



Product Service

CERTIFICATE

No. B 13 09 22021 517

Holder of Certificate: Yaskawa Electric Corp.
Tokyo Plant

480 Kamifujisawa, Iruma
Saitama 358-8555
JAPAN

Production Facility(ies): 48921, 38663

Certification Mark:



Product: Electric Motors
AC Servo Motor

Model(s): SGMAH, SGMPH Series
(See Attachment for Nomenclature)

Parameters:

Rated voltage:	100 V or 200 V or 400 V, 3 phases
Rated output power:	30 - 750 W (SGMAH) 80 - 1500 W (SGMPH)
Rated input current:	0.44 - 4.4 A (SGMAH) 0.72 - 7.5 A (SGMPH)
Protection class:	I
Degree of protection:	IP55
Remarks:	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/A1:2007
EN 60034-8:2007
EN 60034-9/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.: 73505631-09

(Yoshio Sato)

Date, 2013-10-01

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1. Σ-II Series SGMAH Type

1.1 MODEL DESCRIPTION

1.1.1 PRODUCT COVERED:

STANDARD Component - AC Servo Motors, Series SGMAH, followed by any number from A3 to 08, followed by A ,B or D followed by 1, 4, A, B and so on, followed by A, E or F may be followed by additional letters and or numbers

WITH GEAR Component - AC Servo Motors, Series SGMAH, followed by any number from A3 to 08, followed by A,B or D, followed by 1, 4, A, B and so on, followed by AG, AH, AJ, EG, EH or EJ may be followed by additional letters and or numbers.

1.1.2. ELECTRICAL RATINGS:

(1)

Model	Voltage	Phases	Amps	Watts (KW)
SGMAH-A3Axxxxxx	200	3	0,44	0,03
SGMAH-A3Bxxxxxx	100	3	0,66	0,03
SGMAH-A5Axxxxxx	200	3	0,64	0,05
SGMAH-A5Bxxxxxx	100	3	0,95	0,05
SGMAH-A8Axxxxxx	200	3	0,74	0,08
SGMAH-A8Bxxxxxx	100	3	1,9	0,08
SGMAH-01Axxxxxx	200	3	0,91	0,10
SGMAH-01Bxxxxxx	100	3	2,4	0,10
SGMAH-02Axxxxxx	200	3	2,1	0,20
SGMAH-02Bxxxxxx	100	3	3,0	0,20
SGMAH-04Axxxxxx	200	3	2,8	0,40
SGMAH-08Axxxxxx	200	3	4,4	0,75

(2)

Model	Voltage	Phases	Amps	Watts (KW)
SGMAH-03Dxxxxxx	400	3	1,3	0,30
SGMAH-07Dxxxxxx	400	3	2,2	0,65

"X" represents variations in model number as described in product covered and series nomenclature which do not affect electrical construction or rating. Reference "Product Covered" or "Series Nomenclature."

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1.1.3. Series Nomenclature:

1) Standard

(1)

<u>SGMAH</u>	<u>01</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>2</u>	<u>B</u>	<u>-OY</u>
a	b	c	d	e	f	g	h

- a. Motor Type: Σ-II Series SGMAH Type
- b. Motor Output:
 - A3 - 0,03KW
 - A5 - 0,05KW
 - A8 - 0,08KW
 - 01 - 0,10KW
 - 02 - 0,20KW
 - 04 - 0,40KW
 - 08 - 0,75KW
- c. Power Supply:
 - A - 200V
 - B - 100V
- d. Encoder Spec:
 - A - Incremental (13bit serial)
 - B - Incremental (16bit serial)
 - C - Incremental (17bit serial)
 - 1 - Absolute Value (16bit serial)
 - 2 - Absolute Value (17bit serial)
 - 4 - Absolute Value (16bit serial with built-in-capacitor)
 - 5 - Absolute Value (17bit serial with built-in capacitor)
- e. Design Revision Order:
 - A - Standard
 - E - Drip proof provision
 - F - Different from standard flange type
- f. Shaft Type:
 - 2 - Straight (without keyway)
 - 3 - Tapped 1/10 (with parallel keyway)
 - 4 - Straight (with keyway)
 - 5 - Tapped 1/10 (with woodruff keyway)
 - 6 - Straight (with keyway and tapped hole)
 - 8 - Straight (with tapped hole)
 - A - Straight (with flat key seat)
 - B - Straight (with double flat key seat)
 - C - Straight (with keyway and flat key seat)

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- g. Options and Lead wire length specification:

		Lead wire length			
		300mm	500mm	1000mm	1500mm
Standard connector	without option	1	1H	1J	1K
	with brake(90V)	B	BH	BJ	BK
	with brake(24V)	C	CH	CJ	CK
	with shaft seal	S	SH	SJ	SK
	with brake(90V) and shaft seal	D	DH	DJ	DK
	with brake(24V) and shaft seal	E	EH	EJ	EK
Drip - proofed connector	without option	1D	1E	1F	1G
	with brake(90V)	BD	BE	BF	BG
	with brake(24V)	CD	CE	CF	CG
	with shaft seal	SD	SE	SF	SG
	with brake(90V) and shaft seal	DD	DE	DF	DG
	with brake(24V) and shaft seal	ED	EE	EF	EG

- h. Additional type: Blank -Standard
 -OY -Standard
 -E -Standard (for ROHS directive)

(2)

<u>SGMAH</u>	<u>03</u>	<u>D</u>	<u>A</u>	<u>A</u>	<u>2</u>	<u>B</u>	<u>-OY</u>
a	b	c	d	e	f	g	h

- a. Motor Type: Σ-II Series SGMAH Type
- b. Motor Output: 03 - 0,30KW
07 - 0,65KW
- c. Power Supply: D - 400V
- d. Encoder Spec:
 A - Incremental (13bit serial)
 B - Incremental (16bit serial)
 C - Incremental (17bit serial)
 1 - Absolute Value (16bit serial)
 2 - Absolute Value (17bit serial)
 4 - Absolute Value (16bit serial with built-in-capacitor)
 5 - Absolute Value (17bit serial with built-in capacitor)



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- e. Design Revision Order: A - Standard
E - Drip proof provision
F - Different from standard flange type
- f. Shaft Type: 2 - Straight (without keyway)
3 - Tapped 1/10 (with parallel keyway)

4 - Straight (with keyway)
5 - Tapped 1/10 (with woodruff keyway)

6 - Straight (with keyway and tapped hole)
8 - Straight (with tapped hole)
A - Straight (with flat key seat)
B - Straight (with double flat key seat)
C - Straight (with keyway and flat key seat)

- g. Options and Lead wire length specification:

		Lead wire length			
		300mm	500mm	1000mm	1500mm
Standard connector	without option	1	1H	1J	1K
	with brake(90V)	B	BH	BJ	BK
	with brake(24V)	C	CH	CJ	CK
	with shaft seal	S	SH	SJ	SK
	with brake(90V) and shaft seal	D	DH	DJ	DK
	with brake(24V) and shaft seal	E	EH	EJ	EK
Drip - proofed connector	without option	1D	1E	1F	1G
	with brake(90V)	BD	BE	BF	BG
	with brake(24V)	CD	CE	CF	CG
	with shaft seal	SD	SE	SF	SG
	with brake(90V) and shaft seal	DD	DE	DF	DG
	with brake(24V) and shaft seal	ED	EE	EF	EG

- h. Additional type: Blank -Standard
-OY -Standard
-E -Standard (for ROHS directive)

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2) With gear

(1)

<u>SGMAH</u>	<u>01</u>	<u>A</u>	<u>A</u>	<u>AG</u>	<u>1</u>	<u>1</u>	<u>B</u>	<u>-OY</u>
a	b	c	d	e	f	g	h	i

- a. Motor Type: Σ-II Series SGMAH Type
- b. Motor Output: A3 - 0,03KW
A5 - 0,05KW
A8 - 0,08KW
01 - 0,10KW
02 - 0,20KW
04 - 0,40KW
08 - 0,75KW
- c. Power Supply: A - 200V
B - 100V
- d. Encoder Spec: A - Incremental (13bit serial)
B - Incremental (16bit serial)
C - Incremental (17bit serial)
1 - Absolute Value (16bit serial)
2 - Absolute Value (17bit serial)
4 - Absolute Value (16bit serial with built-in-capacitor)
5 - Absolute Value (17bit serial with built-in capacitor)
- e. Design Revision Order: AG - With non - backlash gear
AH - With non-backlash gear
AJ - With standard backlash gear
EG - With non - backlash gear and Drip proof provision
EH - With non-backlash gear and Drip proof provision
EJ - With standard backlash gear and Drip proof provision
- f. Reduction ratio: 1 - 5
2 - 9
3 - 10 or 10,3
7 - 29 or 33
B - 11
C - 21
- g. Shaft Type: 0 - Flange type (without keyway)
1 - Taper (without keyway)
2 - Straight (without keyway)
3 - Taper (with keyway)
4 - Straight (with keyway)
5 - Taper (with keyway and tapped hole)
6 - Straight (with keyway and tapped hole)
8 - Straight (with tapped hole)



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h. Options and Lead wire length specification:

		Lead wire length			
		300mm	500mm	1000mm	1500mm
Standard connector	without option	1	1H	1J	1K
	with brake(90V)	B	BH	BJ	BK
	with brake(24V)	C	CH	CJ	CK
	with shaft seal	S	SH	SJ	SK
	with brake(90V) and shaft seal	D	DH	DJ	DK
	with brake(24V) and shaft seal	E	EH	EJ	EK
Drip - proofed connector	without option	1D	1E	1F	1G
	with brake(90V)	BD	BE	BF	BG
	with brake(24V)	CD	CE	CF	CG
	with shaft seal	SD	SE	SF	SG
	with brake(90V) and shaft seal	DD	DE	DF	DG
	with brake(24V) and shaft seal	ED	EE	EF	EG

i. Additional type: Blank -Standard
-OY -Standard
-E -Standard (for ROHS directive)

(2)

<u>SGMAH</u>	<u>03</u>	<u>D</u>	<u>A</u>	<u>AG</u>	<u>1</u>	<u>1</u>	<u>B</u>	<u>-OY</u>
a	b	c	d	e	f	g	h	i

- a. Motor Type: Σ-II Series SGMAH Type
- b. Motor Output: 03 - 0,30KW
07 - 0,65KW
- c. Power Supply: D - 400V
- d. Encoder Spec:
 - A - Incremental (13bit serial)
 - B - Incremental (16bit serial)
 - C - Incremental (17bit serial)
 - 1 - Absolute Value (16bit serial)
 - 2 - Absolute Value (17bit serial)
 - 4 - Absolute Value (16bit serial with built-in-capacitor)
 - 5 - Absolute Value (17bit serial with built-in capacitor)



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- e. Design Revision Order: AG - With non - backlash gear
AH – With non-backlash gear
AJ - With standard backlash gear
EG - With non – backlash gear and Drip proof provision
EH – With non-backlash gear and Drip proof provision
EJ - With standard backlash gear and Drip proof provision
- f. Reduction ratio: 1 - 5
2 - 9
3 - 10 or 10,3
7 - 29 or 33
B - 11
C - 21
- g. Shaft Type: 0 - Flange type (without keyway)
1 - Taper (without keyway)
2 - Straight (without keyway)
3 - Taper (with keyway)
4 - Straight (with keyway)
5 - Taper (with keyway and tapped hole)
6 - Straight (with keyway and tapped hole)
8 - Straight (with tapped hole)

- h. Options and Lead wire length specification:

		Lead wire length			
		300mm	500mm	1000mm	1500mm
Standard connector	without option	1	1H	1J	1K
	with brake(90V)	B	BH	BJ	BK
	with brake(24V)	C	CH	CJ	CK
	with shaft seal	S	SH	SJ	SK
	with brake(90V) and shaft seal	D	DH	DJ	DK
	with brake(24V) and shaft seal	E	EH	EJ	EK
Drip - proofed connector	without option	1D	1E	1F	1G
	with brake(90V)	BD	BE	BF	BG
	with brake(24V)	CD	CE	CF	CG
	with shaft seal	SD	SE	SF	SG
	with brake(90V) and shaft seal	DD	DE	DF	DG
	with brake(24V) and shaft seal	ED	EE	EF	EG

- i. Additional type: Blank -Standard
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-E -Standard (for ROHS directive)



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Exclusive design for customer

(1)

<u>SGMAH</u>	<u>01</u>	<u>A</u>	<u>A</u>	<u>AG-</u>	*	*	*	*
a	b	c	d	e	f	g	h	i

- a. Motor Type: Σ-II Series SGMAH Type
- b. Motor Output: A3 - 0,03KW
A5 - 0,05KW
A8 - 0,08KW
01 - 0,10KW
02 - 0,20KW
04 - 0,40KW
08 - 0,75KW
- c. Power Supply: A - 200V
B - 100V
- d. Encoder Spec: A - Incremental (13bit serial)
B - Incremental (16bit serial)
C - Incremental (17bit serial)
1 - Absolute Value (16bit serial)
2 - Absolute Value (17bit serial)
4 - Absolute Value (16bit serial with built-in-capacitor)
5 - Absolute Value (17bit serial with built-in capacitor)
- e. Design Revision Order: A - Standard(without gear)
E - Driproof provision (without gear)
AG - With non - backlash gear
AH - With non-backlash gear
AJ - With standard backlash gear
EG - With non - backlash gear and Driproof provision
EH - With non-backlash gear and Drip proof provision
EJ - With standard backlash gear and Driproof provision
- f, g. Customer Code : put any alphabets.
- h, i. Design Revision Order for Customer : put any numbers.



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(2)

<u>SGMAH</u>	<u>03</u>	<u>D</u>	<u>A</u>	<u>AG-</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>
a	b	c	d	e	f	g	h	i

- a. Motor Type: Σ-II Series SGMAH Type
- b. Motor Output: 03 - 0,30KW
07 - 0,65KW
- c. Power Supply: D - 400V
- d. Encoder Spec:
 - A - Incremental (13bit serial)
 - B - Incremental (16bit serial)
 - C - Incremental (17bit serial)
 - 1 - Absolute Value (16bit serial)
 - 2 - Absolute Value (17bit serial)
 - 4 - Absolute Value (16bit serial with built-in-capacitor)
 - 5 - Absolute Value (17bit serial with built-in capacitor)
- e. Design Revision Order:
 - A - Standard(without gear)
 - E - Driproof provision (without gear)
 - AG - With non – backlash gear
 - AH - With non-backlash gear
 - AJ - With standard backlash gear
 - EG - With non – backlash gear and Driproof provision
 - EH - With non-backlash gear and Drip proof provision
 - EJ - With standard backlash gear and Driproof provision
- f, g. Customer Code : put any alphabets.
- h, i. Design Revision Order for Customer : put any numbers.

(3)

<u>SGMAH-01AAA21</u>	<u>-Y2</u>
a	b

- a. Standard model type
 - b. Customer Code
- Y1 - Ball bearing fixing adhesion
Y2 - Ball bearing fixing adhesion and encoder added



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Σ-II Series SGMPH Type

2.1 MODEL DESCRIPTION

2.1.1 PRODUCT COVERED:

STANDARD: Component - AC Servo Motors, Series SGMPH, followed by any number from A8 to 15, followed by A, B or D followed by 1, 4, A, B and so on, followed by A or E may be followed by additional letters and or numbers.

WITH GEAR: Component - AC Servo Motors, Series SGMPH, followed by any number from A8 to 15, followed by A,B or D followed by 1, 4, A, B and so on, followed by AG, AH, AJ, EG, EH or EJ may be followed by additional letters and or numbers.

2.1.2. ELECTRICAL RATINGS:

(1)

Model	Voltage	Phases	Amps	Watts (KW)
SGMPH-A8Axxxxxx	200	3	0,72	0,08
SGMPH-A8Bxxxxxx	100	3	1,8	0,08
SGMPH-01Axxxxxx	200	3	0,89	0,10
SGMPH-01Bxxxxxx	100	3	2,2	0,10
SGMPH-02Axxxxxx	200	3	2,0	0,20
SGMPH-02Bxxxxxx	100	3	2,7	0,20
SGMPH-04Axxxxxx	200	3	2,6	0,40
SGMPH-08Axxxxxx	200	3	4,1	0,75
SGMPH-15Axxxxxx	200	3	7,5	1,50

(2)

Model	Voltage	Phases	Amps	Watts (KW)
SGMPH-02Dxxxxxx	400	3	1,4	0,20
SGMPH-04Dxxxxxx	400	3	1,4	0,40
SGMPH-08Dxxxxxx	400	3	2,6	0,75
SGMPH-15Dxxxxxx	400	3	4,5	1,50

"X" represents variations in model number as described in product covered and series nomenclature which do not affect electrical construction or rating. Reference "Product Covered" or "Series Nomenclature."



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2.1.3. Series Nomenclature:

1) Standard

(1)

<u>SGMPH</u>	<u>01</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>2</u>	<u>B</u>	<u>-OY</u>
a	b	c	d	e	f	g	h

- a. Motor Type: Σ-II Series SGMPH Type
- b. Motor Output:
 - A8 - 0,08KW
 - 01 - 0,10KW
 - 02 - 0,20KW
 - 04 - 0,40KW
 - 08 - 0,75KW
 - 15 - 1,50KW
- c. Power Supply:
 - A - 200V
 - B - 100V
- d. Encoder Spec:
 - A - Incremental (13bit serial)
 - B - Incremental (16bit serial)
 - C - Incremental (17bit serial)
 - 1 - Absolute Value (16bit serial)
 - 2 - Absolute Value (17bit serial)
 - 4 - Absolute Value (16bit serial with built-in-capacitor)
 - 5 - Absolute Value (17bit serial with built-in capacitor)
- e. Design Revision Order: A - Standard
 - E - Drip proof provision
- f. Shaft Type:
 - 2 - Straight (without keyway)
 - 3 - Tapped 1/10 (with parallel keyway)
 - 4 - Straight (with keyway)
 - 5 - Tapped 1/10 (with woodruff keyway)
 - 6 - Straight (with keyway and tapped hole)
 - 8 - Straight (with tapped hole)
 - A - Straight (with flat key seat)
 - B - Straight (with double flat key seat)
 - C - Straight (with keyway and flat key seat)



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- g. Options and Lead wire length specification:

		Lead wire length			
		300mm	500mm	1000mm	1500mm
Standard connector	without option	1	1H	1J	1K
	with brake(90V)	B	BH	BJ	BK
	with brake(24V)	C	CH	CJ	CK
	with shaft seal	S	SH	SJ	SK
	with brake(90V) and shaft seal	D	DH	DJ	DK
	with brake(24V) and shaft seal	E	EH	EJ	EK
Drip - proofed connector	without option	1D	1E	1F	1G
	with brake(90V)	BD	BE	BF	BG
	with brake(24V)	CD	CE	CF	CG
	with shaft seal	SD	SE	SF	SG
	with brake(90V) and shaft seal	DD	DE	DF	DG
	with brake(24V) and shaft seal	ED	EE	EF	EG

- h. Additional type: Blank -Standard
 -OY -Standard
 -E -Standard (for ROHS directive)

(2)

<u>SGMPH</u>	<u>02</u>	<u>D</u>	<u>A</u>	<u>A</u>	<u>2</u>	<u>B</u>	<u>-OY</u>
a	b	c	d	e	f	g	h

- a. Motor Type: Σ-II Series SGMPH Type
- b. Motor Output: 02 - 0,20KW
 04 - 0,40KW
 08 - 0,75KW
 15 - 1,5KW
- c. Power Supply: D - 400V
- d. Encoder Spec: A - Incremental (13bit serial)
 B - Incremental (16bit serial)
 C - Incremental (17bit serial)
 1 - Absolute Value (16bit serial)
 2 - Absolute Value (17bit serial)
 4 - Absolute Value (16bit serial with built-in-capacitor)
 5 - Absolute Value (17bit serial with built-in capacitor)

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- e. Design Revision Order: A - Standard
E - Drip proof provision
- f. Shaft Type: 2 - Straight (without keyway)
3 - Tapped 1/10 (with parallel keyway)

4 - Straight (with keyway)
5 - Tapped 1/10 (with woodruff keyway)

6 - Straight (with keyway and tapped hole)
8 - Straight (with tapped hole)
A - Straight (with flat key seat)
B - Straight (with double flat key seat)
C - Straight (with keyway and flat key seat)

- g. Options and Lead wire length specification:

		Lead wire length			
		300mm	500mm	1000mm	1500mm
Standard connector	without option	1	1H	1J	1K
	with brake(90V)	B	BH	BJ	BK
	with brake(24V)	C	CH	CJ	CK
	with shaft seal	S	SH	SJ	SK
	with brake(90V) and shaft seal	D	DH	DJ	DK
	with brake(24V) and shaft seal	E	EH	EJ	EK
Drip - proofed connector	without option	1D	1E	1F	1G
	with brake(90V)	BD	BE	BF	BG
	with brake(24V)	CD	CE	CF	CG
	with shaft seal	SD	SE	SF	SG
	with brake(90V) and shaft seal	DD	DE	DF	DG
	with brake(24V) and shaft seal	ED	EE	EF	EG

- h. Additional type: Blank
-OY
-E -Standard
 -Standard
 -Standard (for ROHS directive)



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2) With gear

(1)

<u>SGMPH</u>	<u>01</u>	<u>A</u>	<u>A</u>	<u>AG</u>	<u>1</u>	<u>1</u>	<u>B</u>	<u>-OY</u>
a	b	c	d	e	f	g	h	i

- a. Motor Type: Σ-II Series SGMPH Type
- b. Motor Output:
 - A8 - 0,08KW
 - 01 - 0,10KW
 - 02 - 0,20KW
 - 04 - 0,40KW
 - 08 - 0,75KW
 - 15 - 1,5KW
- c. Power Supply:
 - A - 200V
 - B - 100V
- d. Encoder Spec:
 - A - Incremental (13bit serial)
 - B - Incremental (16bit serial)
 - C - Incremental (17bit serial)
 - 1 - Absolute Value (16bit serial)
 - 2 - Absolute Value (17bit serial)
 - 4 - Absolute Value (16bit serial with built-in-capacitor)
 - 5 - Absolute Value (17bit serial with built-in capacitor)
- e. Design Revision Order:
 - AG - With non - backlash gear
 - AH - With non-backlash gear
 - AJ - With standard backlash gear
 - EG - With non-backlash gear and Driproof provision
 - EH - With non-backlash gear and Drip proof provision
 - EJ - With standard backlash gear and Driproof provision
- f. Reduction ratio:
 - 1 - 5
 - 2 - 9
 - 3 - 10 or 10,3
 - 7 - 29 or 33
 - B - 11
 - C - 21
- g. Shaft Type:
 - 0 - Flange type (without keyway)
 - 1 - Taper (without keyway)
 - 2 - Straight (without keyway)
 - 3 - Taper (with keyway)
 - 4 - Straight (with keyway)
 - 5 - Taper (with keyway and tapped hole)
 - 6 - Straight (with keyway and tapped hole)
 - 8 - Straight (with tapped hole)

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- h. Options and Lead wire length specification:

		Lead wire length			
		300mm	500mm	1000mm	1500mm
Standard connector	without option	1	1H	1J	1K
	with brake(90V)	B	BH	BJ	BK
	with brake(24V)	C	CH	CJ	CK
	with shaft seal	S	SH	SJ	SK
	with brake(90V) and shaft seal	D	DH	DJ	DK
	with brake(24V) and shaft seal	E	EH	EJ	EK
Drip - proofed connector	without option	1D	1E	1F	1G
	with brake(90V)	BD	BE	BF	BG
	with brake(24V)	CD	CE	CF	CG
	with shaft seal	SD	SE	SF	SG
	with brake(90V) and shaft seal	DD	DE	DF	DG
	with brake(24V) and shaft seal	ED	EE	EF	EG

- i. Additional type: Blank -Standard
-OY -Standard
-E -Standard (for ROHS directive)

(2)

<u>SGMPH</u>	<u>02</u>	<u>D</u>	<u>A</u>	<u>AG</u>	<u>1</u>	<u>1</u>	<u>B</u>	<u>-OY</u>
a	b	c	d	e	f	g	h	i

- a. Motor Type: Σ-II Series SGMPH Type
- b. Motor Output: 02 - 0,20KW
04 - 0,40KW
08 - 0,75KW
15 - 1,5KW
- c. Power Supply: D - 400V
- d. Encoder Spec: A - Incremental (13bit serial)
B - Incremental (16bit serial)
C - Incremental (17bit serial)
1 - Absolute Value (16bit serial)
2 - Absolute Value (17bit serial)
4 - Absolute Value (16bit serial with built-in-capacitor)
5 - Absolute Value (17bit serial with built-in capacitor)



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- e. Design Revision Order: AG - With non - backlash gear
AH - With non-backlash gear
AJ - With standard backlash gear
EG - With non-backlash gear and Driproof provision
EH - With non-backlash gear and Drip proof provision
EJ - With standard backlash gear and Driproof provision
- f. Reduction ratio: 1 - 5
2 - 9
3 - 10 or 10,3
7 - 29 or 33
B - 11
C - 21
- g. Shaft Type: 0 - Flange type (without keyway)
1 - Taper (without keyway)
2 - Straight (without keyway)
3 - Taper (with keyway)
4 - Straight (with keyway)
5 - Taper (with keyway and tapped hole)
6 - Straight (with keyway and tapped hole)
8 - Straight (with tapped hole)
- h. Options and Lead wire length specification:

		Lead wire length			
		300mm	500mm	1000mm	1500mm
Standard connector	without option	1	1H	1J	1K
	with brake(90V)	B	BH	BJ	BK
	with brake(24V)	C	CH	CJ	CK
	with shaft seal	S	SH	SJ	SK
	with brake(90V) and shaft seal	D	DH	DJ	DK
	with brake(24V) and shaft seal	E	EH	EJ	EK
Drip - proofed connector	without option	1D	1E	1F	1G
	with brake(90V)	BD	BE	BF	BG
	with brake(24V)	CD	CE	CF	CG
	with shaft seal	SD	SE	SF	SG
	with brake(90V) and shaft seal	DD	DE	DF	DG
	with brake(24V) and shaft seal	ED	EE	EF	EG

- i. Additional type: Blank -Standard
-OY -Standard
-E -Standard (for ROHS directive)



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Exclusive design for customer

(1)

<u>SGMPH</u>	<u>01</u>	<u>A</u>	<u>A</u>	<u>AG</u>	*	*	*	*
a	b	c	d	e	f	g	h	i

- a. Motor Type: Σ-II Series SGMPH Type
- b. Motor Output: A8 - 0,08KW
01 - 0,10KW
02 - 0,20KW
04 - 0,40KW
08 - 0,75KW
15 - 1,5KW
- c. Power Supply: A - 200V
B - 100V
- d. Encoder Spec: A - Incremental (13bit serial)
B - Incremental (16bit serial)
C - Incremental (17bit serial)
1 - Absolute Value (16bit serial)
2 - Absolute Value (17bit serial)
4 - Absolute Value (16bit serial with built-in-capacitor)
5 - Absolute Value (17bit serial with built-in capacitor)
- e. Design Revision Order: A - Standard(without gear)
E - Driproof provision (without gear)
AG - With non - backlash gear
AH - With non-backlash gear
AJ - With standard backlash gear
EG - With non - backlash gear and Driproof provision
EH - With non-backlash gear and Drip proof provision
EJ - With standard backlash gear and Driproof provision
- f, g. Customer Code : put any alphabets.
- h, i. Design Revision Order for Customer : put any numbers.



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<u>SGMPH</u>	<u>02</u>	<u>D</u>	<u>A</u>	<u>AG</u>	*	*	*	*
a	b	c	d	e	f	g	h	i

- a. Motor Type: Σ-II Series SGMPH Type
- b. Motor Output: 02 - 0,20KW
04 - 0,40KW
08 - 0,75KW
15 - 1,5KW
- c. Power Supply: D - 400V
- d. Encoder Spec: A - Incremental (13bit serial)
B - Incremental (16bit serial)
C - Incremental (17bit serial)
1 - Absolute Value (16bit serial)
2 - Absolute Value (17bit serial)
4 - Absolute Value (16bit serial with built-in-capacitor)
5 - Absolute Value (17bit serial with built-in capacitor)
- e. Design Revision Order: A - Standard (without gear)
E - Driproof provision (without gear)
AG - With non - backlash gear
AH - With non-backlash gear
AJ - With standard backlash gear
EG - With non – backlash gear and Driproof provision
EH - With non-backlash gear and Drip proof provision
EJ - With standard backlash gear and Driproof provision
- f, g. Customer Code : put any alphabets.
- h, i. Design Revision Order for Customer : put any numbers.



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Construction of Exclusive Design for Customer:

Type	Difference from standard type	Drawing and Parts list
SGMAH-01AAA-FJ21	Shaft and Length of Lead wire and Motor connector	DP9328269
SGMAH-02AAA-FJ21	Shaft and Length of lead wires and Motor connector	DP9328270
SGMAH-04AAA-FJ11	Shaft only	DP9328271
SGMAH-04AAA-FJ12	Shaft and Length of lead wires only	DP9328540
SGMAH-08ABA-FJ11	Shaft, Length of lead wires only	DP9328272
SGMAH-08ABA-FJ12	Shaft, Length of lead wires only	DP9328541
SGMAH-A3AAA-TY11	Shaft and End bell only	DP9329398
SGMAH-A5A1A-AD11	Connector cover only	DP0310015
SGMAH-01A1A-AD11	Connector cover only	DP0310015
SGMAH-02A1A-AD11	Connector cover only	DP0310016
SGMAH-02A1A-AD21	Connector cover only	DP0310016
SGMAH-04A1A-AD11	Connector cover only	DP0310016
SGMAH-04A1A-AD21	Connector cover only	DP0310016
SGMAH-08A1A-AD11	Connector cover only	DP0310017
SGMAH-A5A1A-FJ13	Shaft and Length of lead wires and Motor connector	DP9328805
SGMAH-02A1A-FJ13	Shaft and Length of lead wires and Motor connector	DP9328808
SGMAH-02A1A-FJ25	Shaft and Length of lead wires and Motor connector	DP9329002
SGMAH-04A1A-FJ11	Shaft and Length of lead wires and Motor connector	DP310159
SGMAH-01A1A-FJ61	Shaft only	DP9329340
SGMAH-A5A1AG-TG11	Motor Connector and Encoder Connector	DP0310582
SGMAH-A5AAA-YR21	Shaft only	900-029-746
SGMAH-A5AAA-YR11	Type only	900-029-745
SGMAH-02AAA-YR11	Type only	900-029-744
SGMAH-A5A1A-YR61	Shaft only	900-030-481
SGMAH-A5A1A-YR71	Type only	900-030-482
SGMAH-A5A1A-YR81	Type only	900-030-686
SGMAH-02A1A-YR21	Type only	900-030-485
SGMAH-A5A1F-YA11	Length of encoder and motor lead wires. Encoder lead with battery. Motor connector.	UDA00316
SGMAH-A5AAF-YA11	Motor connector.	UDA00584
SGMAH-02A1F-YA12	Length of encoder and motor lead wires. Encoder connector. Motor connector.	UDA00552
SGMAH-04AAF-YA11	Length of encoder and motor lead wires. Motor connector.	UDA00294
SGMAH-04AAF-YA14	Length of encoder and motor lead wires. Motor connector.	UDA00587
SGMAH-04AAF-YA15	Length of encoder and motor lead wires. Motor connector.	UDA00586

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Construction of Exclusive Design for Customer:

Type	Difference from standard type	Drawing and Parts list
SGMPH-04AAA-FJ21	Shaft and Motor connector only	DP932873
SGMPH-04A1A-FJ12	Shaft, Length of lead wires and Motor connector	DP0310041
SGMPH-04A1A-AD11	Connector cover only	DP0310018
SGMPH-04A1A-AD21	Connector cover only	DP0310018
SGMPH-02A1A-FJ21	Shaft, Length of lead wires and Motor connector	DP9329476
SGMPH-04AAA-TE31	Motor connector only	DP0350789
SGMPH-01AAAG-TE11	Motor connector only	DP0310412
SGMPH-01AAAG-TE21	Motor connector only	DP0310413
SGMPH-01AAAG-TE31	Motor connector only	DP0310604
SGMPH-01AAA-TE11	Motor connector only	DP0310600
SGMPH-01AAA-TE21	Motor connector only	DP0310614
SGMPH-02AAA-TE11	Motor connector only	DP0311674
SGMPH-02AAA-TE31	Motor connector only	DP0312873
SGMPH-02AAA-TE22	Motor connector only	DP0310410
SGMPH-02AAA-TE41	Motor connector only	DP0310617
SGMPH-02AAA-TE51	Motor connector only	DP0312044
SGMPH-04A1A-TE31	Motor connector only	DP0350019
SGMPH-04AAA-TE11	Motor connector only	DP0312043
SGMPH-04AAA-TE11	Motor connector only	DP0310736
SGMPH-04AAA-TE21	Motor connector only	DP0312439
SGMPH-08A1A-TE21	Motor connector only	DP0310493
SGMPH-08AAAG-TE11	Motor connector only	DP0310589
SGMPH-08AAA-TE11	Motor connector only	DP0310601
SGMPH-08AAA-TE21	Motor connector only	DP0311686
SGMPH-08AAA-TE31	Motor connector only	DP0312760
SGMPH-15A1AH-TE11	Motor connector only	DP0350026
SGMPH-15A1AJ-TE11	Motor connector only	DP0350594
SGMPH-15A1A-TE11	Motor connector only	DP0311087
SGMPH-15AAA-TE11	Motor connector only	DP0311502
SGMPH-15AAA-TE21	Motor connector only	DP0310417
SGMPH-02AAA-TE71	Motor connector only	900-004-889
SGMPH-02AAA-TE61	Motor connector only	900-004-890
SGMPH-04AAA-TE41	Motor connector only	900-004-800
SGMPH-04AAA-TE51	Motor connector only	900-004-801
SGMPH-04AAA-TE61	Motor connector only	900-004-802
SGMPH-04AAAG-TE11	Motor connector only	900-004-799
SGMPH-08AAA-TE41	Motor connector only	900-004-930
SGMPH-08AAA-TE51	Motor connector only	900-004-931
SGMPH-08AAA-TE61	Motor connector only	900-004-933
SGMPH-08AAAG-TE21	Motor connector only	900-004-932
SGMPH-15AAA-TE31	Motor connector only	900-004-891
SGMPH-01A1A-YR61	Type only	900-030-483
SGMPH-02A1A-YR71	Type only	900-030-484



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Construction of Exclusive Design for Customer: continued

Type	Difference from standard type	Drawing and Parts list
SGMPH-01AAE-YA11	Length of encoder and motor lead wires. Motor connector.	UDA00293
SGMPH-01AAE-YA12	Length of encoder and motor lead wires. Motor connector.	UDA00359
SGMPH-01AAE-YA13	Length of encoder and motor lead wires. Motor connector.	UDA00547
SGMPH-01AAE-YA14	Length of encoder and motor lead wires. Encoder connector and motor connector.	UDA00540
SGMPH-01AAE-YA15	Length of encoder and motor lead wires. Encoder connector and motor connector.	UDA00543
SGMPH-01AAE-YA17	Length of encoder and motor lead wires. Encoder connector and motor connector.	UDA00565
SGMPH-01AAE-YA18	Length of encoder and motor lead wires. Encoder connector and motor connector.	UDA00566
SGMPH-04AAE-YA16	Length of encoder and motor lead wires. Encoder connector and motor connector.	UDA00542
SGMPH-08AAA-TE32	Motor connector and brake type.	900-064-933
SGMPH-08AAA-TE52	Motor connector and brake type.	900-064-934
SGMPH-08AAA-TE62	Motor connector and brake type. Length of encoder and motor lead wires.	900-065-065
SGMPH-15AAA-TE22	Motor connector and brake type.	900-063-909
SGMPH-15A1AJ-TE12	Motor connector and brake type.	900-065-066