
Classification of environmental conditions - Part 2: Environmental conditions appearing in nature - Earthquake vibration and shock

Classification of environmental conditions -- Part 2: Environmental conditions appearing in nature -- Earthquake vibration and shock

Klassifizierung von Umweltbedingungen -- Teil 2: Natürliche Einflüsse -- Seismische Einflüsse

Classification des conditions d'environnement -- Partie 2: Conditions d'environnement présentes dans la nature -- Vibrations et chocs sismiques

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Ta slovenski standard je istoveten z: HD 478.2.6 S1:1993

ICS:

19.040	Preskušanje v zvezi z okoljem	Environmental testing
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SIST HD 478.2.6 S1:2002**en**

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HARMONIZATION DOCUMENT

HD 478.2.6 S1

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

February 1993

UDC 621.3:620.193

Descriptors: Electronic component, electrotechnical component, electrical equipment, electronic equipment, storage condition, use condition, vibration, mechanical shock, seismic intensity

ENGLISH VERSION

Classification of environmental conditions
Part 2: Environmental conditions appearing
in nature
Earthquake vibration and shock
(IEC 721-2-6:1990)

Classification des conditions
d'environnement
Partie 2: Conditions
d'environnement présentes dans
la nature
Vibrations et chocs sismiques
(CEI 721-2-6:1990)

Klassifizierung von
Umweltbedingungen
Teil 2: Natürliche Einflüsse
Seismische Einflüsse
(IEC 721-2-6:1990)

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This Harmonization Document was approved by CENELEC on 1992-12-09. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document on a national level.

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

This Harmonization Document exists in three official versions (English, French, German).

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 CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 721-2-6:1990 could be accepted without textual changes, has shown that no common modifications were necessary for the acceptance as Harmonization Document.

The reference document was submitted to the CENELEC members for formal vote and was approved by CENELEC as HD 478.2.6 S1 on 9 December 1992.

The following dates were fixed:

- latest date of announcement
of the HD at national level (doa) 1993-06-01
- latest date of publication of
a harmonized national standard (dop) 1993-12-01
- latest date of withdrawal of
conflicting national standards (dow) 1993-12-01

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

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ENDORSEMENT NOTICE

The text of the International Standard IEC 721-2-6:1990 was approved by CENELEC as a Harmonization Document 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
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721-1	1990	Classification of environmental conditions - Part 1: Environmental parameters and their severities	HD 478.1 S1	1992

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NORME
INTERNATIONALE
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CEI
IEC
721-2-6

Première édition
First edition
1990-12

Classification des conditions d'environnement

Partie 2:

Conditions d'environnement présentes dans la
nature – Vibrations et chocs sismiques

iTeh STANDARD PREVIEW
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Classification of environmental conditions

SIST HD 478.2.6 S1:2002

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Part 2:

Environmental conditions appearing in nature –
Earthquake vibration and shock

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

CLASSIFICATION OF ENVIRONMENTAL CONDITIONS

Part 2: Environmental conditions appearing in nature -
Earthquake vibration and shock

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.

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This part of International Standard IEC 721 has been prepared by IEC Technical Committee No. 75: Classification of environmental conditions.

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

Six Months' Rule	Report on Voting
75(C0)58	75(C0)60

Full information on the voting for the approval of this part can be found in the Voting Report indicated in the above table.

It should be noted that this part is one of a series dealing with the following subjects:

- Environmental parameters and their severities (IEC 721-1)
- Environmental conditions appearing in nature (IEC 721-2)
- Classification of groups of environmental parameters and their severities (IEC 721-3)

721-2-6 © IEC

- 7 -

INTRODUCTION

This part of IEC 721 is intended to be used as background material when selecting appropriate severities of parameters relating to earthquakes for product application. Severities given in IEC 721-1 should be applied.

More detailed information may be obtained from specialist documentation, some of which is given in the bibliography in ISO 6258: 1985, Nuclear power plants - Design against seismic hazards.

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CLASSIFICATION OF ENVIRONMENTAL CONDITIONS

Part 2: Environmental conditions appearing in nature - Earthquake vibration and shock

1 Scope and object

This part of IEC 721 deals with environmental conditions appearing in nature, and in particular related to earthquake vibration and shock.

Its object is to define some fundamental properties and quantities for characterization of earthquakes as background material for the severities to which products are liable to be exposed during storage and use. Accelerations given are for ground surface conditions only. Conditions related to structures are referred to but restricted to general case descriptions.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of IEC 721. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of IEC 721 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

<https://standards.ich.ai/catalog/standards/sist/c6fa72b2-e42c-4cca-9676-777b7b71e541/sist-hd-478-2-6-s1-2002>

IEC 721-1: 1990, Classification of environmental conditions - Part 1: Environmental parameters and their severities.

3 General

Influences from earthquakes are vibrations which may be modelled as stochastic processes, and can affect products and provide stress in many ways.

This clause is intended to provide information on earthquake behaviour, and on the dynamic performance of products during earthquakes. Numerical values given are typical and illustrative but should not be considered as standard.

3.1 *Earthquake origin and propagation*

An earthquake occurs when stresses have accumulated to such a degree that they cause the breaking of the earth's crust. These instabilities are located in areas known as active seismic zones, in connection with a series of geological accidents such as troughs, oceanic ridges, mountain ranges, volcanoes, ocean trenches, tectonic faults.