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SIST EN 61000-4-4:1997

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61000-4-4

March 1995

ICS 29.020

Descriptors: Electric equipment, electronic equipment, electromagnetic compatibility, transient response, characteristics, testing conditions

English version

Electromagnetic compatibility (EMC)
Part 4: Testing and measurement techniques
Section 4: Electrical fast transient/burst immunity test
Basic EMC Publication
(IEC 1000-4-4:1995)

Compatibilité électromagnétique (CEM)
Partie 4: Techniques d'essai et de mesure
Section 4: Essais d'immunité aux transitoires électriques rapides en salves
Publication fondamentale de CEM
(CEI 1000-4-4:1995)

Elektromagnetische Verträglichkeit (EMV)
Teil 4: Prüf- und Meßverfahren
Hauptabschnitt 4: Prüfung der Störfestigkeit gegen schnelle transiente elektrische Störgrößen/Burst
EMV-Grundnorm
(IEC 1000-4-4:1995)

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This European Standard was approved by CENELEC on 1995-03-06. 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

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

Foreword

The text of document 77B(CO)22, future edition 1 of IEC 1000-4-4, prepared by SC 77B, High-frequency phenomena, of IEC TC 77, Electromagnetic compatibility, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61000-4-4 on 1995-03-06.

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) 1996-03-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1996-03-01

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 annex A is informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 1000-4-4:1995 was approved by CENELEC as a European Standard without any modification.

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ANNEX ZA (normative)

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

NOTE : 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
50(161)	1990	International Electrotechnical Vocabulary (IEV) Chapter 161: Electromagnetic compatibility	-	-
68-1	1988	Environmental testing - Part 1: General and guidance	EN 60068-1*	1994

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* EN 60068-1 includes the corrigendum October 1988 and A1:1992 to IEC 68-1

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
1000-4-4

Première édition
First edition
1995-01

Compatibilité électromagnétique (CEM)

Partie 4:

Techniques d'essai et de mesure –

Section 4: Essais d'immunité aux
transitoires électriques rapides en salves

Publication fondamentale en CEM

Electromagnetic compatibility (EMC)

Part 4:

Testing and measurement techniques –

Section 4: Electrical fast transient/burst
immunity test

Basic EMC publication

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

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Pour prix, voir catalogue en vigueur
For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTROMAGNETIC COMPATIBILITY (EMC)

Part 4: Testing and measurement techniques –
Section 4: Electrical fast transient/burst immunity test

Basic EMC publication

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 cooperation 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, 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.
- 3) They have the form of recommendations for international use 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.

International Standard IEC 1000-4-4 has been prepared by sub-committee 77B: High-frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility.

It forms section 4 of part 4 of IEC 1000. It has the status of a basic EMC publication in accordance with IEC guide 107.

It is based on IEC 801-4 (first edition: 1988): Electromagnetic compatibility for industrial-process measurement and control equipment – Part 4: Electrical fast transient/ burst requirements, prepared by IEC technical committee 65: Industrial-process measurement and control.

According to a recommendation of ACEC at its meeting of December 1989, the scope of this standard has been extended to all kinds of electrical and electronic equipment. For this purpose it has been decided to transfer the 801 series of publications to IEC 1000, Part 4: EMC testing and measurement techniques, of technical committee 77.

No technical changes, only editorial amendments have been made with this transfer and reference to IEC 801-4 (1988) or IEC 1000-4-4 is equivalent.

The text of IEC 801-4, first edition, is based on the following documents:

Six Month's Rule	Report on voting
65(CO)39	65(CO)43

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

The text of this standard IEC 1000-4-4, is based on the following documents:

DIS	Report on voting
77B(CO)22	77B/146/RVD

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

Annex A is for information only.

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INTRODUCTION

IEC 1000-4 is a part of the IEC 1000 series, according to the following structure:

Part 1: General

General considerations (introduction, fundamental principles)
Definitions, terminology

Part 2: Environment

Description of the environment
Classification of the environment
Compatibility levels

Part 3: Limits

Emission limits
Immunity limits (in so far as they do not fall under the responsibility of the product committees)

Part 4: Testing and measurement techniques

Measurement techniques

Testing techniques iTeh STANDARD PREVIEW

Part 5: Installation and mitigation guidelines (standards.iteh.ai)

Installation guidelines

Mitigation methods and devices

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Part 9: Miscellaneous

Each part is further subdivided into sections which are to be published either as international standards or as technical reports.

These sections of IEC 1000-4 will be published in chronological order and numbered accordingly.

This section is an international standard which gives immunity requirements and test procedure related to "electrical fast transient/burst".