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**Electromagnetic compatibility (EMC) -  
Part 4-28: Testing and measurement  
techniques - Variation of power  
frequency, immunity test**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 61000-4-28:2002 sisaldab Euroopa standardi EN 61000-4-28:2000 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.12.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 61000-4-28:2002 consists of the English text of the European standard EN 61000-4-28:2000.</p> <p>This document is endorsed on 18.12.2002 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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ICS 33.100.20

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EUROPEAN STANDARD

**EN 61000-4-28**

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2000

ICS 33.100.20

English version

**Electromagnetic compatibility (EMC)**  
**Part 4-28: Testing and measurement techniques**  
**Variation of power frequency, immunity test**  
**(IEC 61000-4-28:1999)**

Compatibilité électromagnétique (CEM)  
Partie 4-28: Techniques d'essai et de  
mesure - Essai d'immunité à la variation  
de la fréquence d'alimentation  
(CEI 61000-4-28:1999)

Elektromagnetische  
Verträglichkeit (EMV)  
Teil 4-28: Prüf- und Messverfahren  
Prüfung der Störfestigkeit gegen  
Schwankungen der energietechnischen  
Frequenz (Netzfrequenz)  
(IEC 61000-4-28:1999)

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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.

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**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 77A/287/FDIS, future edition 1 of IEC 61000-4-28, 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 61000-4-28 on 2000-01-01.

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) 2000-10-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2003-01-01

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 and B are informative.  
Annex ZA has been added by CENELEC.

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### Endorsement notice

The text of the International Standard IEC 61000-4-28:1999 was approved by CENELEC as a European Standard without any modification.

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**Annex ZA (normative)**

**Normative references to international publications  
with their corresponding 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 (including amendments).

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	1990	International Electrotechnical Vocabulary (IEV) Chapter 161: Electromagnetic compatibility	-	-
IEC 60068-1	1988	Environmental testing Part 1: General and guidance	EN 60068-1 <sup>1)</sup>	1994
IEC 61000-2-4 + corr. August	1994 1994	Electromagnetic compatibility (EMC) Part 2: Environment Section 4: Compatibility levels in industrial plants for low-frequency conducted disturbances	EN 61000-2-4	1994

1) EN 60068-1 includes the corrigendum October 1988 and A1:1992 to IEC 60068-1.