



BSI Standards Publication

Fixed inductors for electromagnetic interference suppression

Part 2: Sectional specification on power line chokes

National foreword

This British Standard is the UK implementation of EN IEC 60938-2:2021. It is identical to IEC 60938-2:2021. It supersedes BS EN 60938-2:2000, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee W/-, Consumer Products and Services Sector Policy and Strategy Committee.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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English Version

**Fixed inductors for electromagnetic interference suppression -
Part 2: Sectional specification on power line chokes
(IEC 60938-2:2021)**Inductances fixes d'antiparasitage - Partie 2: Spécification
intermédiaire sur les bobines d'arrêt pour ligne électrique
(IEC 60938-2:2021)Drosseln zur Unterdrückung elektromagnetischer
Störungen - Teil 2: Rahmenspezifikation zu Netzdrosseln
(IEC 60938-2:2021)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 40/2846/FDIS, future edition 3 of IEC 60938-2, prepared by IEC/TC 40 “Capacitors and resistors for electronic equipment” was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60938-2:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-05-24
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-08-24

This document supersedes EN 60938-2:1999 and all of its amendments and corrigenda (if any).

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Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 60938-2:2021 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

- IEC 60063 NOTE Harmonized as EN 60063
- IEC 60068-2-1 NOTE Harmonized as EN 60068-2-1
- IEC 60068-2-2 NOTE Harmonized as EN 60068-2-2
- IEC 60068-2-6 NOTE Harmonized as EN 60068-2-6
- IEC 60068-2-20 NOTE Harmonized as EN IEC 60068-2-20
- IEC 60068-2-27 NOTE Harmonized as EN 60068-2-27
- IEC 60068-2-30 NOTE Harmonized as EN 60068-2-30
- IEC 60068-2-58 NOTE Harmonized as EN 60068-2-58
- IEC 60068-2-78 NOTE Harmonized as EN 60068-2-78
- IEC 60938-2-1 NOTE Harmonized as EN 60938-2-1

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIXED INDUCTORS FOR ELECTROMAGNETIC
INTERFERENCE SUPPRESSION –****Part 2: Sectional specification on power line chokes****FOREWORD**

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

This third edition cancels and replaces the second edition published in 1999 and its Amendment 1:2006. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) the test plan for performance testing has been removed; mandatory safety tests and optional performance tests are listed in one test plan in Annex B;
- b) requirements for Thyristor-Chokes have been withdrawn;
- c) material requirements are harmonized with IEC 60939-3 and UL 60939-3;
- d) AC chokes up to 1 000 V and DC chokes up to 1 500 V are now in the Scope.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
40/2846/FDIS	40/2862/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 60938 series, published under the general title *Fixed inductors for electromagnetic interference suppression*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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

FIXED INDUCTORS FOR ELECTROMAGNETIC INTERFERENCE SUPPRESSION –

Part 2: Sectional specification on power line chokes

1 Scope

This part of IEC 60938 applies to fixed inductors designed for electromagnetic interference suppression, which will be connected to an AC mains or other supply with a nominal voltage not exceeding 1 000 V AC RMS or 1 500 V DC with a nominal frequency not exceeding 400 Hz.

This sectional specification 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 Annex A is necessary, or used in other circuit positions where the equipment specification prescribes that some or all of these safety tests are required.

The object of this document is to prescribe standard requirements for safety tests, preferred ratings and characteristics, to select from IEC 60938-1 the appropriate methods of test and to give general performance requirements for suppression inductors.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document applies, including any amendments.

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

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

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

IEC 60068-1, *Environmental testing – Part 1: General and guidance*

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

IEC 60068-2-14, *Environmental testing – Part 2-14: Tests – Test N: Change of temperature*

IEC 60068-2-17, *Basic environmental testing procedures – Part 2-17: Tests – Test Q: Sealing*

IEC 60068-2-21, *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*

IEC 60068-2-45, *Basic environmental testing procedures – Part 2-45: Tests – Test XA and guidance: Immersion in cleaning solvents*

IEC 60317-0-7, *Specifications for particular types of winding wires – Part 0-7: General requirements – Fully insulated (FIW) zero-defect enamelled round copper wire*