IEC 60721-3-9

Edition 2.0 2024-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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Classification of environmental conditions – Part 3-9: Classification of groups of environmental parameters and their severities – Microclimates inside products

Classification des conditions d'environnement – Partie 3-9: Classification des groupements des agents d'environnement et de leurs sévérités – Microclimats à l'intérieur des produits

IEC 60721-3-9:2024-04 (en-fr)

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CLASSIFICATION OF ENVIRONMENTAL CONDITIONS –

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FOREWORD

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IEC 60721-3-9 has been prepared by IEC technical committee 104: Environmental conditions, classification and methods of test. It is an International Standard.

This second edition cancels and replaces the first edition published in 1993, Amendment 1:1994 and Corrigendum 1:1995. This edition constitutes a technical revision.

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

a) Clause 2 has been updated;
b) Clause 4 has been re-edited and simplified;
c) Annex A has been revised and updated;

d) a new Annex B has been added and gives the origin of the constitutional diagram for humid air, which is the basis of drawing the climatogram for a microclimate.

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

Draft	Report on voting
104/1041/FDIS	104/1050/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 60721 series, published under the general title *Classification of environmental conditions*, 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, or
- revised.

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CLASSIFICATION OF ENVIRONMENTAL CONDITIONS –

Part 3-9: Classification of groups of environmental parameters and their severities – Microclimates inside products

1 Scope

This part of IEC 60721 classifies groups of microclimatic conditions, to which components (basic parts, assemblies, built-in units) can be subjected inside products, which are used under the climatic conditions as classified in IEC 60721-3-3 and IEC 60721-3-4.

Characteristic parameters for the microclimates are high air temperature and high relative air humidity. Further parameters of the climatic classes, for example low temperature, can affect the components additionally, but have not been considered here.

A limited number of microclimatic classes is specified taking into consideration typical limiting high air temperatures of components.

NOTE The term "microclimate" can, for example in meteorology or buildings, have a different meaning than those discussed in this document.

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 60721-1, *Classification of environmental conditions − Part 1: Environmental parameters and their severities*

IEC 60721-3-0:2020, *Classification of environmental conditions – Part 3-0: Classification of groups of environmental parameters and their severities – Introduction*

IEC 60721-3-3:2019, *Classification of environmental conditions – Part 3-3: Classification of groups of environmental parameters and their severities – Stationary use at weatherprotected locations*

IEC 60721-3-4:2019, *Classification of environmental conditions – Part 3-4: Classification of groups of environmental parameters and their severities – Stationary use at non-weatherprotected locations*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60721-1 and the following 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