IEC 60068-3-1

Edition 3.0 2023-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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

Essais d'environnement –
Partie 3-1: Documentation d'accompagnement et recommandations – Essais de froid et de chaleur sèche



IEC 60068-3-1:2023-06(en-fr)



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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- withdrawn,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/
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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.]