

INTERNATIONAL STANDARD

NORME INTERNATIONALE

BASIC SAFETY PUBLICATION

PUBLICATION FONDAMENTALE DE SÉCURITÉ

Environmental testing –

Part 2-30: Tests – Test Db: Damp heat, cyclic (12 + 12 h cycle)

Essais d'environnement –

**Partie 2-30: Essais – Essai Db: Essai cyclique de chaleur humide
(cycle de 12 h + 12 h)**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENVIRONMENTAL TESTING –

**Part 2-30: Tests – Test Db :
Damp heat, cyclic (12 h + 12 h cycle)**

FOREWORD

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International Standard IEC 60068-2-30 has been prepared by IEC technical committee 104: Environmental conditions, classification and methods of test.

This third edition cancels and replaces the second edition (1980) and its amendment 1 (1985), and constitutes a technical revision.

The main changes with respect to the previous edition are listed below:

- editorial changes,
- addition of normative references,
- addition of guidance for temperature tolerances,
- period for recovery has been extended.

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

FDIS	Report on voting
104/369/FDIS	104/374/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.

This standard forms Part 2-30 of IEC 60068 which consists of the following major 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;
- Part 5: Guide to drafting of test methods.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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- withdrawn,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 2-30: Tests – Test Db: Damp heat, cyclic (12 h + 12 h cycle)

1 Scope

This part of IEC 60068 determines the suitability of components, equipment or other articles for use, transportation and storage under conditions of high humidity – combined with cyclic temperature changes and, in general, producing condensation on the surface of the specimen. If the test is being used to verify the performance of a specimen whilst it is being transported or stored in packaging then the packaging will normally be fitted when the test conditions are being applied.

For small, low mass specimens, it may be difficult to produce condensation on the surface of the specimen using this procedure; users should consider the use of an alternative procedure such as that given to IEC 60068-2-38.

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 60068-2-38, *Environmental testing – Part 2-38: Tests – Test Z/AD: Composite temperature/humidity cyclic test*

IEC 60068-3-6, *Environmental testing – Part 3-6: Supporting documentation and guidance – Confirmation of the performance of temperature/humidity chambers*

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*

IEC 60068-5-2, *Environmental testing – Part 5: Guide to drafting of test methods – Terms and definitions*

3 General description

This test comprises one or more temperature cycles in which the relative humidity is maintained at a high level.

Two variants of the cycle are given which are identical except for the temperature fall period; during this part of the cycle, variant 2 allows wider tolerances of relative humidity and the rate of temperature fall.

The upper temperature of the cycle and the number of cycles (see Clause 5) determine the test severity.

Test profiles illustrating the procedure are shown in Figures 1, 2a, 2b and 3.