

# **EU-Type Examination Certificate**

No. E6A 17 05 22021 722

**Holder of Certificate:** Yaskawa Electric Corp.

**Tokyo Plant** 

480 Kamifujisawa, Iruma Saitama 358-8555

JAPAN

**Product: AC Servo Systems** 

**AC Servo Motor** 

Model(s): SGM7A, SGM7J, SGM7G, SGM7P

(See Attachment for Nomenclature)

**Description of** 

Object:

Rated Voltage:

200 VAC, 400 VAC, 3 phase/ 48 VDC

Rated Frequency: 50 Hz

Rated Power: 50 W to 7.0 kW (SGM7A)

> 50 W to 1.5 kW (SGM7J) 300 W to 15 kW (SGM7G) 80 W to 1.5 kW (SGM7P)

Protection Class: EMC Classification:

Group 1, Class A(EN 55011)

EMI:category C2(EN 61800-3)

EMS:second environment (EN 61800-3)

**Tested** 

according to:

EN 55011:2009/A1:2010 EN 61000-6-4:2007/A1:2011

EN 61000-6-2:2005

EN 61800-3:2004/A1:2012

This EU-Type Examination Certificate is issued according to the Directive 2014/30/EU relating to electromagnetic compatibility. It confirms that the listed apparatus complies with such aspects of the 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 for testing and certification. This Type Examination does not contain any statements pertaining to the EMC protection requirements governed by other laws which serve to implement EU Directives other than the aforementioned Directive 2014/30/EU. See also notes overleaf.

**Evaluation Report No.:** 

73565007

Date, 2017-05-19

( Johann Roidt )

TÜV SÜD Product Service GmbH is notified Body to the Directive 2014/30/EU relating to electromagnetic compatibility with the identification number 0123.

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# Attachment Certificate No. **E6A 17 05 22021 722**



#### 1. Certified model list

#### 1.1 SGM7A MODEL:

SERVO MOTOR	Voltage [Vrms]	Phases	Rated Current [Arms]	Rated Output [W]
SGM7A-A5Axxxxx			0.57	50
SGM7A-A8Axxxxx			0.72	80
SGM7A-01Axxxx	]		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-10Axxxx	200	3	6.4	1000
SGM7A-15Axxxx			9.3	1500
SGM7A-20Axxxx			12.1	2000
SGM7A-25Axxxx			15.6	2500
SGM7A-30Axxxxx			17.9	3000
SGM7A-40Axxxx			25.4	4000
SGM7A-50Axxxxx			27.6	5000
SGM7A-70Axxxx			38.3	7000
SGM7A-02Dxxxx			1.2	200
SGM7A-04Dxxxx			1.2	400
SGM7A-08Dxxxx			2.2	750
SGM7A-10Dxxxx			3.2	1000
SGM7A-15Dxxxx			4.7	1500
SGM7A-20Dxxxxx	400	3	6.1	2000
SGM7A-25Dxxxx		-	7.4	2500
SGM7A-30Dxxxxx			8.9	3000
SGM7A-40Dxxxxx		<u> </u>	12.5	4000
SGM7A-50Dxxxxx		<u> </u>	13.8	5000
SGM7A-70Dxxxx		<u> </u>	22.3	7000

<sup>&</sup>quot;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".

#### 1.2 SGM7J MODEL:

SERVO MOTOR	Voltage	Phases	Rated Current [Arms]	Rated Output [W]
SGM7J-A5Axxxxx			0.55	50
SGM7J-A8Axxxxx	1		0.69	80
SGM7J-01Axxxxx			0.85	100
SGM7J-C2Axxxxx	2000 1/3	3	1.6	150
SGM7J-02Axxxxx	200 [V <sub>ms</sub> ]		1.6	200
SGM7J-04Axxxxx			2.5	400
SGM7J-06Axxxx	1		4.2	600
SGM7J-08Axxxxx			4,4	750
SGM7J-02Dxxxxx			1.5	200
SGM7J-04Dxxxxx	400.07		1.4	400
SGM7J-08Dxxxxx	400 [V <sub>ms</sub> ]	3	2.2	750
SGM7J-15Dxxxxx			4.5	1500
SGM7J-01Exxxx	48 [V <sub>DC</sub> ]	3	2.9	100

<sup>&</sup>quot;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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1.3 SGM7G MODEL:

Product Service

.З	SGM7G MODEL:						'	TOGGCE DELV
	SERVO MOTOR	Voltage [Vrms]	Phases	Rated Output [kW]	SERVO MOTOR	Voltage [Vrms]	Phases	Rated Output [kW]
ſ	SGM7G-03AxAxxx			0.3	SGM7G-05AxLxxx			0.45
Ī	SGM7G-05AxAxxx	1		0.45	SGM7G-20AxLxxx	4		1.8
	SGM7G-09AxAxxx	1		0.85	SGM7G-05AxMxxx			0.45
ſ	SGM7G-13AxAxxx	1		1.3	SGM7G-09AxMxxx	1		0.45
	SGM7G-20AxAxxx	Ī		1.8	SGM7G-13AxMxxx			1.3
Ĺ	SGM7G-30AxAxxx	]		2.9	SGM7G-20AxMxxx	1		1.8
	SGM7G-44AxAxxx	1		4.4	SGM7G-30AxMxxx			2.9
	SGM7G-55AxAxxx	1		5.5	SGM7G-44AxMxxx	1		4.4
	SGM7G-75AxAxxx			7.5	SGM7G-55AxMxxx			5.5
	SGM7G-1AAxAxxx	200	3	11	SGM7G-75AxMxxx	200	3	7.5
	SGM7G-1EAxAxxx	]		15	SGM7G-05AxUxxx		J	0.45
L	SGM7G-03AxBxxx			0.3	SGM7G-09AxUxxx			0.85
L	SGM7G-06AxBxxx	1		0.6	SGM7G-13AxUxxx			1.3
	SGM7G-09AxBxxx			0.9	SGM7G-20AxUxxx			1.8
	SGM7G-12AxBxxx	1		1.2	SGM7G-30AxUxxx			2.9
	SGM7G-20AxBxxx			2.0	SGM7G-44AxUxxx			4.4
L	SGM7G-30AxBxxx			3.0	SGM7G-03AxLxxx			0.3
L	SGM7G-40AxBxxx			4.0	SGM7G-12AxLxxx			1.2
L	SGM7G-55AxBxxx			5.5	H			
	SGM7G-03DxAxxx			0.3	SGM7G-05DxMxxx			0.45
Ĺ	SGM7G-05DxAxxx			0.45	SGM7G-09DxMxxx			0.85
L	SGM7G-09DxAxxx			0.85	SGM7G-13DxMxxx			1.3
	SGM7G-13DxAxxx			1.3	SGM7G-20DxMxxx			1.8
	SGM7G-20DxAxxx			1.8	SGM7G-30DxMxxx			2.9
L	SGM7G-30DxAxxx			2.9	SGM7G-44DxMxxx			4.4
Ĺ	SGM7G-44DxAxxx			4.4	SGM7G-55DxMxxx			5.5
L	SGM7G-55DxAxxx			5.5	SGM7G-75DxMxxx			7.5
L	SGM7G-75DxAxxx			7.5	SGM7G-05DxUxxx			0.45
L	SGM7G-1ADxAxxx			11	SGM7G-09DxUxxx			0.85
L	SGM7G-1EDxAxxx	400	3	15	SGM7G-13DxUxxx	400	3	1.3
L	SGM7G-03DxBxxx			0.3	SGM7G-20DxUxxx		-	1.8
ļ	SGM7G-06DxBxxx			0.6	SGM7G-30DxUxxx			2.9
L	SGM7G-09DxBxxx		Ī	0.9	SGM7G-44DxUxxx		ŀ	4.4
L	SGM7G-12DxBxxx			1.2	SGM7G-05DxRxxx			0.45
L	SGM7G-20DxBxxx			2.0	SGM7G-09DxRxxx		f	0.85
L	SGM7G-30DxBxxx			3.0	SGM7G-13DxRxxx			1.3
L	SGM7G-40DxBxxx			4.0	SGM7G-20DxRxxx		-	1.8
L	SGM7G-55DxBxxx			5.5	SGM7G-30DxRxxx		r	2.9
<u>_</u>	SGM7G-05DxLxxx			0.45	SGM7G-44DxRxxx		<u> </u>	4.4
L	SGM7G-20DxLxxx			1.8			ľ	
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<sup>&</sup>quot;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".

#### 1.4 SGM7P MODEL:

SERVO MOTOR	Voltage [Vms]	Phases	Rated Current [Arms]	Rated Output IWI
SGM7P-A8Axxxx			0.70	80
SGM7P-01Axxxxx	200	3	0.86	100
SGM7P-02Axxxxx			2.0	200
SGM7P-04Axxxx			2.6	400
SGM7P-08Axxxxx			5.4	750
SGM7P-15Axxxxx			9.2	1500

<sup>&</sup>quot;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. Nomenclature

2.1 SGM7A MODE S

Letters

Items

Motor type

1)Standard	
SGM7A - 01 A D A 2 1 p	
a bcdefgh	

(Group)

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	Α	200
	for Servo amp	D	400

Letters	Items	(Group)	Encoder Type
d	Encoder	С	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
		Р	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	******
е	Design Revision	Α	For Global, Standard	·····
	Order	С	For China, Standard.	
		D	For Global(outside Japan), Standard.	
		F	For EU, Standard with M connector.	

Letters .	Items	(Group)	Shaft Type
f Shaft	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)
		В	Straight (with double flat key seat)
		S	Straight (without keyway(φ6 or φ16))
		K	Straight (with keyway and tapped hole(φ6 or φ16))

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Letters	Items	(Group)	Optional Specifications Product Service
g	g Optional Specifications	1	Without Option
		В	With Brake (90V)
	1	С	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)
·····		Н	With oil seal (V type) and with Brake (24V)

Letters	Items	(Group)	Optional Specifications
h	Design of connection	Blank	Standard
		В	With right-angle support (Right)
		С	With right-angle support (Left)
		F	Cable type 1 (Right)
		G	Cable type 1 (Left)
		Н	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)	
а	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 [Vms]
С	Power Supply	Α	200
	for Servo amp	D	400

Letters	Items	(Group)	Encoder Type
d	Encoder	С	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
		Р	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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Letters	Items	(Group)	Design Revision Order Product Service
е	Design	AH	For Global, Standard with Non-backlash Gear.
	Revision Order	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.

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
		В	1/11
		С	1/21

Letters	Items	(Group)	Shaft Type
g	Shaft Type	Ö	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
		В	With Brake (90V)
		С	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)
а	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]
С	Power Supply	Α	200
	for Servo amp	D	400

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Letters	Items	(Group)	Encoder Type Product Service
d	Encoder	С	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
		Р	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
е	Design	Α	For Global, Standard.
	Revision	С	For China, Standard.
	Order	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.
	ļ	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.
		lκн ∣	For Global, with non-backlash gear. Rating specifications, IP specifications, encoder
			and/or connector are changed for standard.
		Υ	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
		ļ	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	A-Z or	-
i	For Customer	0-9	

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2-2. SGM7J MODEL 1)Standard SGM7J - 01 A D A 2 1 a b c d e f g

Letters	Items	(Group)	
а	Motor type	SGM7J	

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
		15	1500

Letters	Items	(Group)	Power Supply Voltages
C	Power Supply	Α	200 [V <sub>ms</sub> ]
	for Servo amp	D	400 [V <sub>rrss</sub> ]
		E	48 [V <sub>DC</sub> ]

Letters	Items	(Group)	Encoder Type
d	Encoder	С	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
		Р	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
			22bit Serial Absolute Value
		S	20bit Serial Absolute Value High Speed
		6	24bit Serial Batteryless Absolute Value

Letters	Items	(Group)	Design Revision Order
е	Design Revision Order	Α	For Global, Standard.
		С	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)
		В	Straight (with double flat key seat)
		S	Straight (without keyway(φ6 or φ16))
		K	Straight (with keyway and tapped hole(φ6 or φ16))

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

A1 / 04.11

# Attachment EGA 47.0

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2) With Gear

Letters	Items	(Group)	
а	Motor type	SGM7J	

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
		15	1500

Letters	Items	(Group)	Power Supply Voltages
С	Power Supply	Α	200 [V <sub>ms</sub> ]
	for Servo amp	D	400 [V <sub>ms</sub> ]
		E	48 [V <sub>DC</sub> ]

Letters	Items	(Group)	Encoder Type
d	Encoder	С	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
		Р	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

Letters	Items	(Group)	Design Revision Order
е	Design Revision A		For Global, Standard with Non-backlash Gear
	Order	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
		В	1/11
		С	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	1	Without Option
	Specifications	В	With Brake (90V)
		С	With Brake (24V)

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3) Exclusive Design for Customer

<u>SGM7J - 01 A D AH - \* \* \* \* \* </u>
a b c d e f g h i

Letters	Items	(Group)	
а	Motor type	SGM7J	

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
		15	1500

Letters	Items	(Group)	Power Supply Voltages
С	Power Supply	Α	200 [V <sub>ms</sub> ]
	for Servo amp	D	400 [V <sub>ms</sub> ]
		Е	48 [V <sub>DC</sub> ]

Letters	Items	(Group)	Encoder Type
d	Encoder	С	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
		Р	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
		1	22bit Serial Absolute Value
		S	20bit Serial Absolute Value High Speed
		6	24bit Serial Batteryless Absolute Value

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[ L -44	T #4	(0)	Product Service
Letters	Items	(Group)	Design Revision Order
е	Design	A	For Global, Standard.
	Revision	С	For China, Standard with cables.
	Order	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.
İ		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,
		IXI I	encoder and/or connector are changed for standard.
		Υ	For China,
		•	Winding and the characteristic differ from a standard. Output is the same as a standard.
		ΥH	For China, With non-backlash gear.
		111	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.
			For Global(outside Japan), With non-backlash gear.
		ZH	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	•
İ			

# Attachment Certificate No. **E6A 17 05 22021 722**



2-3. SGM7G MODEL 1)Standard SGM7G - 03 A F A 2

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

Letters	Items	(Group)	
а	Motor type	SGM7G	

Letters	Items	(Group)	Rated Output[kW]	
b	Motor Output	-	Rated Speed 1500 min <sup>-1</sup>	Rated Speed 1000 min <sup>-1</sup>
		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	Α	200
	for Servo amp	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			
		Р	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			
		1	22bit Serial Absolute Value			
		S	20bit Serial Absolute Value High Speed			
		6	24bit Serial Batteryless Absolute Value			

Letters	Items	(Group)	Design Revision Order
е	Design	Α	For Global, the Standard type. Rated Speed 1500min <sup>-1</sup> .
	Revision	С	For China, output is the same as A type.
	Order	D	For Global(outside Japan), output is the same as A type.
		В	For Global, the Associate Standard type. Rated Speed 1000min <sup>-1</sup> .
		Н	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.
		Р	For Global(outside Japan), output and frame size are the same as L type.
ļ		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.
		Ŕ	Output is the same as A type. The max speed 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)
1		5	1/10 Conical shaft ends, With Woodruff Key
İ		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
		В	With Brake (90V)
		С	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)
		Н	With oil seal (V type) and with Brake (24V)

Letters	Items	(Group)	Optional Specifications
h	Design of connection	Blank	Standard
		В	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
е	Design	Α	For Global, the Standard type. Rated Speed 1500min <sup>-1</sup> .
	Revision C		For China, output is the same as A type.
	Order	D	For Global(outside Japan), output is the same as A type.
		В	For Global, the Associate Standard type. Rated Speed 1000min <sup>-1</sup> .
		Н	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.
		Р	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.
		Τ	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.
		Υ	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.

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

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

3) Exclusive Design for Customer (case 2)

<u>SGM7G</u> - <u>03</u> <u>A</u> <u>F</u> <u>A</u> <u>2</u> <u>1</u> <u>D</u>-\* \* \* a b c d e f g h i j

a to h. same as standard

Letters	Items	(Group)	Customer Code	
Li	Customer Code	A-Z	-	
Letters	Items	(Group)	Design Revision Order For Customer	

 Letters
 Items
 (Group)
 Design Revision Order For Customer

 j
 Design Revision Order For Customer
 A-Z or For Customer

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
1	Reduction Ratio	1	1/5
	(Low-backlash Gear)	2	1/9
		5	1/20
		7	1/29
		8	1/45
	Reduction Ratio	Α	1/6
	(Standard Backlash Gear)	В	1/11
		С	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
]		В	With Brake (90V)
		С	With Brake (24V)

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5) Exclusive Design for Customer with Gear

<u>SGM7G - 03 A F A H - \* \* \* \* \* \* \* a b c d e k f g h i </u>

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)
		Н	Low-backlash gear

Letters	Items	(Group)	Customer Code
f	Customer Code	A-Z	-
9			

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

2-4. SGM7P MODEL
1)Standard
SGM7P - 01 A D A 2 1
a b c d e f g

I	.etters	Items	(Group)	
1 8	)	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	Α	200	
	for Servo amp			

Letters	Items	(Group)	Encoder Type
d	Encoder	С	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
		Р	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
е	Design Revision Order	Α	For Global, Standard.
		E	For Global, IP67
		D	For Global(outside Japan), Standard.
	1	J	For Global(outside Japan), IP67.

# Certificate No. **E6A 17 05 22021 722**



Letters	Items	(Group)	Shaft Type Product Service
f	Shaft Type	2	Straight (without keyway)
		4	Straight (with keyway)
į.		6	Straight (with keyway and tapped hole)
		8	Straight (tapped hole)
İ		Α	Straight (with single flat key seat)
		В	Straight (with double flat key seat)

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

Letters	Items	(Group)				Optional Spe	ecifications
		Lead wire length					
		300mm	500 mm	1000 mm	1500 mm	<b>"</b>	
g	Optional	1	1H	1J	1K	Standard	without option
(750,	Specifications	С	СН	CJ	CK	Drip- proofed connector	with brake(24V)
1500W)		S	SH	SJ	SK		with shaft seal
		E	EH	EJ	EK		with brake(24V) and shaft seal
		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 shaft seal

2) With Gear

Letters	Items	(Group)	
а	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]
- 0	c	Power Supply	Α	200
		for Servo amp		

Letters	Items	(Group)	Encoder Type
d	Encoder	С	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
		Р	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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			Product Service
Letters	Items	(Group)	Design Revision Order
е	Design Revision Order	AH	For Global, Standard with Non-backlash Gear.
		DH	For Global(outside Japan) with Non-backlash Gear.
			1

Letters	Items	(Group)	Reduction Ratio
f	Reduction Ratio	1	1/5
		2	1/9
		7	1/33
		В	1/11
		С	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	Optional Specifications	1	Without Option
to 400W)		С	With Brake (24V)

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

#### 3) Exclusive Design for Customer

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)
С	Power Supply	A	200
	for Servo amp		

# Certificate No. **E6A 17 05 22021 722**



Letters	Items	(Group)	Encoder Type Product Service
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
		Р	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	Α	For Global, Standard.
	Revision	AH	For Global, Standard with Non-backlash Gear
	Order	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.	
		К	For Global, Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		КН	For Global, with non-backlash gear. Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		Υ	For China, Winding and the characteristic differ from a standard. Output is the same as a standard.
		ΥH	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	A-Z or	-
i	For Customer	0-9	