

### SLOVENSKI STANDARD SIST EN 61000-3-12:2012

01-februar-2012

Nadomešča: SIST EN 61000-3-12:2005

Elektromagnetna združljivost (EMC) - 3-12. del: Mejne vrednosti - Mejne vrednosti za harmonske tokove, ki jih povzroča oprema, priključena na nizkonapetostne napajalne sisteme z naznačenim tokom, večjim od 16 A in <= 75 A po liniji (IEC 61000-3-12:2011)

Electromagnetic compatibility (EMC) - Part 3-12: Limits - Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and  $\leq$  75 A per phase

Elektromagnetische Verträglichkeit (EMV) - Teil 3-12: Grenzwerte für Oberschwingungsströme, verursacht von Geräten und Einrichtungen mit einem Eingangsstrom > 16A und ≤ 75A je Leiter, die zum Anschluss an öffentliche Niederspannungsnetze vorgesehen sind

Compatibilité électromagnétique (CEM) - Partie 3-12: Limites - Limites pour les courants harmoniques produits par les appareils connectés aux réseaux publics basse tension ayant un courant appelé > 16 A et <= 75 A par phase

Ta slovenski standard je istoveten z:	EN 61000-3-12:2011
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33.100.01 Elektromagnetna združljivost Electromagnetic compatibility na splošno in general

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## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

## EN 61000-3-12

December 2011

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Supersedes EN 61000-3-12:2005

English version

### Electromagnetic compatibility (EMC) -Part 3-12: Limits -Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and ≤ 75 A per phase (IEC 61000-3-12:2011)

Compatibilité électromagnétique (CEM) -Partie 3-12: Limites -

Limites pour les courants harmoniques produits par les appareils connectés aux réseaux publics basse tension ayant un courant appelé > 16 A et  $\leq$  75 A par phase (CEI 61000-3-12:2011) Elektromagnetische Verträglichkeit (EMV)

Teil 3-12: Grenzwerte für Oberschwingungsströme, verursacht von Geräten und Einrichtungen mit einem Eingangsstrom > 16A und  $\leq$  75A je Leiter, die zum Anschluss an öffentliche Niederspannungsnetze vorgesehen sind. (IEC 61000-3-12:2011)

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# 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 77A/740/FDIS, future edition 2 of IEC 61000-3-12, prepared by SC 77A, "Low frequency phenomena", of IEC TC 77, "Electromagnetic compatibility" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61000-3-12:2011.

The following dates are 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)	2012-06-16
_	latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2014-06-16

This European Standard supersedes EN 61000-3-12:2005.

The significant technical changes with respect to EN 61000-3-12:2005 are listed below:

– the reference fundamental current  $I_1$  is replaced by the reference current  $I_{ref}$  for the calculation of emission limits;

- a new table of current emission limits (Table 5) is added;

- a new annex (Annex A) is added to define test conditions for some types of equipment;

- former Annexes B (Approximate interpolation formulas) and D (Information on the PWHD factor) are deleted.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directives EMC (2004/108/EC) and RTTED (1999/5/EC).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

### **Endorsement notice**

The text of the International Standard IEC 61000-3-12:2011 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

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.

Publication	Year	Title	<u>EN/HD</u>	Year
IEC 60038	-	IEC standard voltages	EN 60038	-
IEC 60050-161 + A1 + A2	1990 1997 1998	International Electrotechnical Vocabulary (IEV) - Chapter 161: Electromagnetic compatibility	-	-
IEC 61000-2-2	-	Electromagnetic compatibility (EMC) - Part 2-2: Environment - Compatibility levels for low-frequency conducted disturbances and signalling in public low-voltage power supply systems	EN 61000-2-2	-
IEC 61000-2-4	-	Electromagnetic compatibility (EMC) - Part 2-4: Environment - Compatibility levels in industrial plants for low-frequency conducted disturbances	EN 61000-2-4	-
IEC 61000-3-2	-	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A pe phase)	EN 61000-3-2 r	-
IEC 61000-4-7	-	Electromagnetic compatibility (EMC) - Part 4-7: Testing and measurement techniques - General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto	EN 61000-4-7	-

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### Annex ZZ

### (informative)

#### **Coverage of Essential Requirements of EU Directives**

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers protection requirements of Annex I, Article 1(a) of the EU Directive 2004/108/EC, and essential requirements of Article 3.1(b) (emission only) of the EU Directive 1999/5/EC.

Compliance with this standard provides presumption of conformity with the specified essential requirements of the Directives concerned.

NOTE Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.



# IEC 61000-3-12

Edition 2.0 2011-05

# INTERNATIONAL STANDARD

NORME INTERNATIONALE

Electromagnetic compatibility (EMC) – Part 3-12: Limits – Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current >16 A and ≤75 A per phase

Compatibilité électromagnétique (CEM) -

Partie 3-12: Limites – Limites pour les courants harmoniques produits par les appareils connectés aux réseaux publics basse tension ayant un courant appelé >16 A et ≤75 A par phase

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### INTERNATIONAL ELECTROTECHNICAL COMMISSION

### ELECTROMAGNETIC COMPATIBILITY (EMC) -

### Part 3-12: Limits – Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current >16 A and ≤75 A per phase

### FOREWORD

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International Standard IEC 61000-3-12 has been prepared by subcommittee 77A: Low frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility.

This second edition cancels and replaces the first edition published in 2004 and constitutes a technical revision.

The significant technical changes with respect to the previous edition are listed below:

- the reference fundamental current  $I_1$  is replaced by the reference current  $I_{ref}$  for the calculation of emission limits;
- a new table of current emission limits (Table 5) is added;
- a new annex (Annex A) is added to define test conditions for some types of equipment;

- former Annexes B (Approximate interpolation formulas) and D (Information on the *PWHD* factor) are deleted.

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

FDIS	Report on voting
77A/740/FDIS	77A/747/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.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 61000 series, published under the general title *Electromagnetic compatibility* (*EMC*), can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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### INTRODUCTION

IEC 61000 is published in separate parts 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 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 International Standard is a Product Family Standard.