

Safety Standard Certified Ceramic Capacitors
(安全規格認定セラミックコンデンサ)

Type GB

X2 : 250 Vac(r.m.s.)

Certification Body (認証機関)	Class (クラス)	Standard No. (規格番号)	Certificate No.* (認定番号)	Expiration date (有効期限)	Attached Page No. (添付ページ番号)
UL	X2	UL60384-14	E37921	No expiration date (有効期限無し)	2 - 1
VDE	X2	EN60384-14 IEC60384-14	94729	No expiration date (有効期限無し)	2 - 2
SEMKO	X2		SE-S-2100996	2026-07-14	2 - 3
ESTI	X2	IEC60384-14	22.0437	2025-06-01	2 - 4

* Above Certified No. may be changed on account of the revision of standards and the renewal of certification.

(* 認定番号は規格番号の改訂、取得範囲の変更により変わることがあります。)

Murata Mfg. Co.,Ltd.

株式会社 村田製作所

Fixed Capacitors for Use in Electronic Equipment - Component

COMPANY


MURATA MFG CO LTD

COMPONENT BUSINESS UNIT

1-10-1 HIGASIKOTARI

NAGAOKAKYO-SHI, Kyoto 617-8555 Japan

E37921

Marking: Company name or trademark , and model designation.

Note: For additional marking information, refer to the [Guide Information Page](#).

View model for additional information

Class X1 and Class Y2 Capacitors, Model(s): KJ may be followed by M for +/-20%, K for +/-10%.

Class X1/Y1 Capacitors, Model(s): EA may be followed by K ($\pm 10\%$) (for 10~47pF), K ($\pm 10\%$) or M ($\pm 20\%$) (for 100~680pF), M ($\pm 20\%$) (for 1000~2200pF).

Class X1/Y1 Capacitors, Model(s): KL may be followed by J ($\pm 5\%$), K ($\pm 10\%$) or M ($\pm 20\%$) for capacitance tolerance.

Class X1/Y1 Capacitors, Model(s): RA may be followed by J ($\pm 5\%$), K ($\pm 10\%$) or M ($\pm 20\%$) for capacitance tolerance.

Class X1/Y1 Capacitors, Model(s): RB may be followed by K ($\pm 10\%$) or M ($\pm 20\%$) for capacitance tolerance.

Class X1/Y1 Capacitors, Ceramic Disk Type, Model(s): KX may be followed by J for +/-5%. K for +/-10%. M for +/-20%.

Class X1/Y2 Capacitors, Model(s): IF may be followed by K ($\pm 10\%$).

Class X1/Y2 Capacitors, Model(s): SA may be followed by J ($\pm 5\%$), K ($\pm 10\%$) or M ($\pm 20\%$) for capacitance tolerance.

Class X1/Y2 Capacitors, Ceramic Disk Type, Model(s): KH may be followed by K for +/-10%. M for +/-20%.

Class X1/Y2 Capacitors, Ceramic Disk Type, Model(s): KY may be followed by J for +/-5%. K for +/-10%. M for +/-20%.

Class X1/Y2 Capacitors, Surface Mount Capacitors, Model(s): GF series for type GA342 may be followed by J ($\pm 5\%$) (for 10~82pF), K ($\pm 10\%$) (for 100~4700pF).

Class X1/Y2 Capacitors, Surface Mount Capacitors, Model(s): GF series for type GA352, GA355 may be followed by J ($\pm 5\%$) (for 10~82pF), K ($\pm 10\%$) (for 100~4700pF).

Class X1/Y2 Capacitors, Surface Mount Capacitors, Model(s): ME may be followed by K ($\pm 10\%$) (for 100~4700pF), M($\pm 20\%$) (for 5600~10000pF).

Class X2 Capacitors, Model(s): GB+GA35****GB****W*** (* may be space, 0 to 9, A to Z) with Capacitances of 10000, 15000, 22000, 33000, 47000, or 56000 pF with tolerance K.

Last Updated on 2024-04-27

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Model GB+GA35****GB****W*** (* may be space, 0 to 9, A to Z)

File Number: E37921

COMPANY

MURATA MFG CO LTD
 COMPONENT BUSINESS UNIT
 1-10-1 HIGASIKOTARI
 NAGAOKAKYO-SHI, Kyoto 617-8555 Japan

MODEL INFO

GB+GA35****GB****W*** (* may be space, 0 to 9, A to Z) with Capacitances of 10000, 15000, 22000, 33000, 47000, or 56000 pF with tolerance K.
 Class X2 Capacitors

GENERAL										
US Standard	Canadian Standard	Capacitor Class	Voltage (V)	AC or DC	Capacitance	Tolerance (%)	Resistance for RC Devices	Lower Temperature (°C)	Upper Temperature (°C)	Additional Robustness Grades
--	--	X2	250	AC	10000 pF	+/- 10		-55	125	
--	--	X2	250	AC	15000 pF	+/- 10		-55	125	
--	--	X2	250	AC	22000 pF	+/- 10		-55	125	
--	--	X2	250	AC	33000 pF	+/- 10		-55	125	
--	--	X2	250	AC	47000 pF	+/- 10		-55	125	
--	--	X2	250	AC	56000 pF	+/- 10		-55	125	

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ZEICHENGENEHMIGUNG MARKS APPROVAL

Murata Mfg. Co., Ltd.
(Headquarters)
10-1 Higashikotari 1-Chome
NAGAOKAKYO-SHI, KYOTO 617-8555
JAPAN

ist berechtigt, für ihr Produkt /
is authorized to use for their product

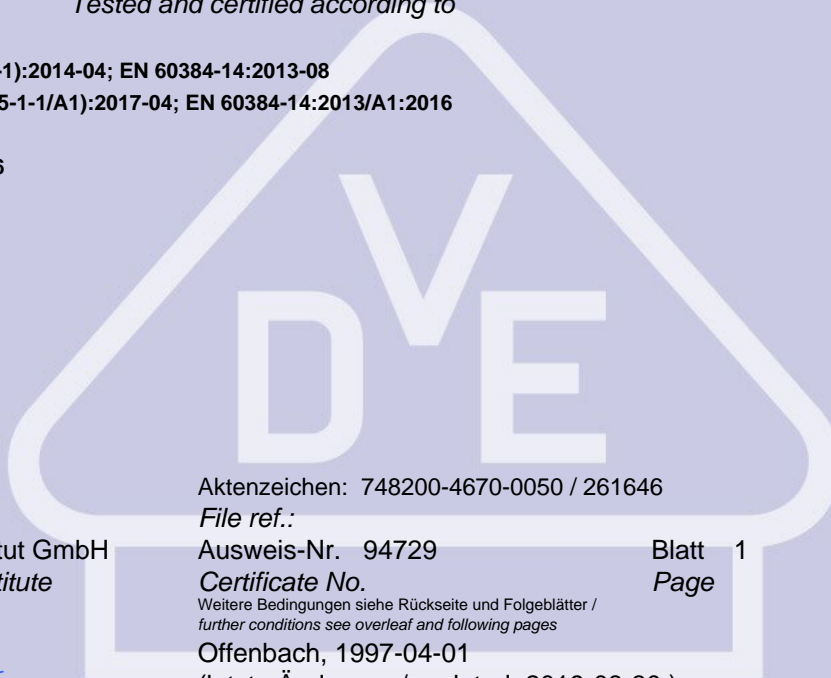
**Festkondensator zur Unterdrückung elektromagnetischer
Störungen, geeignet für Netzbetrieb**
***Fixed capacitor for electromagnetic interference
suppression and connection to the supply mains***

die hier abgebildeten markenrechtlich geschützten Zeichen
für die ab Blatt 2 aufgeführten Typen zu benutzen /
the legally protected Marks as shown below for the types referred to on page 2 ff.



Geprüft und zertifiziert nach /
Tested and certified according to

DIN EN 60384-14 (VDE 0565-1-1):2014-04; EN 60384-14:2013-08
DIN EN 60384-14/A1 (VDE 0565-1-1/A1):2017-04; EN 60384-14:2013/A1:2016
IEC 60384-14:2013
IEC 60384-14:2013/AMD1:2016



Aktenzeichen: 748200-4670-0050 / 261646

File ref.:

Ausweis-Nr. 94729

Blatt 1

Certificate No.

Page

Weitere Bedingungen siehe Rückseite und Folgeblätter /
further conditions see overleaf and following pages

Offenbach, 1997-04-01

(letzte Änderung / updated 2019-08-30)

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VDE Testing and Certification Institute
Zertifizierungsstelle / Certification

R. Nickel

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Ausweis-Nr. / Certificate No.	Blatt / Page
94729	2

Name und Sitz des Genehmigungs-Inhabers / *Name and registered seat of the Certificate holder*

Murata Mfg. Co., Ltd. (Headquarters), 10-1 Higashikotari 1-Chome, NAGAOKAKYO-SHI, KYOTO 617-8555,
JAPAN

Aktenzeichen / *File ref.*

748200-4670-0050 / 261646 / TL3 / BT

letzte Änderung / *updated*

2019-08-30

Datum / *Date*

1997-04-01

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 94729.

This supplement is only valid in conjunction with page 1 of the Certificate No. 94729.

Festkondensator zur Unterdrückung elektromagnetischer Störungen, geeignet für Netzbetrieb

***Fixed capacitor for electromagnetic interference
suppression and connection to the supply mains***

Typ(en) / *Type(s)*

GB

Weitere Einzelheit(en)

Further details

Anlage Nr. 200, 600 und 700 vom 2019-08-30

Appendix no. 200, 600 and 700 dated 2019-08-30

VDE Prüf- und Zertifizierungsinstitut GmbH

VDE Testing and Certification Institute

Fachgebiet TL3

Section TL3

VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Beiblatt /
Certificate No. Supplement
94729

Name und Sitz des Genehmigungs-Inhabers / *Name and registered seat of the Certificate holder*

Murata Mfg. Co., Ltd. (Headquarters), 10-1 Higashikotari 1-Chome, NAGAOKAKYO-SHI, KYOTO 617-8555,
JAPAN

Aktenzeichen / *File ref.*

748200-4670-0050 / 261646 / TL3 / BT

letzte Änderung / *updated*

2019-08-30

Datum / *Date*

1997-04-01

Dieses Beiblatt ist Bestandteil des Zeichengenehmigungsausweises Nr. 94729.

This supplement is part of the Certificate No. 94729.

Festkondensator zur Unterdrückung elektromagnetischer Störungen, geeignet für Netzbetrieb

***Fixed capacitor for electromagnetic interference
suppression and connection to the supply mains***

Fertigungsstätte(n)

Place(s) of manufacture

Referenz/*Reference*

30009300

Izumo Murata Mfg. Co., Ltd.

2308 Kaminaoe Hikawa-cho

IZUMO CITY, SHIMANE-KEN 699-0696

JAPAN

VDE Prüf- und Zertifizierungsinstitut GmbH

VDE Testing and Certification Institute

Fachgebiet TL3

Section TL3

VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Infoblatt /
Certificate No. / Info sheet
94729

Name und Sitz des Genehmigungs-Inhabers / *Name and registered seat of the Certificate holder*

Murata Mfg. Co., Ltd. (Headquarters), 10-1 Higashikotari 1-Chome, NAGAOKAKYO-SHI, KYOTO 617-8555, JAPAN

Aktenzeichen / *File ref.*

748200-4670-0050 / 261646 / TL3 / BT

letzte Änderung / *updated*

2019-08-30

Datum / *Date*

1997-04-01

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 94729.

This supplement is only valid in conjunction with page 1 of the Certificate No. 94729.

Genehmigung zum Benutzen des auf Seite 1 abgebildeten markenrechtlich geschützten Zeichens des VDE:

Grundlage für die Benutzung sind die Allgemeinen Geschäftsbedingungen (AGB) der VDE Prüf- und Zertifizierungsinstitut GmbH (www.vde.com\AGB-Institut). Das Recht zur Benutzung erstreckt sich nur auf die bezeichnete Firma mit den genannten Fertigungsstätten und die oben aufgeführten Produkte mit den zugeordneten Bezeichnungen. Die Fertigungsstätte muss so eingerichtet sein, dass eine gleichmäßige Herstellung der geprüften und zertifizierten Ausführung gewährleistet ist.

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Produkte, die das Biozid Dimethylfumarat (DMF) enthalten, dürfen gemäß der Kommissionsentscheidung 2009/251/EG nicht mehr in den Verkehr gebracht oder auf dem Markt bereitgestellt werden.

Der VDE-Zeichengenehmigungsausweis wird ausschließlich auf der ersten Seite unterzeichnet.

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Basis for the use are the general terms and conditions of the VDE Testing and Certification Institute (www.vde.com\terms-institute). The right to use the mark is granted only to the mentioned company with the named places of manufacture and the listed products with the related type references. The place of manufacture shall be equipped in a way that a constant manufacturing of the certified construction is assured.

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Products containing the biocide dimethylfumarate (DMF) may not be marketed or made available on the EC market according to the Commission Decision 2009/251/EC.

The approval is solely signed on the first page.

VDE Prüf- und Zertifizierungsinstitut

Zeichengenehmigung

Name und Sitz des Genehmigungs-Inhabers / *Name and registered seat of the Certificate holder*

Murata Mfg. Co., Ltd., (Headquarters), 10-1 Higashikotari 1-Chome, NAGAOKAKYO-SHI, KYOTO 617-8555, Japan

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*This supplement is only valid in conjunction with page 1 of the Certificate No. 94729*Rubrik / *Rubric*

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Ausweis-Nr. /
Certificate No.

94729

Anlage /
Appendix

200

Aktenzeichen / *File ref.*748200-4670-
0050/261646/TL3/BTletzte Änderung / *updated*

2019-08-30

Datum / *Date*

1997-04-01

Festkondensator zur Unterdrückung elektromagnetischer Störungen, geeignet für Netzbetrieb

Fixed capacitor for electromagnetic interference suppression and connection to the supply mains

Typ(en) <i>Type(s)</i>	GB		
Bemessungskapazität <i>Rated capacitance</i>	Standard Size: 10000pF; 15000pF; 22000pF; 33000pF Reduced Size: 10000pF; 15000pF; 22000pF; 47000pF; 56000pF		
Bemessungsspannung <i>Rated voltage</i>	AC 250 V		
Kondensatorklasse und -unterklasse <i>Capacitor class and subclass</i>	X2		
Grenzabweichung der Bemessungskapazität <i>Tolerance of rated capacitance</i>	±10% (K)		
Klimakategorie <i>Climatic category</i>	55/125/21		
Kategorie der passiven Entflammbarkeit <i>Passive flammability category</i>	C		
Keramikart <i>Type of ceramic</i>	X7R		
Genehmigung für Gleichspannungsanwendungen nach Anhang H <i>Approval for d.c. applications according to Annex H</i>	<input type="checkbox"/>	ja	Bemessungsgleichspannung DC ____ V
	<input checked="" type="checkbox"/>	nein	<i>d.c. rated voltage</i>
Genehmigung für Feuchtebeständigkeitsklasse nach Anhang I <i>Approval for humidity robustness grade according to Annex I</i>	<input type="checkbox"/>	IA	21 Tage bei 40 °C / 93 % r.F. mit angelegter Bemessungsspannung <i>21 days at 40 °C / 93 % r.h. with rated voltage applied</i>
	<input type="checkbox"/>	IB	168 Stunden bei 85 °C / 85 % r.F. mit angelegter Bemessungsspannung <i>168 hours at 85 °C / 85 % r.h. with rated voltage applied</i>
	<input type="checkbox"/>	IIA	56 Tage bei 40 °C / 93 % r.F. mit angelegter Bemessungsspannung <i>56 days at 40 °C / 93 % r.h. with rated voltage applied</i>
	<input type="checkbox"/>	IIB	500 Stunden bei 85 °C / 85 % r.F. mit angelegter Bemessungsspannung <i>500 hours at 85 °C / 85 % r.h. with rated voltage applied</i>
	<input type="checkbox"/>	IIIA	56 Tage bei 60 °C / 93 % r.F. mit angelegter Bemessungsspannung <i>56 days at 60 °C / 93 % r.h. with rated voltage applied</i>
	<input type="checkbox"/>	IIIB	1.000 Stunden bei 85 °C / 85 % r.F. mit angelegter Bemessungsspannung <i>1.000 hours at 85 °C / 85 % r.h. with rated voltage applied</i>
	<input checked="" type="checkbox"/>	keine	<i>none</i>



CERTIFICATE

FOR EUROPEAN PRODUCT SAFETY

Reference No. SE-S-2100996

Capacitor for radio interference suppression

Type designation: GB

Certificate holder: Murata Mfg. Co. Ltd.
10-1 Higashikotari 1-chome
Nagaokakyo-shi
Kyoto-fu 617-8555
JAPAN

**The product complies with
the standard(s):** EN 60384-14:2013+A1

Date of expiry: 14 July, 2026

Additional information in Appendix

Certification Body: Intertek Semko AB, Product Certification **Place:** Kista - Stockholm

Signed:  **Date:** 14 July, 2021

 Quan Li

This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.

APPENDIX:

Reference No. SE-S-2100996

Technical Data:

Type designation	GB
Rated voltage (V)	250VAC
Input	10, 15, 22, 33nF Standard size. 10,15,22,33,47,56nF Reduced size +-10%
Class	X2
Trademark	®
Test Report	2100714STO-001, 1905449STO-001, 1905449STO-002
Product information	55/125/21/C. SMD. X7R

Manufacturing Sites:

Izumo Murata Manufacturing Co., Ltd.
 2308 Kaminaoe Hikawa-cho
 Izumo-shi Shimane Pref. 699-0696
 JAPAN

This certificate replaces previously issued ref. No. 1905449 dated 25 February 2019. A new certificate has been issued on account of renewal.

Certification Body:

Intertek Semko AB, Product Certification

Place: Kista - Stockholm

Signed:



Date: 14 July, 2021

Quan Li



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Inspectorate for Heavy Current Installations ESTI
Market Surveillance/Safety Mark

Murata Manufacturing Co. Ltd.
10-1 Higashikotari 1-Chome
Nagaokakyo-shi
Kyoto-fu 617-8555
JAPAN

Client no. 1589	Your reference Katsuyuki Takuwa	Our reference Christoph Meile	Date 02.06.2022
--------------------	------------------------------------	----------------------------------	--------------------

Authorization

Number: **22.0437**
valid until: **01.06.2025**

Marking:  MJ 502

Based on the documents contained in file **19-BS-0405**, the Federal Inspectorate for Heavy Current Installations grants the firm named above the right to put the equipment listed below on the market marked with the Swiss safety mark in accordance with the NEV.

Equipment: **Capacitors for radio interference suppression**

Tradename: **Murata (CM)**

Type designation **Nominal values**

GB 250VAC, 55/125/21 C, Class X2, SMD, X7R, $\pm 10\%$
10, 15, 22 and 33nF, Standard size

GB 250VAC, 55/125/21 C, Class X2, SMD, X7R $\pm 10\%$
10, 15, 22, 33, 47 and 56nF, Reduced size

Protection class:

Protection degree:

Basis: Certificate / Intertek Semko / SE-S-2100996 / 14.07.2021
Test Report / Intertek Semko / 1607238STO-001 / 16.03.2016
Test Report / Intertek Semko / 1607238STO-002 / 16.03.2019

Federal Inspectorate for Heavy Current Installations ESTI
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www.esti.admin.ch





Schweizerische Eidgenossenschaft
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Swiss Confederation

Authorization Number: **22.0437**

Remark:

Test standards: IEC 60384-14(ed.4):13+A1:16
 EN 60384-14:13+A1:16

Federal Inspectorate for Heavy Current Installations ESTI

Peter Fluri
Head of Market Surveillance/Safety Mark

