



Product Service

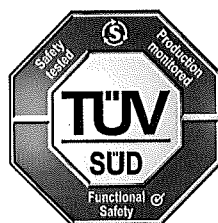
CERTIFICATE

No. Z10 13 04 22021 504

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

480 Kamifujisawa, Iruma
Saitama 358-8555
JAPAN

Certification Mark:



Product: **AC servo systems**
Converter, AC Servo Amplifier
(SERVOPACK)

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.: 717507068

Valid until: 2018-04-14

Date, 2013-04-15 (Matthias Ramold)

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Product Service

CERTIFICATE

No. Z10 13 04 22021 504

Model(s):**Sigma-V-SD series****CACP-JU****A*****, CACP-JU****B*****,
CACR-JU****A*****, CACR-JU****DA*****,
CACR-JU****CA*********(See Attachment for Nomenclature)****Parameters:**

Rated Voltage: 200 VAC, 270 VDC

400 VAC, 540 VDC

Rated Power: 15/11 kW ... 45/37 kW

1.5 kW ... 45/37 kW

Safety Function:

STO (acc. to IEC 61800-5-2:2007 / EN 61800-5-2:2007)

Stop Category 0 (acc. to IEC 60204-1:2005 / EN 60204-1:2006)

**Tested
according to:**

2006/42/EC

IEC 61508-1:2010 (SIL2)

IEC 61508-2:2010 (SIL2)

IEC 61508-4:2010 (SIL2)

EN 61508-1:2010 (SIL2)

EN 61508-2:2010 (SIL2)

EN 61508-4:2010 (SIL2)

IEC 62061:2005 (SILCL 2)

EN 62061:2005 (SILCL 2)

ISO 13849-1:2006 (Cat. 3, PL d)

EN ISO 13849-1/AC:2009 (Cat.3, PL d)

IEC 61800-3:2004

EN 61800-3:2004

IEC 61800-5-1:2007

EN 61800-5-1:2007

IEC 61800-5-2:2007

EN 61800-5-2:2007

EN 61000-6-2:2005

IEC 61326-3-1:2008

EN 61326-3-1:2008

Factory(ies):

77204, 42802, 48921



ATTACHMENT

to certificate

No. Z10 13 04 22021 504

Nomenclature of Converter unit (Standard)

CACP-JU ** * * * * ** ** *
 A **B** **C** **D** **E** **F** **G** **H** **I**

A: Series name, Sigma-V-SD Series Converter Unit

B: 50% ED Output capacity

Group	Output capacity 50% ED/Rated	Input Voltage	Output Voltage
15	15/11kW	200V3ac	270Vdc
19	18,5/15kW		
22	22/18,5kW		
30	30/22kW		
45	45/37kW		
15	15/11kW	400V3ac	540Vdc
19	18,5/15kW		
22	22/18,5kW		

C: Input/Output Voltagey

Group	Input Voltage	Output Voltage	Unit Type
A	200V3ac	270Vdc	Converter
D	400V3ac	540Vdc	Converter

D: Regeneration method

Group	Regeneration method
3	120°



E: Design revision order

A	Standard
B	Standard

F: Mounting method

Blank	Duct-ventilated
B	Base-mounted

G: Option specification of hardware

Group	Option specification of hardware	Difference from standard model
Blank	Standard	--
00	Standard	Software and/or parameters are changed
04	Counter measures for vibration	Put a fixture for weak parts of mechanical vibration by resin material

H: Option specification of software

Group	Option specification of hardware	Difference from standard model
Blank	Standard	--
00	Standard	Hardware is exactly same as standard model

I: Option specification of parameter setting

Group	Option specification of hardware	Difference from standard model
Blank	Standard	--
0	Standard	Hardware is exactly same as standard model



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Nomenclature of Drive unit/1axis (Standard)

CACR-JU *** * * * * ** ** *
A **B** **C** **D** **E** **F** **G** **H** **I**

A: **Series name, Sigma-V-SD Series Drive Unit**

B: **Continuous output current**

Group	Input Voltage			Output Voltage			Input Voltage	Output Voltage		
	Spindle		Servo rated	Spindle		Servo rated				
	Rated	50% ED		Rated	50% ED					
028	22A	31A	23,8A	2,2kW	3,7kV	3kW	270Vac	200V3ac		
	28A	34A		3,7kW	5,5kW					
036	36A	46A	32,9A	5,5kW	7,5kW	5kW				
065	45A	60A	46,9A	7,5kW	11kW	6kW				
	65A	82A		11kW	15kW					
084	84A	100A	54,7A	15kW	18,5kW	7,5kW				
102	102A	116A	58,6A	18,5kW	22kW	11kW				
125	125A	160A	78,0A	22kW	30kW	15kW				
196	196A	240A	110A	37kW	45kW	22kW				
014	11A	15,5A	11,9A	2,2kW	3,7kV	3kW				
	14A	17A		3,7kW	5,5kW					
018	18A	23A	16,5A	5,5kW	7,5kW	5kW			540Vdc	400Vdc
033	22,5A	30A	20,8A	7,5kW	11kW	6kW				
	32,5A	41A		11kW	15kW					
042	42A	50A	25,7A	15kW	18,5kW	7,5kW				
051	51A	58A	28,1A	18,5kW	22kW	11kW				

C: **Input/Output Voltage**

Group	Input Voltage	Output Voltage	Unit Type
A	270Vdc	200V3ac	Drive
D	540Vdc	400V3ac	Drive



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D: Model

Group	Model
0	Analogue/Pulse I/F
2	MECHATROLINK-III I/F
C	EtherCat I/F
D	Analogue I/F

E: Design revision order

A	Standard
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F: Mounting method

Blank	Duct-ventilated
B	Base-mounted

G: Option specification of hardware

Group	Option specification of hardware	Difference from standard model
Blank	Standard	--
00	Standard	Software and/or parameters are changed
02	Eternal DB resistor type or without DB type	Specification of which the terminal for DB resistor outside was added
04	Counter measures for vibration	Put a fixture for weak parts of mechanical vibration by resin material

H: Option specification of software

Group	Option specification of hardware	Difference from standard model
Blank	Standard	--
00	Standard	Hardware is exactly same as standard model

I: Option specification of parameter setting

Group	Option specification of hardware	Difference from standard model
Blank	Standard	--
0	Standard	Hardware is exactly same as standard model



Nomenclature of Drive unit/2 axes (Standard)

CACR-JU ** * * * * * ** ** *
 A B C D E F G H I J

A: Series name, Sigma-V-SD Series Drive Unit

B: Number of axes

M2:	2 axes
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C: Continuous output current

Group	Rated output current for 2 axes drive		Input Voltage	Output Voltage
	Axis 1	Axis 2		
3	11,6A	11,6A	270Vdc	200V3ac
4	18.5A	18.5A		
5	24,8A	24,8A		
3	5,4A	5,4A	540Vdc	400V3ac
4	8,4A	8,4A		
5	11,9A	11,9A		

D: Input/Output Voltage

Group	Input Voltage	Output Voltage	Unit Type
A	270Vdc	200V3ac	Drive
D	540Vdc	400V3ac	Drive

E: Model

Group	Model
0	Analogue/Pulse I/F
2	MECHATROLINK-III I/F
C	EtherCat I/F

F: Design revision order

A	Standard
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G: Mounting method

Blank	Duct-ventilated
B	Base-mounted



H: Option specification of hardware

Group	Option specification of hardware	Difference from standard model
Blank	Standard	--
00	Standard	Software and/or parameters are changed
02	Eternal DB resistor type or without DB type	Specification of which the terminal for DB resistor outside was added
04	Counter measures for vibration	Put a fixture for weak parts of mechanical vibration by resin material

I: Option specification of software

Group	Option specification of hardware	Difference from standard model
Blank	Standard	--
00	Standard	Hardware is exactly same as standard model

J: Option specification of parameter setting

Group	Option specification of hardware	Difference from standard model
Blank	Standard	--
0	Standard	Hardware is exactly same as standard model



Product Service

Nomenclature of Converter unit (Y-specification)

CACP-JU ** * * * * Y****
A **B** **C** **D** **E** **F** **G**

A: **Series name, Sigma-V-SD Series Drive Unit**

B: **50% ED Output capacity**

Group	Output capacity 50% ED/Rated	Input Voltage	Output Voltage
15	15/11kW	200V3ac	270Vdc
19	18,5/15kW		
22	22/18,5kW		
30	30/22kW		
45	45/37kW		
15	15/11kW	400V3ac	540Vdc
19	18,5/15kW		
22	22/18,5kW		

C: **Input/Output Voltage**

Group	Input Voltage	Output Voltage	Unit Type
A	200V3ac	270Vdc	Converter
D	400V3ac	540Vdc	Converter

D: **Regeneration method**

Group	Regeneration method
3	120°

E: **Design revision order**

A	Standard
B	Standard

F: **Mounting method**

Blank	Duct-ventilated
B	Base-mounted



G: Specification of Y-number

Group	Specification	Difference from standard model
Y4***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y5***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y6***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y7***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y8***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y9***	Software and/or parameters are changed	Hardware is exactly same as standard model



Nomenclature of Drive unit/1 axis (Y-specification)

CACR-JU *** * * * * Y****
A **B** **C** **D** **E** **F** **G**

A: **Series name, Sigma-V-SD Series Drive Unit**

B: **Continuous output current**

Group	Input Voltage			Output Voltage			Input Voltage	Output Voltage		
	Spindle		Servo rated	Spindle		Servo rated				
	Rated	50% ED		Rated	50% ED					
028	22A	31A	23,8A	2,2kW	3,7kV	3kW	270Vac	200V3ac		
	28A	34A		3,7kW	5,5kW					
036	36A	46A	32,9A	5,5kW	7,5kW	5kW				
065	45A	60A	46,9A	7,5kW	11kW	6kW				
	65A	82A		11kW	15kW					
084	84A	100A	54,7A	15kW	18,5kW	7,5kW				
102	102A	116A	58,6A	18,5kW	22kW	11kW				
125	125A	160A	78,0A	22kW	30kW	15kW				
196	196A	240A	110A	37kW	45kW	22kW				
014	11A	15,5A	11,9A	2,2kW	3,7kV	3kW				
	14A	17A		3,7kW	5,5kW					
018	18A	23A	16,5A	5,5kW	7,5kW	5kW			540Vdc	400Vdc
033	22,5A	30A	20,8A	7,5kW	11kW	6kW				
	32,5A	41A		11kW	15kW					
042	42A	50A	25,7A	15kW	18,5kW	7,5kW				
051	51A	58A	28,1A	18,5kW	22kW	11kW				

C: **Input/Output Voltage**

Group	Input Voltage	Output Voltage	Unit Type
A	270Vdc	200V3ac	Drive
D	540Vdc	400V3ac	Drive



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D: Model

Group	Model
0	Analogue/Pulse I/F
2	MECHATROLINK-III I/F
C	EtherCat I/F
D	Analogue I/F

E: Design revision order

A	Standard
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F: Mounting method

Blank	Duct-ventilated
B	Base-mounted

G: Specification of Y-number

Group	Specification	Difference from standard model
Y4***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y5***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y6***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y7***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y8***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y9***	Software and/or parameters are changed	Hardware is exactly same as standard model



Nomenclature of Drive unit/2 axes (Y-specification)

CACR-JU *** * * * * * Y****
 A B C D E F G H

A: Series name, Sigma-V-SD Series Drive Unit

B: Number of axes

M2:	2 axes
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C: Continuous output current

Group	Rated output current for 2 axes drive		Input Voltage	Output Voltage
	Axis 1	Axis 2		
3	11,6A	11,6A	270Vdc	200V3ac
4	18.5A	18.5A		
5	24,8A	24,8A		
3	5,4A	5,4A	540Vdc	400V3ac
4	8,4A	8,4A		
5	11,9A	11,9A		

D: Input/Output Voltage

Group	Input Voltage	Output Voltage	Unit Type
A	270Vdc	200V3ac	Drive
D	540Vdc	400V3ac	Drive

E: Model

Group	Model
0	Analogue/Pulse I/F
2	MECHATROLINK-III I/F
C	EtherCat I/F

F: Design revision order

A	Standard
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G: Mounting method

Blank	Duct-ventilated
B	Base-mounted

H: Specification of Y-number

Group	Specification	Difference from standard model
Y4***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y5***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y6***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y7***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y8***	Software and/or parameters are changed	Hardware is exactly same as standard model
Y9***	Software and/or parameters are changed	Hardware is exactly same as standard model

Department: TR-RA/MUC
Date: 2013-04-15

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