BS EN IEC 60068-3-1:2023

BSI Standards Publication

Environmental testing

Part 3-1: Supporting documentation and guidance — Cold and dry heat tests

bsi.

National foreword

This British Standard is the UK implementation of EN IEC 60068-3-1:2023. It is identical to IEC 60068-3-1:2023. It supersedes BS EN 60068-3-1:2011, which will be withdrawn on 3 August 2026.

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 committee manager.

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(IEC 60068-3-1:2023)

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(IEC 60068-3-1:2023)

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 104/986/FDIS, future edition 3 of IEC 60068-3-1, 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 60068-3-1:2023.

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)	2024-05-03
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2026-08-03

This document supersedes EN 60068-3-1:2011 and all of its amendments and corrigenda (if any).

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.

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 60068-3-1:2023 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 standard indicated:

IEC 60068-1:2013	NOTE	Approved as EN 60068-1:2014 (not modified)
IEC 60068-2-1	NOTE	Approved as EN 60068-2-1
IEC 60068-2-2	NOTE	Approved as EN 60068-2-2
IEC 60068-2-14	NOTE	Approved as EN 60068-2-14
IEC 60068-3-11	NOTE	Approved as EN 60068-3-11

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ENVIRONMENTAL TESTING –

Part 3-1: Supporting documentation and guidance – Cold and dry heat tests

FOREWORD

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IEC 60068-3-1 has been prepared by IEC technical committee 104: Environmental conditions, classification and methods of test. It is an International Standard.

This third edition cancels and replaces the second edition published in 2011. This edition constitutes a technical revision.

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

a) information relating to specimen temperatures has been revised;
b) information relating to tests of multiple specimens has been revised;
c) the effect of air density has been added;
d) a recommendation for corrective actions regarding IR radiation has been added;
e) the requirements for the mounting and supports of the specimen have been revised.

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

Draft	Report on voting
104/986/FDIS	104/1002/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 greater detail at www.iec.ch/publications.

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 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.

ENVIRONMENTAL TESTING –

Part 3-1: Supporting documentation and guidance – Cold and dry heat tests

1 Scope

This part of IEC 60068 provides guidance regarding the performance of cold and dry heat tests.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

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

3.1
heat-dissipating specimen
specimen on which the hottest point on its surface, measured in free-air conditions and under the air pressure as specified in IEC 60068-1, is more than 5 K above the ambient temperature of the surrounding atmosphere after thermal stability has been reached

[SOURCE: IEC 60068-1:2013, 3.6, modified – The definition has been slightly adapted and Note 1 to entry has been deleted.]

3.2
non heat-dissipating specimen
specimen on which the hottest point on its surface, measured in free-air conditions and under the air pressure as specified in IEC 60068-1, is equal or less than 5 K above the ambient temperature of the surrounding atmosphere after thermal stability has been reached

3.3
free-air conditions
conditions within an infinite space where the movement of the air is affected only by the heat-dissipating specimen

Note 1 to entry: Free-air conditions can apply to the laboratory environment. The conditions during the measurement should be stated in the test report (if not specified otherwise).

[SOURCE: IEC 60068-1:2013, 3.7, modified – In the preferred term "free" has been added, in the definition "itself" has been deleted and the Note 1 to entry has been added.]