

Certificate of Compliance

Certificate: 1109579 (LR 63185-1)

Master Contract: 175282

Project: 1557782

Date Issued: 2004/07/05

Issued to: EPCOS OHG

Siemensstrasse 43
Deutschlandsberg, 8530
Austria
Attention: Mr. Helge Roth

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



Issued by: Edwin Ko, P. Eng.

Authorized by: C. George Tranquada, C.E.T.,
Manager, Audio/Video Team



PRODUCTS

CLASS 2221 01 - AUDIO AND VIDEO EQUIPMENT - Accessories and Parts for
Electronic Equipment

CLASS 2221 01 - AUDIO AND VIDEO EQUIPMENT - Accessories and Parts for Electronic Equipment

Metal oxide varistors, for use as across-the-line transient protectors.

PART A - SIOV-S**K**** series, (** is 05 through 20, **** is 115 through 1000), rated 115-1100V ac (rms),
varistor voltage 180-1800V, surge rated 400-8000A.

PART B - B**K**** series, (** is 32 through 80, **** is 130 through 1100), rated 130-1100V ac (rms),
varistor voltage 205-1800V, surge rated 15-100kA.



CSA INTERNATIONAL

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PART C - LS40K***QP, LS40K***QPK2, LS40K***QPK3 and LS40K***QPK23 Series (** denotes 2 digit numbers from 130 to 750), varistor voltage 205-1200V, surge rated 40kA.

PART D - SIOV-S**K***E2 series, (** is 05 through 20, **** is 130 through 1000), rated 130-1100V ac (rms), varistor voltage 205 - 1800V, surged rated 800 - 10000A; SIOV-S14K***E3 series (** is 300 through 385), rated 300 - 385V ac (rms), varistor voltage 470 - 620 V, surge rated 6500A; and SIOV-S20K***E3 series (** is 130 through 320), rated 130 - 320V ac (rms), varistor voltage 205 - 510 V, surged rated 12000A.

PART E - SIOV-S05S175A, SIOV-S07S320A, SIOV-S20S275C, SIOV-S20S510A, rated 175V to 510V rms. The S...A or S...C denotes the customer specific tolerance, max. $\pm 10\%$.

PART F - LS50K***P Series, LS50K***PK2 Series, rated 130V to 680V rms, varistor voltage 205-1100V, surge rated 75kA.

PART G - L40K150QPK25 and L40K275QPK25, rated 150V and 275V rms, surge rated 40kA.

PART H - LS40K***QPK46 Series, (** is 130 through 750), rated 130V to 750V ac (rms), varistor voltage 205 - 1200V, surge rated 40kA.

PART I - LS40K***QPK53 Series, (** is 180, 270 and 600), rated 180V, 270V and 600V ac (rms) respectively, varistor voltage 283V, 424V and 965V respectively, surge rated 40kA; LS40S***AQPK53 Series, (** is 150 through 550), rated 150V to 550V ac (rms), varistor voltage 235.5 - 864V, surge rated 40kA.

PART J - LS40K***QPK54 Series, (** is 320 through 420), rated 320V to 420V ac (rms), varistor voltage 510 - 680V, surge rated 40kA.

PART K - Series L32K***LK19, L32K420E1LK19, L32K***LK22; (** is 150 through 420 indicating the rated voltage from 150V to 420V rms, varistor voltage 240 - 680V, surge rated 25kA.

PART L - Series L40K***QLK19, L40K***QLK22; (** is 130 through 680 indicating the rated voltage from 130V to 680V rms, varistor voltage 205 - 1100V, surge rated 40kA.

Notes:

1. These varistors are Certified for use on a nominal 120V systems.
2. These varistors are Certified for use only as components of other Certified equipment where the suitability of the combination is to be determined by CSA International.
3. Types B60K320, B60K1000, and B80K1100 have a standby current of up to 1A when tested for a 320V system.
4. The prefix "SIOV" for varistors in Parts A, D and E is optional.
5. The "K" in the model designation of varistors in Parts A and D may be replaced by "J", where "J" denotes the varistor tolerance of $\pm 5\%$ and "K" $\pm 10\%$.



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6. The model designation of varistors in Parts A, D and E may be followed by suffixes indicating packing information and/or customer's special requirements which do not affect the electrical characteristics of the varistors.

7. The SIOV-S**K****, SIOV-S**K****E2, SIOV-S14K***E3 and SIOV-S20K***E3 series varistors in Part A and D may have optional markings of SIOV-SxxKVzzz, SIOV-SxxKVzzzE2, SIOV-S14KVzzzE3 and SIOV-S20KVzzzE3 respectively, where "xx" denotes the disc diameter and "zzz" the varistor voltage.

8. The SIOV-S05S175A, SIOV-S07S320A, SIOV-S20S275C and SIOV-S20S510A varistors in Part E may have optional markings of SIOV-S05SVzzzA, SIOV-S07SVzzzA, SIOV-S20SVzzzC and SIOV-S20SVzzzA respectively, where "zzz" denotes the varistor voltage.

9. Fuse protection is required in combustible enclosures where the varistor is rated 6000A or less.

10. Some preliminary production steps are performed at one of the other factory locations.

11. The body of varistors series L32K**LK19, L32K420E1LK19, L32K***LK22, L40K***QLK19 and L40K***QLK22 is not relied on for insulation. These varistors shall be mounted with suitable spacing or supplementary insulation from metal parts.

APPLICABLE REQUIREMENTS

CSA-C22.2 No. 1-98 - Audio, Video and Similar Electronic Equipment

General Instruction No. 2 (Including Amendment 1)



Supplement to Certificate of Compliance

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The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
1557782	2004/07/05	Alternative enclosure material CP-930-1 by Dae Joo and change of model descriptions for Parts A, D and E.
1554385	2004/06/15	Addition of factory "EPCOS (Zhuhai FTZ) Co.,Ltd." for producing varistors Certified under reports 1109579, 1109583, 1109587, 1116659 and 1131739.
1476122	2003/10/29	Transfer of factory "EPCOS Elektronikai" to new factory "Schifo Kft." for production of varistors Certified under this report. Schifo KFT for manufacturing varistor certified under report 1109579

History

1426445 April 29, 2003 Addition of Series L32K***LK19, L32K420E1LK19, L32K***LK22, L40K***QLK19 and L40K***QLK22.

1278610 Feb 7, 2002 Addition of Type S20K350 to Part A and Type S14K350E2, S20K350E2 to Part D.

1225890 July 27, 2001 Addition of LS40K***QPK53 series, L40S***AQPK53 series, L40K***QPK54 series; and inclusion of type LS40K270QP and LS40K600QP to the LS40K***QP series in Part C

1201866 May 24, 2001 Addition of LS40K***QPK46 Series.

1199211 May 10, 2001 Inclusion of additional values for the S**K****E2 series, S14K***E3 series and S20K***E3 series.

1184885 April 9, 2001 Addition of LS40K***QPK3 Series, L40K150QPK25 and L40K275QPK25.

1145966 Jan. 25, 2001 Addition of China factory "Wearnes Electronics Zhongshan Ltd.".

1136357 Oct. 13, 2000 Alternative enclosure material "Pibiter" type N200AE by P Group SRL for B**K**** series varistors and report corrections.

1121172 Sept. 6, 2000 Change of enclosure material from XMB1059, Ciba-Geigy to HTI681FR, E.I. Dupont De Nemours & Co. Inc. and addition of alternative material type T850FR for B**K**** series varistors.

1109579 July 13, 2000 Change of Submitter's name from "Siemens Matsushita Components OHG" to "EPCOS OHG".

-46 Dec. 22, 1998 Addition of LS40K***QP (where *** are numbers 140, 180 and 580), LS50K***P and



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LS50K***PK2 (where *** are numbers 180, 390, 580, 680) and report corrections.

-44 Sept. 16, 1998 Addition of LS40K***QPK23 Series.

-42 June 29, 1998 Addition of S05K210, S07K210, S10K210, S14K210, S18K210 and S20K210 Series.

-39 Feb. 19, 1998 Addition of alternative coating material PPHS and addition of new attachments, also, factory in Hungary added. Also, S**K****E3 Series.

-32 Feb. 10, 1997 To add S20S510A.

-31 Dec. 19, 1996 Addition of S05S175A, S07S320A, S20S275C and LS50K***P Series.

-28 July 26, 1996 To add LS40K***QPK2 Series.

-24 May 2, 1996 To add S**K****E2 Series.

-19 Dec. 5, 1994 To add alternative coating material.

-16 Feb. 11, 1994 To extend varistor SXXKXXXX Series to 460V.

-12 Sept. 17, 1991 To add optional varistor voltage markings and alternative housing material.

-9 April 22, 1991 To cover disk diameter changes.

-8 Jan. 17, 1991 To add varistor, LS40K175QP.

-7 Dec. 19, 1990 To add tolerance marking.

-5 April 23, 1990 To add varistors LS40K***QP.

-1 April 15, 1987 Original Certification