



SLOVENSKI STANDARD

SIST EN 61000-4-17:2001

01-marec-2001

Elektromagnetna združljivost (EMC) - 4-17. del: Preskušanje in merilne tehnike - Preskušanje odpornosti proti valovitosti pri napajalnem vhodu za enosmerno napetost (IEC 61000-4-17:1999)

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

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

Ta slovenski standard je istoveten z: EN 61000-4-17:1999

ICS:

33.100.20 Imunost Immunity

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61000-4-17

August 1999

ICS 33.100.20

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
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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.

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 ¹⁾	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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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

61000-4-17

Première édition
First edition
1999-06

PUBLICATION FONDAMENTALE EN CEM
BASIC EMC PUBLICATION

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**

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Electromagnetic compatibility (EMC) –

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Part 4-17:

Testing and measurement techniques –

Ripple on d.c. input power port immunity test

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTROMAGNETIC COMPATIBILITY (EMC) –

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

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters, express as nearly as possible an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
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- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61000-4-17 has been prepared by subcommittee 77A: Low-frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility.

It forms part 4-17 of IEC 61000. It has the status of a basic EMC publication in accordance with IEC Guide 107.

The text of this standard is based on the following documents:

FDIS	Report on voting
77A/271/FDIS	77A/280/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

Annex A is for information only.

INTRODUCTION

This standard is part of the IEC 61000 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 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 6: Generic standards

Part 9: Miscellaneous

Each part is further subdivided into several parts, published either as International Standards 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.

This part is an International Standard which gives test procedures related to ripple on d.c. input power port.

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.

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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.