SIS - Standardiseringskommissionen i Sverige

SVENSKA ELEKTROTEKNISKA NORMER, SEN

SVENSK STANDARD SS-EN 61 000-4-8

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Registrering
Reg 421 18 72

Elektromagnetisk kompatibilitet (EMC) - Del 4: Mät- och provningsmetoder - Provning av immunitet mot kraftfrekventa magnetiska fält

Electromagnetic compatibility (EMC) -
Part 4: Testing and measurement techniques -
Section 8: Power frequency magnetic field immunity test -
Basic EMC Publication

Som svensk standard gäller europastandarden EN 61 000-4-8: 1993. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61 000-4-8: 1993.

Nationellt förord

Europastandarden EN 61 000-4-8: 1993

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- **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC

- **IEC 1000-4-8, First edition, 1993 - Electromagnetic compatibility (EMC) - Part 4: Testing and measurement techniques - Section 8: Power frequency magnetic field immunity test - Basic EMC Publication**

utarbetad inom International Electrotechnical Commission, IEC

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EUROPEAN STANDARD EN 61000-4-8

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Descriptors: Electromagnetic compatibility, tests, measuring techniques, electromagnetic field

ENGLISH VERSION

Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques Section 8: Power frequency magnetic field immunity test - Basic EMC Publication (IEC 1000-4-8:1993)

Compatibilité électromagnétique (CEM) Partie 4: Techniques d'essai et de mesure Section 8: Essai d'immunité au champ magnétique à la fréquence du réseau - Publication fondamentale en CEM

(CEI 1000-4-8:1993)

Elektromagnetische Verträglichkeit (EMV) Teil 4: Prüf- und Meßverfahren Hauptabschnitt 8: Prüfung der Störfestigkeit gegen Magnetfelder mit energietechnischen Frequenzen EMV-Grundnorm

(IEC 1000-4-8:1993)

This European Standard was approved by CENELEC on 1992-06-16. 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

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FOREWORD

The text of document 77B(CO)7, as prepared by Sub-Committee 77B: High frequency phenomena, of IEC Technical Committee 77: Electromagnetic compatibility, was submitted to the IEC-CENELEC parallel vote in September 1991.

The reference document was approved by CENELEC as EN 61000-4-8 on 16 June 1992.

The following dates were fixed:

- latest date of publication of an identical national standard	(dop)	1994-06-01
- latest date of withdrawal of conflicting national standards	(dow)	1994-06-01

Annexes designated "normative" are part of the body of the standard. Annexes designated "informative" are given only for information. In this standard, annexes A, B and ZA are normative and annexes C and D are informative.

ENDORSEMENT NOTICE

The text of the International Standard IEC 1000-4-8:1993 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

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
68-1	1988	Environmental testing Part 1: General and guidance	HD 323.1 S2	1988

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Figures

INTRODUCTION

This standard is 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 they do not fall under the responsibility of the product committees)

Part 4: Testing and measurement techniques

Measurement techniques
Testing techniques

Part 5: Installation and mitigation guidelines

Installation guidelines
Mitigation methods and devices

Part 9: Miscellaneous

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

These standards and reports will be published in chronological order and numbered accordingly.

This part is an international standard which gives immunity requirements and test procedures related to "power frequency magnetic field".

ELECTROMAGNETIC COMPATIBILITY (EMC)

Part 4: Testing and measurement techniques
Section 8: Power frequency magnetic field immunity test
Basic EMC Publication

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1 Scope

This international standard relates to the immunity requirements of equipment, only under operational conditions, to magnetic disturbances at power frequency related to:

- residential and commercial locations;
- industrial installations and power plants;
- medium voltage and high voltage sub-stations.

The applicability of this standard to equipment installed in different locations is determined by the presence of the phenomenon, as specified in clause 3.

This standard does not consider disturbances due to capacitive or inductive coupling in cables or other parts of the field installation.

Other IEC standards dealing with conducted disturbances cover these aspects.

The object of this standard is to establish a common and reproducible basis for evaluating the performance of electrical and electronic equipment for household, commercial and industrial applications when subjected to magnetic fields at power frequency*(continuous and short duration field)*.

The standard defines:

- recommended test levels;
- test equipment;
- test set-up;
- test procedure.

Other kinds of magnetic fields would be object of standardization:

- fields at other power frequencies (16 2/3 - 20 or 30 - 400 Hz);
- fields of harmonic currents (100 Hz to 2000 Hz);
- fields of higher frequencies (up to 150 kHz, e.g. for mains signalling systems);
- D.C. fields.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this section of IEC 1000-4. 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 1000-4 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 68-1: 1988, Environmental testing - Part 1: General and guidance.