
**Filtri z dielektričnimi resonatorji valovodnega tipa – 1. del: Generična
specifikacija (IEC 61337-1:2004)**

Filters using waveguide type dielectric resonators – Part 1: Generic specification
(IEC 61337-1:2004)

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English version

Filters using waveguide type dielectric resonators
Part 1: Generic specification
(IEC 61337-1:2004)

Filtres utilisant des résonateurs
diélectriques à modes guidés
Partie 1: Informations générales
(CEI 61337-1:2004)

Filter mit dielektrischen Resonatoren
vom Wellenleitertyp
Teil 1: Fachgrundspezifikation
(IEC 61337-1:2004)

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 49/685/FDIS, future edition 1 of IEC 61337-1, prepared by IEC TC 49, Piezoelectric and dielectric devices for frequency control and selection, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61337-1 on 2004-10-01.

This European Standard supersedes EN 171000:2001.

The following dates were fixed:

- | | | |
|--|-------|------------|
| – latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2005-08-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2007-10-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61337-1:2004 was approved by CENELEC as a European Standard without any modification.

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60027	Series	Letter symbols to be used in electrical technology	HD 245 HD 60027	Series Series
IEC 60050-561	1991	International Electrotechnical Vocabulary (IEV) Chapter 561: Piezoelectric devices for frequency control and selection	-	-
IEC 60068-1	1988	Environmental testing Part 1: General and guidance	EN 60068-1 ¹⁾	1994
IEC 60068-2-1	1990	Part 2: Tests - Tests A: Cold	EN 60068-2-1	1993
IEC 60068-2-2	1974	Part 2: Tests - Tests B: Dry heat	EN 60068-2-2 ²⁾	1993
IEC 60068-2-6	1995	Part 2: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	1995
IEC 60068-2-7	1983	Part 2: Tests - Test Ga: Acceleration, steady state	EN 60068-2-7 ³⁾	1993
IEC 60068-2-13	1983	Part 2: Tests - Test M: Low air pressure	EN 60068-2-13	1999
IEC 60068-2-14	1984	Part 2: Tests - Test N: Change of temperature	EN 60068-2-14 ⁴⁾	1999
IEC 60068-2-20	1979	Part 2: Tests - Test T: Soldering	HD 323.2.20 S3 ⁵⁾	1988
IEC 60068-2-21	1999	Part 2-21: Tests - Test U: Robustness of terminations and integral mounting devices	EN 60068-2-21	1999

1) EN 60068-1 includes corrigendum October 1988 + A1:1992 to IEC 60068-1:1988.

2) EN 60068-2-2 includes supplement A:1976 to IEC 60068-2-2:1974.

3) EN 60068-2-7 includes A1:1986 to IEC 60068-2-7:1983.

4) EN 60068-2-14 includes A1:1986 to IEC 60068-2-14:1984.

5) HD 323.2.20 S3 includes A2:1987 to IEC 60068-2-20:1979.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-27	1987	Part 2: Tests - Test Ea and guidance: Shock	EN 60068-2-27	1993
IEC 60068-2-29	1987	Part 2: Tests - Test Eb and guidance: Bump	EN 60068-2-29	1993
IEC 60068-2-30	1980	Part 2: Tests - Test Db and guidance: Damp heat, cyclic (12 + 12-hour cycle)	EN 60068-2-30 ⁶⁾	1999
IEC 60068-2-58	1999	Part 2-58: Tests - Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)	EN 60068-2-58 ⁷⁾	1999
IEC 60068-2-78	2001	Part 2-78: Tests - Test Cab: Damp heat, steady state	EN 60068-2-78	2001
IEC 60617	database	Graphical symbols for diagrams	-	-
IEC QC 001002-2	1998	IEC Quality Assessment System for Electronic Components (IECQ) - Rules of Procedure Part 2: Documentation	-	-
IEC QC 001001	2000	IEC Quality Assessment System for Electronic Components (IECQ) - Basic rules	-	-
IEC QC 001002-3	1998	IEC Quality Assessment System for Electronic Components (IECQ) - Rules of Procedure Part 3: Approval procedures	-	-
IEC QC 001005	2000	Register of firms, products and services approved under the IECQ system, including ISO 9000	-	-
ISO 1000	1992	SI units and recommendations for the use of their multiples and of certain other units	-	-

⁶⁾ EN 60068-2-30 includes A1:1985 to IEC 60060-2-30:1980.

⁷⁾ EN 60068-2-58 is superseded by EN 60068-2-58:2004, which is based on IEC 60068-2-58:2004.

INTERNATIONAL STANDARD

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Filters using waveguide type dielectric resonators –

Part 1: Generic specification

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FILTERS USING WAVEGUIDE TYPE
DIELECTRIC RESONATORS –****Part 1: Generic specification****FOREWORD**

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61337-1 has been prepared by IEC technical committee 49: Piezoelectric and dielectric devices for frequency control and selection.

This part of IEC 61337 cancels and replaces IEC 61337-1-1:1995 and IEC 61337-1-2:1999.

The text of this standard is based on the following documents:

FDIS	Report on voting
49/685/FDIS	49/695/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

IEC 61337 consists of the following parts, under the general title *Filters using waveguide type dielectric resonators*:

Part 1: Generic specification

Part 2: Guidance for use

The committee has decided that the contents of this publication 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 edition of this generic specification may be issued at a later date.

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FILTERS USING WAVEGUIDE TYPE DIELECTRIC RESONATORS –

Part 1: Generic specification

1 General

1.1 Scope

This part of IEC 61337 applies to filters using waveguide type dielectric resonators of assessed quality using either capability approval or qualification approval procedures. It also lists the test and measurement procedures which may be selected for use in detail specifications for such filters.

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(561):1991, *International Electrotechnical Vocabulary (IEV) – Chapter 561: Piezo-electric devices for frequency control and selection*

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*
[SIST EN 61337-1:2005](#)
[7aa486b5a09f/sist-en-61337-1-2005](#)

IEC 60068-2-1:1990, *Environmental testing – Part 2: Tests – Test A: Cold*

IEC 60068-2-2:1974, *Environmental testing – Part 2: Tests – Test B: Dry Heat*

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

IEC 60068-2-7:1983, *Environmental testing – Part 2: Tests – Test Ga: Acceleration, steady state*

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*

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

IEC 60068-2-21:1999, *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*

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)*

IEC 60068-2-58:1999, *Environmental testing – Part 2-58: Tests – Tests Td: Test methods for solderability, resistance to dissolution of metalization and to soldering heat of surface mounting devices (SMD)*

IEC 60068-2-78:2001, *Environmental testing – Part 2-78: Tests – Test Cab: Damp heat, steady state*

IEC 60617 (all parts) [DB]¹, *Graphical symbols for diagrams*

QC 001001:2000, *IEC Quality Assessment System for Electronic Components (IECQ) – Basic Rules*

QC 001002-2:1998, *IEC Quality Assessment System for Electronic Components (IECQ) – Rules of Procedure – Part 2: Documentation*

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

QC 001005:2000, *Register of Firms, Products and Services approved under the IECQ System, including ISO 9000*

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

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1.3 Order of precedence

Where any discrepancies occur for any reason, documents shall rank in the following order of authority:

- detail specification;
- sectional specification;
- generic specification;
- any other international documents (for example, of the IEC) to which reference is made.

The same order of precedence shall apply to equivalent national documents.

2 Terminology and general requirements

2.1 General

Units, graphical symbols, letter symbols and terminology shall whenever possible, be taken from IEC 60617, IEC 60027, IEC 60050(561) and ISO 1000.

Any other units, symbols and terminology peculiar to one of the components covered by the Generic Specification, shall be taken from the relevant IEC or ISO documents listed under 1.2.

2.2 Terms and definitions

For the purposes of this part of IEC 61337, the following terms and definitions apply.

Further detailed information may be provided in IEC 61994-1 for some of the following terms.

¹ "DB" refers to the IEC on-line database.