

BSI Standards Publication

Environmental testing

Part 3-5: Supporting documentation and guidance – Confirmation of the performance of temperature chambers (IEC 60068-3-5:2018)



BS EN 60068-3-5:2018 BRITISH STANDARD

National foreword

This British Standard is the UK implementation of EN IEC 60068-3-5:2018. It is identical to IEC 60068-3-5:2018. It supersedes BS EN 60068-3-5:2002, which will be withdrawn on 27 February 2021.

The UK participation in its preparation was entrusted to Technical Committee GEL/104, Environmental conditions, classification and testing.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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English Version

Environmental testing - Part 3-5: Supporting documentation and guidance - Confirmation of the performance of temperature chambers (IEC 60068-3-5:2018)

Essais d'environnement - Partie 3-5: Documentation d'accompagnement et guide - Confirmation des performances des chambres d'essai en température (IEC 60068-3-5:2018)

Umweltprüfungen - Teil 3-5: Unterstützende Dokumentation und Leitfaden - Bestätigung des Leistungvermögens von Temperaturprüfkammern (IEC 60068-3-5:2018)

This European Standard was approved by CENELEC on 2018-02-27. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

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EN IEC 60068-3-5:2018 (E)

European foreword

The text of document 104/759/FDIS, future edition 2 of IEC 60068-3-5, prepared by IEC/TC 104 "Environmental conditions, classification and methods of test" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60068-3-5:2018.

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) | 2018-11-27 |
|---|--|-------|------------|
| • | latest date by which the national standards conflicting with the document have to be withdrawn | (dow) | 2021-02-27 |

This document supersedes EN 60068-3-5:2002.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 60068-3-5:2018 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 60068-1 | NOTE | Harmonized as EN 60068-1. |
|---------------|------|-----------------------------|
| IEC 60068-3-6 | NOTE | Harmonized as EN 60068-3-6. |
| IEC 60584-1 | NOTE | Harmonized as EN 60584-1. |
| IEC 60751 | NOTE | Harmonized as EN 60751. |
| ISO 10012 | NOTE | Harmonized as EN ISO 10012. |

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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 (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | EN/HD | <u>Year</u> |
|--------------------|-------------|--|--------------|-------------|
| IEC 60068-2 | series | Environmental testing - Part 2-1: Tests - Test A: Cold | EN 60068-2 | series |
| IEC 60068-3-7 | - | Environmental testing - Part 3-7: Supporting documentation and guidance - Measurements in temperature chambers for tests A and B (with load) | EN 60068-3-7 | - |
| IEC 60068-3-11 | - | Environmental testing - Part 3-11: Supporting documentation and guidance - Calculation of the uncertainty of conditions in climatic test chambers | | - |



IEC 60068-3-5

Edition 2.0 2018-01

INTERNATIONAL STANDARD

Environmental testing –

Part 3-5: Supporting documentation and guidance – Confirmation of the performance of temperature chambers

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENVIRONMENTAL TESTING -

Part 3-5: Supporting documentation and guidance – Confirmation of the performance of temperature chambers

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 60068-3-5 has been prepared by IEC technical committee 104: Environmental conditions, classification and methods of test.

This second edition cancels and replaces the first edition published in 2001. This edition constitutes a technical revision.

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

a) Confirmation procedures are clarified.

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

| FDIS | Report on voting |
|--------------|------------------|
| 104/759/FDIS | 104/778/RVD |

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

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

A list of all parts in the IEC 60068 series, published under the general title *Environmental testing*, 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.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

IEC 60068 (all parts) contains fundamental information on environmental testing procedures and severities.

The expression "environmental conditioning" or "environmental testing" covers the natural and artificial environments to which components or equipment may be exposed so that an assessment can be made of their performance under conditions of use, transport and storage to which they may be exposed in practice.

Temperature chambers used for "environmental conditioning" or "environmental testing" are not described in any publication, although the method of maintaining and measuring temperature and/or humidity has a great influence on test results. The physical characteristics of temperature chambers can also influence test results.

ENVIRONMENTAL TESTING -

Part 3-5: Supporting documentation and guidance – Confirmation of the performance of temperature chambers

1 Scope

This part of IEC 60068 provides a uniform and reproducible method of confirming that temperature test chambers, without specimens, conform to the requirements specified in climatic test procedures of IEC 60068-2 (all parts) and other standards. This document is intended for users when conducting regular chamber performance monitoring.

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 (including any amendments) applies.

IEC 60068-2 (all parts), Environmental testing – Part 2: Tests

IEC 60068-3-7, Environmental testing – Part 3-7: Supporting documentation and guidance – Measurements in temperature chambers for tests A and B (with load)

IEC 60068-3-11, Environmental testing – Part 3-11: Supporting documentation and guidance – Calculation of uncertainty of conditions in climatic test chambers

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1

temperature test chamber

enclosure or space in some parts of which the temperature conditions, specified in IEC 60068-2 (all parts), can be achieved

3.2

temperature setpoint

desired temperature as set by the chamber controls

3.3

achieved temperature

stabilized temperature which desired temperature at the centre of the working space achieves within specified tolerance