SVENSK STANDARD SS-EN 61000-4-19

Fastställd	Utgåva	Sida	Ansvarig kommitté
2016-01-13	1	1 (1+34)	SEK TK EMC

Elektromagnetisk kompatibilitet (EMC) – Del 4-19: Mät- och provningsmetoder – Provning av immunitet mot ledningsbundna symmetriska störningar och signaler i frekvensområdet 0 Hz till 150 kHz

Electromagnetic compatibility (EMC) –
Part 4-19: Testing and measurement techniques –
Test for immunity to conducted, differential mode disturbances and signalling in the frequency range from 2 kHz to 150 kHz at a.c. power ports

Som svensk standard gäller europastandarden EN 61000-4-19:2014. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61000-4-19:2014.

Nationellt förord

Europastandarden EN 61000-4-19:2014

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 61000-4-19, First edition, 2014 - Electromagnetic compatibility (EMC) - Part 4-19: Testing and measurement techniques - Test for immunity to conducted, differential mode disturbances and signalling in the frequency range from 2 kHz to 150 kHz at a.c. power ports**

utarbetad inom International Electrotechnical Commission, IEC.

ICS 33.100.20

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Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

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Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61000-4-19

August 2014

ICS 33.100.20

English Version

Electromagnetic compatibility (EMC) - Part 4-19: Testing and measurement techniques - Test for immunity to conducted, differential mode disturbances and signalling in the frequency range 2 kHz to 150 kHz at a.c. power ports (IEC 61000-4-19:2014)

Compatibilité électromagnétique (CEM) - Partie 4-19: Techniques d'essai et de mesure - Essai pour l'immunité aux perturbations conduites en mode différentiel et à la signalisation dans la gamme de fréquences de 2 kHz à 150 kHz, aux accès de puissance à courant alternatif (CEI 61000-4-19:2014)

Elektromagnetische Verträglichkeit (EMV) - Teil 4-19: Prüf- und Messverfahren - Prüfung der Störfestigkeit an Wechselstrom-Netzanschlüssen gegen leitungsgeführte symmetrische Störgrößen und Störgrößen aus der Signalübertragung im Frequenzbereich von 2 kHz bis 150 kHz (IEC 61000-4-19:2014)

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 61000-4-19:2014 E

SEK Svensk Elstandard

Foreword

The text of document 77A/845/FDIS, future edition 1 of IEC 61000-4-19, prepared by SC 77A "EMC – Low frequency phenomena", of IEC/TC 77 "Electromagnetic compatibility" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61000-4-19:2014.

The following dates are fixed:

– latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2015-03-11
– latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-06-11

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Endorsement notice

The text of the International Standard IEC 61000-4-19:2014 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 61000-2-2:2002	NOTE	Harmonized as EN 61000-2-2:2002 (not modified).
IEC 61000-2-12:2003	NOTE	Harmonized as EN 61000-2-12:2003 (not modified).
CISPR 14-1:2005 + A1:2008 + A2:2011	NOTE	Harmonized as EN 55014-1:2006 (not modified) + A1:2009 (not modified) + A2:2011 (not modified).
CISPR 15:2013	NOTE	Harmonized as EN 55015:2013 (not modified).

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 61000-4-13 + A1	2002 2009	Electromagnetic compatibility (EMC) - Part 4-13: Testing and measurement techniques - Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests	EN 61000-4-13 + A1	2002 2009
IEC 61000-4-16 + A1 + A2	1998 2001 2009	Electromagnetic compatibility (EMC) - Part 4-16: Testing and measurement techniques - Test for immunity to conducted, common mode disturbances in the frequency range 0 Hz to 150 kHz	EN 61000-4-16 + A1 + A2	1998 2004 2011

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTROMAGNETIC COMPATIBILITY (EMC) –

Part 4-19: Testing and measurement techniques – Test for immunity to conducted, differential mode disturbances and signalling in the frequency range 2 kHz to 150 kHz at a.c. power ports

FOREWORD

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International Standard IEC 61000-4-19 has been prepared by subcommittee 77A: EMC – Low frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility.

It forms Part 4-19 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/845/FDIS	77A/854/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 in 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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 are published with the part number followed by a dash and a second number identifying the subdivision (example: IEC 61000-6-1).

ELECTROMAGNETIC COMPATIBILITY (EMC) –

Part 4-19: Testing and measurement techniques – Test for immunity to conducted, differential mode disturbances and signalling in the frequency range 2 kHz to 150 kHz at a.c. power ports

1 Scope

This part of IEC 61000 relates to the immunity requirements and test methods for electrical and electronic equipment to conducted, differential mode disturbances and signalling in the range 2 kHz up to 150 kHz at a.c. power ports.

The object of this standard is to establish a common and reproducible basis for testing electrical and electronic equipment with the application of differential mode disturbances and signalling to a.c. power ports. This standard defines:

– test waveforms;
– range of test levels;
– test equipment;
– test setup;
– test procedures;
– verification procedures.

These tests are intended to demonstrate the immunity of electrical and electronic equipment operating at a mains supply voltage up to 280 V (from phase to neutral or phase to earth, if no neutral is used) and a frequency of 50 Hz or 60 Hz when subjected to conducted, differential mode disturbances such as those originating from power electronics and power line communication systems (PLC).

NOTE In some countries, the maximum voltage can be as much as 350 V from phase to neutral.

The immunity to harmonics and interharmonics, including mains signalling, on a.c. power ports up to 2 kHz in differential mode is covered by IEC 61000-4-13.

Emissions in the frequency range 2 kHz to 150 kHz often have both differential mode and common mode components. This standard provides immunity tests only for differential mode disturbances and signalling. It is recommended to perform common mode tests as well, which are covered by IEC 61000-4-16.

2 Normative references

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

IEC 61000-4-13:2002, *Electromagnetic compatibility (EMC) – Part 4-13: Testing and measurement techniques – Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests*
Amendment 1:2009

IEC 61000-4-16:1998, *Electromagnetic compatibility (EMC) – Part 4-16: Testing and measurement techniques – Test for immunity to conducted, common mode disturbances in*

the frequency range 0 Hz to 150 kHz
Amendment 1:2001
Amendment 2:2009