



Product Service

# CERTIFICATE

No. B 022021 0796 Rev. 01

**Holder of Certificate:** Yaskawa Electric Corp.  
**Tokyo Plant**  
480 Kamifujisawa, Iruma  
Saitama 358-8555  
JAPAN

**Certification Mark:**



**Product:** Servo Amplifier System  
AC Servo Amplifiers

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. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: [www.tuvsud.com/ps-cert](http://www.tuvsud.com/ps-cert)

**Test report no.:** 73515083-10

**Valid until:** 2027-03-31

**Date,** 2023-02-27

( Atsushi Nishino )

# CERTIFICATE

No. B 022021 0796 Rev. 01

Model(s): **SGDV-\*\*\*\*\*A\*\*\*\*\***, **SGDV-\*\*\*\*\*A-OY\*\*\*\*\***,  
**SGDV-\*\*\*\*\*AY\*\*\*\*\***

## 1. Nomenclature for standard models

SGDV-    \*\*\*    \*    \*\*    \*    \*\*\*    \*\*    \*  
          A     B     C     D     E     F     G     H

A SGDV  $\Sigma$ -V Series SGD Servopack

B Output current:

Group	Continuous Output current (A)	Input Voltage	Output Voltage
R70	0,66	200V3ac, ac	200V3ac
R90	0,91		
1R6	1,6		
2R8	2,8		
3R8	3,8		
5R5	5,5		
7R6	7,6	200V3ac	200V3ac
120	11,6	200V3ac, ac	
180	18,5	200V3ac	
200	19,6		
330	32,9		
1R9	1,9	400V3ac	
3R5	3,5		
5R4	5,4		
8R4	8,4		
120	11,9		
170	16,5		
R70	0,66	100Vac	200V3ac
R90	0,91		
2R1	2,1		
2R8	2,8		

C Rated Input Voltage/Output voltage

A: 200V3ac, ac/200V3ac

D: 400V3ac/400V3ac

F: 100Vac/200V3ac

D Interface

Group	Model	Difference
01	Analogue/Pulse I/F, for Rotary motor	Control board is Analogue/Pulse I/F, Software is for Analogue/Pulse I/F, Rotary motor

# CERTIFICATE

No. B 022021 0796 Rev. 01

05	Analogue/Pulse I/F, for Linear motor	Hardware is exactly same as 01 type. Software is changed from 01 type for Linear motor
11	MECHATROLINK I/F, for Rotary motor	Control board is MECHATROLINK I/F, Software is for MECHATROLINK I/F, Rotary motor
15	MECHATROLINK I/F, for Linear motor	Hardware is exactly same as 11 type. Software is changed from 11 type for Linear motor.

E Design order

A: Standard

F Option of hardware:

Group	Option Specification of hard ware		
	Structure (Hardware)	Board coating (Varnish)	Measures for vibration
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Blank	Standard	Not handle	Not handle
000	Standard	Not handle	Not handle
001	Rack mount type	Not handle	Not handle
002	Standard	Handle	Not handle
003	=001+002	Handle	Not handle
004	Standard	Not handle	Handle
005	=001+004	Not handle	Handle
006	=002+004	Handle	Handle
007	=001+002+004	Handle	Handle
008	AC 200Vac input type	Not handle	Not handle
009	=001+008	Not handle	Not handle
00A	=002+008	Handle	Not handle
00B	=001+002+008	Handle	Not handle
00C	=004+008	Not handle	Handle
00D	=001+004+008	Not handle	Handle
00E	=002+004+008	Handle	Handle
00F	=001+002+004+008	Handle	Handle
010	Open collector pulse output signal type	Not handle	Not handle
011	=001+010	Not handle	Not handle
012	=002+010	Handle	Not handle
013	=001+002+010	Handle	Not handle
014	=004+010	Not handle	Handle
015	=001+004+010	Not handle	Handle
016	=002+004+010	Handle	Handle
017	=001+002+004+010	Handle	Handle
018	=008+010	Not handle	Not handle
019	=001+008+010	Not handle	Not handle
01A	=002+008+010	Handle	Not handle

# CERTIFICATE

No. B 022021 0796 Rev. 01

01B	=001+002+008+010	Handle	Not handle
01C	=004+008+010	Not handle	Handle
01D	=001+004+008+010	Not handle	Handle
01E	=002+004+008+010	Handle	Handle
01F	=001+002+004+008+010	Handle	Handle
020	External DB resistor type or without DB type	Not handle	Not handle
021	=001+020	Not handle	Not handle
022	=002+020	Handle	Not handle
023	=001+002+020	Handle	Not handle
024	=004+020	Not handle	Handle
025	=001+002+020	Not handle	Handle
026	=002+004+020	Handle	Handle
027	=001+002+004+020	Handle	Handle
028	=008+020	Not handle	Not handle
029	=001+008+020	Not handle	Not handle
02A	=002+008+020	Handle	Not handle
02B	=001+002+008+020	Handle	Not handle
02C	=004+008+020	Not handle	Handle
02D	=001+004+008+020	Not handle	Handle
02E	=002+004+008+020	Handle	Handle
02F	=001+002+004+008+020	Handle	Handle
030	=010+020	Not handle	Not handle
031	=001+010+020	Not handle	Not handle
032	=002+010+020	Handle	Not handle
033	=001+002+010+020	Handle	Not handle
034	=004+010+020	Not handle	Handle
035	=001+004+010+020	Not handle	Handle
036	=002+004+010+020	Handle	Handle
037	=001+002+004+010+020	Handle	Handle
038	=008+010+020	Not handle	Not handle
039	=001+008+010+020	Not handle	Not handle
03A	=002+008+010+020	Handle	Not handle
03B	=001+002+008+010+020	Handle	Not handle
03C	=004+008+010+020	Not handle	Handle
03D	=001+004+008+010+020	Not handle	Handle
03E	=002+004+008+010+020	Handle	Handle
03F	=001+002+004+008+010+020	Handle	Handle

# CERTIFICATE

No. B 022021 0796 Rev. 01

G Option for Software:

Group	Option Specification of software	Difference from standard model
Blank	Standard.	--
00	Standard.	Hardware and/or parameters are changed.
01	Internal setting speed a change of 15 steps.	Specification into the number of the speed tables of the internal parameter which can be set as a servopack was changed from three steps in 15 steps.
02	The functional addition of absolute value encoder initialization by the contact input signal from the outside	Specification, which could be made to perform initialization operation of the absolute value encoder with an I/O signal without connecting an external operation.
03	Speed limit detection functional addition.	Speed limit detection function addition.
04	Instruction input disconnection functional addition.	Specification, which added the function, which detects disconnections and is used as alarm when wiring of the instruction input from a controller is disconnected.
05	The Mitsubishi PLC correspondence and the Mitsubishi specification absolute value data-processing correspondence.	Specification, which changed I/F according to Mitsubishi PLC.
06	C phase pulse zero return functional addition	Specification, which added the zero return function which uses C-Phase pulse.
07	F47 standard correspondence.	Specification, to which soft processing required for the measures against the power failure specified by F47 standard was added.

H Option for parameter:

Group	Option specification of parameter setting	Difference from standard model
Blank	Standard	--
0	Standard	--

# CERTIFICATE

No. B 022021 0796 Rev. 01

## 2. Nomenclature for OY

SGDV-    \*\*    \*    \*\*    \*    -OY    \*\*\*\*\*  
 A        B        C        D        E        F        G

A SGD V  $\Sigma$ -V Series SGD V Servopack

B Output current:

Group	Relation-ship with standard group	Continuous Output current (A)	Input Voltage	Output voltage
A5	R70	0,66	200V3ac, ac	200V3ac
01	R90	0,91		
02	1R6	1,6		
04	2R8	2,8		
05	3R8	3,8		
08	5R5	5,5		
15	120	11,6	400V3ac	400V3ac
05	1R9	1,9		
10	3R8	3,5		
15	5R4	5,4		
20	8R4	8,4		
30	120	11,9		
50	170	16,5		

Notes:

For OY models, at the column B has 2 digit, but standard models have 3 digits to indicate output current.

C Rated Voltage

A: 200V3ac, ac/200V3ac

D: 400V3ac/400V3ac

D Interface:

Group	Model	Difference
01	Analogue/Pulse I/F, for Rotary motor	Control board is Analogue/Pulse I/F, Software is for Analogue/Pulse I/F, Rotary motor
05	Analogue/Pulse I/F, for Linear motor	Hardware is exactly same as 01 type. Software is changed from 01 type for Linear motor
11	MECHATROLINK I/F, for Rotary motor	Control board is MECHATROLINK I/F, Software is for MECHATROLINK I/F, Rotary motor
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E Design order

A: Standard



# CERTIFICATE

No. B 022021 0796 Rev. 01

F: -OY, OMRON Yaskawa Bland

G: Option specification

Blank: Standard Model

008000: AC 200V single phase input type

# CERTIFICATE

No. B 022021 0796 Rev. 01

## 3. Nomenclature for Y-Specification

$\frac{\text{SGDV-}}{\text{A}}$      $\frac{\text{***}}{\text{B}}$      $\frac{\text{*}}{\text{C}}$      $\frac{\text{**}}{\text{D}}$      $\frac{\text{*}}{\text{E}}$      $\frac{\text{Y*****}}{\text{F}}$

A SGDV  $\Sigma$ -V Series SGD Servopack

B Output current:

Group	Continuous Output current (A)	Input Voltage	Output Voltage
R70	0,66	200V3ac, ac	200V3ac
R90	0,91		
1R6	1,6		
2R8	2,8		
3R8	3,8		
5R5	5,5		
7R6	7,6		
120	11,6	200V3ac, ac	400V3ac
180	18,5	200V3ac	
200	19,6		
330	32,9		
1R9	1,9	400V3ac	
3R5	3,5		400V3ac
5R4	5,4		
8R4	8,4		
120	11,9		
170	16,5		
R70	0,66	100Vac	200V3ac
R90	0,91		
2R1	2,1		
2R8	2,8		

C Rated Input Voltage/Output voltage

A: 200V3ac, ac/200V3ac

D: 400V3ac/400V3ac

F: 100Vac/200V3ac

D Interface:

Group	Model	Difference
01	Analogue/Pulse I/F, for Rotary motor	Control board is Analogue/Pulse I/F, Software is for Analogue/Pulse I/F, Rotary motor
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# CERTIFICATE

No. B 022021 0796 Rev. 01

11	MECHATROLINK I/F, for Rotary motor	Control board is MECHATROLINK I/F, Software is for MECHATROLINK I/F, Rotary motor
15	MECHATROLINK I/F, for Linear motor	Hardware is exactly same as 11 type. Software is changed from 11 type for Linear motor.

E Design order

A: Standard

F Option specification of hardware and/or software and/or parameter setting:

Group	Option specification of parameter setting	Difference from standard model
Blank	Standard	--
Y5****	Software and/or hardware are changed.	Hardware is exactly same as standard model
Y6****	Software and/or hardware are changed.	Hardware is exactly same as standard model
Y7****	Software and/or hardware are changed.	Hardware is exactly same as standard model
Y8****	Software and/or hardware are changed.	Hardware is exactly same as standard model
Y9****	Software and/or hardware are changed.	Hardware is exactly same as standard model
Y101**	Software and/or hardware are changed for the specific client.	Hardware is exactly same as standard model

## 4. Nomenclature for SGD Series (Option card for SGD Series)

SGDV-    \*\*    \*    \*\*    \*  
           A    B    C    D    E

A SGD : Option card for AC Servo amplifier SGD Series

B Function of board

C Product control section

D I/F specification

B, C, D :

Group B	Group C	Group D	Specification
OF: feedback option	A : JAPAN	1	Fully closed I/F card

E Design order

A: Standard



# CERTIFICATE

No. B 022021 0796 Rev. 01

## Parameters:

Rated input voltage:	100-115 Vac, 50/60 Hz 200-230 Vac, 3ac, 50/60 Hz 380-480 V3ac, 50/60 Hz
Rated input current:	100 Vac:0.38 A-10 A, 200 Vac:0.6 A-16 A, 200 V3ac:0.3 A-25 A 400 V3ac:1.2 A-12 A
Overvoltage category:	III
Pollution degree:	2
Degree of protection:	IP10
Protection Class:	I

## Remark:

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

**Tested according to:** EN 61800-5-1:2007/A1:2017