



Product Service

# CERTIFICATE

No. B 16 11 22021 693

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

480 Kamifujisawa, Iruma  
Saitama 358-8555  
JAPAN

**Production Facility(ies):** 42802, 48921, 38663, 77204, 23987

**Certification Mark:**



**Product:** AC Servo Systems  
Built-in AC Servo Amplifiers

**Model(s):** SGD7S, SGD7W, SGD7C [Model of Sigma-7 series]  
JPMC-OP3C01-E [Optional Base Unit]  
(See Attachment for Nomenclature)

**Parameters:**

Rated voltage:	AC 200-240 V	
Rated frequency:	50/60 Hz	
Rated input current:	200 Vac,	200 V3ac
	0.8 A-16 A,	0.4 A-73 A
Rated input current for Optional Base unit:	24 Vdc; 0.8 A	
Protection class:	I	
Overvoltage category:	III	
Pollution degree:	2	
Degree of protection against liquids:	IP 10 / IP 20	

**Remark:**  
When installing / inserting the equipment, all requirements of the mentioned test standard must be fulfilled.

**Tested according to:** EN 61800-5-1:2007  
EN 50178:1997

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.:** 73546901-07  
**Valid until:** 2021-11-08

**Date,** 2016-11-28 (Yoshio Sato)

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## Nomenclature

### 1. Standard Spec., Hardware Option Spec., EX Spec. and FT Spec.

SGD7\*-      \*\*\*      \*      \*\*      \*      \*\*\*      \*      \*\*      \*  
**A**            **B**            **C**            **D**            **E**            **F**            **G**            **H**            **I**

Ex:      Standard spec.                      SGD7\*- \*\*\* \* \* \* \*  
          Hardware Option Spec.            SGD7\*- \*\*\* \* \* \* \* \* \* \*  
          EX Spec.                                SGD7\*- \*\*\* \* \* \* \* \* \* \* E \* \* \*  
          FT Spec.                                SGD7\*- \*\*\* \* \* \* \* \* \* \* F \* \* \*

A: Model

Group	Model	Note
SGD7S	Sigma-7 series SERVOPACK Sigma-7S model	Control of 1 axis
SGD7W	Sigma-7 series SERVOPACK Sigma-7W model	Control of 2 axes
SGD7C	Sigma-7 series SERVOPACK Sigma-7C model	Control of 2 axes

B+C: Continuous Output Current Type for SGD7S

Group	Rated input power			Rated output power		Note
	Input voltage	Number of phase	Input current	Output current	Output power	
R70 A	AC200V	Three	0.4[A]	0.66[A]	0.05kW	
		Single	0.8[A]			
R90 A		Three	0.8[A]	0.91[A]	0.1kW	
		Single	1.6[A]			
1R6 A		Three	1.3[A]	1.6[A]	0.2kW	
		Single	2.4[A]			
2R8 A		Three	2.5[A]	2.8[A]	0.4kW	
		Single	5.0[A]			
3R8 A		Three	3.0[A]	3.8[A]	0.5kW	
5R5 A		Three	4.1[A]	5.5[A]	0.75kW	
		Single	8.7[A]			
7R6 A		Three	5.7[A]	7.6[A]	1.0kW	
120 A		Three	7.3[A]	11.6[A]	1.5kW	
		Single	16[A]			
180 A		Three	10[A]	18.5[A]	2.0kW	
200 A		Three	15[A]	19.6[A]	3.0kW	
330 A		Three	25[A]	32.9[A]	5 kW	
470 A		Three	29[A]	46.9[A]	6 kW	
550 A		Three	37[A]	54.7[A]	7.5 kW	
590 A		Three	54[A]	58.6[A]	11 kW	
780 A		Three	73[A]	78.0[A]	15 kW	

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B+C: Continuous Output Current Type for SGD7W and SGD7C

Group	Rated input power			Rated output power at 1-axis		Note
	Input voltage	Output current	Output current	Output current	Output power	
1R6 A	AC200V	Three	2.5[A]	1.6[A]	0.2kW	
		Single	5.5[A]			
2R8 A		Three	4.7[A]	2.8[A]	0.4kW	
		Single	11[A]			
5R5 A		Three	7.8[A]	5.5[A]	0.75kW	
		Single	12[A]			
7R6 A	Three	11[A]	7.6[A]	1.0kW		

C: Rated Input/Output Voltage Type

Group	Rated Voltage Type		Note
	Input Voltage	Output Voltage	
A	200V3ac,ac	200V3ac	--

D: Interface Type

Group	Interface Type	Note
20	MECHATROLINK-III I/F	Sigma-7W model only.
30	MECHATROLINK-III(RJ45) I/F	--
MA	BUS I/F (Standard)	Sigma-7C model only.

E: Design Order

Group	Design Order	Note
A	Standard	--

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F: Hardware Option Type

Group	Hardware Option Type	Note
Blank	Standard	Sigma-7W and Sigma-7C model standard specification only.
000	Standard	In case of Sigma-7W and Sigma-7C model software option only.
001	Rack mount type	Sigma-7W and Sigma-7C model only.
002	Vanish coating	
004	Measures for vibration	
010	Open collector output of Encoder pulse	
020	External DB resistor type or Without DB	
021	DI power supply DC12V	
022	Zone output	
023	Analog Voltage FB input type	
024	Group# 002 and 020	
025	Group# 001 and 023	
027	Group# 020 and 021	
031	Group# 002 and 023	
032	Group# 001 and 002	
100	Pulse encoder interface and analog input for Thermistor on CN9. CN8(Safety Connector) eliminated.	
101	Group# 100 and 001	SGD7S-***A30A only.
102	Group# 100 and 002	SGD7S-***A30A only.
104	Group# 100 and 004	SGD7S-***A30A only.
108	Group# 100 and 200Vac(Single phase) input type	SGD7S-120A30A only.
110	Group# 100 and 010	SGD7S-***A30A only.
120	Group# 100 and 020	SGD7S-***A30A only.
121	Group# 100 and 021	SGD7S-***A30A only.
122	Group# 100 and 022	SGD7S-***A30A only.
124	Group# 100 and 024	SGD7S-***A30A only.

G: Specification Type

Group	Specification Type	Note
Blank	Standard or Hardware Option Spec.	--
0	BTO order	For Standard spec. and Hardware Option Spec.
E	EX specification	--
F	FT specification	--

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## G+H: Software Option Type

Group	Difference from Standard		Note
	Hardware	Software	
Blank	Same	Same	Standard or Hardware Option Spec. only.
000	Same or Diff.	Same	BTO order for Standard spec. and Hardware Option Spec
E**	Same or Diff.	Diff.	Except E9* and F9*. (see Note.1)
F**	Same or Diff.	Diff.	Customized for non-safety related Software. Hardware is defines of "Hardware Option Type".

Note.1: E9\* and F9\* are customized the safety related Software.

## I: Order Type

Group	Order Type	Note
Blank	Standard order	--
B	BTO order	--



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## 2. Y Spec.

**SGD7\*-**  
**A**      **\*\*\***  
**B**      **\***  
**C**      **\*\***  
**D**      **\***  
**E**      **Y**  
**F**      **\*\*\*\*\***  
**G**

Ex: Y spec.                      SGD7\*- \*\*\* \* \* \* Y \*\*\*\*\*

A: Model

Group	Model	Note
SGD7W	Sigma-7 series SERVOPACK Sigma-7W model	Control of 2 axes
SGD7C	Sigma-7 series SERVOPACK Sigma-7C model	Control of 2 axes

B+C: Continuous Output Current Type for SGD7S

Group	Rated input power			Rated output power		Note
	Input voltage	Number of phase	Input current	Output current	Output power	
R70 A	AC200V	Three	0.4[A]	0.66[A]	0.05kW	
		Single	0.8[A]			
R90 A		Three	0.8[A]	0.91[A]	0.1kW	
		Single	1.6[A]			
1R6 A		Three	1.3[A]	1.6[A]	0.2kW	
		Single	2.4[A]			
2R8 A		Three	2.5[A]	2.8[A]	0.4kW	
		Single	5.0[A]			
3R8 A		Three	3.0[A]	3.8[A]	0.5kW	
5R5 A		Three	4.1[A]	5.5[A]	0.75kW	
		Single	8.7[A]			
7R6 A		Three	5.7[A]	7.6[A]	1.0kW	
120 A		Three	7.3[A]	11.6[A]	1.5kW	
		Single	16[A]			
180 A		Three	10[A]	18.5[A]	2.0kW	
200 A		Three	15[A]	19.6[A]	3.0kW	
330 A		Three	25[A]	32.9[A]	5 kW	
470 A		Three	29[A]	46.9[A]	6 kW	
550 A		Three	37[A]	54.7[A]	7.5 kW	
590 A		Three	54[A]	58.6[A]	11 kW	
780 A		Three	73[A]	78.0[A]	15 kW	

B+C: Continuous Output Current Type for SGD7W and SGD7C

Group	Rated input power			Rated output power at 1-axis		Note
	Input voltage	Output current	Output current	Output current	Output power	
1R6 A	AC200V	Three	2.5[A]	1.6[A]	0.2kW	
		Single	5.5[A]			
2R8 A		Three	4.7[A]	2.8[A]	0.4kW	
		Single	11[A]			
5R5 A		Three	7.8[A]	5.5[A]	0.75kW	
		Single	12[A]			
7R6 A		Three	11[A]	7.6[A]	1.0kW	

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### C: Rated Input/Output Voltage Type

Group	Rated Voltage Type		Note
	Input Voltage	Output Voltage	
A	200V3ac	200V3ac	--

### D: Interface Type

Group	Interface Type	Note
20	MECHATROLINK-III I/F	--
30	MECHATROLINK-III(RJ45) I/F	--
MA	BUS I/F (Standard)	Sigma-7C model only.

### E: Design Order

Group	Design Order	Note
A	Standard	--

### F: Specification Type

Group	Specification Type	Note
Y	Y Specification	--

### F+G: Y Specification Type

Group	Difference from Standard		Note
	Hardware	Software	
Y*5***	Same	Diff.	--
Y*6***	Same	Diff.	--
Y*7***	Same	Diff.	Customized for non-safety related Software.
Y*8***	Same	Diff.	--
Y*9***	Same	Diff.	--

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**3. Option Base Unit**

JEPMC-      \*\*      \*\*      \*\*      \*\*\*      -E  
**A**            **B**            **C**            **D**            **E**            **F**

A: Family

Group	Family	Note
JEPMC-	A unit of Machine controller	Sigma-7C is possible to install the optional unit of the machine controller.

B: Unit Type

Group	Unit Type	Note
OP	Optional Unit	

C: Compatible Products Type

Group	Compatible Products Type	Note
3C	for Sigma-7-Series AC Servo Drive (Sigma-7C model)	

D: Model-Specific code

Group	Model-Specific code	Note
01	1 slot Base Unit	

E: for Special Customer code

Group	for Special Customer code	Note
Blank	Standard	
Y** T** N G	for Special Customer (**:Number)	Y**: (**:Number from 0 to 99) T**: (**:Number from 0 to 99) Blank means standard.

F: for RoHS

Group	for RoHS	Note
-E	RoHS Compliance	