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Fixed inductors for electromagnetic interference suppression –

Part 1: Generic specification

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International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CONTENTS

FOREWORD.....	4
1 General	6
1.1 Scope.....	6
1.2 Normative references	6
2 Technical data	8
2.1 Units and symbols	8
2.2 Definitions	8
2.3 Preferred values	11
2.4 Marking	11
3 Quality assessment procedures	11
3.1 General	11
3.2 Primary stage of manufacture	11
3.3 Structurally similar inductors	11
3.4 Qualification approval procedures	11
3.5 Quality conformance inspection	12
3.6 Alternative test methods	12
3.7 Unchecked parameters	13
4 Test and measurement procedure.....	13
4.1 General	13
4.2 Standard atmospheric conditions	13
4.3 Drying.....	14
4.4 Visual examination and check of dimensions.....	14
4.5 Insulation resistance.....	16
4.6 Voltage proof.....	18
4.7 Inductance.....	21
4.8 Insertion loss	21
4.9 Robustness of terminations.....	21
4.10 Resistance to soldering heat.....	22
4.11 Solderability (applicable only for terminations intended to be soldered).....	23
4.12 Rapid change of temperature.....	23
4.13 Vibration.....	24
4.14 Bump	24
4.15 Shock.....	24
4.16 Container sealing.....	24
4.17 Climatic sequence	25
4.18 Damp heat, steady state	26
4.19 Temperature rise	26
4.20 Endurance	27
4.21 Passive flammability	27
4.22 Active flammability.....	28
4.23 Solvent resistance of marking.....	28
4.24 Component solvent resistance	28

Annex A (normative) Interpretation of sampling plans and procedures as described in IEC 60410 for use within the IEC quality assessment system for electronic components (IECQ).....	29
Annex B (normative) Rules for the preparation of detail specifications for capacitors and resistors for electronic equipment.....	30
Annex C (normative) Requirements for earth inductors.....	31
Figure 1 – Voltage proof test circuit.....	19
Table 1 – Reference test: standard atmospheric conditions.....	14
Table 2 – Creepage distances and clearances.....	15
Table 3 – Measuring voltage.....	16
Table 4 – Measuring points.....	17
Table 5 – Force.....	22
Table 6 – Torque.....	22
Table 7 – Number of cycles.....	26
Table 8 – Severities and requirements.....	28
Table C.1 – Rated current related to minimum cross-sectional area of copper lead (mm ²) of the earth inductor.....	31

INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIXED INDUCTORS FOR ELECTROMAGNETIC INTERFERENCE SUPPRESSION –

Part 1: Generic specification

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International Standard IEC 60938-1 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This consolidated version of IEC 60938-1 consists of the second edition (1999) [documents 40/1110/FDIS and 40/1136/RVD] and its amendment 1 (2006) [documents 40/1602/CDV and 40/1699A/RVC].

The technical content is therefore identical to the base edition and its amendment and has been prepared for user convenience.

It bears the edition number 2.1.

A vertical line in the margin shows where the base publication has been modified by amendment 1.

The QC number that appears on the front cover of this publication is the specification number in the IEC Quality Assessment System for Electronic Components (IECQ).

Annexes A, B and C form an integral part of this standard.

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

FIXED INDUCTORS FOR ELECTROMAGNETIC INTERFERENCE SUPPRESSION –

Part 1: Generic specification

1 General

1.1 Scope

This International Standard applies to inductors designed for electromagnetic interference suppression intended for use within, or associated with, electronic or electrical equipment and machines. It is restricted to inductors for which safety tests are appropriate.

The combination of two or more inductors within one enclosure is also included.

Inductors within the scope of this standard may also be used to protect apparatus and machines from electrical noise and voltage or current transients coming from either the supply or from other parts of the apparatus.

This standard does not necessarily apply in its entirety to inductors intended for use on motor vehicles, in aircraft or for marine applications.

1.2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60027 (all parts), *Letter symbols to be used in electrical technology*

IEC 60050 (all parts), *International Electrotechnical Vocabulary (IEV)*

IEC 60062:1992, *Marking codes for resistors and capacitors*

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*
Amendment 1 (1992)

IEC 60068-2-1:1990, *Environmental testing – Part 2: Tests – Tests A: Cold*
Amendment 1 (1993)
Amendment 2 (1994)

IEC 60068-2-2:1974, *Environmental testing – Part 2: Tests – Tests B: Dry Heat*
Amendment 1 (1993)
Amendment 2 (1994)

IEC 60068-2-3:1969, *Environmental testing – Part 2: Tests – Test Ca: Damp heat, steady state*
Amendment 1 (1984)

IEC 60068-2-6:1995, *Environmental testing – Part 2: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-13:1983, *Environmental testing – Part 2: Tests – Test M: Low air pressure*

IEC 60068-2-14:1984, *Environmental testing – Part 2: Tests – Test N: Change of temperature*
Amendment 1 (1986)

IEC 60068-2-17:1994, *Environmental testing – Part 2: Tests – Test Q: Sealing*

IEC 60068-2-20:1979, *Environmental testing – Part 2: Tests – Test T: Soldering*
Amendment 2 (1987)

IEC 60068-2-21:1983, *Environmental testing – Part 2: Tests – Test U: Robustness of terminations and integral mounting devices*
Amendment 2 (1991)
Amendment 3 (1992)

IEC 60068-2-27:1987, *Environmental testing – Part 2: Tests – Test Ea and guidance: Shock*

IEC 60068-2-29:1987, *Environmental testing – Part 2: Tests – Test Eb and guidance: Bump*

IEC 60068-2-30:1980, *Environmental testing – Part 2: Tests – Test Db and guidance: Damp heat, cyclic (12 + 12 hour cycle)*
Amendment 1 (1985)

IEC 60068-2-45:1980, *Environmental testing – Part 2: Tests – Test XA and guidance: Immersion in cleaning solvents*
Amendment 1 (1993)

IEC 60294:1969, *Measurement of the dimensions of a cylindrical component having two axial terminations*

IEC 60335-1:1991, *Safety of household and similar electrical appliances – Part 1: General requirements*

IEC 60410:1973, *Sampling plans and procedures for inspection by attributes*

IEC 60617 (all parts), *Graphical symbols for diagrams*

IEC 60695-2-2:1991, *Fire hazard testing – Section 2: Needle-flame test*
Amendment 1 (1994)

CISPR 17:1981, *Methods of measurement of the suppression characteristics of passive radio interference filters and suppression components*

IEC QC 001002-3:1998, *Rules of Procedure of the IEC Quality Assessment System for Electronic Components (IECQ) – Part 3: Approval procedures*

ISO 1000:1992, *SI units and recommendations for the use of their multiples and of certain other units*