

## **ENGINEERING PUBLICATION** MOTION CONTROL DIVISION

## PRODUCT: SIGMA I & II SUBJECT: UL CERTIFICATION

CATEGORY: PRODUCT NOTES ENGINEER: Bill Leang

**DISTRIBUTION: MCD** 

**Summary**: Underwriters Laboratories (UL) listing information on Yaskawa products are provided in this document. The latest UL listing information for Yaskawa products may be obtained from UL's Listing Information System (LIS) on the UL website at http://www.ul.com/database/.

Yaskawa Electric America's product policy is to comply with global safety standards including UL for the U. S. and c-UL for Canada. The purpose of this document is to provide information on the UL listings of Yaskawa products and applicability of c-UL mark to meet Canadian safety standards such as those required by CSA.

Yaskawa servo amplifiers and accessories are covered under UL file # E147823, and servo motors are covered under file # E165827. The servo amplifiers are tested to UL standard UL508C, *Standard for Power Conversion Equipment*; and servo motors are tested to UL standard UL1004, *Electric Motors*. Copies of these Standards may be purchased from UL.

Yaskawa products also bear the c-UL mark and are certified by UL to be in compliance with appropriate Canadian standards. More information regarding the c-UL mark can be found on the UL website at http://www.ul.com/database/.

The chart below shows the UL file numbers and product categories for Yaskawa servo products:

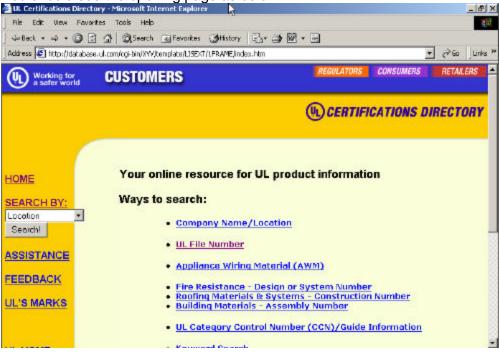
Motors	UL File #: E165827 Category: PRGY2	<u>c-UL</u> E165827 PRGY8
Amplifiers & Application Modules & Accessories	File #: E147823 Category: NMMS	E147823 NMMS7
Motion Controllers (e.g. SMC2000)	File #: E184524 Category: NRAQ	E184524 NRAQ7

The latest UL and cUL listing information may be obtained from UL's Listing Information System (LIS) on the UL website. To access LIS, follow the following steps:

1. Log on to the UL website at http://www.ul.com/database/



2. You should see the opening page as below:



Select "UL File Number",

3. The file number entry screen will appear:

UL Certifications Direct	ory - Microsoft Internet Explorer	X
Die Edit View Favo	ntes Icols Help	18
- + Back + + - 🕥 🔤	월 🕼 🗐 🕄 Search 🗃 Favoritors (영History 🗠	
Address 🛃 http://databas	e.ul.com/ogi-bin/XYY/template/LISERT/LFRAME/gfilenbr	htnl 💌 🖉 😡 Unis 🏁
Working for a dear world	CUSTOMERS	REGULATORS CONSUMERS RETAILERS
		CERTIFICATIONS DIRECTORY
HOME SEARCH BY: Location Searchi ASSISTANCE FEEDBACK UL'S MARKS	UL File No. (E12345):	Search by UL File Number

Enter the file number, e.g. E147823, and select "Search",



4. The list of Yaskawa listings for E147823 will appear as shown below:

diress 🙋 http://database.ul.com/cgi-bin/2014/cgifind.	new(LISEKT(LFRAME)srchres.html	• 29	0 Unks
Working for a safer world CUSTOMER	IS RECULATORS	CONSUMERS RETAIL	ERS
la V	our Search Results		
Number of hits: 4			
Home + Refine Your Search			
Company Name	Category Name	Link to File	
YASKAWA ELECTRIC AMERICA INC	Power Conversion Equipment	NMMS.E14782	3
YASKAWA ELECTRIC AMERICA INC	Power Conversion Equipment - Component	NMMS2.E1478	23
YASKAWA ELECTRIC AMERICA INC	Power Conversion Equipment Certified For Canada	NMMS7.E1478	23
	Power Conversion Equipment Certified For Canada - Component	NMMS8.E1478	22

Select one of the files, e.g. NMMS.E147823

5. The detailed listing will be shown:

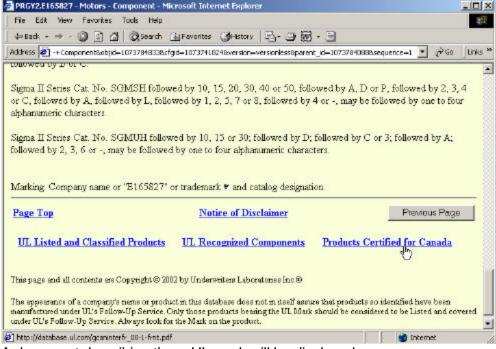
NMMS.E147823 - Power Conversion Equipment - Microsoft Internet Explorer			_ # X
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4-Back + → + ③ 🖸 🏠 👰 Search @ Favoritas @History 🖏 + 🔿 🗑	1 - 5		
Address 🕘 Conversion+Equipment&objid=10741004418.cfgd=10737418248.version=version	ess&parent_id=10739	902328sequence=1 💌	∂©o Unks ≫
Working for CUSTOMERS	REGULATORS	CONSUMERS	RETAILERS
NMMS.E147823 Power Conversion Equ	Service and the service of the servi		
Page Bottom Notice of Disclaimer		Previo	us Poge
Power Conversion Equ	iipment		
Guide Information	l₀		
YASKAWA ELECTRIC AMERICA INC 2121 NORMAN DR S WAUREGAN, IL 60085 USA			E147823
AC drives, DR2 Series, Model DR2 followed by A3, A5, 01, 02, 03, 04 or	r 08, followed by	A or B, followed by	rCorD, 💡
This is the UL listing for the amplifiers & option	ns. Scroll	down for mo	ore details.



6. Go back to the previous screen and select NMMS7.E147823, the cUL listing will be displayed:



- 7. The listings may be printed by using the Print option of the web browser.
- 8. To obtain information regarding c-UL, scroll down to the bottom of the listing page and select "Products Certified for Canada":
   PRGY2.E165827 - Motors - Component - Microsoft Internet Explorer



A document describing the c-UL mark will be displayed.

2121 Norman Drive South Waukegan, IL 60085 (847) 887-7000 **CERTIFICAT** 

# Certificate

## No: B 00 08 22021 071

TUV PRODUCT SERVICE

Yaskawa Electric Corp. Tokyo Plant 480 Kamifujisawa, Iruma Saitama 358-8555 Japan

with production facility(ies) 22021 38663

is authorized to label the following products with the certification mark E as shown in the certification mark list. See also notes overleaf.

Product: Elektromotoren AC Servo Motor

Model: SGMAH, SGMPH Series (See Attachment 1 for Nomenclature)

Degree of protection:

Parameters:

Rated voltage: 100 V or 200 V Rated input current: 0.44 A - 7.5 A Protection class: I

Remarks:

List of tested and certified motors as per Attachment 2.

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

IP55

The product meets the relevant safety requirements and was tested according to:

IEC 60034-1:1996 IEC 60034-5:1991 IEC 60034-8:1972 IEC 60034-9:1997 EN 60034-1:1995 EN 60034-9:1997

Report No: TYOEMA03999, E - (B 00 03 22021 064)

Released with the above certificate number by the certification body of TÜV PRODUCT SERVICE GMBH.

Department: Date: TYOELP / YS 08-18-2000





#### Anlage 2 zum Zertifikat Attachment 2 to the Certificate Seite 1 von 2 Page 1 of 2 Zertifikat Nr. / B 00 08 22021 071 Certificate No. 1. Σ-II Series SGMAH Type **1.1 MODEL DESCRIPTION** 1.1.1 PRODUCT COVERED: Component - AC Servo Motors, Series SGMAH, followed by any number from A3 to 08, followed by A or B, followed by 1, A, B and so on, followed by A, B or C may be followed by additional letters and or numbers. 1.1.2. ELECTRICAL RATINGS: Model Voltage Phases. Amps Watts (kw) SGMAH-A3Axxxx 200 3 0.44 0.03 SGMAH-A3Bxxxx 100 3 0.66 0.03 SGMAH-A5Axxxx 200 3 0.64 0.05 SGMAH-A5Bxxxx 100 3 0.95 0.05 SGMAH-A8Axxxx 200 3 0.73 0.08 SGMAH-A8Bxxxx 100 3 1.9 0.08 SGMAH-01Axxxx 200 3 0.91 0.10 SGMAH-01Bxxxx 3 100 2.4 0.10 3 SGMAH-02Axxxx 200 2.1 0.20 SGMAH-02Bxxxx 3 100 3.0 0.20 SGMAH-04Axxxx 3 200 2.8 0.40 SGMAH-08Axxxx 200 3 4.4 0.75 "X" represents variations in model number as described in product covered and series nomenclature

"X" represents variations in model number as described in product covered and series nomenclature which do no affect electrical construction or rating. Reference "Product Covered" or "Series Nomenclature."

Organisationseinheit / Organization unit: Datum / Date:

10 / EEC / Tetsuro Kushiyama / MY 2000/08/18

ES)



#### Anlage 2 zum Zertifikat Attachment 2 to the Certificate Seite 2 von 2 Page 2 of 2 Zertifikat Nr. / B 00 08 22021 071 Certificate No. 2. Σ-II Series SGMPH Type 2.1 MODEL DESCRIPTION 2.1.1 PRODUCT COVERED: Component - AC Servo Motors, Series SGMPH, followed by any number from A3 to 08, followed by A or B, followed by 1, A, B and so on, followed by A, B or C may be followed by additional letters and or numbers. 1.1.2. ELECTRICAL RATINGS: Model Voltage Phases. Amps Watts (kw) SGMPH-A8Axxxx 200 3 0.71 0.08 SGMPH-A8Bxxxx 100 3 1.8 0.08 SGMPH-01Axxxx 200 3 0.89 0.10 SGMPH-01Bxxxx 100 3 2.2 0.10 SGMPH-02Axxxx 200 3 2.0 0.20 3 SGMPH-02Bxxxx 100 2.7 0.20 SGMPH-04Axxxx 3 200 2.6 0.40 3 SGMPH-08Axxxx 200 4.1 0.75 SGMPH-15Axxxx 3 200 7.5 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."

Organisationseinheit / Organization unit: Datum / Date:

10 / EEC / Tetsuro Kushiyama / MY 2000/08/18

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# Certificate

#### No: B 00 01 21347 015

PRODUCT SERVICE

Yaskawa Electric Corporation Yahata Plant (Fukuoka) 2-1 Shiroishi Kurosaki 806-0004 Yahatanishi, Kitakyushu Japan

with production facility(ies) 21347

is authorized to label the following products with the certification mark E as shown in the certification mark list. See also notes overleaf.

Product: Elektromotoren AC Servo Motor

#### SGMGH Series, SGMSH Series, SGMDH series Model: (See Attachment 1 for Nomenclature)

Parameters:

200 V Rated input power: 0.3 KW - 15 KW

Protection class: т

Rated voltage:

Remarks: List of tested and certified motors as per Attachment 2.

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

The product meets the relevant safety requirements and was tested according to:

IEC 60034-1:1996 IEC 60034-5:1991 IEC 60034-8:1972 IEC 60034-9:1997



Report No: TYOEMA04000, HA - (B 98 02 21347 010), E - (B 98 04 21347 012)

Released with the above certificate number by the certification body of TÜV PRODUCT SERVICE GMBH.

Department: Date:

TYOELP / HI 01-13-2000

TÜV PRODUCT SERVICE GMBH · Zertifizierstelle · Ridlerstrasse 31 · D-80339 München



## Anlage 1 zum Zertifikat Attachment 1 to the Certificate

Seite 1 von 4 Page 1 of 4

#### Zertifikat Nr. / B 00 01 21347 015 Certificate No.

Series Nomenclature

1. Standard

<u>SGMSH</u> -	<u>10</u>	<u>A</u>	<u>C</u>	А		П	П
а	b	С	d	e	f	g	h

a. Motor Series: SGMGH, SGMSH, SGMDH

b. Motor Output (kW)

Series	SGN	IGH	SGMSH	SGMDH
Rated Speed	(r / min.) 1500	(r / min.) 1000	(r / min.) 3000	(r / min.)
03		0.3		2000
05	0.45			<u> </u>
06	······	0.6		<u> </u>
09	0.85	0.9		
10	- ··		1.0	
12		1.2	1.0	
13	1.3			·
15			1.5	
20	1.8	2.0	2.0	
22			2.0	
30	2.9	3.0	3.0	2.2
32				
40		4.0	4.0	3.2
44	4.4			4.0
50			5.0	
55	5.5	5.5		
75	7.5			
1A	11.0			
1E	15.0	———— <u>—</u> —		

## c. Supply Voltage

A: 200V

d. Detector

Symbol	Contents	— <u> </u>
С	Incremental (17 bit)	
2	Absolute Value (17 bit)	
3	Absolute Value (20 bit)	

Organisationseinheit / Organization unit: Datum / Date:

8 / TYOEMA / Tetsuro Kushiyama / MY

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Anlage 1 zum Zer Attachment 1 to th	rtifikat ne Certificate	
Zertifikat Nr. / B00	01 21347 015	Seite 2 von 4 Page 2 of 4
SGM SGM B: SGM C: SGM For h D: SGM	and Rated Speed IGH Series (1500 r / min.) SH Series (3000 r / min.) DH Series (2000 r / min.) GH Series (1000 r / min.) GH Series (1500 r / min.) igh precision machine tool GH Series (1000 r / min.) igh precision machine tool	
f. Shaft Type Symbol 2 4 6 3 5 8	Contents Straight Straight, Without Key Straight, With Key and Tap 1/10 Conical shaft ends, With Sunk Key 1/10 Conical shaft ends, With Woodruff Key Straight, With Tap	
g. Optional parts Symbol F G H D E S 1 B C	Contents         With Oil Seal (V type)         With Oil Seal (V type) and With Holding Brake (DC90V)         With Oil Seal (S type) and With Holding Brake (DC90V)         With Oil Seal (S type) and With Holding Brake (DC24V)         With Oil Seal (S type) and With Holding Brake (DC24V)         With Oil Seal (S type)         With Holding Brake (DC24V)         With Holding Brake (DC90V)         With Holding Brake (DC24V)	
Organisationseinheit / Organization Datum / Date:	n unit: 8 / TYOEMA / Tetsuro Kushiyama / MY 2000/01/13	

TÜV PRODUCT SERVICE GMBH, Ridlerstraße 31, D-80339 Munich, Germany

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Seite 3 von 4

Page 3 of 4

## Anlage 1 zum Zertifikat Attachment 1 to the Certificate

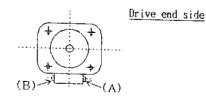
Zertifikat Nr. / Certificate No.

B 00 01 21347 015

Design of connection

Symbol	Contents	Drawout direction * 1
Blank	Receptacle	
В	With right-angled Support Raceptacle	(A)
С	Support	(B)
F	Cable Type 1	(A)
G	(See BE9359793)	(B)
н	Cable Type 2	(A)
J	(See BE9359793)	(B)

\* 1 Drawout direction



Organisationseinheit / Organization unit: 8 / TYOEMA / Tetsuro Kushiyama / MY 2000/01/13

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Anlage 1 Attachme			ate				Seite 4 von 4
Zertifikat Nr. / Certificate No.	B 00 0	1 213	47 015	ł			Page 4 of 4
Exclusive De	esign for Cus	stomer					
<u>SGM</u> a	<u>SH</u> - <u>10</u> b	<u>A</u> c d	2 <u>A</u> e	□ □ f g	<u> </u>		
a to d. same as	s standard			-			
e. Revision Orc A: B: C: D:	SGMGH S SGMSH S SGMDH S SGMGH S SGMGH S	Series (1 Series (2 Series (2 Series (1 Series (1 Series (1 Series (1	000 r / min.)	) )			
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, g. Customer ( n, i. Design Rev nternational F	SGMGH Se SGMSH Se SGMDH Se Cord rision Order for Protection Cl	eries (Speci eries (Speci eries (Speci r Customer ass (IP Cl	al Rated Spe al Rated Spe al Rated Spe ass)	eed) eed)			
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, g. Customer ( a, i. Design Rev nternational F lo. Contents Connect	SGMGH Se SGMSH Se SGMDH Se Cord rision Order for Protection Cl	eries (Speci eries (Speci r Customer ass (IP C	al Rated Spe al Ra	ed) ed) e Oilse	V type	S type	
, g. Customer C n, i. Design Rev nternational F No. Contents Connect	SGMGH Se SGMSH Se SGMDH Se Cord Protection Cl S ion: Receptacl ion: Receptacl	eries (Speci eries (Speci eries (Speci r Customer ass (IP C en e e	al Rated Spe al Rated Spe al Rated Spe ass) ass	ed) ed)	V type IP55	S type IP67	
f, g. Customer C n, i. Design Rev International F No. Contents Connecti (With rig	SGMGH Se SGMSH Se SGMDH Se Cord rision Order for Protection Cl s ion: Receptacl ion: Receptacl ht-angled supp	eries (Speci eries (Speci eries (Speci r Customer ass (IP C en e e	al Rated Spe al Ra	ed) ed)	V type	S type	
f, g. Customer C h, i. Design Rev International F No. Contents 1 Connect 2 Connect 3 Connect	SGMGH Se SGMSH Se SGMDH Se Cord Protection Cl s ion: Receptacl ion: Receptacl ht-angled supp ion: Cable	eries (Speci eries (Speci eries (Speci r Customer ass (IP Cl en e port)	al Rated Spe al Ra	e Oilse	V type IP55	S type IP67	
f, g. Customer C h, i. Design Rev International F No. Contents Connecti (With rig) Connecti 1. When driv	SGMGH Se SGMSH Se SGMDH Se Cord rision Order for Protection Cl s ion: Receptacl ht-angled supp ion: Cable ve end side need	eries (Speci eries (Speci eries (Speci r Customer ass (IP C Ex en e oort) ds IP55 or IP	al Rated Spe al Ra	e Oilse oilseal.	V type IP55 IP55 IP55	S type IP67 IP67	
f, g. Customer C h, i. Design Rev International F No. Contents 1 Connect 2 Connect 3 Connect	SGMGH Se SGMSH Se SGMDH Se Cord rision Order for Protection Cl s ion: Receptacl ht-angled supp ion: Cable ve end side need	eries (Speci eries (Speci eries (Speci r Customer ass (IP C Ex en e oort) ds IP55 or IP	al Rated Spe al Ra	e Oilse oilseal.	V type IP55 IP55 IP55	S type IP67 IP67	

## EC Certificate of Conformity



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# No.: E9 98 06 22021 040

concerning the EMC protection requirements in accordance with Article 10 of the Council Directive 89/336/EEC on electromagnetic compatibility for

Yaskawa Electric Corporation Tokyo Plant 480 Kamifujisawa, Iruma-Shi Saitama 358-8555 Japan

Item Identification: Industrial Scientific and Medical Equipment SGMAH, SGMPH series (see Attachment 1 for grouping)

Item Description:

Department:

Date:

AC Servo Motors 30W-750W, 100W-1.5kW Protection class I

Project-/TCF No.: TYOEMC04845A

This Certificate of Conformity was issued in accordance with Article 10.2 of the Council Directive 89/336 EEC on the harmonization of the laws of the Member States relating to electromagnetic compatibility. It was transposed into the "Gesetz über die elektromagnetische Verträglichkeit von Geräten vom 9. November 1992 (EMVG, § 5.2)" in Germany. This certificate does not contain any statements pertaining to the EMC protection requirements governed by other laws which serve to implement EC Directives other than the aforementioned Council Directive 89/336 EEC. This certificate or the technical report refers only to the tested sample or product family listed in the above mentioned Project-/TCF documentation.

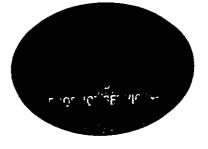
This certificate does not permit the use of a TÜV PRODUCT SERVICE certification mark on the tested product.

Released with the above mentioned certificate number by the certification body of TÜV PRODUCT SERVICE.

RARL

Robert Binder

Stv. des Leitors der zuständigen Stalle TYOEMC/Robert Binder 02.06.1998



TÜV Product Service GmbH is Competent Body in accordance with EMC Directive 89/336/EEC (BMPT VFG. 91/1992).

FIKAT • CERTIFICATE

# **EC Certificate of Conformity**



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## No.: E9 98 06 22021 042

concerning the EMC protection requirements in accordance with Article 10 of the Council Directive 89/336/EEC on electromagnetic compatibility for

Yaskawa Electric Corporation Tokyo Plant 480 Kamifujisawa, Iruma-Shi Saitama 358-8555 Japan

Item Identification:

Industrial Scientific and Medical Equipment SGMGH-\*\*A\*\*\*\*\*, SGMSH-\*\*A\*\*\*\*\* series (see Attachment 1 for grouping)

Item Description:

AC Servo Motors 200-230VAC, 0.3-3kW Protection class I

Project-/TCF No.: TYOEMC04847A

This Certificate of Conformity was issued in accordance with Article 10.2 of the Council Directive 89/336 EEC on the harmonization of the laws of the Member States relating to electromagnetic compatibility. It was transposed into the "Gesetz über die elektromagnetische Verträglichkeit von Geräten vom 9. November 1992 (EMVG, § 5.2)" in Germany. This certificate does not contain any statements pertaining to the EMC protection requirements governed by other laws which serve to implement EC Directives other than the aforementioned Council Directive 89/336 EEC. This certificate or the technical report refers only to the tested sample or product family listed in the above mentioned Project-/TCF documentation.

This certificate does not permit the use of a TÜV PRODUCT SERVICE certification mark on the tested product.

Released with the above mentioned certificate number by the certification body of TÜV PRODUCT SERVICE.

RLA BL

Robert Binder Stv. des Leiters der zuständigen Stalle

**TYOEMC/Robert Binder** 

02.06.1998

Department: Date:

TÜV Product Service GmbH is Competent Body in accordance with EMC Directive 89/336/EEC (BMPT VFG. 91/1992).



## Anlage 1 zum Zertifikat Attachment 1 to the Certificate

Zertifikat Nr. / Certificate No.

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Seite 1 von 1 Page 1 of 1

E9 98 06 22021 042

## <Grouping>

SGMGH-03A\*A\*\*\*, SGMGH-05A\*A\*\*\*, SGMGH-20A\*A\*\*\*, SGMGH-20A\*A\*\*\*, SGMGH-06A\*B\*\*\*, SGMGH-06A\*B\*\*\*, SGMGH-20A\*B\*\*\*, SGMGH-20A\*B\*\*\*, SGMGH-20A\*B\*\*\*, SGMGH-44A\*A\*\*\*, SGMGH-30A\*\*\*\*, SGMGH-75A\*A\*\*\* SGMGH-75A\*A\*\*\* SGMSH-10A\*\*\*\*, SGMSH-10A\*\*\*\*, SGMSH-10A\*\*\*\*, SGMSH-40A\*\*\*\*, SGMSH-20A\*\*\*\*, SGMSH-40A\*\*\*\*, SGMSH-20A\*\*\*\*, SGMDH-22A\*\*\*\*, SGMDH-22A\*\*\*\*, SGMDH-32A\*\*\*\*, SGMDH-40A\*\*\*\*, SGMDH-40A\*\*\*\*, SGMGH-30ACA-AM11, SGMGH-44ACA-AM12, SGMGH-55ACA-AM12, SGMGH-1AACA-AM11

Total: 32

Organisationseinheit / Organization unit: Datum / Date:

TYO / Robert Binder modified 26.01.2000 bn

RAAR

## **EC Certificate of Conformity**

## No.: E9 01 07 22021 097



concerning the EMC protection requirements in accordance with Article 10 of the Council Directive 89/336/EEC on electromagnetic compatibility for

Yaskawa Electric Corporation Tokyo Plant 480 Kamifujisawa, Iruma-Shi Saltama 358-8555 Japan

Item Identification: Industrial Scientific and Medical Equipment SGDG Series (See attachment 1 for grouping)

Item Description:

AC Servo Amplifier Protection class I

Project-/TCF No.:

#### TYOEMC11237A

This Certificate of Conformity was issued in accordance with Article 10.2 of the Council Directive 89/336 EEC on the harmonization of the laws of the Member States relating to electromagnetic compatibility. It was transposed into the "Gesetz über die elektromagnetische Verträglichkeit von Geräten vom 9. November 1992 (EMVG, § 5.2)" in Germany. This certificate does not contain any statements pertaining to the EMC protection requirements governed by other laws which serve to implement EC Directives other than the aforementioned Council Directive 89/336 EEC. This certificate or the technical report refers only to the tested sample or product family listed in the above mentioned Project-/TCF documentation.

This certificate does not permit the use of a TÜV PRODUCT SERVICE certification mark on the tested product.

Released with the above mentioned certificate number by the certification body of TÜV PRODUCT SERVICE.

RH K **Robert Binder** 

Stv. des Leiters der zustänzigen Stalle TYOEMC/Robert Binder 09.07.2001



Department: Date:

TÜV Product Service GmbH is Competent Body in accordance with EMC Directive 89/336/EEC (BMPT VFG. 91/1992).

TÜV PRODUCT SERVICE GMBH · Zertifizierstelle · Ridlerstrasse 65 · D-80339 München

,



# Anlage 1 zum Zertifikat Certificate Attachement 1

Seite 1 von 1 Page 1 of 1

#### Zertifikat Nr./ E9 01 07 22021 097 Certificate No.

Model	Voltage	Power
SGDG-01GT	AC90V-AC253V	0.1kW
SGDG-04GT	AC90V-AC253V	0.4kW
SGDG-10GT	AC90V-AC253V	1.0 <b>k</b> W
SGDG-15GT	AC90V-AC253V	1.5kW
SGDG-A3AP	AC200V-AC220V	0.03kW
SGDG-A5AP	AC200V-AC220V	<b>0</b> .05kW
SGDG-01AP	AC200V-AC220V	0.1kW
SGDG-02AP	AC200V-AC220V	0.2kW
SGDG-04AP	AC200V-AC220V	0.4 <b>k</b> W
SGDG-08AP	AC200V-AC220V	0.8kW
SGDG-A3FP	AC100V-AC115V	0.03kW
SGDG-A5FP	AC100V-AC115V	0.05kW
SGDG-01FP	AC100V-AC115V	0.1kW
SGDG-02FP	AC100V-AC115V	0.2kW
SGDG-04FP	AC100V-AC115V	0.4kW

Total: 15

Organisationseinheit / Organization unit: TYOEMC / Robert Binder / JH 7/9/01 Datum / Date:

\_DUN MI

;0429634031

PRODUCT SERVICE

# Certificate

#### 22021 095 No: B 01 06

Yaskawa Electric Corp. **Tokyo Plant** 480 Kamifujisawa, Iruma Saitama 358-8555 Japan

with production facility(ies) 22021

is authorized to label the following products with the TÜV Mark E20. Please see notes overleaf.

Product:

**AC Servo Amplifiers** 

Model:

SGDG-\*\*\*\*\*\*\*\*\*\* Series (See Attachment 1)

Geschwindigkeitsgeregelte Servoantriebe

Parameters

5:	Rated voltage:	AC 90 - 253 V
	Rated frequency:	50 / 60 Hz
	Rated input current:	1.0 A - 16 A
	Protection class:	r

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

The compliance of the above-mentioned product with the following essential requirements was tested on a voluntary basis:

EN 50178:1997



Report No: TYOMAE10197

Released with the above certificate number by the certification body of TÜV PRODUCT SERVICE GMBH.

Department: Date:

TYOELP / YS 28-Jun-2001

TÜV PRODUCT SERVICE GMBH Zertifizierstelle Ridlerstrasse 65 D-80339 München



# Anlage 1 zum Zertifikat Certificate Attachement 1

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Zertifikat Nr./ B 01 06 22021 095 Certificate No.

Type SGDG-\*\* GT Series

Model

#### **Item Description**

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SGDG-01GT	90 ~ 253VAC	0.1 KW
SGDG-04GT	90 ~ 253VAC	0.4 KW
SGDG-10GT	90 ~ 253VAC	1.0 KW
SGDG-15GT	90 ~ 253VAC	1.5 KW

Type SGDG-\*\* P Series

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Nomenclature	
$\frac{SGDG}{(A)} - \frac{**}{(B)} \frac{*}{(C)} \frac{*}{(D)} \frac{*}{(E)} \frac{**}{(F)} \frac{***}{(G)}$	
A : Servopack series	Σ-II series, Input Voltage is wide range. (90 ~ 253VAC)
B: Maximum Applicable Motor Capacity	Table-1 (Group)
C: Input Voltafe	G= 90 ~ 253VAC A= 200 ~ 220VAC F= 100 ~ 115VAC
D: Model	T= Torque control P= Position control
E: Design Order	Blank= Original Version
F: Option specification – 1	Table-2 (Group)
G: Option specification – 2	Table-3 (Group)

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## Anlage 1 zum Zertifikat Certificate Attachement 1

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#### Zertifikat Nr./ Certificate No.

## B 01 06 22021 095

### Table 1

(Group)	Rated Output Power of Max. Applicable Motor capacity
A3	0.03 KW
A5	0.05 KW
01	0.10 KW
02	0.20 KW
04	0.40 KW

### Table 2

(Group)	Option specification-1	
blank	Standard	
- R	Rack mount type	
- V	PCB Board Coating (varnish)	
- P	Duct ventilation type	

### Table-3

	Option specification 2	
(Group)		Difference from Standard Model
blank		Standard
Y***P		User's parameter are changed for the customer.
Y***S		Software and user's parameter are changed for the customer.
Y***H		Hardware, software and parameter are changed for the customer.

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Zertifikat Nr./ Certificate No. B 01 06 22021 095	, }
Nomenclature	
$\frac{SGDG}{(A)} - \frac{* *}{(B)} \frac{*}{(C)} \frac{*}{(D)} \frac{*}{(E)} \frac{* *}{(F)}$	<u>* * * *</u> (G)
A : Servopack series	Σ-II series, Input Voltage is wide range. (90 ~ 253VAC)
B: Maximum Applicable Motor capacity	Table-1 (Group)
C: Input voltage	G= 90 ~ 253V3AC A= 200 ~ 220V3AC
D: Model	T= Torque Control P= Position Control
E: Design Order	Blank =Original Version
F: Option specification – 1	Table-2 (Group)
G: Option specification – 2	Table-3 (Group)
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## Anlage 1 zum Zertifikat Certificate Attachement 1

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Zertifikat Nr./ Certificate No.

# B 01 06 22021 095

## Table 1

(Group)		
	Max. Applicable Motor capacity	
08	0.8 KW	
10	1.0 KW	
15	1.5 KW	

### Table 2

(Group)	Option specification-1
blank	Standard
- R	Rack mount type
- V	PCB Board Coating (varnish)
- P	Duct ventilation type

### Table-3

E

	Option specification 2	
(Group)		Difference from Standard Model
blank		Standard
Y***P		User's parameter are changed for the customer.
Y***S		Software and user's parameter are changed for the customer.
Y***H		Hardware, software and parameter are changed for the customer.

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 Datum / Date:
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