

# INTERNATIONAL STANDARD

# IEC 60938-2

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## **Fixed inductors for electromagnetic interference suppression –**

### **Part 2: Sectional specification**

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International Electrotechnical Commission, 3, rue de Varembe, 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 Object .....	6
1.3 Normative references .....	6
1.4 Information to be given in a detail specification .....	7
1.5 Definitions .....	8
1.6 Marking .....	8
2 Preferred ratings and characteristics .....	8
2.1 Climatic categories .....	8
2.2 Values of ratings.....	9
3 Quality assessment procedures .....	9
3.1 Primary stage of manufacture .....	9
3.2 Structurally similar inductors .....	9
3.3 Certified records of released lots .....	10
3.4 Qualification approval .....	10
3.5 Quality conformance inspection .....	14
4 Test and measurement procedures .....	14
4.1 Visual examination and check of dimensions.....	14
4.2 Voltage proof .....	15
4.3 Insulation resistance.....	15
4.4 Inductance.....	16
4.5 DC line resistance .....	16
4.6 Robustness of terminations.....	16
4.7 Resistance to soldering heat.....	16
4.8 Solderability.....	16
4.9 Rapid change of temperature.....	16
4.10 Vibration.....	17
4.11 Bump .....	17
4.12 Shock.....	18
4.13 Container sealing.....	18
4.14 Climatic sequence .....	18
4.15 Damp heat, steady state .....	19
4.16 Temperature rise (applies only to inductors with a mass >5 g).....	19
4.17 Impulse voltage (applies to inductors with more than one winding) .....	20
4.18 Endurance .....	21
4.19 Passive flammability (if applicable) .....	22
4.20 Component solvent resistance (if applicable) .....	22
4.21 Solvent resistance of marking (if applicable) .....	22
Annex A (normative) Test schedule for safety tests only approval.....	23
Annex B (normative) Test schedule for safety tests and performance tests for qualification approval, assessment level D .....	26
Annex C (normative) Example of a suitable circuit for the endurance test voltage .....	31
Annex D (normative) Declaration of design (confidential to the manufacturer and the certification body) .....	32
Annex E (normative) Test methods for thyristor electromagnetic interference suppression inductors .....	33

Figure C.1 – Endurance test circuit.....	31
Figure E.1 – Test circuit for temperature rise.....	33
Figure E. 2 – Test circuit for interference voltage attenuation.....	34
Table 1 – Sampling plan for safety tests only.....	12
Table 2 – Sampling plan for safety tests and performance tests, assessment level D.....	13
Table 3 – Measuring points .....	15
Table 4 – Acceleration.....	17
Table 5 – Sweep cycles.....	17
Table 6 – Preferred severities .....	18

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### FIXED INDUCTORS FOR ELECTROMAGNETIC INTERFERENCE SUPPRESSION –

#### Part 2: Sectional specification

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International Standard IEC 60938-2 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This consolidated version of IEC 60938-2 consists of the second edition (1999) [documents 40/1111/FDIS and 40/1137/RVD] and its amendment 1 (2006) [documents 40/1603/CDV and 40/1700A/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, C, D and E 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 2: Sectional specification

## 1 General

### 1.1 Scope

This International Standard applies to fixed inductors designed for electromagnetic interference suppression and which fall within the scope of the generic specification, IEC 60938-1. It is restricted to fixed inductors for which safety tests are appropriate. This implies that inductors specified according to this specification will either be connected to mains supplies, when compliance with the mandatory tests of table 1 is necessary, or used in other circuit positions where the equipment specification prescribes that some or all of these safety tests are required.

This standard applies to fixed inductors which will be connected to an a.c. mains or other supply with a nominal voltage not exceeding 1 000 V a.c. (r.m.s.) or d.c. between conductors and with a nominal frequency not exceeding 400 Hz.

### 1.2 Object

The object of this standard is to prescribe standard requirements for safety tests and standard ratings and characteristics, to select from IEC 60938-1 the appropriate methods of test and to give general performance requirements for suppression inductors. Test severities and performance requirements prescribed in detail specifications referring to this sectional specification shall be of equal or higher performance level. In addition, the minimum requirements for safety tests specified herein always apply.

### 1.3 Normative references

Les documents de référence suivants sont indispensables pour l'application du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 60060-1:1989, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60063:1963, *Preferred number series for resistors and capacitors*

Amendment 1 (1967)

Amendment 2 (1977)

IEC 60085:1984, *Thermal evaluation and classification of electrical insulation*

IEC 60279:1969, *Measurement of the winding resistance of an a.c. machine during operation at alternative voltage*

IEC 60938-1:1999, *Fixed inductors for electromagnetic interference suppression – Part 1: Generic specification*

ISO 3:1973, *Preferred numbers – Series of preferred numbers*

CISPR 16-1-1:2003, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-1: Radio disturbance and immunity measuring apparatus – Measuring apparatus*