx	750	2.39	3000	6000	5.4	200 / 3	CONT.	B
SGM7P-15Axxxxx	1500	4.77	3000	6000	9.2	200 / 3	CONT.	B
SGM7P-15AxxHCxx								
SGM7P-15AxxH7xx								

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SGM7J Series - Nomenclature:

Standard:

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

a. Motor Series: SGM7J

b. Motor Output (W):

A5: 50
A8: 80
01: 100
C2: 150
02: 200
04: 400
06: 600
08: 750
15: 1500

c. Supply Voltage:

A: 200 V
D: 400 V
E: 48 V

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

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

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 (Φ6 orΦ16))
K: Straight (with keyway and Tapped hole (Φ6 orΦ16))

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g. Optional specification:

- 1: Without option
- C: With Brake (24V)
- S: With Shaft Seal
- E: With Brake (24V) and With Shaft Seal

With Gear:

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

a. Motor Series: SGM7J

b. Motor Output (W):

- A5: 50
- A8: 80
- 01: 100
- C2: 150
- 02: 200
- 04: 400
- 06: 600
- 08: 750
- 15: 1500

c. Supply Voltage:

- A: 200 V
- D: 400 V
- E: 48 V

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

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

f. Reduction Ratio:

- 1: 1/5
- 2: 1/9
- 7: 1/33
- B: 1/11
- C: 1/21

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g. Shaft Type:

- 0: Flange Type (without keyway)
- 2: Straight (without keyway)
- 6: Straight (with keyway and tapped hole)
- 8: Straight (with tapped hole)

h. Optional Specifications:

- 1: Without option
- B: With Brake (90V)
- C: With Brake (24V)

Exclusive Design for Customer:

SGM7J - 01 A D AH - * * * *
 a b c d e f g h i

a. Motor Series: SGM7J

b. Motor Output (W):

- A5: 50
- A8: 80
- 01: 100
- C2: 150
- 02: 200
- 04: 400
- 06: 600
- 08: 750
- 15: 1500

c. Supply Voltage:

- A: 200 V
- D: 400 V
- E: 48 V

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

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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.

f,g. Customer Code:

May be any letter A – Z

h,i. Design Revision Order for Customer:

May be any letter A – Z, or number 0 – 9

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INTERNATIONAL PROTECTION CLASS (IP class)

Motor type	IP Class
SGM7J without gear	IP67
SGM7J with gear	IP55
SGM7J-A5A7K-SU11	IP42
SGM7J-01A7K-SU11	IP42
SGM7J-C2A7K-SU11	IP42
SGM7J-04A7K-SU11	IP42
SGM7J-06A7K-SU11	IP42
SGM7J-08A7K-SU11	IP42
SGM7J-A5A6K-YR11	IP42
SGM7J-04A6K-YR12	IP42

SGM7A Series - Nomenclature:

Standard:

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

a. Motor Series: SGM7A

b. Motor Output (W):

- 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

c. Supply Voltage:

- A: 200 V
- D: 400 V

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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

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

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 $\Phi 16$))

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)

h. Design of connection:

- Blank: Standard
- B: With right-angle support (Right)
- C: With right-angle support (Left)
- F: Terminal/Mini-Universal connector type(type1) ※(Right)
- G: Terminal/Mini-Universal connector type(type1) ※(Left)
- H: MS connector type(type2) ※(Right)
- J: MS connector type(type2) ※(Left)

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Product Service

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With Gear:

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

a. Motor Series: SGM7A

b. Motor Output (W):

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

c. Supply Voltage:

A: 200 V
D: 400 V

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

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

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

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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)

h. Optional Specifications:

- 1: Without option
- B: With Brake (90V)
- C: With Brake (24V)

Exclusive Design for Customer:

SGM7A - 01 A D AH - * * * *
 a b c d e f g h i

a. Motor Series: SGM7A

b. Motor Output (W):

- 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

c. Supply Voltage:

- A: 200 V
- D: 400 V

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

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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
- 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
- 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.

f,g. Customer Code:
May be any letter A – Z

h,i. Design Revision Order for Customer:
May be any letter A – Z, or number 0 – 9

INTERNATIONAL PROTECTION CLASS (IP class)

Motor type	IP Class
SGM7A-A5~50 without gear	IP67
SGM7A-A5~10 with gear	IP55
SGM7A-15~50 with gear	IP44
SGM7A-70	IP22
SGM7A-10A7K-SU11	IP42

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Product Service

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SGM7G Series - Nomenclature:

Standard:

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

a. Motor Series: SGM7G

b. Motor Output (kW):

03:	0.3	for	1500 min ⁻¹ ,	1000 min ⁻¹	models
05:	0.45	for	1500 min ⁻¹ ,	--	model
06:	0.6	for	--,	1000 min ⁻¹	model
09:	0.85	for	1500 min ⁻¹ ,	--	model
09:	0.9	for	--,	1000 min ⁻¹	model
12:	1.2	for	--,	1000 min ⁻¹	model
13:	1.3	for	1500 min ⁻¹ ,	--	model
20:	1.8	for	1500 min ⁻¹ ,	--	model
20:	2.0	for	--,	1000 min ⁻¹	model
30:	2.9	for	1500 min ⁻¹ ,	--	model
30:	3.0	for	--,	1000 min ⁻¹	model
40:	4.0	for	--,	1000 min ⁻¹	model
44:	4.4	for	1500 min ⁻¹ ,	--	model
55:	5.5	for	1500 min ⁻¹ ,	1000 min ⁻¹	models
75:	7.5	for	1500 min ⁻¹ ,	--	model
1A:	11.0	for	1500 min ⁻¹ ,	--	model
1E:	15.0	for	1500 min ⁻¹ ,	--	model

c. Supply Voltage:

A:	200 V
D:	400 V

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
- 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

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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.

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

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)

h. Design of connection:

- Blank: Standard
- B: With right-angle support
- C: With left-angle support

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Product Service

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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

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.

f,g. Customer Code:
May be any letter A – Z

h,i. Design Revision Order for Customer:
May be any letter A – Z, or number 0 – 9

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

i. Customer Code:
May be any letter A – Z

j. Design Revision Order for Customer:
May be any letter A – Z, or number 0 – 9

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With Gear:

$\frac{SGM7G -}{a} \quad \frac{03}{b} \quad \frac{A}{c} \quad \frac{F}{d} \quad \frac{A}{e} \quad \frac{H}{k} \quad \frac{1}{l} \quad \frac{4}{m} \quad \frac{1}{n}$

a to e. same as standard

k. Gear Type:

- E: Standard Backlash Gear (with foot)
- F: Standard Backlash Gear (flange mount)
- H: Low Backlash Gear

l. Reduction Ratio:

For Low Backlash Gear

- 1: 1/5
- 2: 1/9
- 5: 1/20
- 7: 1/29
- 8: 1/45

For Standard Backlash Gear

- A: 1/6
- B: 1/11
- C: 1/21
- 7: 1/29

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)

n. Optional Specifications:

- 1: Without option
- B: With Brake (90V)
- C: With Brake (24V)

Exclusive Design for Customer with Gear:

$\frac{SGM7G -}{a} \quad \frac{03}{b} \quad \frac{A}{c} \quad \frac{F}{d} \quad \frac{A}{e} \quad \frac{H}{k} \quad - \quad \frac{*}{f} \quad \frac{*}{g} \quad \frac{*}{h} \quad \frac{*}{i}$

a to e. same as Exclusive Design for Customer

k. Gear Type:

- E: Standard Backlash Gear (with foot)
- F: Standard Backlash Gear (flange mount)
- H: Low Backlash Gear

f, g. Customer Code:

May be any letter A – Z

h, i. Design Revision Order for Customer:

May be any letter A – Z, or number 0 – 9

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INTERNATIONAL PROTECTION CLASS (IP class)

No.	Contents	Except for drive end side(*1)	Oil seal of drive end side	
			V type	S type
1	SGM7G without gear Connection: Receptacle	IP67	IP55	IP67
2	SGM7G without gear Connection: Receptacle (With right-angled support)	IP67	IP55	IP67
3	SGM7G without gear Connection: Cable (Cable isn't attached to the motor.)	IP67	IP55	IP67
4	SGM7G with gear	IP44	N	N

Note:

*1 When drive end side needs IP55 or IP67, mount an oil seal.

SGM7P Series - Nomenclature:

Standard:

$\frac{\text{SGM7P}}{\text{a}}$ - $\frac{01}{\text{b}}$ $\frac{\text{A}}{\text{c}}$ $\frac{\text{D}}{\text{d}}$ $\frac{\text{A}}{\text{e}}$ $\frac{2}{\text{f}}$ $\frac{1}{\text{g}}$

a. Motor Series: SGM7P

b. Motor Output (W):

A8: 80
 01: 100
 02: 200
 04: 400
 08: 750
 15: 1500

c. Supply Voltage:

A: 200 V

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

e. Design Revision Order

A: For Global, Standard
 E: For Global, IP67
 D: For Global (outside Japan), Standard.
 J: For Global (outside Japan), IP67.

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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)

g. Optional Specifications

for from 80 to 400W:

- 1: Without option
- C: With Brake (24V)
- S: With Shaft Seal
- E: With Brake (24V) and With Shaft Seal

for 750, 1500W:

Lead wire length (mm)				
with Standard connector				
300	500	1000	1500:	Optional Specification
1:	1H:	1J:	1K:	Without option
C:	CH:	CJ:	CK:	With Brake (24V)
S:	SH:	SJ:	SK:	With Shaft Seal
E:	EH:	EJ:	EK:	With Brake (24V) and With Shaft Seal
Lead wire length (mm)				
with Drip-proofed connector				
300	500	1000	1500:	Optional Specification
1D:	1E:	1F:	1G:	Without option
CD:	CE:	CF:	CG:	With Brake (24V)
SD:	SE:	SF:	SG:	With Shaft Seal
ED:	EE:	EF:	EG:	With Brake (24V) and With Shaft Seal

With Gear:

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

a. Motor Series: SGM7P

b. Motor Output (W):

- A8: 80
- 01: 100
- 02: 200
- 04: 400
- 08: 750
- 15: 1500

c. Supply Voltage:

- A: 200 V

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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

e. Design Revision Order

- AH: For Global, Standard with Non-backlash Gear
- DH: For Global (outside Japan) with Non-backlash Gear.

f. Reduction Ratio:

- 1: 1/5
- 2: 1/9
- 7: 1/33
- B: 1/11
- C: 1/21

g. Shaft Type:

- 0: Flange Type (without keyway)
- 2: Straight (without keyway)
- 6: Straight (with keyway and tapped hole)
- 8: Straight (with tapped hole)

h. Optional Specifications:

for from 80 to 400W:

- 1: Without option
- C: With Brake (24V)

for 750, 1500W:

Lead wire length (mm)				
with Standard connector				
300	500	1000	1500:	Optional Specification
1:	1H:	1J:	1K:	Without option
C:	CH:	CJ:	CK:	With Brake (24V)
Lead wire length (mm)				
with Drip-proofed connector				
300	500	1000	1500:	Optional Specification
1D:	1E:	1F:	1G:	Without option
CD:	CE:	CF:	CG:	With Brake (24V)

Exclusive Design for Customer:

$\frac{SGM7P}{a} - \frac{01}{b} \frac{A}{c} \frac{D}{d} \frac{AH}{e} - \frac{*}{f} \frac{*}{g} \frac{*}{h} \frac{*}{i}$

a. Motor Series: SGM7P

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b. Motor Output (W):

A8:	80
01:	100
02:	200
04:	400
08:	750
15:	1500

c. Supply Voltage:

A:	200 V
----	-------

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

e. Design Revision Order

A:	For Global, Standard
AH:	For Global, Standard with Non-backlash Gear
E:	For Global, IP 67
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, 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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f,g. Customer Code:
 May be any letter A – Z

h,i. Design Revision Order for Customer:
 May be any letter A – Z, or number 0 – 9h

INTERNATIONAL PROTECTION CLASS (IP class)

Motor type	Design Revision Order	IP Class
SGM7P without gear	A, D	Standard (IP65)
	E, J	IP67
SGM7P with gear	-	IP55