



Product Service

EC-Statement of Compliance

No. E6 15 12 22021 626

Holder of Certificate: Yaskawa Electric Corp.
Tokyo Plant

480 Kamifujisawa, Iruma
Saitama 358-8555
JAPAN

Name of Object: Servo Motor
AC Servo Motor

This EC-Statement of Compliance is issued according to the Directive 2004/108/EC relating to electromagnetic compatibility. It confirms that the listed apparatus complies with such aspects of the essential requirements of the EMC directive as specified by the manufacturer or his authorized representative in the European Community and applies only to the sample and its technical documentation submitted to TÜV SÜD Product Service GmbH for testing and certification. See also notes overleaf.

Technical report no.: 73554969



Date, 2015-12-08

(Johann Roidt)

TÜV SÜD Product Service GmbH is Notified Body to the Directive 2004/108/EC of the European Parliament and of the council with the identification number 0123.

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Model(s):

Sigma-III Series
SGMAS type, SGMPS type:
SGMAS-A5A**, SGMAS-A8A****,**
SGMAS-01A**, SGMAS-C2A****,**
SGMAS-02A**, SGMAS-04A****,**
SGMAS-06A**, SGMAS-08A****,**
SGMAS-10A**, SGMAS-12A****,**
SGMPS-A8A**, SGMPS-01A****,**
SGMPS-02A**, SGMPS-04A****,**
SGMPS-08A**, SGMPS-15A****,**
SGMPS-15A3A-NE11, SGMPS-15A3A-NE21,
SGMAS-A5ABA-TE11, SGMAS-12ABA-TE11,
SGMAS-06AAA-TE12, SGMAS-02AAA-TE12,
SGMAS-02AAA-TE22, SGMAS-10ACA-SY11,
SGMAS-02A2A-EB11, SGMAS-C2A2A-FJ11,
SGMAS-08A2A-FJ11, SGMAS-01A2A-FJ11,
SGMAS-04A2A-FJ11, SGMAS-08A2A-FJ12,
SGMAS-01A2A-FJ12, SGMAS-04A2A-FJ12,
SGMAS-08A2A-FJ13, SGMAS-01A2A-FJ31,
SGMAS-01A2A-FJ41, SGMAS-C2A2A-FJ12,
SGMAS-C2A2A-FJ21, SGMAS-04A2A-FJ21,
SGMAS-08A2A-FJ21, SGMAS-08A2A-FJ31,
SGMAS-A5ACA-SN11, SGMAS-01A2A-FJ13,
SGMAS-C2A2A-FJ42, SGMAS-04A2A-FJ14,
SGMAS-04A2A-FJ32, SGMAS-02ACA-YA11,
(See Attachment for Nomenclature)

Description of Object:

Rated Voltage:	200 VAC
Rated Power:	50 to 1,150 W (SGMAS) 80 to 1,500 W (SGMPS)
Protection Class:	I
EMC Classification:	Group 1, Class A(EN 55011)

Tested according to:

EN 55011:2009/A1:2010
 EN 61000-6-2:2005

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1.SGMAS TYPE

1.1 Electrical Ratings

SERVO MOTOR	Voltage [V _{rms}]	Phases	Rated Current [A _{rms}]	Rated Output [KW]
SGMAS-A5Axxxxx	200	3	0.66	0.05
SGMAS-A8Axxxxx			0.74	0.08
SGMAS-01Axxxxx			0.91	0.10
SGMAS-C2Axxxxx			1.8	0.15
SGMAS-D2Axxxxx			1.9	0.20
SGMAS-02Axxxxx			1.9	0.20
SGMAS-04Axxxxx			2.6	0.40
SGMAS-06Axxxxx			4.3	0.60
SGMAS-08Axxxxx			5.4	0.75
SGMAS-10Axxxxx			5.7	1.00
SGMAS-12Axxxxx			8.5	1.15

"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".

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1.2 Series Nomenclature:

1)Standard

$\frac{\text{SGMAS}}{\text{a}}$ - $\frac{01}{\text{b}}$ $\frac{\text{A}}{\text{c}}$ $\frac{\text{C}}{\text{d}}$ $\frac{\text{A}}{\text{e}}$ $\frac{2}{\text{f}}$ $\frac{1}{\text{g}}$ $\frac{\text{-E}}{\text{h}}$

- a. Motor Type: Sigma-III Series SGMAS
- b. Motor Output:
- A5 – 0,05KW
 - A8 – 0,08KW
 - 01 – 0,10KW
 - C2 – 0,15KW
 - D2 – 0,20KW
 - 02 – 0,20KW
 - 04 – 0,40KW
 - 06 – 0,60KW
 - 08 – 0,75KW
 - 10 – 1,00KW
 - 12 – 1,15KW
- c. Power Supply: A – 200V
- d. Encoder Spec.:
- A – Incremental (13bit serial)
 - B – Incremental (16bit serial)
 - C – Incremental (17bit serial)
 - D – Incremental (20bit serial)
 - 1 – Absolute Value (16bit serial)
 - 2 – Absolute Value (17bit serial)
 - 3 – Absolute Value (20bit serial)
 - 4 – Absolute Value (16bit serial with built-in-capacitor)
 - 5 – Absolute Value (17bit serial with built-in-capacitor)
 - 6 – Absolute Value (20bit serial with built-in-capacitor)
- e. Design Revision Order: A – Standard
F – Different from standard flange type
- f. Shaft type:
- 2 – Straight (without key way)
 - 3 – Tapped 1/10 (with parallel key way)
 - 4 – Straight (with key way)
 - 5 – Tapped 1/10 (with woodruff keyway)
 - 6 – Straight (with keyway and tapped hole)
 - 8 – Straight (with tapped hole)
 - A – Straight (with flat key seat)
 - B – Straight (with double flat key seat)
 - C – Straight (with keyway and flat key seat)



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- g. Optional specifications: 1 – Without option
 B – With 90VDC brake
 C – With 24VDC brake
 S – With shaft seal
 D – With 90VDC brake and shaft seal
 E – With 24VDC brake and shaft seal

- h. Additional type: Blank – Standard
 -E – Standard(for ROHS directive)

2)With gear

$\frac{\text{SGMAS}}{\text{a}}$ - $\frac{01}{\text{b}}$ $\frac{\text{A}}{\text{c}}$ $\frac{\text{C}}{\text{d}}$ $\frac{\text{AH}}{\text{e}}$ $\frac{1}{\text{f}}$ $\frac{1}{\text{g}}$ $\frac{\text{B}}{\text{h}}$ $\frac{-\text{E}}{\text{i}}$

- a. Motor Type: Sigma-III Series SGMAS
- b. Motor Output: A5 – 0,05KW
 A8 – 0,08KW
 01 – 0,10KW
 C2 – 0,15KW
 D2 – 0,20KW
 02 – 0,20KW
 04 – 0,40KW
 06 – 0,60KW
 08 – 0,75KW
 10 – 1,00KW
 12 – 1,15KW
- c. Power Supply: A – 200V
- d. Encoder Spec.: A – Incremental (13bit serial)
 B – Incremental (16bit serial)
 C – Incremental (17bit serial)
 D – Incremental (20bit serial)
 1 – Absolute Value (16bit serial)
 2 – Absolute Value (17bit serial)
 3 – Absolute Value (20bit serial)
 4 – Absolute Value (16bit serial with built-in-capacitor)
 5 – Absolute Value (17bit serial with built-in-capacitor)
 6 – Absolute Value (20bit serial with built-in-capacitor)
- e. Design Revision Order: AH – With non – backlash gear
 AJ – With standard backlash gear
- f. Reduction ratio: 1 – 5
 2 – 9
 3 – 10 or 10,3
 7 – 29 or 33
 B – 11
 C – 21



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g. Shaft Type: 0 – Flange type (without keyway)
 1 – Taper (without keyway)
 2 – Straight (without keyway)
 3 – Taper (with keyway)
 4 – Straight (with keyway)
 5 – Taper (with keyway and tapped hole)
 6 – Straight (with keyway and tapped hole)
 8 – Straight (with tapped hole)

h. Optional specifications: 1 – Without option
 B – With 90VDC brake
 C – With 24VDC brake

i. Additional type: Blank – Standard
 -E – Standard(for ROHS directive)

3) Exclusive design for customer

(1)

$$\frac{\text{SGMAS}}{a} - \frac{01}{b} \frac{A}{c} \frac{C}{d} \frac{AH}{e} - \frac{*}{f} \frac{*}{g} \frac{*}{h} \frac{*}{i}$$

a. Motor Type: Sigma-III Series SGMAS

b. Motor Output: A5 – 0,05KW
 A8 – 0,08KW
 01 – 0,10KW
 C2 – 0,15KW
 D2 – 0,20KW
 02 – 0,20KW
 04 – 0,40KW
 06 – 0,60KW
 08 – 0,75KW
 10 – 1,00KW
 12 – 1,15KW

c. Power Supply: A – 200V

d. Encoder Spec.: A – Incremental (13bit serial)
 B – Incremental (16bit serial)
 C – Incremental (17bit serial)
 D – Incremental (20bit serial)
 1 – Absolute Value (16bit serial)
 2 – Absolute Value (17bit serial)
 3 – Absolute Value (20bit serial)
 4 – Absolute Value (16bit serial with built-in-capacitor)
 5 – Absolute Value (17bit serial with built-in-capacitor)
 6 – Absolute Value (20bit serial with built-in-capacitor)



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- e. Design Revision Order: A – Standard without gear
 AH – With non – backlash gear
 AJ – With standard backlash gear
 K - Rating specifications, IP specifications, encoder and/or connector are changed for standard.
 KH - Rating specifications, IP specifications, encoder and/or connector are changed for standard. And With non backlash gear
 KJ-Rating specifications, IP specifications, encoder and/or connector are changed for standard. And With standard backlash gear

f.g. Customer Code: put any alphabets.

h.i. Design Revision Oder for Customer :put any numbers.

(2)
SGMAS -01ACA21 - Y2
 a b

- a. Standard model type
 b. Customer Code: Y1 – ball bearing fixing adhesion
 Y2 – Ball bearing fixing adhesion and Rotor magnet type change

(3)
SGMAS-02ACA - YA11 - 1
 a b c

- a. Customer model type
 b. Customer code
 c. Machine number: 1, 2, 3 (The motor is same as 1, 2, 3)

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2.SGMPS TYPE

2.1 Electrical Ratings

SERVO MOTOR	Voltage [V _{rms}]	Phases	Rated Current [A _{rms}]	Rated Output [kW]
SGMPS-A8Axxxx	200	3	0.70	0.08
SGMPS-01Axxxx			0.86	0.10
SGMPS-02Axxxx			2.0	0.20
SGMPS-04Axxxx			2.6	0.40
SGMPS-08Axxxx			5.4	0.75
SGMPS-15Axxxx			9.2	1.50

"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".



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2.2 Series Nomenclature:

1) Standard

$\frac{\text{SGMPS}}{\text{a}}$ - $\frac{\text{01}}{\text{b}}$ $\frac{\text{A}}{\text{c}}$ $\frac{\text{C}}{\text{d}}$ $\frac{\text{A}}{\text{e}}$ $\frac{\text{2}}{\text{f}}$ $\frac{\text{1}}{\text{g}}$ $\frac{\text{-E}}{\text{h}}$

- a. Motor Type: Sigma-III Series SGMPS
- b. Motor Output: A8 – 0,08KW
01 – 0,10KW
02 – 0,20KW
04 – 0,40KW
08 – 0,75KW
15 – 1,50KW
- c. Power Supply: A – 200V
- d. Encoder Spec.: A – Incremental (13bit serial)
B – Incremental (16bit serial)
C – Incremental (17bit serial)
D – Incremental (20bit serial)
1 – Absolute Value(16bit serial)
2 – Absolute Value(17bit serial)
3 – Absolute Value(20bit serial)
4 – Absolute Value (16bit serial with built-in-capacitor)
5 – Absolute Value (17bit serial with built-in-capacitor)
6 – Absolute Value (20bit serial with built-in-capacitor)
- e. Design Revision Order: A – Standard
E – Dripproof provision
F – Different from standard flange type
- f. Shaft type: 2 – Straight (without key way)
3 – Tapped 1/10 (with parallel key way)
4 – Straight (with key way)
5 – Tapped 1/10 (with woodruff keyway)
6 – Straight (with keyway and tapped hole)
8 – Straight (with tapped hole)
A – Straight (with flat key seat)
B – Straight (with double flat key seat)
C – Straight (with keyway and flat key seat)
- g. Optional specifications(Motor output :A8 to 04):
1 – Without option
B – With 90VDC brake
C – With 24VDC brake
S – With shaft seal
D – With 90VDC brake and shaft seal
E – With 24VDC brake and shaft seal



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Optional specifications(Motor output :08, 15):

		Lead wire length			
		300mm	500mm	1000mm	1500mm
Standard connector	without option	1	1H	1J	1K
	with brake(90V)	B	BH	B J	BK
	with brake(24V)	C	CH	C J	CK
	with shaft seal	S	SH	S J	SK
	with brake(90V) and shaft seal	D	DH	D J	DK
	with brake(24V) and shaft seal	E	EH	E J	EK
Drip – proofed connector	without option	1D	1E	1F	1G
	with brake(90V)	BD	BE	BF	BG
	with brake(24V)	CD	CE	CF	CG
	with shaft seal	SD	SE	SF	SG
	with brake(90V) and shaft seal	DD	DE	DF	DG
	with brake(24V) and shaft seal	ED	EE	EF	EG

- h. Additional type: Blank – Standard
-E – Standard(for ROHS directive)



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2)With gear

SGMPS - 01 A C AH 1 1 BH -E
a b c d e f g h i

- a. Motor Type: Sigma-III Series SGMPS
- b. Motor Output: A8 – 0,08KW
01 – 0,10KW
02 – 0,20KW
04 – 0,40KW
08 – 0,75KW
15 – 1,50KW
- c. Power Supply: A – 200V
- d. Encoder Spec.: A – Incremental (13bit serial)
B – Incremental (16bit serial)
C – Incremental (17bit serial)
D – Incremental (20bit serial)
1 – Absolute Value (16bit serial)
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3 – Absolute Value (20bit serial)
4 – Absolute Value (16bit serial with built-in-capacitor)
5 – Absolute Value (17bit serial with built-in-capacitor)
6 – Absolute Value (20bit serial with built-in-capacitor)
- e. Design Revision Order: AH – With non – backlash gear
AJ – With standard backlash gear
EH – With non – backlash gear and drip proof provision
EJ – With standard backlash gear and drip proof provision
- f. Reduction ratio: 1 – 5
2 – 9
3 – 10 or 10,3
7 – 29 or 33
B – 11
C – 21
- g. Shaft Type: 0 – Flange type (without keyway)
1 – Taper (without keyway)
2 – Straight (without keyway)
3 – Taper (with keyway)
4 – Straight (with keyway)
5 – Taper (with keyway and tapped hole)
6 – Straight (with keyway and tapped hole)
8 – Straight (with tapped hole)
- h. Optional specifications(Motor output : A8 to 04):
1 – Without option
B – With 90VDC brake
C – With 24VDC brake



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Optional specifications(Motor output :08, 15):

		Lead wire length			
		300mm	500mm	1000mm	1500mm
Standard connector	without option	1	1H	1J	1K
	with brake(90V)	B	BH	B J	BK
	with brake(24V)	C	CH	C J	CK
Drip proofed connector	without option	1D	1E	1F	1G
	with brake(90V)	BD	BE	BF	BG
	with brake(24V)	CD	CE	CF	CG

- i. Additional type: Blank – Standard
 -E – Standard(for ROHS directive)

3) Exclusive design for customer

(1)
SGMPS - 01 A C AH - * * * *
 a b c d e f g h i

- a. Motor Type: Sigma-III Series SGMPS
- b. Motor Output: A8 – 0,08KW
 01 – 0,10KW
 02 – 0,20KW
 04 – 0,40KW
 08 – 0,75KW
 15 – 1,50KW
- c. Power Supply: A – 200V
- d. Encoder Spec.: A – Incremental (13bit serial)
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 6 – Absolute Value (20bit serial with built-in-capacitor)



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- e. Design Revision Order:
- A – Standard without gear
 - E – Drip proof provision(Without gear)
 - K – Rating specifications, IP specifications, encoder and/or connector are changed for standard
 - M – Drip proof provision
Rating specifications, IP specifications, encoder and/or connector are changed for standard
 - AH – With non – backlash gear
 - AJ – With standard backlash gear
 - EH – With non-backlash gear and drip proof provision
 - EJ – With standard backlash gear and drip proof provision
 - KH – With non backlash gear
Rating specifications, IP specifications, encoder and/or connector are changed for standard.
 - KJ – With standard backlash gear
Rating specifications, IP specifications, encoder and/or connector are changed for standard.
 - MH – Drip proof provision and with non - backlash gear
Rating specifications, IP specifications, encoder and/or Connector are changed for standard.
 - MJ – Drip proof provision and with standard backlash gear
Rating specifications, IP specifications, encoder and/or connector are changed for standard.

f.g. Customer Code: put any alphabets.

h.i. Design Revision Oder for Customer :put any numbers.