



## **Elektromagnetisk kompatibilitet (EMC) – Del 4-17: Mät- och provningsmetoder – Provning av immunitet mot rippel på likspänningsingång**

*Electromagnetic compatibility (EMC) –  
Part 4-17: Testing and measurement techniques –  
Ripple on d.c. input power port immunity test*

Som svensk standard gäller europastandarden EN 61000-4-17:1999. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61000-4-17:1999.

### **Nationellt förord**

Europastandarden EN 61000-4-17:1999

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 61000-4-17, First edition, 1999 - Electromagnetic compatibility (EMC) -  
Part 4-17: Testing and measurement techniques -  
Ripple on d.c. input power port immunity test**

utarbetad inom International Electrotechnical Commission, IEC.



English version

**Electromagnetic compatibility (EMC)**  
**Part 4-17: Testing and measurement techniques**  
**Ripple on d.c. input power port immunity test**  
(IEC 61000-4-17:1999)

Compatibilité électromagnétique (CEM)  
Partie 4-17: Techniques d'essai et de  
mesure - Essai d'immunité à l'ondulation  
résiduelle sur entrée de puissance à  
courant continu  
(CEI 61000-4-17:1999)

Elektromagnetische  
Verträglichkeit (EMV)  
Teil 4-17: Prüf- und Meßverfahren -  
Prüfung der Störfestigkeit gegen  
Wechselanteile der Spannung an  
Gleichstrom-Netzanschlüssen  
(IEC 61000-4-17:1999)

This European Standard was approved by CENELEC on 1999-08-01. 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, Czech Republic, 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 77A/271/FDIS, future edition 1 of IEC 61000-4-17, 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 61000-4-17 on 1999-08-01.

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) 2000-05-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2002-08-01

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.

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## Endorsement notice

The text of the International Standard IEC 61000-4-17:1999 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 61000-4-11	1994	Electromagnetic compatibility (EMC) Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	EN 61000-4-11	1994

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



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## **ELECTROMAGNETIC COMPATIBILITY (EMC) –**

### **Part 4-17: Testing and measurement techniques – Ripple on d.c. input power port immunity test**

#### **1 Scope**

This part of IEC 61000 defines test methods for immunity to ripple at the d.c. input power port of electrical or electronic equipment.

This standard is applicable to low-voltage d.c. power ports of equipment supplied by external rectifier systems, or batteries which are being charged.

The object of this standard is to establish a common and reproducible basis for testing, in a laboratory, electrical and electronic equipment when subjected to ripple voltages such as those generated by rectifier systems and/or auxiliary service battery chargers overlaying on d.c. power supply sources.

This standard defines

- test voltage waveform;
- range of test levels;
- test generator;
- test set-up;
- test procedure.

The test described hereafter applies to electrical or electronic equipment and systems. It also applies to modules or subsystems whenever the equipment under test (EUT) rated power is greater than the test generator capacity specified in clause 6.

This test does not apply to equipment connected to battery charger systems incorporating switch mode converters.

This standard does not specify the tests to be applied to particular apparatus or systems. Its main aim is to give a general basic reference to IEC product committees. These product committees (or users or manufacturers of equipment) remain responsible for the appropriate choice of the test and the severity level to be applied to their equipment.

Dedicated test procedures are in use for testing specific categories of electrical or electronic equipment, e.g. equipment connected to d.c. supply network of telephone switching centres; the related product committees should evaluate the relevance and applicability of the test procedure specified in this basic standard.