

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Passive filter units for electromagnetic interference suppression –  
Part 3: Passive filter units for which safety tests are appropriate**

**Filtres passifs d'antiparasitage –  
Partie 3: Filtres passifs pour lesquels des essais de sécurité sont appropriés**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PASSIVE FILTER UNITS FOR ELECTROMAGNETIC  
INTERFERENCE SUPPRESSION –****Part 3: Passive filter units for which safety tests are appropriate**

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IEC 60939-3 has been prepared by of IEC technical committee 40: Capacitors and resistors for electronic equipment. It is an International Standard.

This second edition cancels and replaces the first edition published in 2015, Corrigendum 1:2016 and Corrigendum 2:2018. This edition constitutes a technical revision.

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

- a) Separated clauses for safety and performance tests;
- b) Added note for use of multiple X capacitors bridging basic insulation in 3 phase filters;
- c) Characteristics and conditions to substitute X and Y capacitors are now described in a separate Subclause 4.1;

- d) Creepage and clearance tables updated and in line with the latest editions of IEC 60938-2 and IEC 60664-1;
- e) Allowing voltage measurement for inductance measurements (7.3);
- f) Added requirements for marking depending on remaining energy after disconnection;
- g) Added content of CTL DSH 2044:2016 for temperature test of IEC filters;
- h) Added note about temperature rise required specimens for safety testing;
- i) Changed index of capacitors in Annex A to avoid confusion between index name and capacitor class;
- j) Moved tests from group 1A to 2. Now, samples in group 1A need to be submitted without potting;
- k) Revision of all parts of the document has taken place based on the ISO/IEC Directives, Part 2:2021, and harmonization with other similar kinds of documents. Annex X contains all cross-references of changes in clause/subclause numbers.

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

| Draft        | Report on voting |
|--------------|------------------|
| 40/3102/FDIS | 40/3118/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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

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