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## **Elektromagnetisk kompatibilitet (EMC) – Del 4-8: Mät- och provningsmetoder – Provning av immunitet mot kraftfrekventa magnetiska fält**

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

Som svensk standard gäller europastandarden EN 61000-4-8:2010. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61000-4-8:2010.

### **Nationellt förord**

Europastandarden EN 61000-4-8:2010

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 61000-4-8, Second edition, 2009 - Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 61000-4-8, utgåva 1, 1994 och SS-EN 61000-4-8/A1, utgåva 1, 2001, gäller ej fr o m 2013-02-01.

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English version

**Electromagnetic compatibility (EMC) -  
Part 4-8: Testing and measurement techniques -  
Power frequency magnetic field immunity test  
(IEC 61000-4-8:2009)**

Compatibilité électromagnétique (CEM) -  
Partie 4-8: Techniques d'essai  
et de mesure -  
Essai d'immunité au champ magnétique  
à la fréquence du réseau  
(CEI 61000-4-8:2009)

Elektromagnetische Verträglichkeit (EMV) -  
Teil 4-8: Prüf- und Meßverfahren -  
Prüfung der Störfestigkeit gegen  
Magnetfelder mit energietechnischen  
Frequenzen  
(IEC 61000-4-8:2009)

This European Standard was approved by CENELEC on 2010-02-01. 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, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 77A/694/FDIS, future edition 2 of IEC 61000-4-8, prepared by SC 77A, Low frequency phenomena, of IEC TC 77, Electromagnetic compatibility, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61000-4-8 on 2010-02-01.

This European Standard supersedes EN 61000-4-8:1993 + A1:2001.

EN 61000-4-8:2010 includes the following significant technical changes with respect to EN 61000-4-8:1993: the scope is extended in order to cover 60 Hz. Characteristics, performance and verification of the test generator and related inductive coils are revised. Modifications are also introduced in the test set-up (GRP) and test procedure.

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) 2010-11-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2013-02-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61000-4-8:2009 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

- |               |      |                             |
|---------------|------|-----------------------------|
| IEC 60068-1   | NOTE | Harmonized as EN 60068-1.   |
| IEC 61000-2-4 | NOTE | Harmonized as EN 61000-2-4. |

**Annex ZA**  
(normative)

**Normative references to international publications  
with their corresponding European publications**

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-161	-	International Electrotechnical Vocabulary (IEV) - Chapter 161: Electromagnetic compatibility	-	-

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## INTRODUCTION

This standard is part of the IEC 61000 series of standards, 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

### Part 5: Installation and mitigation guidelines

Installation guidelines

Mitigation methods and devices

### Part 9: Miscellaneous

Each part is further subdivided into several parts, published either as international standards, as technical specifications or technical reports, some of which have already been published as sections. Others will be published with the part number followed by a dash and a second number identifying the subdivision (example: IEC 61000-6-1).

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



## ELECTROMAGNETIC COMPATIBILITY (EMC) –

### Part 4-8: Testing and measurement techniques – Power frequency magnetic field immunity test

#### 1 Scope

This part of IEC 61000 relates to the immunity requirements of equipment, only under operational conditions, to magnetic disturbances at power frequencies 50 Hz and 60 Hz 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 4. 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.

#### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050(161), *International Electrotechnical Vocabulary (IEV) – Chapter 161: Electro-magnetic compatibility*

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