SLOVENSKI STANDARD
SIST EN 60721-3-0:2001

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Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Introduction

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Klassifizierung von Umweltbedingungen -- Teil 3: Klassen von Umwelteinflußgrößen und deren Grenzwerte -- Einführung und Hinweise für den Anwender

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

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ENGLISH VERSION

Classification of environmental conditions
Part 3: Classification of groups of environmental parameters and their severities
Introduction
(IEC 721-3-0:1984 + A1:1987)

Classification des conditions d'environnement
Troisième partie: Classification des groupements des agents d'environnement et de leurs sévérités
Introduction
(CEI 721-3-0:1984 + A1:1987)

Klassifizierung von Umweltbedingungen
Teil 3: Klassen von Umwelteinflußgrößen und deren Grenzwerte
Einführung und Hinweise für für den Anwender
(IEC 721-3-0:1984 + A1:1987)

This European Standard was approved by CENELEC on 1993-07-06. 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

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FOREWORD

At the request of the 72nd Technical Board HD 478.3.0 S2:1989 (IEC 721-3-0:1984 + A1:1987) was submitted to the CENELEC voting procedure for conversion into a European Standard.

The text of the International Standard was approved by CENELEC as EN 60721-3-0 on 6 July 1993.

The following dates were fixed:

- latest date of publication of an identical national standard	(dop)	1994-03-01
- latest date of withdrawal of conflicting national standards	(dow)	-

Annexes designated "normative" are part of the body of the standard. In this standard, annex ZA is normative.

ENDORSEMENT NOTICE

The text of the International Standard IEC 721-3-0:1984 and its amendment 1:1987 was approved by CENELEC as a European Standard without any modification.

ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS

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

IEC Publication	Date	Title	EN/HD	Date
68	series	Environmental testing	HD 323 EN 60068	series series

A

COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

NORME DE LA CEI

INTERNATIONAL ELECTROTECHNICAL COMMISSION

IEC STANDARD

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1984

Classification des conditions d'environnement

Troisième partie: Classification des groupements des agents d'environnement et de leurs sévérités

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Classification of environmental conditions

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Introduction

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

CLASSIFICATION OF ENVIRONMENTAL CONDITIONS

Part 3: Classification of groups of environmental parameters and their severities

Introduction

FOREWORD

1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.

2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.

3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

PREFACE

This standard has been prepared by IEC Technical Committee No. 75: Classification of Environmental Conditions.

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

Six Months' Rule	Report on Voting
75(CO)13	75(CO)17

Further information can be found in the Report on Voting indicated in the table above.

It should be noted that this standard forms one part of a series intended to deal with the following subjects:

— Classification of Environmental Parameters and their Severities (Publication 721-1).

— Environmental Conditions Appearing in Nature (Publication 721-2).

— Classification of Groups of Environmental Parameters and Their Severities (Publication 721-3).

The following IEC publication is quoted in this standard:

Publication No. 68: Basic Environmental Testing Procedures.

CLASSIFICATION OF ENVIRONMENTAL CONDITIONS

Part 3: Classification of groups of environmental parameters and their severities

Introduction

1. **Scope**

IEC Publication 721-3: Classification of Environmental Conditions, Part 3: Classification of Groups of Environmental Parameters and Their Severities, establishes classes of environmental parameters and their severities, covering the extreme (short-term) conditions which may be met by a product when being transported, installed, stored and used. Separate groups of classes are given for different product applications (e.g. weather-protected stationary, mounted in ground vehicles, transportation). The classes also take into account the degree of restriction of the use of the product from very restricted conditions (e.g. in temperature-controlled rooms) to unrestricted conditions.

The classification covers natural as well as man-made conditions.

2. **Object**

This Introduction is a guide for the use of all parts of IEC Publication 721-3. It contains background information including information on application and limitation of the classes given in various parts of IEC Publication 721-3. It describes the difference between the environmental conditions the product will meet during its life, described by the classes in IEC Publication 721-3, and conditions of test used to assure that the product will work satisfactorily under such environmental conditions. The use of IEC Publication 721-3 in the design, limitation of conditions and protection is also included. The differences are explained between extreme environmental conditions with a small probability of being exceeded, normally approached only for short periods, and more long-lasting normal environmental conditions.

Reference to IEC Publication 721-3-0 is strongly recommended in order to avoid misuse of the classes defined in the other parts of IEC Publication 721-3.

3. **Content and layout**

Separate groups of classes of environmental conditions are given for the following product applications:

Publications 721-3-1: Storage;

721-3-2: Transportation;

721-3-3: Stationary Use, Weather-protected;

721-3-4: Stationary Use, Non-weatherprotected;

721-3-5: Ground Vehicle Installations;

721-3-6: Ship Environment;

721-3-7: Portable and Stationary Use.

The classes are identified by:

— a digit defining the application (1 for storage, 2 for transportation, 3 for stationary use, etc.);

— a letter for climatic conditions (K), biological conditions (B), chemically active substances (C), mechanically active substances (S) or mechanical conditions (M). To be extended if necessary;

— a further digit indicating severity, where a higher digit normally indicates more stringent conditions. A class may be further divided into H (High) or L (Low) to allow for conditions where, for example, the temperature may be severely low but never high.

Example: Class 2K3, where: 2 = transportation;
K = climatic conditions;
3 = severity.

The parts of IEC Publication 721-3 contain tables giving all classes, including the severity of each environmental parameter for each class. In addition, every publication includes an appendix giving details of conditions which products are assumed to meet and which form a basis for the classes. These appendices are intended to guide the user of the publication in his selection of the class appropriate to his special product application.

4. Background information for the selection of environmental parameters and severities for the classes

The environmental parameters listed for a class are the conditions covered by the class to which a product will be subjected. They are selected by using the complete set of environmental parameters in IEC Publication 721-1: Classification of Environmental Conditions, Part I: Classification of Environmental Parameters and Their Severities, as a "check list".

The severities given for each environmental parameter are those which are exceeded either for an insignificant part of the continuous exposure time (e.g. temperature conditions), or for an insignificant fraction of the total number of events (e.g. shocks). Thus the classes given in IEC Publication 721-3 can be used for defining the maximum short-term environmental stresses of a product, but do not give any information on the long-term, or total life duration of the product environmental stresses. This is illustrated in Figure 1, page 11.