



Product Service

# EU-Type Examination Certificate

No. E6A 16 12 22021 698

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

**Product:** **AC Servo Systems**  
**AC Servo Motor**

**Model(s):** **SGMGV, SGMSV series**  
**(See Attachment for Nomenclature)**

**Description of Object:**

|                     |  |
|---------------------|--|
| Rated Voltage:      | 200 VAC, 400 VAC, 3 Phase  |
| Rated Power:        | 0.3 kW to 15 kW (SGMGV)<br>1.0 kW to 7.0 kW (SGMSV)  |
| Protection Class:   | I  |
| EMC Classification: | EMI: Group 1, Class A(EN 55011),<br>Category C2(EN 61800-3)<br>EMS: Second environment(EN 61800-3) |

**Tested according to:**

|                         |
|-------------------------|
| EN 55011:2009/A1:2010   |
| EN 61000-6-2:2005       |
| EN 61800-3:2004/A1:2012 |

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.:** 73560533



**Date,** 2016-12-16 ( 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.



Certified MODEL List

1. Σ-V SGMGV Series

ELECTRICAL RATINGS:

| <u>Model</u>        | <u>Voltage</u> | <u>Phases</u> | <u>Motor Output (kW)</u> |
|---------------------|----------------|---------------|--------------------------|
| S G M G V -03AxAxxx | 200            | 3             | 0.3                      |
| S G M G V -05AxAxxx | 200            | 3             | 0.45                     |
| S G M G V -09AxAxxx | 200            | 3             | 0.85                     |
| S G M G V -13AxAxxx | 200            | 3             | 1.3                      |
| S G M G V -20AxAxxx | 200            | 3             | 1.8                      |
| S G M G V -30AxAxxx | 200            | 3             | 2.9                      |
| S G M G V -44AxAxxx | 200            | 3             | 4.4                      |
| S G M G V -55AxAxxx | 200            | 3             | 5.5                      |
| S G M G V -75AxAxxx | 200            | 3             | 7.5                      |
| S G M G V -1AAxAxxx | 200            | 3             | 11                       |
| S G M G V -1EAxAxxx | 200            | 3             | 15                       |
|                     |                |               |                          |
| S G M G V -03DxAxxx | 400            | 3             | 0.3                      |
| S G M G V -05DxAxxx | 400            | 3             | 0.45                     |
| S G M G V -09DxAxxx | 400            | 3             | 0.85                     |
| S G M G V -13DxAxxx | 400            | 3             | 1.3                      |
| S G M G V -20DxAxxx | 400            | 3             | 1.8                      |
| S G M G V -30DxAxxx | 400            | 3             | 2.9                      |
| S G M G V -44DxAxxx | 400            | 3             | 4.4                      |
| S G M G V -55DxAxxx | 400            | 3             | 5.5                      |
| S G M G V -75DxAxxx | 400            | 3             | 7.5                      |
| S G M G V -1ADxAxxx | 400            | 3             | 11                       |
| S G M G V -1EDxAxxx | 400            | 3             | 15                       |
|                     |                |               |                          |
| S G M G V -03AxBxxx | 200            | 3             | 0.3                      |
| S G M G V -06AxBxxx | 200            | 3             | 0.6                      |
| S G M G V -09AxBxxx | 200            | 3             | 0.9                      |
| S G M G V -12AxBxxx | 200            | 3             | 1.2                      |
| S G M G V -20AxBxxx | 200            | 3             | 2.0                      |
| S G M G V -30AxBxxx | 200            | 3             | 3.0                      |
| S G M G V -40AxBxxx | 200            | 3             | 4.0                      |
| S G M G V -55AxBxxx | 200            | 3             | 5.5                      |
|                     |                |               |                          |
| S G M G V -03DxBxxx | 400            | 3             | 0.3                      |
| S G M G V -06DxBxxx | 400            | 3             | 0.6                      |
| S G M G V -09DxBxxx | 400            | 3             | 0.9                      |
| S G M G V -12DxBxxx | 400            | 3             | 1.2                      |
| S G M G V -20DxBxxx | 400            | 3             | 2.0                      |
| S G M G V -30DxBxxx | 400            | 3             | 3.0                      |
| S G M G V -40DxBxxx | 400            | 3             | 4.0                      |
| S G M G V -55DxBxxx | 400            | 3             | 5.5                      |



Product Service

| <u>Model</u>        | <u>Voltage</u> | <u>Phases</u> | <u>Motor Output (kW)</u> |
|---------------------|----------------|---------------|--------------------------|
| S G M G V -05AxLxxx | 200            | 3             | 0.45                     |
| S G M G V -20AxLxxx | 200            | 3             | 1.8                      |
| S G M G V -05DxLxxx | 400            | 3             | 0.45                     |
| S G M G V -20DxLxxx | 400            | 3             | 1.8                      |
| S G M G V -03AxMxxx | 200            | 3             | 0.3                      |
| S G M G V -05AxMxxx | 200            | 3             | 0.45                     |
| S G M G V -09AxMxxx | 200            | 3             | 0.85                     |
| S G M G V -13AxMxxx | 200            | 3             | 1.3                      |
| S G M G V -20AxMxxx | 200            | 3             | 1.8                      |
| S G M G V -30AxMxxx | 200            | 3             | 2.9                      |
| S G M G V -44AxMxxx | 200            | 3             | 4.4                      |
| S G M G V -55AxMxxx | 200            | 3             | 5.5                      |
| S G M G V -75AxMxxx | 200            | 3             | 7.5                      |
| S G M G V -03DxMxxx | 400            | 3             | 0.3                      |
| S G M G V -05DxMxxx | 400            | 3             | 0.45                     |
| S G M G V -09DxMxxx | 400            | 3             | 0.85                     |
| S G M G V -13DxMxxx | 400            | 3             | 1.3                      |
| S G M G V -20DxMxxx | 400            | 3             | 1.8                      |
| S G M G V -30DxMxxx | 400            | 3             | 2.9                      |
| S G M G V -44DxMxxx | 400            | 3             | 4.4                      |
| S G M G V -55DxMxxx | 400            | 3             | 5.5                      |
| S G M G V -75DxMxxx | 400            | 3             | 7.5                      |
| S G M G V -03AxExxx | 200            | 3             | 0.3                      |
| S G M G V -05AxExxx | 200            | 3             | 0.45                     |
| S G M G V -09AxExxx | 200            | 3             | 0.85                     |
| S G M G V -13AxExxx | 200            | 3             | 1.3                      |
| S G M G V -20AxExxx | 200            | 3             | 1.8                      |
| S G M G V -30AxExxx | 200            | 3             | 2.9                      |
| S G M G V -44AxExxx | 200            | 3             | 4.4                      |
| S G M G V -55AxExxx | 200            | 3             | 5.5                      |
| S G M G V -75AxExxx | 200            | 3             | 7.5                      |
| S G M G V -1AAxExxx | 200            | 3             | 11                       |
| S G M G V -1EAxExxx | 200            | 3             | 15                       |
| S G M G V -03DxExxx | 400            | 3             | 0.3                      |
| S G M G V -05DxExxx | 400            | 3             | 0.45                     |
| S G M G V -09DxExxx | 400            | 3             | 0.85                     |
| S G M G V -13DxExxx | 400            | 3             | 1.3                      |
| S G M G V -20DxExxx | 400            | 3             | 1.8                      |
| S G M G V -30DxExxx | 400            | 3             | 2.9                      |
| S G M G V -44DxExxx | 400            | 3             | 4.4                      |
| S G M G V -55DxExxx | 400            | 3             | 5.5                      |
| S G M G V -75DxExxx | 400            | 3             | 7.5                      |
| S G M G V -1ADxExxx | 400            | 3             | 11                       |
| S G M G V -1EDxExxx | 400            | 3             | 15                       |



Product Service

| <u>Model</u>        | <u>Voltage</u> | <u>Phases</u> | <u>Motor Output (kW)</u> |
|---------------------|----------------|---------------|--------------------------|
| S G M G V -03AxZxxx | 200            | 3             | 0.3                      |
| S G M G V -05AxZxxx | 200            | 3             | 0.45                     |
| S G M G V -09AxZxxx | 200            | 3             | 0.85                     |
| S G M G V -13AxZxxx | 200            | 3             | 1.3                      |
| S G M G V -20AxZxxx | 200            | 3             | 1.8                      |
| S G M G V -30AxZxxx | 200            | 3             | 2.9                      |
| S G M G V -44AxZxxx | 200            | 3             | 4.4                      |
| S G M G V -55AxZxxx | 200            | 3             | 5.5                      |
| S G M G V -75AxZxxx | 200            | 3             | 7.5                      |
| S G M G V -1AAxZxxx | 200            | 3             | 11                       |
| S G M G V -1EAxZxxx | 200            | 3             | 15                       |
|                     |                |               |                          |
| S G M G V -03DxZxxx | 400            | 3             | 0.3                      |
| S G M G V -05DxZxxx | 400            | 3             | 0.45                     |
| S G M G V -09DxZxxx | 400            | 3             | 0.85                     |
| S G M G V -13DxZxxx | 400            | 3             | 1.3                      |
| S G M G V -20DxZxxx | 400            | 3             | 1.8                      |
| S G M G V -30DxZxxx | 400            | 3             | 2.9                      |
| S G M G V -44DxZxxx | 400            | 3             | 4.4                      |
| S G M G V -55DxZxxx | 400            | 3             | 5.5                      |
| S G M G V -75DxZxxx | 400            | 3             | 7.5                      |
| S G M G V -1ADxZxxx | 400            | 3             | 11                       |
| S G M G V -1EDxZxxx | 400            | 3             | 15                       |
|                     |                |               |                          |
| S G M G V -05AxPxxx | 200            | 3             | 0.45                     |
| S G M G V -20AxPxxx | 200            | 3             | 1.8                      |
| S G M G V -05DxPxxx | 400            | 3             | 0.45                     |
| S G M G V -20DxPxxx | 400            | 3             | 1.8                      |

"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".



2. Σ-V SGMSV Series

ELECTRICAL RATINGS:

| <u>Model</u>        | <u>Voltage</u> | <u>Phases</u> | <u>Watts (kW)</u> |
|---------------------|----------------|---------------|-------------------|
| S G M S V -10AxAxxx | 200            | 3             | 1.0               |
| S G M S V -15AxAxxx | 200            | 3             | 1.5               |
| S G M S V -20AxAxxx | 200            | 3             | 2.0               |
| S G M S V -25AxAxxx | 200            | 3             | 2.5               |
| S G M S V -30AxAxxx | 200            | 3             | 3.0               |
| S G M S V -40AxAxxx | 200            | 3             | 4.0               |
| S G M S V -50AxAxxx | 200            | 3             | 5.0               |
| S G M S V -70AxAxxx | 200            | 3             | 7.0               |
|                     |                |               |                   |
| S G M S V -10DxAxxx | 400            | 3             | 1.0               |
| S G M S V -15DxAxxx | 400            | 3             | 1.5               |
| S G M S V -20DxAxxx | 400            | 3             | 2.0               |
| S G M S V -25DxAxxx | 400            | 3             | 2.5               |
| S G M S V -30DxAxxx | 400            | 3             | 3.0               |
| S G M S V -40DxAxxx | 400            | 3             | 4.0               |
| S G M S V -50DxAxxx | 400            | 3             | 5.0               |

"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".



Nomenclature

1. SGMGV series

Standard

SGMGV - 03 □ □ □ □ □ □  
 a            b c d e f g h

a. Motor Series:SGMGV

b. Motor Output(kW)

| Series<br>Rated<br>Speed<br><br>Symbol | SGMGV            |                  |
|--|------------------|------------------|
|  | (r/min.)<br>1500 | (r/min.)<br>1000 |
| 03                                     | 0.3              | 0.3              |
| 05                                     | 0.45             | -                |
| 06                                     | -                | 0.6              |
| 09                                     | 0.85             | 0.9              |
| 12                                     | -                | 1.2              |
| 13                                     | 1.3              | -                |
| 20                                     | 1.8              | 2.0              |
| 30                                     | 2.9              | 3.0              |
| 40                                     | -                | 4.0              |
| 44                                     | 4.4              | -                |
| 55                                     | 5.5              | 5.5              |
| 75                                     | 7.5              | -                |
| 1A                                     | 11               | -                |
| 1E                                     | 15               | -                |

c. Supply Voltage

| Symbol | Supply Voltage |
|--------|----------------|
| A      | 200V           |
| D      | 400V           |

d. Detector:

| Symbol | Contents  |
|--------|---|
| D      | Incremental(20bit)                                    |
| 3      | Absolute value(20bit)                                 |
| 8      | Absolute value(20bit) with a large-capacity condenser |
| P      | Absolute value(20bit)                                 |

P : For UL only



e. Design Revision Order

- A: The Standard type.(Rated Speed 1500min<sup>-1</sup>)
- B: The Associate Standard type. (Rated Speed 1000min<sup>-1</sup>)
- C: The Exclusive use type for China.  
 Output is the same as a standard type. The color of bolts is silver.
- E: The Exclusive use type for EU and USA.  
 Output is the same as a standard type.
- L: The Standard type.  
 Output is the same as a standard. The flange size is larger than a standard.
- P: The Exclusive use type for EU and USA.  
 Output is the same as a standard. The frame size is larger than a standard.
- M: The Standard type.  
 Output is the same as a standard. The max speed and max torque are larger than a standard.

f. Shaft Type:

| Symbol | Contents                                   |
|--------|--|
| 2      | Straight                                   |
| 4      | Straight, without key                      |
| 6      | Straight, with key and Tap                 |
| 3      | 1/10 Conical shaft ends, With Sunk Key     |
| 5      | 1/10 Conical shaft ends, With Woodruff Key |
| 8      | Straight, with tap                         |

g. Optional parts:

| Symbol | Contents   |
|--------|--|
| F      | With oil seal (V type)                               |
| G      | With oil seal (V type) and with holding brake(DC90V) |
| H      | With oil seal (V type) and with holding brake(DC24V) |
| D      | With oil seal (S type) and with holding brake(DC90V) |
| E      | With oil seal (S type) and with holding brake(DC24V) |
| S      | With oil seal (S type)                               |
| 1      | Without option                                       |
| B      | With holding brake(DC90V)                            |
| C      | With holding brake(DC24V)                            |

h. Connector direction

| Symbol | Contents                 |
|--------|--------------------------|
| (non)  | Standard (straight)      |
| B      | With right angle support |
| C      | With left angle support  |

Attachment

Certificate No. **E6A 16 12 22021 698**



Product Service

Exclusive use Design for Customer (case 1)

SGMGV - 03 □ □ □ - □ □ □ □  
 a      b c d e f g h i

a to d. same as standard

e. Design Revision Order

A: The Standard type.(Rated Speed1500min<sup>-1</sup>)

B: The Associate Standard type.(Rated Speed 1000min<sup>-1</sup>)

E: The Exclusive use type for EU and USA.

Output is the same as a standard type.

L: The Standard type.

Output is the same as a standard. The frame size is larger than a standard.

P: The Exclusive use type for EU and USA.

Output is the same as a standard. The frame size is larger than a standard.

V: The Standard type.

Winding is the same as a standard. The characteristic is different.

W: The Standard type.

Winding and the characteristic differ from a standard.

Z: The Exclusive use type for EU and USA.

Winding and the characteristic differ from a standard.

f,g. Customer Cord

h,i. Design Revision Order for Customer

Exclusive use Design for Customer (case 2)

SGMGV - 03 □ □ □ □ □ □ - □ □  
 a      b c d e f g h i j

a to h. same as standard

i. Customer Cord

j. Design Revision Order for Customer

Exclusive use Design for Customer (case 3)

SGMGV - 03 □ □ □ □ □ □ - OY  
 a      b c d e f g h i

a to h. same as standard

i(-OY). For OMRON YASKAWA Motion Control B.V.

With special name plate.





2. SGMSV series

Standard

SGMSV - 10 □ □ A □ □ □  
 a      b   c   d   e   f   g   h

- a. Motor Series: SGMSV
- b. Motor Output(kW)

| Series      | SGMSV            |
|-------------|------------------|
| Rated Speed | (r/min.)<br>3000 |
| 10          | 1.0              |
| 15          | 1.5              |
| 20          | 2.0              |
| 25          | 2.5              |
| 30          | 3.0              |
| 40          | 4.0              |
| 50          | 5.0              |
| 70          | 7.0              |

c. Supply Voltage

| Symbol | Supply Voltage |
|--------|----------------|
| A      | 200V           |
| D      | 400V           |

d. Encoder:

| Symbol | Contents               |
|--------|------------------------|
| D      | Incremental (20bit)    |
| 3      | Absolute value (20bit) |

e. Design Revision Order

- A: The Standard(Rated Speed 3000min<sup>-1</sup> , Peak Torque 300%)
- V: Winding is the same as a standard. The characteristic is different.
- W: Winding and the characteristic differ from a standard.

f. Shaft Type:

| Symbol | Contents                                   |
|--------|--|
| 2      | Straight                                   |
| 4      | Straight, with key                         |
| 6      | Straight, with key and Tap                 |
| 3      | 1/10 Conical shaft ends, With Sunk Key     |
| 5      | 1/10 Conical shaft ends, With Woodruff Key |
| 8      | Straight, with tap                         |

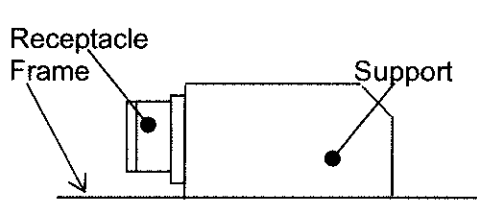


Product Service

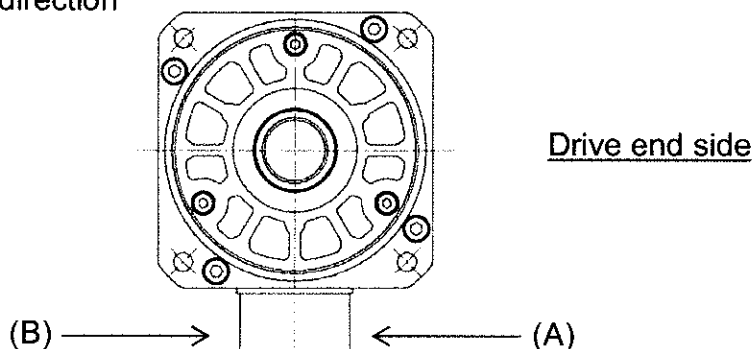
g. Optional parts:

| Symbol | Contents   |
|--------|--|
| F      | With oil seal (V type) (for CE only)                               |
| G      | With oil seal (V type) and with holding brake(DC90V) (for CE only) |
| H      | With oil seal (V type) and with holding brake(DC24V) (for CE only) |
| D      | With oil seal (S type) and with holding brake(DC90V)               |
| E      | With oil seal (S type) and with holding brake(DC24V)               |
| S      | With oil seal (S type)   |
| 1      | Without option   |
| B      | With holding brake(DC90V)  |
| C      | With holding brake(DC24V)  |

h. Design of connection

| Symbol | Contents  | Draw out direction *1 |
|--------|---|-----------------------|
| (non)  | Receptacle  |                       |
| B      | With right-angle support  | (A)                   |
| C      |  | (B)                   |
| F      | Cable Type 1  | (A)                   |
| G      | (See 400-004-518)   | (B)                   |
| H      | Cable Type 2  | (A)                   |
| J      | (See 400-004-518)   | (B)                   |

\*1 Draw out direction





Product Service

Exclusive Design for Customer (case 1)

SGMSV - 10 □ □ A - □ □ □ □  
 a      b c d e    f g h i

a to d. same as standard

e. Design Revision Order

A: The Standard(Rated Speed 3000min<sup>-1</sup>)

V: Winding is the same as a standard. The characteristic is different.

W: Winding and the characteristic differ from a standard.

f,g. Customer Cord

h,i. Design Revision Order for Customer

Exclusive Design for Customer (case 2)

SGMSV - 10 □ □ □ □ □ □ - □ □  
 a      b c d e f g h i j

a to h. same as standard

i. Customer Cord

j. Design Revision Order for Customer