

# Safety Certificates

(安全規格認定書)

Ref. No. SCMF002A

## Safety Standard Certified Ceramic Capacitors

(安全規格認定セラミックコンデンサ)

### Type MF

X1 : 500 Vac(r.m.s.) Y2 : 500 Vac(r.m.s.) X1Y2 : 1000Vdc

Certification Body (認証機関)	Class (クラス)	Standard No. (規格番号)	Certificate No.* (認定番号)	Attached Page No. (添付ページ番号)
UL/cUL	X1Y2	UL60384-14/CSA E60384-14	E37921	6 - 1
ENEC(VDE)	X1Y2	EN IEC 60384-14	40039447	6 - 2

\* 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 2025-05-30

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# Fixed Capacitors for Use in Electronic Equipment Certified for Canada - 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 , model designation, and the Recognized Component Mark for Canada 

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): 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/Y2 Capacitors**, Model(s): IE 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, 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).

Last Updated on 2025-02-19

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# Model MF

File Number: E37921

## COMPANY

### MURATA MFG CO LTD

COMPONENT BUSINESS UNIT

1-10-1 HIGASIKOTARI

NAGAOKAKYO-SHI, Kyoto 617-8555 Japan

## MODEL INFO

MF may be followed by K ( $\pm 10\%$ ) (for 100~4700pF), M( $\pm 20\%$ ) (for 5600~10000pF).

Class X1/Y2 Capacitors, Surface Mount 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 Grad
ANSI/UL 60384-14 (2nd ed.)	CAN/CSA- E60384-14 (2014)	X1/Y2	250	AC	100~10000pF	K( $\pm 10\%$ )		-55	125	
ANSI/UL 60384-14 (2nd ed.)	CAN/CSA- E60384-14 (2014)	X1/Y2	1000	DC	100~10000pF	K( $\pm 10\%$ )		-55	125	
ANSI/UL 60384-14 (2nd ed.)	CAN/CSA- E60384-14 (2014)	X1/Y2	500	AC	1500~10000pF	K ( $\pm 10\%$ ), M ( $\pm 20\%$ )		-55	125	
ANSI/UL 60384-14 (2nd ed.)	CAN/CSA- E60384-14 (2014)	X1/Y2	1000	DC	1500~10000pF	K ( $\pm 10\%$ ), M ( $\pm 20\%$ )		-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*

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

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.*



und/oder - and/or

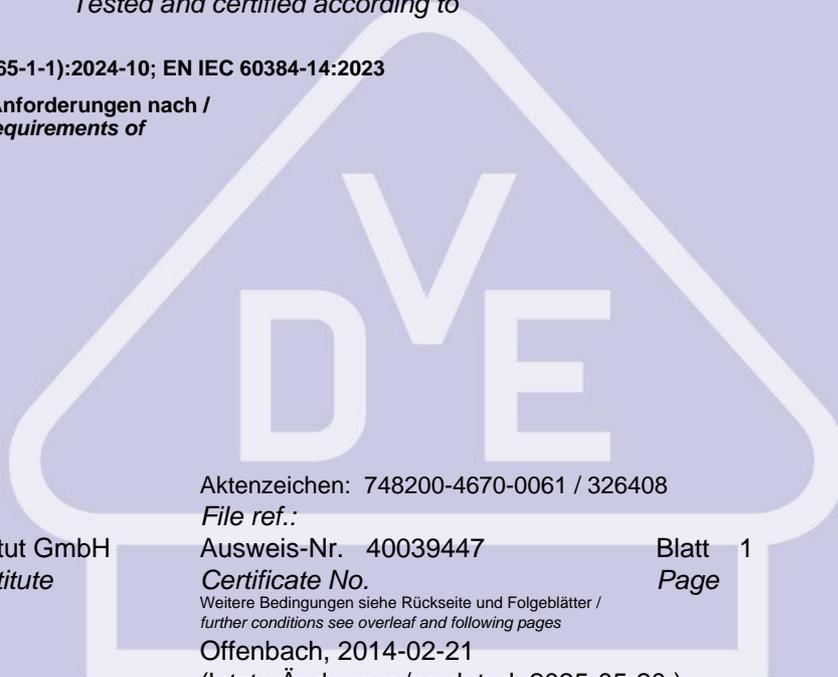


Geprüft und zertifiziert nach /  
*Tested and certified according to*

**DIN EN IEC 60384-14 (VDE 0565-1-1):2024-10; EN IEC 60384-14:2023**

**Das Produkt erfüllt auch die Anforderungen nach /  
The product also fulfills the requirements of**

**IEC 60384-14:2023**



Aktenzeichen: 748200-4670-0061 / 326408

File ref.:

Ausweis-Nr. 40039447

Blatt 1

Certificate No.

Page

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

Offenbach, 2014-02-21

(letzte Änderung / updated 2025-05-20)

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

  
T. Lortz

VDE Zertifikate sind nur gültig bei Veröffentlichung unter:  
VDE certificates are valid only when published on:

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

# VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Certificate No.	Blatt / Page
40039447	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.*

748200-4670-0061 / 326408 / TL3 / DAT

letzte Änderung / *updated*

2025-05-20

Datum / *Date*

2014-02-21

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 40039447.

*This supplement is only valid in conjunction with page 1 of the Certificate No. 40039447.*

## Fixed capacitor for electromagnetic interference suppression and connection to the supply mains (SMD)

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

Typ(en) / *Type(s)*

### MF-Series

Warenzeicheninhaber  
*Trademark holder*

Murata Mfg. Co., Ltd.  
(Headquarters)

Weitere Einzelheit(en)  
*Further details*

Anlagen Nr. 200, 600 und 700 vom 2025-05-20  
*Appendix no. 200, 600 and 700 dated 2025-05-20*

# VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Beiblatt /  
Certificate No. Supplement  
40039447

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.*

748200-4670-0061 / 326408 / TL3 / DAT

letzte Änderung / *updated*

2025-05-20

Datum / *Date*

2014-02-21

Dieses Beiblatt ist Bestandteil des Zeichengenehmigungsausweises Nr. 40039447.

*This supplement is part of the Certificate No. 40039447.*

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

**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

Referenz/*Reference*

**30026727**

Izumo Murata Manufacturing  
Co., Ltd. Iwami plant (Hane)  
800-4 Nishinosako, Hane-cho  
OHDA-SHI 699-2211  
JAPAN

# VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Infoblatt /  
Certificate No. Info sheet  
40039447

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.

748200-4670-0061 / 326408 / TL3 / DAT

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2025-05-20

Datum / Date

2014-02-21

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*This supplement is only valid in conjunction with page 1 of the Certificate No. 40039447.*

## **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](http://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.

Die Genehmigung ist so lange gültig wie die VDE Bestimmungen gelten, die der Zertifizierung zugrunde gelegen haben, sofern sie nicht auf Grund anderer Bedingungen aus der VDE Prüf- und Zertifizierungsordnung (PM102) zurückgezogen werden muss.

Der Gültigkeitszeitraum einer VDE GS-Zeichengenehmigung kann auf Antrag verlängert werden. Bei gesetzlichen und / oder normativen Änderungen kann die VDE GS-Zeichengenehmigung ihre Gültigkeit zu einem früheren als dem angegebenen Datum verlieren.

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.

### **Approval to use the legally protected Mark of the VDE as shown on the first page:**

*Basis for the use are the general terms and conditions of the VDE Testing and Certification Institute ([www.vde.com\terms-institute](http://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.*

*The approval is valid as long as the VDE specifications are in force, on which the certification is based on, unless it is withdrawn according to the VDE Testing and Certification Procedure (PM102E).*

*The validity period of a VDE GS-Mark Approval may be prolonged on request. In case of changes in legal and / or normative requirements, the validity period of a VDE GS-Mark Approval may be shortened.*

*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.*

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 40039447.  
This supplement is only valid in conjunction with page 1 of the Certificate No. 40039447.

## Fixed capacitor for electromagnetic interference suppression and connection to the supply mains (SMD)

Typ(en) Type(s)	MF-Series		
Bemessungskapazität Rated capacitance	Type of ceramic U2J 100pF ; 120pF ; 150pF ; 180pF ; 220pF ; 270pF ; 330pF ; 390pF ; 470pF ; 560pF ; 680pF ; 820pF ; 1000pF ; 1200pF ; 1500pF ; 1800pF ; 2200pF ; 2700pF ; 3300pF ; 3900pF ; 4700pF ; 5600pF ; 6800pF ; 8200pF ; 10000pF ; Type of ceramic X7R 1500pF ; 2200pF ; 3300pF ; 4700pF ; 6800pF ; 10000pF ;		
Bemessungsspannung Rated voltage	Type of ceramic U2J AC250V (100pF to 10000pF) Type of ceramic X7R AC500V DC1000V (1500pF to 10000pF)		
Kondensatorklasse und -unterklasse Capacitor class and subclass	X1 Y2		
Grenzabweichung der Bemessungskapazität Tolerance of rated capacitance	±10% (K) or/oder ±20% (M)		
Klimakategorie Climatic category	55/125/21		
Kategorie der passiven Entflammbarkeit Passive flammability category	C		
Keramikart Type of ceramic	U2J (100 pF to 10000 pF) X7R (1500 pF to 10000 pF)		
Genehmigung für Gleichspannungs- anwendungen nach Anhang H Approval for d.c. applications according to Annex H	<input type="checkbox"/>	ja yes	Bemessungsgleichspannung DC ___ V d.c. rated voltage
	<input checked="" type="checkbox"/>	nein no	
Genehmigung für Feuchtebeständigkeitsklasse nach Anhang I Approval for humidity robustness grade according to Annex I	<input type="checkbox"/>	IA	21 Tage bei 40 °C / 93 % r.F. mit angelegter Bemessungsspannung 21 days at 40 °C / 93 % r.h. with rated voltage applied
	<input type="checkbox"/>	IB	168 Stunden bei 85 °C / 85 % r.F. mit angelegter Bemessungsspannung 168 hours at 85 °C / 85 % r.h. with rated voltage applied
	<input type="checkbox"/>	IIA	56 Tage bei 40 °C / 93 % r.F. mit angelegter Bemessungsspannung 56 days at 40 °C / 93 % r.h. with rated voltage applied
	<input type="checkbox"/>	IIB	500 Stunden bei 85 °C / 85 % r.F. mit angelegter Bemessungsspannung 500 hours at 85 °C / 85 % r.h. with rated voltage applied
	<input type="checkbox"/>	IIIA	56 Tage bei 60 °C / 93 % r.F. mit angelegter Bemessungsspannung 56 days at 60 °C / 93 % r.h. with rated voltage applied

# VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

6 - 2 (P6/6)

Rubrik / Rubric

341

Ausweis-Nr. /  
Certificate No.  
40039447

Anlage /  
Appendix  
200

Aktenzeichen / File ref.

748200-4670-  
0061/326408/TL3/DAT

letzte Änderung / updated

2025-05-20

Datum / Date

2014-02-21

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 40039447.  
This supplement is only valid in conjunction with page 1 of the Certificate No. 40039447.

	<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>	
Warenzeicheninhaber <i>Trademark holder</i>	Murata Mfg. Co., Ltd. (Headquarters)		

