

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

Type KX

X1 : 440 Vac(r.m.s.) Y1 : 300 Vac(r.m.s.)

Certification Body (認証機関)	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	UL60384-14	E37921	No expiration date (有効期限無し)	b - 1
CSA	CSA E60384-14	1343810	No expiration date (有効期限無し)	b - 2
VDE	EN60384-14 IEC60384-14	40002831	No expiration date (有効期限無し)	b - 3
BSI	EN62368-1 EN60384-14 IEC60384-14	KM 37901	2027-12-07	b - 4
SEMKO	EN60384-14 IEC60384-14	SE-S2101013	2026-07-19	b - 5
DEMKO		D-08838	2026-07-19	b - 6
FIMKO		FI/41217	2026-10-12	b - 7
NEMKO		P21225672	No expiration date (有効期限無し)	b - 8
ESTI		24.0026	2026-03-01	b - 9
IMQ		EN60384-14	V4069	No expiration date (有効期限無し)
CQC	IEC60384-14	CQC12001079941	No expiration date (有効期限無し)	b - 11

\* 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。)

# 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 KX

File Number: E37921

**COMPANY**

**MURATA MFG CO LTD**

COMPONENT BUSINESS UNIT

1-10-1 HIGASIKOTARI

NAGAOKAKYO-SHI, Kyoto 617-8555 Japan

**MODEL INFO**

KX may be followed by J for +/-5%. K for +/-10%. M for +/-20%.

Class X1/Y1 Capacitors, Ceramic Disk Type

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
--	--	X1	250/440	AC	10 ~ 4700 pF	+/-20%		-40	125	
--	--	Y1	250/300	AC	10 ~ 4700 pF	+/-20%		-40	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*

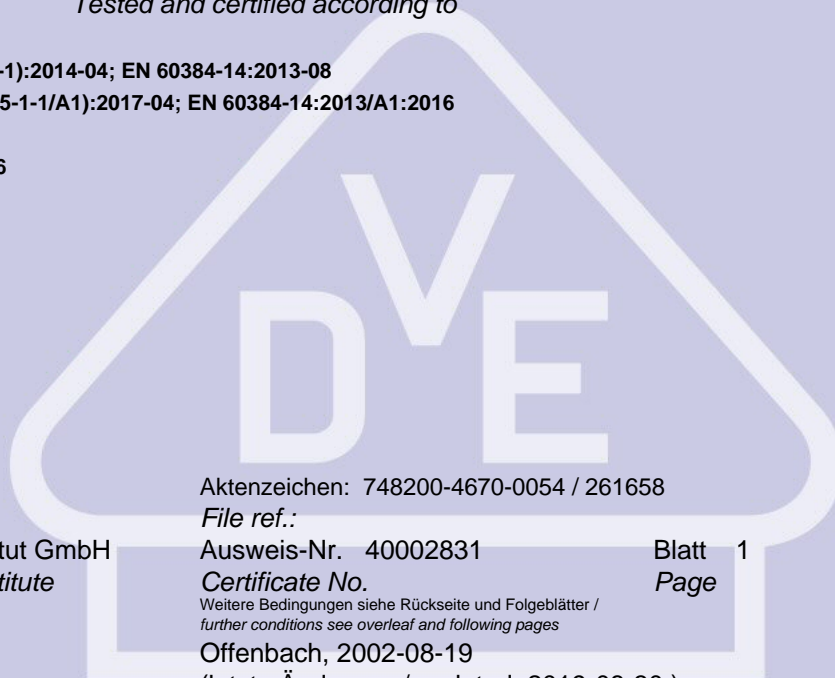
**Festkondensator zur Unterdrückung elektromagnetischer  
Störungen, geeignet für Netzbetrieb**  
***Fixed capacitor for electromagnetic interference  
suppression and connection to the supply mains***

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: 748200-4670-0054 / 261658

*File ref.:*

Ausweis-Nr. 40002831

Blatt 1

*Certificate No.*

Page

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

Offenbach, 2002-08-19

(letzte Änderung / updated 2019-08-30)

VDE Prüf- und Zertifizierungsinstitut GmbH  
VDE Testing and Certification Institute  
Zertifizierungsstelle / Certification

B. Megerle

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VDE certificates are valid only when published on:

<http://www.vde.com/zertifikat>  
<http://www.vde.com/certificate>

# VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Blatt /  
Certificate No. / Page  
40002831 / 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.*

748200-4670-0054 / 261658 / TL3 / KIL

letzte Änderung / *updated*

2019-08-30

Datum / *Date*

2002-08-19

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 40002831.

*This supplement is only valid in conjunction with page 1 of the Certificate No. 40002831.*

## Festkondensator zur Unterdrückung elektromagnetischer Störungen, geeignet für Netzbetrieb

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

Typ(en) / *Type(s)*

- a) **KX, standard version**
- b) **KX, reduced version**
- c) **KX, 2nd reduced version**

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  
40002831

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JAPAN

Aktenzeichen / *File ref.*

748200-4670-0054 / 261658 / TL3 / KIL

letzte Änderung / *updated*

2019-08-30

Datum / *Date*

2002-08-19

Dieses Beiblatt ist Bestandteil des Zeichengenehmigungsausweises Nr. 40002831.

*This supplement is part of the Certificate No. 40002831.*

## **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*

**30002166**

Murata Electronics (Thailand) Ltd.  
Northern Region Ind. Est., 63 Moo 4  
Tambol Ban-Klang Amphur Muang  
LAMPHUN 51000  
THAILAND

VDE Prüf- und Zertifizierungsinstitut GmbH

*VDE Testing and Certification Institute*

Fachgebiet TL3

*Section TL3*



# VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Infoblatt /  
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40002831

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

Aktenzeichen / *File ref.*

748200-4670-0054 / 261658 / TL3 / KIL

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2019-08-30

Datum / *Date*

2002-08-19

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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.

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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.*

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## Zeichengenehmigung

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

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*Certificate No.*  
40002831Anlage /  
*Appendix*  
200Aktenzeichen / *File ref.*748200-4670-  
0054/261658/TL3/KILletzte Änderung / *updated*

2019-08-30

Datum / *Date*

2002-08-19

### 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>	a) KX, standard version b) KX, reduced version c) KX, 2nd reduced version
Bemessungskapazität <i>Rated capacitance</i>	a) 10 pF; 15 pF; 22 pF; 33 pF; 47 pF; 68 pF; 100 pF; 150 pF; 220 pF; 330 pF; 470 pF; 680 pF; 1000 pF; 1500 pF; 2200 pF; 3300 pF; 3900 pF; 4700 pF  b) 100 pF; 150 pF; 220 pF; 330 pF; 470 pF; 680 pF; 1000 pF; 1500 pF; 2200 pF; 3300 pF; 3900 pF; 4700 pF  c) 100 pF; 150 pF; 220 pF; 330 pF; 470 pF; 680 pF
Bemessungsspannung <i>Rated voltage</i>	X1: AC 440 V Y1: AC 250/300 V
Kondensatorklasse und -unterklasse <i>Capacitor class and subclass</i>	X1 / Y1
Grenzabweichung der Bemessungskapazität <i>Tolerance of rated capacitance</i>	±5% (J) oder/or ±10% (K) oder/or ±20% (M)
Klimakategorie <i>Climatic category</i>	40/125/21
Kategorie der passiven Entflammbarkeit <i>Passive flammability category</i>	C
Keramikart <i>Type of ceramic</i>	SL (10 pF bis/to 68 pF) B (100 pF bis/to 1000 pF) or (100 pF bis/to 680 pF) E (1000 pF bis/to 4700 pF)
Genehmigung für Gleichspannungs- anwendungen nach Anhang H <i>Approval for d.c. applications according to Annex H</i>	<input type="checkbox"/> ja Bemessungsgleichspannung DC ___ V yes <i>d.c. rated voltage</i>
	<input checked="" type="checkbox"/> nein no
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>



# VDE Prüf- und Zertifizierungsinstitut

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*Appendix*  
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letzte Änderung / *updated*

2019-08-30

Datum / *Date*

2002-08-19

	<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>	

# Kitemark™ Certificate

This is to certify that:

Murata Manufacturing Co Ltd  
10-1 Higashikotari 1-chome  
Nagaokakyo-shi  
Kyoto  
617-8555  
Japan

Holds Certificate Number:

KM 37901

In respect of:

**BS EN IEC 62368-1**  
**Audio/video, information and communication technology equipment**

This issues the right and licence to use the Kitemark in accordance with the Kitemark Terms and Conditions governing the use of the Kitemark, as may be updated from time to time by BSI Assurance UK Ltd (the "Conditions"). All defined terms in this Certificate shall have the same meaning as in the Conditions.

The use of the Kitemark is authorized in respect of the Product(s) detailed on this Certificate provided at or from the above address.

For and on behalf of BSI:

Shahm Barhom, Group Product Certification Director

First Issued: 1997-10-09

Latest Issue: 2024-12-05

Effective Date: 2024-12-08

Expiry Date: 2027-12-07



Page: 1 of 5

# Kitemark™ Certificate

No. KM 37901

## Capacitor Types

KH Series

KX Series

KY Series

## Manufacturing Plants

Murata Electronics (Thailand) Ltd

Murata Electronics (Thailand) Ltd

Murata Electronics (Thailand) Ltd

## Standards

1. BS EN IEC 62368-1:2020+A11:2020  
Sub-clauses 5.4.4.2 (enclosure thickness  $\geq 0.4$  mm), 5.5.2.1 and G.11.2.
2. BS EN IEC 60384-14:2023  
Sub-clauses as listed in Table 15 of that standard.

## Manufacturing Plant address:

Murata Electronics (Thailand) Ltd  
Northern Region Industrial Estate  
63 Moo 4, Tambol Ban-Klang  
Amphur Muang, Lamphun 51000  
Thailand

## Periodic Product Verification testing (PVT) carried out at:

Izumo Murata Mfg Co Ltd  
2308 Kaminaoe  
Hikawa-cho  
Izumo-shi  
Shimane  
699-0696  
Japan

First Issued: 1997-10-09

Latest Issue: 2024-12-05

Effective Date: 2024-12-08

Expiry Date: 2027-12-07

Page: 2 of 5

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# Kitemark™ Certificate

No. KM 37901

**KH Series**, isolating ceramic capacitors (standard and reduced sizes).

Sub-Class	Rated Voltage	Climatic Category	Type test impulse test voltage of the capacitor kV peak	Type test r.m.s. test voltage of the capacitor kV r.m.s.
X1	250 Vac 440 Vac	40/125/21 C	5	1.5
Y2	250 Vac 300 Vac			

Type	Capacitance (pF)	Tolerance (+/- %)	Ceramic
101 (K or M)	100	10 or 20	B
151 (K or M)	150	10 or 20	B
221 (K or M)	220	10 or 20	B
331 (K or M)	330	10 or 20	B
471 (K or M)	470	10 or 20	B
681 (K or M)	680	10 or 20	B
102 (K or M)	1000	10 or 20	B
102 (M)	1000	20	E
152 (M)	1500	20	E
222 (M)	2200	20	E
332 (M)	3300	20	E
392 (M)	3900	20	E
472 (M)	4700	20	E
472 (M)	4700	20	F
103 (M)	10 000	20	F

First Issued: 1997-10-09

Latest Issue: 2024-12-05

Effective Date: 2024-12-08

Expiry Date: 2027-12-07

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# Kitemark™ Certificate

No. KM 37901

**KX Series**, isolating ceramic capacitors (standard and reduced sizes).

Sub-Class	Rated Voltage	Climatic Category	Type test impulse test voltage of the capacitor kV peak	Type test r.m.s. test voltage of the capacitor kV r.m.s.
X1	250 Vac 440 Vac	40/125/21 C	8	4
Y1	250 Vac 300 Vac			

Type	Capacitance (pF)	Tolerance (+/- %)	Ceramic
100 (J or K)	10	5 or 10	SL
150 (J or K)	15	5 or 10	SL
220 (J or K)	22	5 or 10	SL
330 (J or K)	33	5 or 10	SL
470 (J or K)	47	5 or 10	SL
680 (J or K)	68	5 or 10	SL
101 (K or M)	100	10 or 20	B
151 (K or M)	150	10 or 20	B
221 (K or M)	220	10 or 20	B
331 (K or M)	330	10 or 20	B
471 (K or M)	470	10 or 20	B
681 (K or M)	680	10 or 20	B
102 (K or M)	1000	10 or 20	B
102 (M)	1000	20	E
152 (M)	1500	20	E
222 (M)	2200	20	E
332 (M)	3300	20	E
392 (M)	3900	20	E
472 (M)	4700	20	E

First Issued: 1997-10-09

Latest Issue: 2024-12-05

Effective Date: 2024-12-08

Expiry Date: 2027-12-07

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# Kitemark™ Certificate

No. KM 37901

**KY Series**, isolating ceramic capacitors (standard and reduced sizes).

Sub-Class	Rated Voltage	Climatic Category	Type test impulse test voltage of the capacitor kV peak	Type test r.m.s. test voltage of the capacitor kV r.m.s.
X1	250 Vac	40/125/21 C	5	1.5
Y2	250 Vac 300 Vac			

Type	Capacitance (pF)	Tolerance (+/- %)	Ceramic
100 (J or K)	10	5 or 10	SL
150 (J or K)	15	5 or 10	SL
220 (J or K)	22	5 or 10	SL
330 (J or K)	33	5 or 10	SL
470 (J or K)	47	5 or 10	SL
680 (J or K)	68	5 or 10	SL
101 (K or M)	100	10 or 20	B
151 (K or M)	150	10 or 20	B
221 (K or M)	220	10 or 20	B
331 (K or M)	330	10 or 20	B
471 (K or M)	470	10 or 20	B
681 (K or M)	680	10 or 20	B
102 (K or M)	1 000	10 or 20	B
102 (M)	1 000	20	E
152 (M)	1 500	20	E
182 (M)	1 800	20	E
222 (M)	2 200	20	E
332 (M)	3 300	20	E
392 (M)	3 900	20	E
472 (M)	4 700	20	E
103 (M)	10 000	20	F

First Issued: 1997-10-09

Latest Issue: 2024-12-05

Effective Date: 2024-12-08

Expiry Date: 2027-12-07

Page: 5 of 5

This certificate has been issued by and remains the property of BSI Assurance UK Ltd, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP, United Kingdom and should be returned immediately upon request.  
To check its validity telephone +44 (0) 345 080 9000. An electronic certificate can be authenticated [online](#).





# CERTIFICATE

## FOR EUROPEAN PRODUCT SAFETY

Reference No. SE-S-2101013

### Capacitor for radio interference suppression

**Type designation:** KX

**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:** 19 July, 2026

Additional information in Appendix

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

**Signed:**  **Date:** 19 July, 2021

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 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-2101013

### Technical Data:

Type designation	KX
Rated voltage (V)	440VAC X1, 250, 300VAC Y1
Input	10-4700pF +-5%, +-10%,+-20%
Class	X1/Y1
Trademark	Ⓜ
Test Report	2100719STO-001
Product information	40/125/21/C. Ceramic SL: 10,15,22,33,47,68pF+-5%, +-10%, Ceramic B: 100,150,220,330,470,680,1000pF+-10%,+-20%, Ceramic E: 1000,1500,2200,3300,3900,4700pF+-20%. Standard, reduced and 2nd reduced size

### Manufacturing Sites:

Murata Electronics (Thailand) Ltd.  
 Northern Region Industrial Estate  
 63 Moo 4 Tambol Ban-Klang  
 Amphur Muang Lamphun 51000  
 THAILAND

Based on CB with ref.No. DE1-57260/B1 and DE1-57260/B2 dated 30May 2016, issued by VDE.


This certificate replaces previously issued ref. No. 1905545 dated 28 February 2019. A new certificate has been issued on account of renewal.

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

**Signed:**  **Date:** 19 July, 2021

Quan Li

# DEMKO CERTIFICATE

<b>Certificate No.</b>	D-08838
<b>Page</b>	1/3
<b>Date of Issue</b>	2021-10-19
<b>Certificate Holder</b>	MURATA MANUFACTURING CO LTD 10-1 HIGASHIKOTARI 1-CHOME NAGAOKAKYO-SHI, Kyoto, 617-8555 JAPAN
<b>Manufacturer</b>	MURATA MANUFACTURING CO LTD 10-1 HIGASHIKOTARI 1-CHOME NAGAOKAKYO-SHI, KYOTO, 617-8555 JAPAN
<b>Production site</b>	MURATA ELECTRONICS (THAILAND) LTD NORTHERN REGION INDUSTRIAL ESTATE 63 MOO 4 TAMBOL BAN-KLANG AMPHUR MUANG LAMPHUN 51000 THAILAND
<b>Certified Product</b>	Capacitor for radio interference suppression
<b>Model</b>	KX
<b>Trademark</b>	
<b>Ratings</b>	440VAC X1, 250, 300VAC Y1, 10-4700pF +-5%, +-10%, +-20%
<b>Tested according to</b>	EN 60384-14:2013, EN 60384-14:2013/A1:2016
<b>Test Report No.</b>	SE-S-2101013 issued on 2021-07-19
<b>Additional</b>	Class: X1/Y1 40/125/21/C. Ceramic SL: 10,15,22,33,47,68pF+-5%, +-10%, Ceramic B: 100,150,220,330,470,680,1000pF+-10%,+-20%, Ceramic E: 1000,1500,2200,3300,3900,4700pF+-20%. Standard, reduced and 2nd reduced size
<b>Expire date</b>	2026-07-19



**Certification Manager**  
Jan-Erik Storgaard

This is to certify that representative sample(s) of the Product described herein ("Certified Product") have been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the D-Mark Requirements. As specified in the respective appendix below the Designated Certificate holder is entitled to use the D-Mark, or its alternative for cables, for the Certified Product manufactured at the production site(s) identified above, in accordance with the D-Mark Service Agreement, including without limitation the D-Mark Testing and Certification Services Service Terms. Only those Products bearing the D-Mark should be considered as being covered by UL's D-Mark Service. This Certificate shall remain valid through the expiration date, unless terminated earlier in accordance with the Service Agreement including without limitation if the Standard identified on this Certificate is amended or withdrawn prior the expiration date.

**Certification Body**

UL International Demko A/S, Borupvang 5A, DK-2750  
Ballerup, Denmark, Tel. +45 44 85 65 65,  
info.dk@ul.com  
www.UL.com

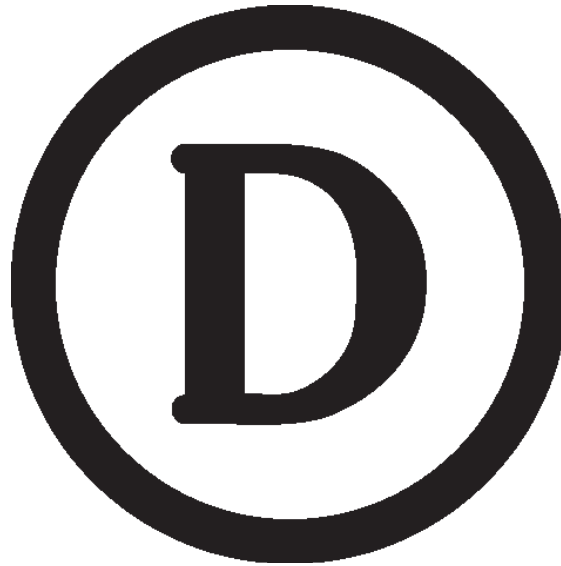


# Appendix DEMKO CERTIFICATE

**Certificate No.** D-08838  
**Page** 2/3  
**Date of Issue** 2021-10-19

## **Certification Mark D-Mark**

The D-Mark, as displayed below, shall appear on certified products only. Except as specified below the Mark shall be legible and no Minimum size is specified.



The size of the Mark may be reduced or enlarged on the condition that it remains readable and that the proportions of width and height are kept. The use of dark text for the D-Mark on light backgrounds and light text on dark backgrounds is permitted.

The D-Mark may appear on a label, nameplate, or may be cast, stamped or molded into the product. When appearing on a label or nameplate, the Manufacturer's name or trademark along with a model number are also required on that same label or nameplate. If cast, stamped or molded, the Certificate Manufacturer's name or trademark and model number shall also appear elsewhere on the product

When putting the product on the EU market, the manufacturer's name, trademark or mark of origin must be affixed in a clearly visible location and position on the product, on the package and in the user manual. It can be affixed by label, be directly imprinted, or cast or molded into the product.

Where the size of the product does not allow the Mark, the manufacturer's name, trademark, mark of origin and model number to be legible, and appearance on a label is not desired, it is allowed to cast, stamp or mold the Mark into the product, in a size which is not visible to the naked eye, provided the legible Mark, the manufacturer's name, trademark or mark of origin and model number appears on the package and in the user manual

---

**Certification Body**

UL International Demko A/S, Borupvang 5A, DK-2750  
Ballerup, Denmark, Tel. +45 44 85 65 65, info.dk@ul.com  
www.UL.com



# Appendix DEMKO CERTIFICATE

**Certificate No.** D-08838  
**Page** 3/3  
**Date of Issue** 2021-10-19

## **Alternate certification Mark for cables**

As an alternative to the D-Mark specified above the alternate D-Mark, displayed below, can appear on certified cables only. Minimum size is not specified, as long as the mark is legible.

<DEMKO>

The alternate D-Mark may be cast, stamped or molded into the cable and continue throughout the length of the cable as specified in the applicable cable standard.

All content shall be in accordance with the details provided on this D-Mark Certificate.

---

**Certification Body**

UL International Demko A/S, Borupvang 5A, DK-2750  
Ballerup, Denmark, Tel. +45 44 85 65 65, info.dk@ul.com  
www.UL.com





# CERTIFICATE FI/41217

Our Ref. HEL-CERT190300214-02



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

**Type** KX

**Trademark** 

**Certificate Holder** Murata Manufacturing Co., Ltd  
10-1, Higashikotari 1-chome, Nagaokakyo-shi, Kyoto-fu 617-8555 Japan

**Technical information** KX (X1): 400V~  
KX (Y1): 250V~, 300V~  
10-4700pF, ±5%, ±10% ±20%, 40/125/21/C

**Other information** Ceramic SL: 10, 15, 22, 33, 47, 68pF ±5%, ±10%  
Ceramic B: 100, 150, 220, 330, 470, 680, 1000pF ±10% ±20%  
Ceramic E: 1000, 1500, 2200, 3300, 3900, 4700pF ±20%  
Standard, reduced and 2<sup>nd</sup> reduced size.  
Fulfil IEC 60384-14:2013 + A1:2016.

**The product is certified according to the following standard(s)** EN 60384-14:2013 + A1:2016

**Validity** This certificate is valid until 2026-10-12 provided that the Conditions for FI certification are met. This certificate includes the right to use the FI mark under the condition that changes (if any) will be checked at SGS Fimko before the product is brought onto market and that the conditions for FI certification are met.

**Date of issue** 2021-10-12

**SGS Fimko Ltd**

**Signature**

  
Joonas Leinonen  
Certification Manager

Page 1 of 2

This document is issued by the Company under its General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



**SGS Fimko Ltd**

Takomotie 8, FI-00380 Helsinki, Finland  
t. +358 9 696 361 [www.sgs.fi](http://www.sgs.fi)

Business ID 0978538-5

Member of the SGS Group (SGS SA)


Page 2 of 2 to Certificate: **FI/41217**

<b>Manufacturer</b>	Murata Manufacturing Co., Ltd 10-1, Higashikotari 1-chome, Nagaokakyo-shi, Kyoto-fu 617-8555 Japan
<b>Manufacturing site</b>	Murata Electronics (Thailand) Ltd. Northern Region Industrial Estate, 63 Moo 4 Tambol Ban-Klang, Amphur Muang Lamphun 51000, Thailand
<b>Additional information</b>	The product has certificate SE-S-2101013 issued by Intertek Semko AB in accordance with the Nordic Certification Service system.  This certificate replaces previous certificate FI/40129, dated 2019-03-27, due to renewal of the certificate.
<b>As shown in the Test Report(s) No(s):</b>	214005-CC2-1->CC2-6, 2100719STO-001



**FINAS**  
Finnish Accreditation Service  
S003 (EN ISO/IEC 17065)

**Page 2 of 2**

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Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**SGS Fimko Ltd**

Takomotie 8, FI-00380 Helsinki, Finland  
t. +358 9 696 361 [www.sgs.fi](http://www.sgs.fi)

Business ID 0978538-5

Member of the SGS Group (SGS SA)

Product	Capacitor for radio interference suppression
Applicant	Murata Mfg. Co., Ltd. 10-1, Higashikotari 1-chome, Nagaokakyo-shi Kyoto 617-8555 Japan
Manufacturer	Murata Mfg. Co., Ltd. 10-1, Higashikotari 1-chome, Nagaokakyo-shi Kyoto 617-8555 Japan
Factory	Murata Electronics (Thailand), Ltd. Northern Region Industrial Estate 63 Moo 4, Tambol Ban Klang, Amphur Muang, Lamphun 51000 Thailand
Ratings	440V AC X1
Trade mark	
Model / Type Ref.	KX
Principal characteristics	Capacitance 10-4700pF, Tolerance $\pm 5\%$ , Tolerance $\pm 5\%$ , $\pm 10\%$ , $\pm 20\%$ .
A sample of the product was tested and found to be in conformity with	CAP EN 60384-14:2013;A1
Validity	This certificate documents conformity with the standards shown, and also applies as license for use of Nemkos name and certification mark. The certificate and license is valid as long as the applicable conditions are complied with, and provided that any changes to the product are notified to Nemko for acceptance prior to implementation. New standards or amendments to the standards may imply that the product design must be updated and/or that re-testing and re-certification is necessary.
Additional information	See page 2
Additional model(s)	(1) See page 2

Date of issue 30-08-2021



Sweet Yuan

Certification Department

**Nemko AS**Philip Pedersens vei 11, 1366 Lysaker, Norway  
TEL +47 22 96 03 30 EMAIL info@nemko.com  
ENTERPRISE NUMBER NO974404532



## Additional model(s)

Product	Capacitor for radio interference suppression
Pos. No	1
Model / Type Ref.	KX
Trade mark (if different from page 1)	
Rating	250, 300VAC Y1
Principal characteristics	Capacitance 10-4700pF, Tolerance $\pm 5\%$ , Tolerance $\pm 5\%$ , $\pm 10\%$ , $\pm 20\%$ .

## Additional information

40/125/21/C.  
Ceramic SL: 10,15,22,33,47,68pF $\pm 5\%$ ,  $\pm 10\%$ ,  
Ceramic B: 100,150,220,330,470,680,1000pF $\pm 10\%$ ,  $\pm 20\%$ ,  
Ceramic E: 1000,1500,2200,3300,3900,4700pF $\pm 20\%$ .  
Standard, reduced and 2nd reduced size

Date of issue 30-08-2021



Sweet Yuan

Certification Department

**Nemko AS**

Philip Pedersens vei 11, 1366 Lysaker, Norway  
TEL +47 22 96 03 30 EMAIL info@nemko.com  
ENTERPRISE NUMBER NO974404532



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  
Saori Sonoyama

Our reference  
Christoph Meile

Date  
05.01.2024

## Authorization



Number:  
valid until:

**24.0026**  
**01.03.2026**

Marking:



MJ 502

Based on the documents contained in file **18-BS-0053**, 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:

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

Tradename:

**MURATA**

Type designation

Nominal values

**KX**

Rated capacitance: 10; 15; 22; 33; 47; 68; 100; 150; 220; 330;  
470; 680; 1000; 1500; 2200; 3300; 3900;  
4700pF

Rated voltage: a) 250 or 440Vac b) 250 or 300Vac

Capacity Class and subclass: a) X1 b) Y1

Federal Inspectorate for Heavy Current Installations ESTI  
Luppenstrasse 1, CH-8320 Fehraltorf  
T +41 58 595 18 18  
mub.bs.info@esti.ch  
www.esti.admin.ch





PID:

08020004

CID:

C.1995.237

## Certificato di approvazione

### Approval certificate



**IMQ, ente di certificazione accreditato,  
autorizza la ditta**

*IMQ, accredited certification body, grants to*

PRD N° 005B

Membro degli Accordi di Mutuo  
Riconoscimento EA, IAF e ILAC  
Signatory of EA, IAF and ILAC  
Mutual Recognition Agreements

**MURATA MANUFACTURING CO. LTD.  
10-1 HIGASHIKOTARI 1-CHOME  
NAGAOKAKYO-SHI, KYOTO-FU 617-8555  
JP - Japan**

**all'uso del marchio**

*the licence to use the mark*

**IMQ**

**Il presente certificato è  
soggetto alle condizioni  
previste nel Regolamento  
"MARCHI IMQ -  
Regolamento per la  
certificazione di prodotti" ed  
è relativo ai prodotti  
descritti nell'Allegato al  
presente certificato.**



**per i seguenti prodotti**

*for the following products*

**Condensatori fissi per la soppr.  
delle interf. elettromagnetiche  
( Serie KX )**

*EMI suppression capacitors  
( Series KX )*

*This certificate is subjected to  
the conditions foreseen by Rules  
"IMQ MARKS - RULES for  
product certification" and is  
relevant to the products listed in  
the annex to this certificate.*

Emesso il / Issued on **1995-09-26**

Aggiornato il / Updated on **2019-10-23**

Sostituisce / Replaces **2017-03-08**

*Stefano D. M.*

Digital Sign

**IMQ S.p.A.**





# PRODUCT CERTIFICATE

No.: CQC12001079941

## NAME AND ADDRESS OF THE APPLICANT

Murata Manufacturing Co.  
10-1 Higashikotari 1-Chome Nagaokakyo-shi Kyoto-fu 617-8555, Japan

## NAME AND ADDRESS OF THE MANUFACTURER

Murata Manufacturing Co.  
10-1 Higashikotari 1-Chome Nagaokakyo-shi Kyoto-fu 617-8555, Japan

## NAME AND ADDRESS OF THE FACTORY

Murata Electronics (Thailand), Ltd. (V004507)  
Northern Region Ind. Estate 63 Moo 4, Tambol Ban-Klang Amphur Muang, Lamphun, Thailand

## NAME, MODEL AND SPECIFICATION

FIXED CAPACITORS FOR ELECTROMAGNETIC INTERFERENCE  
SUPPRESSION AND CONNECTION TO THE SUPPLY MAINS

KX: 10pF ~4.7nF, X1:440VAC, Y1:250Vac, 300Vac, 40/125/21C, SL型瓷介: J或K (±5%或±10%), B型瓷介: K或M (±10%和±20%), B型瓷介: K (±10%), E型瓷介: M(±20%)

## THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS

IEC60384-14:2005

## CERTIFICATION MODEL

Type Testing of Product + Initial Factory Inspection + Follow up Factory Inspection

This is to certify that the above mentioned products have met the requirements of certification rules CQC11-471112-2009.

Date of issue: Jan.28,2015

Validity of this certificate is subject to positive result of the regular follow up inspection by issuing certification body until the expiry date.

Date of original certification: Sep.07,2012

President:

  
Wang Kejiao



# CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nansihuan Xilu, Beijing 100070 P.R.China  
<http://www.cqc.com.cn>