

# Electromagnetic compatibility (EMC) —

**Part 6-3: Generic standards — Emission  
standard for residential, commercial  
and light-industrial environments**

ICS 33.100.10

## National foreword

This British Standard is the UK implementation of EN 61000-6-3:2007+A1:2011, incorporating corrigendum August 2012. It is identical to IEC 61000-6-3:2006, incorporating amendment 1:2010. It supersedes BS EN 61000-6-3:2007, which will be withdrawn on 12 January 2014.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by **A1** **A1**.

The UK participation in its preparation was entrusted by Technical Committee GEL/210, EMC — Policy committee, to Subcommittee GEL/210/12, EMC basic, generic and low frequency phenomena Standardization.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with a British Standard cannot confer immunity from legal obligations.**

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### Amendments/corrigenda issued since publication

Date	Comments
30 June 2011	Implementation of IEC amendment 1:2010, with CENELEC endorsement A1:2011.
31 October 2012	Implementation of CENELEC corrigendum August 2012: Replaced date of withdrawal in National and EN forewords.

**Electromagnetic compatibility (EMC) -  
Part 6-3: Generic standards -  
Emission standard for residential, commercial  
and light-industrial environments  
(IEC 61000-6-3:2006)**

Compatibilité électromagnétique (CEM) -  
Partie 6-3: Normes génériques -  
Norme sur l'émission  
pour les environnements résidentiels,  
commerciaux et de l'industrie légère  
(CEI 61000-6-3:2006)

Elektromagnetische Verträglichkeit  
(EMV) -  
Teil 6-3: Fachgrundnormen -  
Störaussendung für Wohnbereich,  
Geschäfts- und Gewerbebereiche  
sowie Kleinbetriebe  
(IEC 61000-6-3:2006)

This European Standard was approved by CENELEC on 2006-12-01. 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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

## CENELEC

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

**Central Secretariat: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document CISPR/H/121/FDIS, future edition 2 of IEC 61000-6-3, prepared by CISPR SC H, Limits for the protection of radio services, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61000-6-3 on 2006-12-01.

This European Standard supersedes EN 61000-6-3:2001 + A11:2004.

The major changes in EN 61000-6-3:2007 are the inclusion of a clause on tests for equipment in series production, a new clause on measurement uncertainty and the inclusion of requirements on dc power ports and telecommunications ports. The informative annex has been deleted.

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) 2007-09-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2009-12-01

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 (89/336/EEC), EMC (2004/108/EC) and RTTED (1999/5/EC). See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61000-6-3:2006 was approved by CENELEC as a European Standard without any modification.

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## Foreword to amendment A1

The text of document CISPR/H/206/FDIS, future amendment 1 to IEC 61000-6-3:2007, prepared by CISPR SC H, Limits for the protection of radio services, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 61000-6-3:2007 on 2011-01-01.

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.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2011-10-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2014-01-12

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of amendment 1:2010 to the International Standard IEC 61000-6-3:2007 was approved by CENELEC as an amendment to the European Standard without any modification.

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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 (insofar 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/specifications, 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: 61000-6-1).

## ELECTROMAGNETIC COMPATIBILITY (EMC) –

### Part 6-3: Generic standards – Emission standard for residential, commercial and light-industrial environments

#### 1 Scope and object

This part of IEC 61000 for EMC emission requirements applies to electrical and electronic apparatus intended for use in residential, commercial and light-industrial environments.

Emission requirements in the frequency range 0 Hz to 400 GHz are covered. No measurement needs to be performed at frequencies where no requirement is specified.

This generic EMC emission standard is applicable if no relevant dedicated product or product-family EMC emission standard exists.

This standard applies to apparatus intended to be directly connected to a low-voltage public mains network or connected to a dedicated DC source, which is intended to interface between the apparatus and the low-voltage public mains network. This standard applies also to apparatus which is battery operated or is powered by a non-public, but non-industrial, low-voltage power distribution system if this apparatus is intended to be used in the locations described below.

The environments encompassed by this standard are residential, commercial and light-industrial locations, both indoor and outdoor. The following list, although not comprehensive, gives an indication of locations that are included:

- residential properties, for example houses, apartments;
- retail outlets, for example shops, supermarkets;
- business premises, for example offices, banks;
- areas of public entertainment, for example cinemas, public bars, dance halls;
- outdoor locations, for example petrol stations, car parks, amusement and sports centres;
- light-industrial locations, for example workshops, laboratories, service centres.

Locations that are characterised by being supplied directly at low voltage from the public mains network are considered to be residential, commercial or light-industrial.

The object of this standard is to define the emission test requirements for apparatus defined in the scope in relation to continuous and transient, conducted and radiated disturbances.

The emission requirements have been selected so as to ensure that disturbances generated by apparatus operating normally in residential, commercial and light-industrial locations do not exceed a level which could prevent other apparatus from operating as intended. Fault conditions of apparatus are not taken into account. Not all disturbance phenomena have been included for testing purposes in this standard but only those considered as relevant for the equipment covered by this standard. These requirements represent essential electromagnetic compatibility emission requirements.