

**Classification of environmental conditions -
Part 3: Classification of groups of
environmental parameters and their severities -
Section 4: Stationary use at non-
weatherprotected locations**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 60721-3-4:2002 sisaldab Euroopa standardi EN 60721-3-4:1995 + A1:1997 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 18.12.2002 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 60721-3-4:2002 consists of the English text of the European standard EN 60721-3-4:1995 + A1:1997.

This standard is ratified with the order of Estonian Centre for Standardisation dated 18.12.2002 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

ICS 19.040

Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

Right to reproduce and distribute Estonian Standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without permission in writing from Estonian Centre for Standardisation.

If you have any questions about standards copyright, please contact Estonian Centre for Standardisation:
Aru str 10 Tallinn 10317 Estonia; www.evs.ee; Phone: +372 605 5050; E-mail: info@evs.ee

ICS 19.040

Descriptors: Environmental conditions, stationary use at non-weather protected locations

English version

Classification of environmental conditions
Part 3: Classification of groups of environmental
parameters and their severities
Section 4: Stationary use at non-weatherprotected
locations

(IEC 721-3-4 : 1995)

Classification des conditions d'environnement
Partie 3: Classification des groupements des
agents d'environnement et de leurs sévérités
Section 4: Utilisation à poste fixe, non
protégé contre les intempéries
(CEI 721-3-4 : 1995)

Klassifizierung von Umweltbedingungen
Teil 3: Klassen von Umwelteinflußgrößen und
deren Grenzwerte
Hauptabschnitt 4: Ortsfester Einsatz nicht
wettergeschützt
(IEC 721-3-4 : 1995)

This European Standard was approved by CENELEC on 1994-10-04. 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(CO)103A, future amendment to IEC 721-3-4 : 1987, 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 60721-3-4 : 1993 on 1994-10-04.

The text of this document, together with that of IEC 721-3-4 : 1987 and its amendments 1 : 1991 and 2 : 1993, was published by IEC as the second edition of IEC 721-3-4 in January 1995. According to a decision of principle taken by the Technical Board of CENELEC, the approval of EN 60721-3-4 : 1993/A3 has been converted into the approval of a new EN 60721-3-4.

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) 1996-01-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1996-01-01

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, C and D are informative. Annex ZA has been added by CENELEC.

This document is a preview generated by EVS

CONTENTS

Clause	Page
1 Scope	4
2 Normative references	4
3 Definitions	5
4 General	5
5 Classification of groups of environmental parameters and their severities	6
6 Sets of environmental condition class combinations	8
Tables	9
Figure	13
Annexes	
A Survey of conditions affecting the choice of environmental parameters and their severities	14
B Interdependence of air temperature, relative humidity and absolute humidity	21
C Examples for practical application of the classification specified in this standard	23
D Summary of conditions covered by sets of class combinations	25
ZA (normative) Other international publications quoted in this standard with the references of the relevant European publications.....	26

CLASSIFICATION OF ENVIRONMENTAL CONDITIONS –

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

Section 4: Stationary use at non-weatherprotected locations

1 Scope

This section of IEC 721-3 classifies groups of environmental parameters and their severities to which products are subjected when mounted for stationary use at locations which are non-weatherprotected, including periods of erection work, downtime, maintenance and repair.

Locations which are non-weatherprotected, where products may be mounted for stationary use permanently or temporarily, include land-based and offshore locations. Use in and on vehicles is excepted.

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

Environmental conditions directly related to fire or explosion hazards 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.

Microclimate within a product is not included.

Conditions of stationary use at weatherprotected locations, portable and non-stationary use, use in vehicles and ships, and conditions of storage and transportation are given in other sections of IEC 721-3.

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 the intended use. Some guidance for this is given in annex A.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this section of IEC 721-3. 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 721-3 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 – Section 1: 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 – Section 0: Introduction*
Amendment 1 (1987)

3 Definitions

In addition to the definitions in clause 3 of IEC 721-1, the following definitions apply to this standard:

3.1 stationary use: The product is mounted firmly on the structure or on mounting devices, or it is permanently placed at a certain site. It is not intended for portable use, but short periods of handling during erection work, downtime, maintenance and repair at the location are included.

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

4 General

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

During periods of erection work, which are often connected with downtime, the user should be aware that conditions might differ from those during operation. Therefore, the selection of another class may be necessary for this period, unless special precautions have been taken.

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 yet been included in this standard, but should be considered for any environmental parameter. They should be specified additionally if applicable. Information on duration and frequency of occurrence is included in IEC 721-3-0 as clause 6.

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 conditions of chemically or mechanically active substances.

The environmental conditions present at a location may be affected by other influences, for example heat dissipation sources, special process conditions, etc.