
Environmental testing - Part 3-8: Supporting documentation and guidance -
Selecting amongst vibration tests (IEC 60068-3-8:2003)

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Environmental testing
Part 3-8: Supporting documentation and guidance –
Selecting amongst vibration tests
(IEC 60068-3-8:2003)

Essais d'environnement
Partie 3-8: Documentation
d'accompagnement et lignes directrices -
Sélection d'essais de vibrations
(CEI 60068-3-8:2003)

Umweltprüfungen
Teil 3-8: Unterstützende Dokumentation
und Leitfaden –
Auswahl zwischen verschiedenen
Schwingprüfverfahren
(IEC 60068-3-8:2003)

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This European Standard was approved by CENELEC on 2003-11-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

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 104/308/FDIS, future edition 1 of IEC 60068-3-8, prepared by IEC TC 104, Environmental conditions, classification and methods of test, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60068-3-8 on 2003-11-01.

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) 2004-08-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2006-11-01

Annexes designated "normative" are part of the body of the standard.

In this standard, annex ZA is normative.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60068-3-8:2003 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60721-3-0

NOTE

Harmonized as HD 478.3.0 S1:1987 (not modified).

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE When 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 60068-1	- ¹⁾	Environmental testing Part 1: General and guidance	EN 60068-1	1994 ²⁾
IEC 60068-2-6	- ¹⁾	Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	1995 ²⁾
IEC 60068-2-64	- ¹⁾	Part 2-64: Test methods - Test Fh: Vibration, broad-band random (digital control) and guidance	EN 60068-2-64	1994 ²⁾
IEC 60068-2-80	- ³⁾	Part 2-80: Tests - Test Fi: Mixed mode	-	-
IEC 60721-3	Series	Classification of environmental conditions Part 3: Classification of groups of environmental parameters and their severities	EN 60721-3	Series
IEC 60721-4	Series	Part 4: Guidance for the correlation and transformation of environmental condition classes of IEC 60721-3 to the environmental tests of IEC 60068	-	-
IEC Guide 104	1997	The preparation of safety publications and the use of basic safety publications and group safety publications	-	-
ISO 2041	- ¹⁾	Vibration and shock - Vocabulary	-	-
ISO 5348	- ¹⁾	Mechanical vibration and shock - Mechanical mounting of accelerometers	-	-

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

³⁾ At draft stage.

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60068-3-8

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BASIC SAFETY PUBLICATION**

Essais d'environnement –

**Partie 3-8:
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et lignes directrices –
Sélection d'essais de vibrations**

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**Part 3-8:
Supporting documentation and guidance –
Selecting amongst vibration tests**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENVIRONMENTAL TESTING –

**Part 3-8: Supporting documentation and guidance –
Selecting amongst vibration tests**

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, 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 60068-3-8 has been prepared by IEC technical committee 104: Environmental conditions, classification and methods of test.

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

FDIS	Report on voting
104/308/FDIS	104/324/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.

It has the status of a basic safety publication in accordance with IEC Guide 104.

The committee has decided that the contents of this publication will remain unchanged until 2007. At this date, the publication will be

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

IEC 60068 consists of the following parts, under the general title *Environmental testing*:

Part 1: General and guidance

Part 2: Tests

Part 3: Supporting documentation and guidance

Part 4: Information for specification writers – Test summaries

Part 5: Guide to drafting of test methods

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INTRODUCTION

Components, equipment and other electrotechnical products, hereinafter called specimens, can be subjected to different kinds of vibration during manufacture, transportation or in service. In the IEC 60721-3 standards, those different vibration environments are tabulated into classes characterizing stationary and transient vibration conditions. The standards in the IEC 60068-2 series describe methods for testing with stationary or transient vibration. There will be three standards in the IEC 60068-2 series for environmental testing that specify test methods employing stationary vibration:

Part 2-6 Test Fc: Vibration (sinusoidal),

Part 2-64 Test Fh: Vibration, broad-band random (digital control) and guidance, and

Part 2-80 Test F-: Mixed mode testing¹

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¹ Under consideration.