



Product Service

# EU-Type Examination Certificate

No. E6A 17 06 22021 729

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

480 Kamifujisawa, Iruma  
Saitama 358-8555  
JAPAN

**Product:** AC Servo Systems  
AC Servo Amplifier "SERVOPACK"

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.:** 73565836



**Date,** 2017-06-16

( 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.

Page 1 of 10



**EU-Type Examination Certificate**  
**No. E6A 17 06 22021 729**

**Model(s):**

**Sigma-7 Series**  
**Sigma-7S model**  
**SGD7S-\*\*\*\*\*A\*\*\*\*\* , SGD7S-\*\*\*\*\*AY\*\*\*\*\* ,**  
**SGD7S-\*\*\*D\*\*B\*\*\*\*\* , SGD7S-\*\*\*D\*\*BY\*\*\*\*\* ,**  
**SGD7S-\*\*\*F\*\*A\*\*\*\*\* , SGD7S-\*\*\*F\*\*AY\*\*\*\*\***  
**Sigma-7W model**  
**SGD7W-\*\*\*\*\*A\*\*\*\*\* , SGD7W-\*\*\*\*\*AY\*\*\*\*\* ,**  
**SGD7W-\*\*\*D\*\*B\*\*\*\*\* , SGD7W-\*\*\*D\*\*BY\*\*\*\*\***  
**Sigma-7C model**  
**SGD7C-\*\*\*\*\*A\*\*\*\*\* , SGD7C-\*\*\*\*\*AY\*\*\*\*\***  
**Option Base Unit**  
**JEPMC-OP3C01\*\*\*-E**  
**(See Attachment for Nomenclature)**

**Description of Object:**

Rated Voltage: 100 VAC(1 Phase),  
 200 VAC(1 Phase, 3 Phase),  
 400 VAC(3 Phase)  
 24 VDC (JEPMC-OP3C01\*\*\*-E)  
 Rated Power: 0.05 kW - 15 kW  
 Rated Frequency: 50 Hz  
 Protection Class: I  
 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



**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

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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 F	AC100V	Single	1.5[A]	0.66[A]	0.05kW	
R90 F		Single	2.5[A]	0.91[A]	0.1kW	
2R1 F		Single	5[A]	2.1[A]	0.2kW	
2R8 F		Single	10[A]	2.8[A]	0.4kW	
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]	5kW	
470 A		Three	29[A]	46.9[A]	6kW	
550 A		Three	37[A]	54.7[A]	7.5kW	
590 A		Three	54[A]	58.6[A]	11kW	
780 A	Three	73[A]	78.0[A]	15kW		
1R9 D	AC400V	Three	1.4[A]	1.9 [A]	0.5kW	
3R5 D		Three	2.9[A]	3.5 [A]	1.0kW	
5R4 D		Three	4.3[A]	5.4 [A]	1.5kW	
8R4 D		Three	5.8[A]	8.4 [A]	2.0kW	
120 D		Three	8.6[A]	11.9 [A]	3.0kW	
170 D		Three	14.5[A]	16.0[A]	5.0kW	
210 D		Three	17.4[A]	20.8[A]	6.0kW	
260 D		Three	21.7[A]	25.7[A]	7.5kW	
280 D		Three	31.8[A]	28.1[A]	11kW	
370 D		Three	43.4[A]	37.2[A]	15kW	

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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		
2R6 D	AC400V	Three	4.4[A]	2.6[A]	0.75kW	
5R4 D		Three	8.6[A]	5.4[A]	1.5kW	

C: Rated Input/Output Voltage Type

Group	Rated Voltage Type		Note
	Input Voltage	Output Voltage	
A	200V3ac,ac	200V3ac	
D	400V3ac	400V3ac	
F	100Vac	200V3ac	

D: Interface Type

Group	Interface Type	Note
00	Analog & Pulse I/F	Sigma-7S model only.
10	MECHATROLINK-II I/F	Sigma-7S model only.
20	MECHATROLINK-III I/F	
30	MECHATROLINK-III(RJ45) I/F	
A0	EtherCAT I/F	Sigma-7S model and Sigma-7W model 400V input only
E0	Command Option I/F	Sigma-7S model only.
MA	BUS I/F (Standard)	Sigma-7C model only.
M0	Sigma-7Siec I/F	SGD7S-xxxxA0x based with PLC function
Q0	SigmaLogic 7 Compact I/F	SGD7S-xxxxA0x based with Ethernet/IP protocol
R0	SigmaLogic 7 Modbus I/F	SGD7S-xxxxA0x based with Modbus protocol (General protocol)

E: Design Order

Group	Design Order	Note
A	Standard	
B	Standard	AC400V input only.



F: Hardware Option Type

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Group	Hardware Option Type	Note
Blank	Standard	Standard specification only.
000	Standard	In case of Software Option only.
001	Rack mount type	
002	Vanish coating	
004	Measures for vibration	
008	200Vac(Single phase) input type	SGD7S-120A**A only.
00A	Group# 002 and 008	
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	
026	Add the Holding Break(SBC) function	Voltage type D only.
027	Group# 020 and 021	
030	Group# 008 and 022	SGD7S-120A**A only.
031	Group# 002 and 023	
032	Group# 001 and 002 and 023	
033	Group# 002 and 008 and 023	SGD7S-120A**A only.
034	Group# 008 and 020	SGD7S-120A**A only.
035	Group# 020 and 022	
100	Pulse encoder interface and analog input for Thermistor on CN9. CN8(Safety Connector) eliminated.	SGD7S-***A30A only.
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 008	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.
700	Add the HWBB(STO) function	Sigma-7W and Sigma-7C model only.
701	Group# 001 and 700	
702	Group# 002 and 700	
704	Group# 004 and 700	
70A	Group# 00A and 700	
710	Group# 010 and 700	
720	Group# 020 and 700	
721	Group# 021 and 700	
722	Group# 022 and 700	
723	Group# 023 and 700	
724	Group# 024 and 700	
725	Group# 025 and 700	
727	Group# 027 and 700	
731	Group# 031 and 700	
732	Group# 032 and 700	



G: Specification Type

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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	

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.	Customised 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	



2. Y Spec.

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

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

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 F	AC100V	Single	1.5[A]	0.66[A]	0.05kW	
R90 F		Single	2.5[A]	0.91[A]	0.1kW	
2R1 F		Single	5[A]	2.1[A]	0.2kW	
2R8 F		Single	10[A]	2.8[A]	0.4kW	
R70 A		AC200V	Three	0.4[A]	0.66[A]	0.05kW
R90 A	Single		0.8[A]	0.91[A]	0.1kW	
	Three		0.8[A]			
1R6 A	Single		1.6[A]	1.6[A]	0.2kW	
	Three		1.3[A]			
2R8 A	Single		2.4[A]	2.8[A]	0.4kW	
	Three		2.5[A]			
3R8 A	Single		5.0[A]	3.8[A]	0.5kW	
	Three		3.0[A]			
5R5 A	Single		8.7[A]	5.5[A]	0.75kW	
	Three		4.1[A]			
7R6 A	Single		16[A]	7.6[A]	1.0kW	
	Three		5.7[A]			
120 A	Single		16[A]	11.6[A]	1.5kW	
	Three		7.3[A]			
180 A	Single		16[A]	18.5[A]	2.0kW	
	Three		10[A]			
200 A	Single	16[A]	19.6[A]	3.0kW		
	Three	15[A]				
330 A	Single	16[A]	32.9[A]	5kW		
	Three	25[A]				
470 A	Single	16[A]	46.9[A]	6kW		
	Three	29[A]				
550 A	Single	16[A]	54.7[A]	7.5kW		
	Three	37[A]				
590 A	Single	16[A]	58.6[A]	11kW		
	Three	54[A]				
780 A	Single	16[A]	78.0[A]	15kW		
	Three	73[A]				
1R9 D	AC400V	Three	1.4[A]	1.9 [A]	0.5kW	
3R5 D		Three	2.9[A]	3.5 [A]	1.0kW	
5R4 D		Three	4.3[A]	5.4 [A]	1.5kW	
8R4 D		Three	5.8[A]	8.4 [A]	2.0kW	
120 D		Three	8.6[A]	11.9 [A]	3.0kW	
170 D		Three	14.5[A]	16.0[A]	5.0kW	
210 D		Three	17.4[A]	20.8[A]	6.0kW	
260 D		Three	21.7[A]	25.7[A]	7.5kW	
280 D		Three	31.8[A]	28.1[A]	11kW	
370 D		Three	43.4[A]	37.2[A]	15kW	

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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		
2R6 D	AC400V	Three	4.4[A]	2.6[A]	0.75kW	
5R4 D		Three	8.6[A]	5.4[A]	1.5kW	

C: Rated Input/Output Voltage Type

Group	Rated Voltage Type		Note
	Input Voltage	Output Voltage	
A	200V3ac	200V3ac	
D	400V3ac	400V3ac	
F	100Vac	200V3ac	

D: Interface Type

Group	Interface Type	Note
00	Analog & Pulse I/F	Sigma-7S model only.
10	MECHATROLINK-II I/F	Sigma-7S model only.
20	MECHATROLINK-III I/F	
30	MECHATROLINK-III(RJ45) I/F	
A0	EtherCAT I/F	Sigma-7S model and Sigma-7W model 400V input only
E0	Command Option I/F	Sigma-7S model only.
MA	BUS I/F (Standard)	Sigma-7C model only.
M0	Sigma-7Siec I/F	SGD7S-xxxxA0x based with PLC function
Q0	SigmaLogic 7 Compact I/F	SGD7S-xxxxA0x based with Ethernet/IP protocol
R0	SigmaLogic 7 Modbus I/F	SGD7S-xxxxA0x based with Modbus protocol (General protocol)

E: Design Order

Group	Design Order	Note
A	Standard	
B	Standard	400V input only.

F: Specification Type

Group	Specification Type	Note
Y	Y Specification	



F+G: Y Specification Type

Group	Difference from Standard		Note
	Hardware	Software	
Y0400*	Diff.	Diff.	Customised for the case.
Y*5***	Same	Diff.	Customised for non-safety related parameters and software. The combination of this model and Safety module is not possible.
Y*6***	Same	Diff.	Customised for non-safety related parameters and software. The combination of this model and Safety module is possible.
Y*7***	Same	Diff.	Customised for non-safety related parameters and software. The combination of this model and Safety module is not possible.
Y*8***	Same	Diff.	Customised for non-safety related parameters and software. The combination of this model and Safety module is not possible.
Y*9***	Same	Diff.	Customised for non-safety related parameters and software. The combination of this model and Safety module is not possible.

3. Option Base Unit  
Option Base Unit for Sigma-7C model

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	

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