



Product Service

# CERTIFICATE

No. B 15 09 22021 618

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

480 Kamifujisawa, Iruma  
Saitama 358-8555  
JAPAN

**Production Facility(ies):** 77204, 48921, 92439

**Certification Mark:**



**Product:** Electric Motors  
AC Servo Motor

**Model(s):** SGMJV, SGMJV, SGMEV series  
(See Attachment for Nomenclature)

**Parameters:**

Rated voltage:	200 V/400 V
Rated output power:	50 - 1000 W (SGMAV) 50 - 750 W (SGMJV) 100 - 1500 W (SGMEV)
Degree of protection:	IP65 except shaft hall (SGMAV, SGMJV) IP55/IP67 except shaft hall(SGMEV)
Protection class:	I
Remark:	When installing/inserting the equipment all requirements of the mentioned test standards must be fulfilled.

**Tested according to:** EN 60034-1:2010  
EN 60034-5:2001/A1:2007

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.:** 73515093-14  
**Valid until:** 2020-09-17

**Date,** 2015-09-29

  
( Yoshio Sato )

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**SGMAV Type:**

Electrical Ratings

SERVO MOTOR	Voltage [V <sub>rms</sub> ]	Phases	Rated Current [A <sub>rms</sub> ]	Rated Output [W]
SGMAV-A5AxAxxx	200	3	0.66	50
SGMAV-A8AxAxxx			0.75	80
SGMAV-01AxAxxx			0.91	100
SGMAV-C2AxAxxx			1.4	150
SGMAV-02AxAxxx			1.5	200
SGMAV-04AxAxxx			2.6	400
SGMAV-06AxAxxx			3.8	550
SGMAV-08AxAxxx			5.3	750
SGMAV-10AxAxxx			7.4	1000

"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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Series Nomenclature

1) Standard

SGMAV - 01 A D A 2 1 - OY  
a                    b            c            d            e            f            g            h

Letters	Items	(Group)	
a	Motor type	SGMAV	

Letters	Items	(Group)	Rated Output[W]
b	Motor Output	A5	50
		A8	80
		01	100
		C2	150
		02	200
		04	400
		06	550
		08	750
		10	1000

Letters	Items	(Group)	Power Supply Voltages[Vrms]
c	Power Supply	A	200

Letters	Items	(Group)	Encoder Type
d	Encoder	D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		6	20bit Serial Absolute Value with Built-in Capacitor

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	Standard

Letters	Items	(Group)	Shaft Type
f	Shaft Type	2	Straight (without keyway)
		6	Straight (with keyway and tapped hole)
		8	Straight (tapped hole)
		B	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
		C	With Brake (24V)
		S	With Shaft Seal
		E	With Brake (24V) and Shaft Seal

Letters	Items	(Group)	Optional Specifications
h	Additional type	Blank	Standard
		-OY	Standard





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2) With Gear

SGMAV - 01 A D AH 1 2 C - OY  
a b c d e f g h i

Letters	Items	(Group)	
a	Motor type	SGMAV	

Letters	Items	(Group)	Rated Output[W]
b	Motor Output	A5	50
		A8	80
		01	100
		C2	150
		02	200
		04	400
		06	550
		08	750
		10	1000

Letters	Items	(Group)	Power Supply Voltages [Vrms]
c	Power Supply	A	200

Letters	Items	(Group)	Encoder Type
d	Encoder	D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		6	20bit Serial Absolute Value with Built-in Capacitor

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	AH	With Non-backlash Gear

Letters	Items	(Group)	Reduction Ratio
f	Reduction Ratio	1	1/5
		2	1/9
		7	1/33
		B	1/11
		C	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 (tapped hole)
		S	Straight (without keyway(φ6 or φ16))
		K	Straight (with keyway and tapped hole (φ6 or φ16))

Letters	Items	(Group)	Optional Specifications
h	Optional Specifications	1	Without Option
		C	With Brake (24V)

Letters	Items	(Group)	Optional Specifications
i	Additional type	Blank	Standard
		-OY	Standard



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3) Exclusive Design for Customer

SGMAV - 01 A D AH - \* \* \* \*  
 a b c d e f g h i

Letters	Items	(Group)	
a	Motor type	SGMAV	

Letters	Items	(Group)	Rated Output[W]
b	Motor Output	A5	50
		A8	80
		01	100
		C2	150
		02	200
		04	400
		06	550
		08	750
		10	1000

Letters	Items	(Group)	Power Supply Voltages [Vrms]
c	Power Supply	A	200

Letters	Items	(Group)	Encoder Type
d	Encoder	D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		6	20bit Serial Absolute Value with Built-in Capacitor
		P	20bit Serial Absolute Value (Safety feature)

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	Standard
		AH	With Non-backlash Gear
		K	Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		KH	With non-backlash gear Rating specifications, IP specifications, encoder and/or connector are changed for standard.

Letters	Items	(Group)	Customer Code
f,g	Customer Code	-	-

Letters	Items	(Group)	Customer Code
h,i	Design Revision Order For Customer	-	-

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**SGMJV Type:**

Electrical Ratings

SERVO MOTOR	Voltage [V <sub>rms</sub> ]	Phases	Rated Current [A <sub>rms</sub> ]	Rated Output [W]
SGMJV-A5Axxxx	200	3	0.61	50
SGMJV-A8Axxxx			0.69	80
SGMJV-01Axxxx			0.84	100
SGMJV-C2Axxxx			1.6	150
SGMJV-02Axxxx			1.6	200
SGMJV-04Axxxx			2.7	400
SGMJV-06Axxxx			4.2	600
SGMJV-08Axxxx			4.7	750

"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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Series Nomenclature

1) Standard

SGMJV - 01 A D A 2 1 - OY  
a b c d e f g h

Letters	Items	(Group)	
a	Motor type	SGMJV	

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

Letters	Items	(Group)	Power Supply Voltages[Vrms]
c	Power Supply	A	200

Letters	Items	(Group)	Encoder Type
d	Encoder	A	13bit Serial Incremental
		D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		6	20bit Serial Absolute Value with Built-in Capacitor

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	Standard
		B	Standard, built-in encoder type.
		C	Standard for China Motor output variations are only 4 types, 01, 02, 04, 08.
		D	Standard for China, segment magnet type. Motor output variations are only 4 types, 01, 02, 04, 08.
		E	Standard for China Motor output variations are only 4 types, 01, 02, 04, 08.
		L	Standard for Korea Motor output variations are only 5 types, A5, 01, 02, 04, 08.
		M	Standard for any country (exclude for China, Korea and Japan) Motor output variation are only 5 types, A5, 01, 02, 04, 08.

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Letters	Items	(Group)	Shaft Type
f	Shaft Type	2	Straight (without keyway)
		6	Straight (with keyway and tapped hole)
		8	Straight (tapped hole)
		B	Straight (with double flat key seat)

Letters	Items	(Group)	Optional Specifications
g	Optional Specifications	1	Without Option
		C	With Brake (24V) ✕Except for Design Revision Order "B"
		S	With Shaft Seal
		E	With Brake (24V) and Shaft Seal ✕Except for Design Revision Order "B"

Letters	Items	(Group)	Optional Specifications
h	Additional type	Blank	Standard
		-OY	Standard





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2) With Gear

SGMJV - 01 A D AH 1 2 C - OY  
a                    b        c        d        e        f        g        h        i

Letters	Items	(Group)	
a	Motor type	SGMJV	

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

Letters	Items	(Group)	Power Supply Voltages [Vrms]
c	Power Supply	A	200

Letters	Items	(Group)	Encoder Type
d	Encoder	A	13bit Serial Incremental
		D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		6	20bit Serial Absolute Value with Built-in Capacitor

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	AH	With Non-backlash Gear
		BH	With Non-backlash Gear, built-in encoder type.
		CH	With Non-backlash Gear for China Motor output variations are only 4 types, 01, 02, 04, 08.
		DH	With Non-backlash Gear for China, segment magnet type. Motor output variations are only 4 types, 01, 02, 04, 08.
		EH	With Non-backlash Gear for China Motor output variations are only 4 types, 01, 02, 04, 08.
		LH	With Non-backlash Gear for Korea Motor output variations are only 5 types, A5, 01, 02, 04, 08.
		MH	With Non-backlash Gear for any country (exclude for China, Korea and Japan) Motor output variation are only 5 types, A5, 01, 02, 04, 08.

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Letters	Items	(Group)	Reduction Ratio
f	Reduction Ratio	1	1/5
		2	1/9
		7	1/33
		B	1/11
		C	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 (tapped hole)

Letters	Items	(Group)	Optional Specifications
h	Optional Specifications	1	Without Option
		C	With Brake (24V) ※Except for Design Revision Order "BH"

Letters	Items	(Group)	Optional Specifications
i	Additional type	Blank	Standard
		-OY	Standard

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3) Exclusive Design for Customer

SGMJV - 01 A D AH - \* \* \* \*  
a            b    c    d    e            f    g    h    i

Letters	Items	(Group)	
a	Motor type	SGMJV	

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

Letters	Items	(Group)	Power Supply Voltages [Vrms]
c	Power Supply	A	200

Letters	Items	(Group)	Encoder Type
d	Encoder	A	13bit Serial Incremental
		D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		6	20bit Serial Absolute Value with Built-in Capacitor
		P	20bit Serial Absolute Value (Safety feature)





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Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	Standard
		B	Standard, built-in encoder type.
		C	Standard for China Motor output variations are only 4 types, 01, 02, 04, 08.
		D	Standard for China, segment magnet type. Motor output variations are only 4 types, 01, 02, 04, 08.
		E	Standard for China Motor output variations are only 4 types, 01, 02, 04, 08.
		L	Standard for Korea Motor output variations are only 5 types, A5, 01, 02, 04, 08.
		M	Standard for any country (exclude for China, Korea and Japan) Motor output variation are only 5 types, A5, 01, 02, 04, 08.
		AH	With Non-backlash Gear
		BH	With Non-backlash Gear, built-in encoder type.
		CH	With Non-backlash Gear for China Motor output variations are only 4 types, 01, 02, 04, 08.
		DH	With Non-backlash Gear for China, segment magnet type. Motor output variations are only 4 types, 01, 02, 04, 08.
		EH	With Non-backlash Gear for China Motor output variations are only 4 types, 01, 02, 04, 08.
		LH	With Non-backlash Gear for Korea Motor output variations are only 5 types, A5, 01, 02, 04, 08.
		MH	With Non-backlash Gear for any country (exclude for China, Korea and Japan) Motor output variation are only 5 types, A5, 01, 02, 04, 08.
		K	Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		KH	With non-backlash gear Rating specifications, IP specifications, encoder and/or connector are changed for standard.

Letters	Items	(Group)	Customer Code
f, g	Customer Code	-	-

Letters	Items	(Group)	Customer Code
h, i	Design Revision Order For Customer	-	-

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**SGMEV Type:**

Electrical Ratings

SERVO MOTOR	Voltage [V <sub>rms</sub> ]	Phases	Rated Current [A <sub>rms</sub> ]	Rated Output [W]
SGMEV-01AxAxx	200	3	0.89	100
SGMEV-02AxAxx			2.0	200
SGMEV-04AxAxx			2.6	400
SGMEV-08AxAxx			4.1	750
SGMEV-15AxAxx			7.5	1500
SGMEV-02DxAxx	400		1.4	200
SGMEV-03DxAxx			1.3	300
SGMEV-04DxAxx			1.4	400
SGMEV-07DxAxx			2.2	650
SGMEV-08DxAxx			2.6	750
SGMEV-15DxAxx			4.5	1500

“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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### Series Nomenclature

#### 1) Standard

SGMEV - 01 A D A 2 1 H - OY  
 a b c d e f g h i

Letters	Items	(Group)	
a	Motor type	SGMEV	

Letters	Items	(Group)	Rated Output[W]
b	Motor Output	01	100(Only 200V)
		02	200
		03	300(Only 400V)
		04	400
		07	650(Only 400V)
		08	750
		15	1500

Letters	Items	(Group)	Power Supply Voltages[Vrms]
c	Power Supply	A	200
		D	400

Letters	Items	(Group)	Encoder Type
d	Encoder	D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		6	20bit Serial Absolute Value with Built-in Capacitor

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	Standard
		E	Drip proof provision

Letters	Items	(Group)	Shaft Type
f	Shaft Type	2	Straight (without keyway)
		6	Straight (with keyway and tapped hole)
		8	Straight (tapped hole)
		B	Straight (with double flat key seat)

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

Letters	Items	(Group)	Optional Specifications
h	Lead Length	Blank	300mm(Standard)
		H	500mm
		J	1000mm
		K	1500mm

Letters	Items	(Group)	Optional Specifications
i	Additional type	Blank	Standard
		-OY	Standard





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2) With Gear

SGMEV - 01 A D AH 1 2 C H - OY  
a b c d e f g h i j

Letters	Items	(Group)	
a	Motor type	SGMEV	

Letters	Items	(Group)	Rated Output[W]
b	Motor Output	01	100(Only 200V)
		02	200
		03	300(Only 400V)
		04	400
		07	650(Only 400V)
		08	750
		15	1500

Letters	Items	(Group)	Power Supply Voltages [Vrms]
c	Power Supply	A	200
		D	400

Letters	Items	(Group)	Encoder Type
d	Encoder	D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		6	20bit Serial Absolute Value with Built-in Capacitor

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	AH	With Non-backlash Gear
		EH	With Non-backlash Gear And Drip proof provision

Letters	Items	(Group)	Reduction Ratio
f	Reduction Ratio	1	1/5
		2	1/9
		7	1/33
		B	1/11
		C	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 (tapped hole)

Letters	Items	(Group)	Optional Specifications
h	Optional Specifications	1	Without Option
		C	With Brake (24V)

Letters	Items	(Group)	Optional Specifications
i	Lead Length	Blank	300mm(Standard)
		H	500mm
		J	1000mm
		K	1500mm

Letters	Items	(Group)	Optional Specifications
j	Additional type	Blank	Standard
		-OY	Standard



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3) Exclusive Design for Customer

SGMEV - 01 A D AH - \* \* \* \*  
a b c d e f g h i

Letters	Items	(Group)	
a	Motor type	SGMEV	

Letters	Items	(Group)	Rated Output[W]
b	Motor Output	01	100(Only 200V)
		02	200
		03	300(Only 400V)
		04	400
		07	650(Only 400V)
		08	750
		15	1500

Letters	Items	(Group)	Power Supply Voltages [Vrms]
c	Power Supply	A	200
		D	400

Letters	Items	(Group)	Encoder Type
d	Encoder	D	20bit Serial Incremental
		3	20bit Serial Absolute Value
		6	20bit Serial Absolute Value with Built-in Capacitor

Letters	Items	(Group)	Design Revision Order
e	Design Revision Order	A	Standard
		E	Drip proof provision
		AH	With Non-backlash Gear
		EH	With Non-backlash Gear and Drip proof provision
		K	Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		M	Drip proof provision Rating specifications, IP specifications, encoder and/or connector are changed for standard.
		MH	With non-backlash gear Drip proof provision Rating specifications, IP specifications, encoder and/or connector are changed for standard.

Letters	Items	(Group)	Customer Code
f,g	Customer Code	-	-

Letters	Items	(Group)	Customer Code
h,i	Design Revision Order For Customer	-	-