

パナソニック株式会社  
インダストリアルソリューションズ社  
デバイスソリューション事業部  
Device Solutions Business Division  
Industrial Solutions Company  
Panasonic Corporation

## 海外規格認定書

THE CERTIFICATE FOR SAFETY STANDARD

電源雑音防止用コンデンサ

Type: ECQUL

Radio Interference Suppression Capacitor

認証機関 Certification body	国 Country	適用規格 Standard	クラス Class	静電容量範囲 Cap. Range (uF)	認定番号 Approved No.	資料 Page
VDE	ドイツ Germany	IEC60384-14	Y2	0.001 — 0.0068	121548	2~5
		EN60384-14	X2	0.001 — 2.2(3.3)		
UL	アメリカ U.S.A.	UL 60384-14	Y2	0.001 — 0.0068	E 62674	6~7
			X2	0.001 — 2.2(3.3)		
CSA	カナダ Canada	CAN/CSA E60384-14	Y2	0.001 — 0.0068	LR 35752	8
			X2	0.001 — 2.2(3.3)		9
		C22.2 No.8	—	1.2 — 2.2(4.7)		

※(1) 欧州規格(EN)は VDE で認定されています。したがって、SEMKO・DEMKO・NEMKO・FIMKO 等、他の欧州各国の EN 規格で認定される機器にも使用することができます。

ECQUL is certified for compliance with European standards by VDE.

However, ECQUL may also be used in apparatus that will get approval from certification bodies in Europe other than VDE such as SEMKO, DEMKO, NEMKO, FIMKO and SEV etc.

(2) 各認定は、0.001uF から 4.7uF(または 3.3 uF) までの静電容量範囲でされていますが、販売は 0.001uF から 2.2uF までとしております。2.2uF を超える容量につきましては、お問い合わせ下さい。

Although. Certified capacitance range is between 0.001uF and 4.7uF (or 3.3uF), we have selling between 0.001uF and 2.2uF. About over 2.7uF capacitance, please inquire us.

[生産工場]

Manufacturing factory

中国 China	パナソニック エレクトロニックデバイス江門有限公司 Panasonic Electronic Devices (Jiangmen) Co., Ltd.
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**Panasonic**

Device Solutions Business Division  
Industrial Solutions Company, Panasonic Corporation

## ZEICHENGENEHMIGUNG MARKS APPROVAL

Panasonic Corporation  
Automotive & Ind. Systems Company  
Device Solutions Business Division  
369 Nogifukutomi-cho  
MATSUE-SHI 690-8527  
JAPAN

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

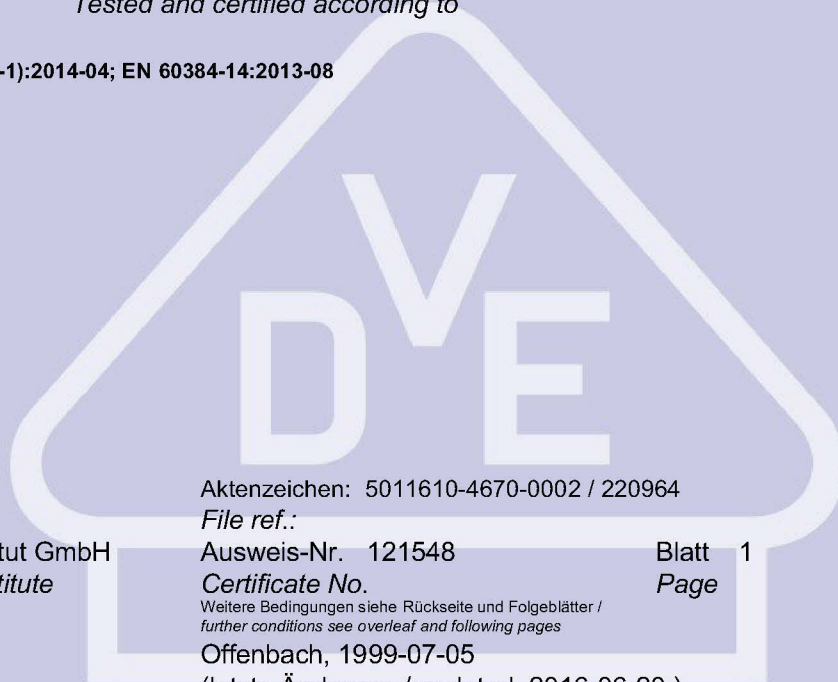
**Festkondensator zur Unterdrückung elektromagnetischer  
Störungen, geeignet für Netzbetrieb**  
***Fixed capacitor for electromagnetic interference  
suppression and connection to the supply mains***

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  
IEC 60384-14(ed.4)



Aktenzeichen: 5011610-4670-0002 / 220964

File ref.:

Ausweis-Nr. 121548

Blatt 1

Certificate No.

Page

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

Offenbach, 1999-07-05

(letzte Änderung / updated 2016-06-20 )

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

M. Tasotti

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

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

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

Panasonic Corporation Automotive & Ind. Systems Company, Device Solutions Business Division, 369  
Nogifukutomi-cho, MATSUE-SHI 690-8527, JAPAN

Aktenzeichen / *File ref.*

5011610-4670-0002 / 220964 / CC2 / KIL

letzte Änderung / *updated*

2016-06-20

Datum / *Date*

1999-07-05

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 121548.

*This supplement is only valid in conjunction with page 1 of the Certificate No. 121548.*

## **Festkondensator zur Unterdrückung elektromagnetischer Störungen, geeignet für Netzbetrieb**

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

Typ(en) / *Type(s)*

#### **ECQUL**

Bemessungsspannung  
*Rated voltage*

AC 275 V

Kondensatorklasse und -unterklasse  
*Capacitor class and subclass*

X2

Bemessungskapazität  
*Rated capacitance*

0,001 µF bis/to 3,3 µF

Kondensatorklasse und -unterklasse  
*Capacitor class and subclass*

Y2

Bemessungskapazität  
*Rated capacitance*

0,001 µF bis/to 0,0068 µF

Werteabstufung gemäß Reihe E12 nach  
DIN IEC 60063:1985-12  
Value assignment range E12 acc. to  
DIN IEC 60063:1985-12

Klimakategorie  
*Climatic category*

40/100/21

Kategorie der passiven Entflammbarkeit  
*Passive flammability category*

C

Fortsetzung siehe Blatt 3 /  
*continued on page 3*

# VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Blatt /  
Certificate No. / Page  
121548 3

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

Panasonic Corporation Automotive & Ind. Systems Company, Device Solutions Business Division, 369  
Nogifukutomi-cho, MATSUE-SHI 690-8527, JAPAN

Aktenzeichen / *File ref.*

5011610-4670-0002 / 220964 / CC2 / KIL

letzte Änderung / *updated*

2016-06-20

Datum / *Date*

1999-07-05

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Grenزابweichung der  
Bemessungskapazität  
*Tolerance of rated capacitance*

± 10% (K) oder/or ± 20% (M)

Weitere Einzelheit(en)  
*Further detail(s)*

Anlage Nr. 1 vom 2016-06-20  
*Enclosure No. 1 dated 2016-06-20*

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VDE Prüf- und Zertifizierungsinstitut GmbH  
*VDE Testing and Certification Institute*  
Fachgebiet CC2  
*Section CC2*

# VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Beiblatt /  
Certificate No. Supplement  
121548

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

Panasonic Corporation Automotive & Ind. Systems Company, Device Solutions Business Division, 369  
Nogifukutomi-cho, MATSUE-SHI 690-8527, JAPAN

Aktenzeichen / *File ref.*

5011610-4670-0002 / 220964 / CC2 / KIL

letzte Änderung / *updated*

2016-06-20

Datum / *Date*

1999-07-05

Dieses Beiblatt ist Bestandteil des Zeichengenehmigungsausweises Nr. 121548.

*This supplement is part of the Certificate No. 121548.*

## **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*

**30019128**

Panasonic Electronic Devices

(Jiangmen) Co., Ltd.

No.18 Huicheng Road

Xinhui

529100 JIANGMEN CITY

Guangdong

CHINA

VDE Prüf- und Zertifizierungsinstitut GmbH

*VDE Testing and Certification Institute*

Fachgebiet CC2

*Section CC2*



# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20121210-E62674C  
**Report Reference** E62674-20121210  
**Issue Date** 2012-December-10

**Issued to:** PANASONIC CORPORATION, PANASONIC CORPORATION OF NORTH AMERICA,  
1 PANASONIC WAY, SECAUCUS NJ 07094

**This is to certify that representative samples of**

COMPONENT - ACROSS-THE-LINE CAPACITORS, ANTENNA-COUPPLING COMPONENTS, LINE-BYPASS COMPONENTS AND FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT  
See Addendum Page

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.



**Standard(s) for Safety:**

UL 60384-14, Fixed Capacitors for Use in Electronic Equipment - Part 14: Sectional Specification: Fixed Capacitors for Electromagnetic Interference Suppression and Connection to the Supply Mains, CSA-E60384-1, Fixed Capacitors for Use in Electronic Equipment - Part 1: Generic Specification, CSA-E60384-14, Fixed Capacitors for Use in Electronic Equipment - Part 14: Sectional Specification: Fixed Capacitors for Electromagnetic Interference Suppression and Connection to the Supply Mains

**Additional Information:**

See the UL Online Certifications Directory at [www.ul.com/database](http://www.ul.com/database) for additional information

Only those products bearing the UL Recognized Component Marks for the U.S. and Canada should be considered as being covered by UL's Recognition and Follow-Up Service and meeting the appropriate U.S. and Canadian requirements.

The UL Recognized Component Mark for the U.S. generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: , may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions. The UL Recognized Component Mark for Canada consists of the UL Recognized Mark for Canada:  and the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory.



William R. Carney, Director, North American Certification Programs  
UL LLC

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# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20121210-E62674C  
**Report Reference** E62674-20121210  
**Issue Date** 2012-December-10

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Recognized Component Mark on the product.

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

## Models:

USR, CNR - Component – Class X2 Wound Film Type Capacitors, Model ECQUL series in capacitance ranges from 0.001  $\mu\text{F}$  to 3.3  $\mu\text{F}$  with tolerance K for +/-10% or M for +/-20%. See CONSTRUCTION DETAILS for Model designation and rated capacitance.

USR, CNR - Component – Class Y2 Wound Film Type Capacitors, Model ECQUL series in capacitance ranges from 0.001  $\mu\text{F}$  to 0.0068  $\mu\text{F}$  with tolerance K for +/-10% or M for +/-20%. See CONSTRUCTION DETAILS for Model designation and rated capacitance.



William R. Carney, Director, North American Certification Programs  
UL LLC

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# Certificate of Compliance

**Certificate:** 1037161 (LR 35752-58)

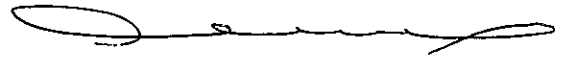
**Master Contract:** 169704

**Project:** 2464587

**Date Issued:** November 2, 2011

**Issued to:** **Panasonic Electronic Devices Japan Co., Ltd.**  
**Film Capacitor Division**  
**369 Nogifukutomi-cho**  
**Matsue-shi, Shimane-ken 690-8527**  
**JAPAN**  
**Attention: Mr. Michiharu Kamiya**

*The products listed below are eligible to bear the CSA Mark shown*



**Issued by:** Charles Chow

## PRODUCTS

CLASS 2221 51 – AUDIO AND VIDEO EQUIPMENT - Accessories and Parts for Electronic Products

Film Capacitors, ECQUL, rated, 275V~, 40/100/21/C,  $\pm 10\%$  or  $\pm 20\%$ ,  
X2, 0.001uF to 3.3uF  
Y2, 0.001uF to 0.0068uF

These devices are Certified as components for use in other Certified equipment where the suitability of the combination shall be determined by investigation in the final application.

## APPLICABLE REQUIREMENTS

CAN/CSA-E60384-14:09

- Fixed Capacitors for Use in Electronic Equipment - Part 14: Sectional Specification: Fixed Capacitors for Electromagnetic Interference Suppression and Connection to the Supply Mains



# Certificate of Compliance

**Certificate:** 1037146 (LR 35752-70)

**Master Contract:** 169704 (LR 35752)

**Project:** 2016409 (Ed. 7)

**Date Issued:** December 24, 2008


**Issued to:** Panasonic Electronic Devices Japan Co., Ltd.  
Film Capacitor Division  
369 Nogifukutomi-cho  
Matsue-shi, Shimane 690-8527  
JAPAN

**Attention:** Mr. K. Kuwata

*The products listed below are eligible to bear the CSA Mark shown*



**Issued by:** Brij P. Aggarwal, P. Eng.

  
**Authorized by:** Tom Kung, P. Eng.  
Operations Manager

## PRODUCTS

CLASS 2221 02 – AUDIO AND VIDEO EQUIPMENT – Electromagnetic Interference (EMI) Filters

Noise suppression component for use in across-the-line in EMI filter, Type ECQUL, rated 250V ac, 1.2uF through 4.7uF.

### Notes:

1. The above components are Certified for use only as components of other Certified equipment where the suitability of the combination is determined by the CSA International.
2. Marking "8X" is marked adjacent to the CSA Monogram.

## APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-M91 (R2006) - General Requirements – Canadian Electrical Code, Part II  
CSA Standard C22.2 No. 8-M1986 (R2004) - Electromagnetic Interference (EMI) Filters