



SLOVENSKI STANDARD

SIST EN 60721-3-1:2001

01-september-2001

Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 1: Storage

Classification of environmental conditions -- Part 3: Classification of groups of environmental parameters and their severities -- Section 1: Storage

Klassifizierung von Umweltbedingungen -- Teil 3: Klassen von Umwelteinflußgrößen und deren Grenzwerte -- Hauptabschnitt 1: Langzeitlagerung

Classification des conditions d'environnement -- Partie 3: Classification des groupements des agents d'environnement et de leurs sévérités -- Section 1: Stockage

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Ta slovenski standard je istoveten z: **EN 60721-3-1:1997**

ICS:

19.040	Preskušanje v zvezi z okoljem	Environmental testing
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English version

Classification of environmental conditions
Part 3: Classification of groups of environmental
parameters and their severities
Section 1: Storage
(IEC 60721-3-1:1997)

Classification des conditions
d'environnement
Partie 3: Classification des groupements
des agents d'environnement et de leurs
sévérités
Section 1: Stockage
(CEI 60721-3-1:1997)

Klassifizierung von Umweltbedingungen
Teil 3: Klassen von
Umwelteinflußgrößen und deren
Grenzwerte
Hauptabschnitt 1: Langzeitlagerung
(IEC 60721-3-1:1997)

This European Standard was approved by CENELEC on 1996-12-09. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 75/277/FDIS, future amendment to IEC 60721-3-1, prepared by IEC TC 75, Classification of environmental conditions, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A3 to EN 60721-3-1:1993 on 1996-12-09.

The text of this document, together with that of IEC 60721-3-1:1987 and its amendments 1:1991 and 2:1993, was published by IEC as the second edition of IEC 60721-3-1 in February 1997. According to a decision of principle taken by the Technical Board of CENELEC, the approval of EN 60721-3-1:1993/A3 has been converted into the approval of a new EN 60721-3-1.

This European Standard supersedes EN 60721-3-1:1993 and its amendment A2:1994.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1997-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1997-12-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annex ZA is normative and annexes A, B and C are informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60721-3-1:1997 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

**Normative references to international publications
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE: When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 721-1	1990	Classification of environmental conditions Part 1: Environmental parameters and their severities		
+ A1	1992		EN 60721-1	1995
IEC 721-2-1	1982	Part 2: Environmental conditions appearing in nature - Temperature and humidity		
+ A1	1987		HD 478.2-1 S1	1989
IEC 721-3-0	1984	Part 3: Classification of groups of environmental parameters and their severities -- Introduction		
+ A1	1987		EN 60721-3-0	1993
IEC 60721-3-2	1997	Section 2: Transportation	EN 60721-3-2	1997
IEC 721-3-3	1994	Section 3: Stationary use at weatherprotected locations	EN 60721-3-3	1995
IEC 721-3-4	1995	Section 4: Stationary use at non-weatherprotected locations	EN 60721-3-4	1995

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC

60721-3-1

Deuxième édition
Second edition
1997-02

Classification des conditions d'environnement –

Partie 3:

**Classification des groupements des agents
d'environnement et de leurs sévérités –**

Section 1: Stockage

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Classification of environmental conditions –

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Part 3:

**Classification of groups of environmental parameters
and their severities –**

Section 1: Storage

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International Electrotechnical Commission
Telefax: +41 22 919 0300

3, rue de Varembé Geneva, Switzerland
e-mail: inmail@iec.ch IEC web site <http://www.iec.ch>



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

CLASSIFICATION OF ENVIRONMENTAL CONDITIONS –

**Part 3: Classification of groups of environmental parameters
and their severities –
Section 1: Storage**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60721-3-1 has been prepared by IEC technical committee 75: Classification of environmental conditions.

This second edition cancels and replaces the first edition published in 1987, amendment 1 (1991) and amendment 2 (1993). The third amendment led to the publication of this consolidated edition.

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

FDIS	Report on voting
75/277/FDIS	75/296/RVD

Full information on the voting for the approval this standard can be found in the report on voting indicated in the above table.

IEC 721 consists of the following parts, under the general title *Classification of environmental conditions*:

- Part 1: 1990, Environmental parameters and their severities
- Part 2: Environmental conditions appearing in nature
- Part 3: Classification of groups of environmental parameters and their severities.

Annexes A, B and C are for information only.

**CLASSIFICATION OF ENVIRONMENTAL CONDITIONS –
Part 3: Classification of groups of environmental parameters
and their severities –
Section 1: Storage**

1 Scope and object

This section of IEC 60721-3 classifies the groups of environmental parameters and their severities to which products, together with their packaging if any, are subjected when stored.

The environmental conditions specified in this standard are limited to those which may directly affect the products or their ultimate performance. Only environmental conditions as such are considered. No special description of the effects of these conditions on the products is given.

Transfer during storage is not included in the classification.

Environmental conditions directly related to fire or explosion and conditions related to ionizing radiation are excluded. Any other unforeseen incidents are also excluded. The possibility of their occurrence should be taken into account in special cases. Offshore locations are not included.

Conditions of stationary use, portable and non-stationary use, use in vehicles and ships, and conditions of transportation are given in other sections of IEC 60721-3.

The object of this standard is to classify environmental parameters and their severities to which a product may be exposed during storage.

A limited number of classes of environmental conditions is given, covering a broad field of application. The user of this standard should select the lowest classification necessary for covering the conditions of intended storage.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this section of IEC 60721-3. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this section of IEC 60721-3 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 721-1: 1990, *Classification of environmental conditions – Part 1: Environmental parameters and their severities*
Amendment 1 (1992)

IEC 721-2-1: 1982, *Classification of environmental conditions – Part 2: Environmental conditions appearing in nature – Temperature and humidity*
Amendment 1 (1987)

IEC 721-3-0: 1984, *Classification of environmental conditions – Part 3: Classification of groups of environmental parameters and their severities – Introduction*
Amendment 1 (1987)

IEC 60721-3-2: 1997, *Classification of environmental conditions – Part 3: Classification of environmental parameters and their severities – Section 2: Transportation*

IEC 721-3-3: 1994, *Classification of environmental conditions – Part 3: Classification of environmental parameters and their severities – Section 3: Stationary use at weatherprotected locations*

IEC 721-3-4: 1995, *Classification of environmental conditions – Part 3: Classification of environmental parameters and their severities – Section 4: Stationary use at non-weatherprotected locations*

3 Definitions

For the purposes of this section of IEC 721-3, the following definitions apply, in addition to the definitions in clause 3 of IEC 721-1:

3.1 **storage:** The product is placed at a certain site for long periods, but not intended for use during these periods.

3.2 **weatherprotected location:** A location at which the product is protected from weather influences:

- **totally weatherprotected location:** direct weather influences are totally excluded; (enclosed location)
- **partially weatherprotected location:** direct weather influences are not completely excluded (sheltered location)

3.3 **non-weatherprotected location:** A location at which the product is not protected from direct weather influences.

4 General

For further general guidance, see IEC 721-3-0.

The severities specified are those which will have a low probability of being exceeded. All specified values are maximum or limit values. These values may be reached, but do not occur permanently. Depending on the local situation, there may be different frequencies of occurrence related to a certain period of time. Such frequencies of occurrence have not been included in this standard, but should be considered for any environmental parameter.

They should additionally be specified, if applicable. Information on the duration and frequency of occurrence is given, as clause 6, in amendment 1 to IEC 721-3-0.

Attention is drawn to the fact that combinations of the environmental parameters given may increase the effect on a product. This applies especially to the presence of high relative humidity in addition to biological conditions, or to the presence of chemically or mechanically active substances.