

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 guide – Essais de froid et de
chaleur sèche**



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IEC 60068-3-1

Edition 2.0 2011-08

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

M

ICS 19.040

ISBN 978-2-88912-626-2

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

FOREWORD

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International Standard IEC 60068-3-1 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 1974, and constitutes a technical revision.

The main changes with regard to the previous edition are as follows:

- removal of guidance regarding thermal characteristics of chamber walls;
- revision of sections that address environmental chambers that do not use movement of air for temperature control.

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

FDIS	Report on voting
104/555/FDIS	104/558/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.

A list of all parts in the IEC 60068 series, under the general title *Environmental testing* can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability 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- withdrawn,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.

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

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 60068-1, *Environmental testing – Part 1: General and guidance*

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

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

3 Terms and definitions

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

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

3.2

non heat-dissipating specimen

specimen that does not produce heat to a level that can affect the air temperature surrounding the specimen or those specimens located nearby

3.3

free-air conditions

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

4 Selection of test procedures

4.1 General background

4.1.1 General

Specimen performance may be influenced or limited by the temperatures in which the specimen is operated. The level of influence may be affected by test gradients that exist within the test system (climatic or environmental chamber) and internal temperatures within