



NSAI
Standards

Irish Standard
I.S. EN 61000-3-3:2013/A1:2019&A1:2019

Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection

I.S. EN 61000-3-3:2013/A1:2019&A1:2019

Incorporating amendments/corrigenda/National Annexes issued since publication:

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This document is based on:

Published:

This document was published under the authority of the NSAI and comes into effect on:

2019-08-20

ICS number:

NOTE: If blank see CEN/CENELEC cover page

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National Foreword

I.S. EN 61000-3-3:2013/A1:2019&A1:2019 is the adopted Irish version of the European Document EN 61000-3-3:2013/A1:2019, Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection

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In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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EUROPEAN STANDARD

EN 61000-3-3:2013/A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2019

ICS 33.100.10

English Version

**Electromagnetic compatibility (EMC) - Part 3-3: Limits -
Limitation of voltage changes, voltage fluctuations and flicker in
public low-voltage supply systems, for equipment with rated
current ≤ 16 A per phase and not subject to conditional
connection
(IEC 61000-3-3:2013/A1:2017)**

Compatibilité électromagnétique (CEM) - Partie 3-3: Limites
- Limitation des variations de tension, des fluctuations de
tension et du papillotement dans les réseaux publics
d'alimentation basse tension, pour les matériels ayant un
courant assigné ≤ 16 A par phase et non soumis à un
raccordement conditionnel
(IEC 61000-3-3:2013/A1:2017)

Elektromagnetische Verträglichkeit (EMV) - Teil 3-3:
Grenzwerte - Begrenzung von Spannungsänderungen,
Spannungsschwankungen und Flicker in öffentlichen
Niederspannungs-Versorgungsnetzen für Geräte mit einem
Bemessungsstrom ≤ 16 A je Leiter, die keiner
Sonderanschlussbedingung unterliegen
(IEC 61000-3-3:2013/A1:2017)

This amendment A1 modifies the European Standard EN 61000-3-3:2013; it was approved by CENELEC on 2017-06-22. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 CEN-CENELEC Management Centre or to any CENELEC member.

This amendment 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN 61000-3-3:2013/A1:2019 (E)

European foreword

The text of document 77A/952/FDIS, future IEC 61000-3-3:2013/A1, 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 61000-3-3:2013/A1:2019.

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) 2020-02-02
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-08-02

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

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directives.

For the relationship with EU Directives see informative Annexes ZZA and ZZB, which are an integral part of this document.

Endorsement notice

The text of the International Standard IEC 61000-3-3:2013/A1:2017 was approved by CENELEC as a European Standard without any modification.

Replace Annex ZA of EN 61000-3-3:2013 by the following one:

Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC/TR 60725	2005 ¹	Consideration of reference impedances and - public supply network impedances for use in determining disturbance characteristics of electrical equipment having a rated current ≤ 75 A per phase	-	-
IEC 60974-1	2017 ¹	Arc welding equipment - Part 1: Welding power sources	-	-
IEC 61000-3-2		Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	EN 61000-3-2	2014
IEC 61000-3-11	2017 ¹	Electromagnetic compatibility (EMC) – Part 3-11: Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems – Equipment with rated current ≤ 75 A and subject to conditional connection	-	-
IEC 61000-4-15	2010	Electromagnetic compatibility (EMC) -- Part 4-15: Testing and measurement techniques - Flickermeter - Functional and design specifications	EN 61000-4-15	2011

¹ Dated as no equivalent European Standard exists.

Annex ZZA
(informative)

Relationship between this European standard and the essential requirements of Directive 2014/30/EU [2014 OJ L96] aimed to be covered

This European standard has been prepared under the European Commission standardisation request C(2016) 7641 final of 30.11.2016², ('M/552'), as regards harmonised standards in support of Directive 2014/30/EU relating to electromagnetic compatibility, to provide one voluntary means of conforming to essential requirements of Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility [2014 OJ L96].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

Table ZZA.1 – Correspondence between this European standard and the Essential Requirements set out in Directive 2014/30/EU [2014 OJ L96]

Essential requirements of Directive 2014/30/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Annex I. 1(a) (electromagnetic disturbances)	5 Limits	

WARNING 1: Presumption of conformity stays valid only as long as a reference to this European standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2: Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

² COMMISSION IMPLEMENTING DECISION C(2016) 7641 final of 30.11.2016 on a standardisation request to the European Committee for Standardisation, to the European Committee for Electrotechnical Standardisation and to the European Telecommunications Standards Institute as regards harmonised standards in support of Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility.

Annex ZZB
(informative)

Relationship between this European standard and the essential requirements of Directive 2014/53/EU [2014 OJ L153] aimed to be covered and the standardisation request M/536

This European standard has been prepared under the European Commission standardisation request C(2015) 5376 final of 4.8.2015³ ('M/536'), as regards harmonised standards in support of Directive 2014/53/EU relating to radio equipment, to provide one voluntary means of conforming to essential requirements of Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC [2014 OJ L153].

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Table ZZB.1 – Correspondence between this European standard and the Essential Requirements set out in Directive 2014/53/EU [2014 OJ L153]

Essential requirements of Directive 2014/53/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Article 3.1(b), relating to Annex I. 1(a) of Directive 2014/30/EU (electromagnetic disturbance)	5 limits	

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WARNING 2: Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

³ COMMISSION IMPLEMENTING DECISION C(2015) 5376 final of 4.8.2015 on a standardisation request to the European Committee for Electrotechnical Standardisation and to the European Telecommunications Standards Institute as regards radio equipment in support of Directive 2014/53/EU of the European Parliament and of the Council

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IEC 61000-3-3

Edition 3.0 2017-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

**Electromagnetic compatibility (EMC) –
Part 3-3: Limits – Limitation of voltage changes, voltage fluctuations and flicker
in public low-voltage supply systems, for equipment with rated current ≤ 16 A
per phase and not subject to conditional connection**

**Compatibilité électromagnétique (CEM) –
Partie 3-3: Limites – Limitation des variations de tension, des fluctuations de
tension et du papillotement dans les réseaux publics d'alimentation basse
tension, pour les matériels ayant un courant assigné ≤ 16 A par phase et non
soumis à un raccordement conditionnel**





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IEC 61000-3-3

Edition 3.0 2017-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

**Electromagnetic compatibility (EMC) –
Part 3-3: Limits – Limitation of voltage changes, voltage fluctuations and flicker
in public low-voltage supply systems, for equipment with rated current ≤ 16 A
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Partie 3-3: Limites – Limitation des variations de tension, des fluctuations de
tension et du papillotement dans les réseaux publics d'alimentation basse
tension, pour les matériels ayant un courant assigné ≤ 16 A par phase et non
soumis à un raccordement conditionnel**

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ICS 33.100.10

ISBN 978-2-8322-4294-0

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FOREWORD

This amendment has been prepared by subcommittee 77A: EMC – Low frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility.

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

FDIS	Report on voting
77A/952/FDIS	77A/960/RVD

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

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC website 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.

Clause 5 Limits

Replace the third paragraph with the following new text:

In the case of equipment having several separately controlled circuits in accordance with 6.6, limits b) and c) shall apply only if there is delayed or manual restart after a power supply interruption; for all equipment with automatic switching which is energized immediately on restoration of supply after a power supply interruption, limits a) shall apply.

For all equipment with manual switching, limits b) or c) shall apply depending on the rate of switching typical of normal operation.

A.1.2 Hotplates

Add, after item c), the following new item d):

- d) Area cooking plates, which automatically configure cooking zones out of multiple small hotplates or induction coils, are tested with the biggest saucepan from Table A.1 placed in the geometric center of the cooking area.

A.2 Test conditions for lighting and similar equipment

Replace the title with the following new title:

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