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

*Electromagnetic compatibility (EMC) -
Part 4: Testing and measurement techniques -
Section 9: Pulse magnetic field immunity test -
Basic EMC Publication*

Som svensk standard gäller europastandarden EN 61 000-4-9: 1993. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61 000-4-9: 1993.

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- **IEC 1000-4-9, First edition, 1993 - Electromagnetic compatibility (EMC) -
Part 4: Testing and measurement techniques -
Section 9: Pulse magnetic field immunity test -
Basic EMC Publication**

utarbetad inom International Electrotechnical Commission, IEC

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ENGLISH VERSION

Electromagnetic compatibility (EMC)
Part 4: Testing and measurement techniques
Section 9: Pulse magnetic field immunity test
Basic EMC Publication
(IEC 1000-4-9:1993)

Compatibilité électromagnétique
(CEM)
Partie 4: Techniques d'essai et
de mesure
Section 9: Essai d'immunité au
champ magnétique impulsionnel
Publication fondamentale en CEM
(CEI 1000-4-9:1993)

Elektromagnetische
Verträglichkeit (EMV)
Teil 4: Prüf- und Meßverfahren
Hauptabschnitt 9: Prüfung der
Störfestigkeit gegen
impulsförmige Magnetfelder
EMV-Grundnorm
(IEC 1000-4-9:1993)

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

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FOREWORD

The text of document 77B(CO)8, 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 61000-4-9 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 1000-4-9:1993 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 ----
60-2	1973	High-voltage test techniques Part 2: Test procedures	-	-
68-1	1988	Environmental testing Part 1: General and guidance	HD 323.1 S2	1988
469-1	1987	Pulse techniques and apparatus Part 1: Pulse terms and definitions	-	-

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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 "pulse magnetic field".

ELECTROMAGNETIC COMPATIBILITY (EMC) —**Part 4: Testing and measurement techniques —
Section 9 : Pulse magnetic field immunity test
Basic EMC Publication**

1 Scope

This international standard relates to the immunity requirements of equipment, only under operational conditions, to pulse magnetic disturbances mainly related to:

- 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 pulse magnetic fields.

The standard defines:

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

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 60-2: 1973, High-voltage test techniques - Part 2: Test procedures

IEC 68-1: 1988, Environmental testing - Part 1: General and guidance

IEC 469-1: 1987, Pulse techniques and apparatus - Part1: Pulse terms and definitions