



NSAI
Standards

Irish Standard
I.S. EN IEC 62311:2020

Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz)

I.S. EN IEC 62311:2020

Incorporating amendments/corrigenda/National Annexes issued since publication:

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NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

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National Foreword

I.S. EN IEC 62311:2020 is the adopted Irish version of the European Document EN IEC 62311:2020, Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz)

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EUROPEAN STANDARD

EN IEC 62311

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2020

ICS 97.030

Supersedes EN 62311:2008 and all of its amendments
and corrigenda (if any)

English Version

**Assessment of electronic and electrical equipment related to
human exposure restrictions for electromagnetic fields (0 Hz to
300 GHz)
(IEC 62311:2019)**

Évaluation des équipements électroniques et électriques en
relation avec les restrictions d'exposition humaine aux
champs électromagnétiques (0 Hz à 300 GHz)
(IEC 62311:2019)

Bewertung von elektrischen und elektronischen
Einrichtungen in Bezug auf Begrenzungen der Exposition
von Personen in elektromagnetischen Feldern (0 Hz - 300
GHz)
(IEC 62311:2019)

This European Standard was approved by CENELEC on 2019-05-23. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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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 IEC 62311:2020 (E)**European foreword**

The text of document 106/480/FDIS, future edition 2 of IEC 62311, prepared by IEC/TC 106 "Methods for the assessment of electric, magnetic and electromagnetic fields associated with human exposure" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62311:2020.

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) 2020-07-24
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-01-24

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

| | | |
|------------------|------|--|
| ISO/IEC 17025 | NOTE | Harmonized as EN ISO/IEC 17025 |
| CISPR 32 | NOTE | Harmonized as EN 55032 |
| IEC 61786-1:2013 | NOTE | Harmonized as EN 61786-1:2014 (not modified) |
| IEC 62110:2009 | NOTE | Harmonized as EN 62110:2009/AC:2015 (not modified) |
| IEC 62209-1:2016 | NOTE | Harmonized as EN 62209-1:2016 (not modified) |
| IEC 62209-2:2010 | NOTE | Harmonized as EN 62209-2:2010 (not modified) |

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 60050-161 | 1990 | International Electrotechnical Vocabulary. Chapter 161: Electromagnetic compatibility | - | - |
| IEC 62232 | 2017 | Determination of RF field strength, power density and SAR in the vicinity of radiocommunication base stations for the purpose of evaluating human exposure | EN 62232 | 2017 |

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IEC 62311

Edition 2.0 2019-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Assessment of electronic and electrical equipment related to human exposure
restrictions for electromagnetic fields (0 Hz to 300 GHz)**

**Évaluation des équipements électroniques et électriques en relation avec les
restrictions d'exposition humaine aux champs électromagnétiques (0 Hz à 300 GHz)**



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IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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IEC 62311

Edition 2.0 2019-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Assessment of electronic and electrical equipment related to human exposure
restrictions for electromagnetic fields (0 Hz to 300 GHz)**

**Évaluation des équipements électroniques et électriques en relation avec les
restrictions d'exposition humaine aux champs électromagnétiques (0 Hz à 300 GHz)**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ASSESSMENT OF ELECTRONIC AND ELECTRICAL EQUIPMENT RELATED TO HUMAN EXPOSURE RESTRICTIONS FOR ELECTROMAGNETIC FIELDS (0 Hz to 300 GHz)

FOREWORD

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International Standard IEC 62311 has been prepared by IEC technical committee 106: Methods for the assessment of electric, magnetic and electromagnetic fields associated with human exposure.

This second edition cancels and replaces the first edition published in 2007. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) a clear distinction between intentional and unintentional radiators has been introduced;
- b) the exposure to non-uniform fields is considered;
- c) the treatment of uncertainty for the assessment procedures has been improved;
- d) various summation regimes are described in Annex A;
- e) the information from meanwhile published basic standards has been used and hence all informative annexes of the previous edition have been removed.

The text of this International Standard is based on the following documents:

| FDIS | Report on voting |
|--------------|------------------|
| 106/480/FDIS | 106/486/RVD |

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

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

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

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ASSESSMENT OF ELECTRONIC AND ELECTRICAL EQUIPMENT RELATED TO HUMAN EXPOSURE RESTRICTIONS FOR ELECTROMAGNETIC FIELDS (0 Hz to 300 GHz)

1 Scope

This document applies to electronic and electrical equipment for which no dedicated product standard or product family standard regarding human exposure to electromagnetic fields applies. It covers equipment with intentional or non-intentional radiators as well as a combination thereof.

This document provides assessment methods and criteria to evaluate equipment against limits on exposure of people related to electric, magnetic and electromagnetic fields. The frequency range covered is from 0 Hz to 300 GHz.

NOTE 1 Further guidance concerning the application of this document and its relationship to other EMF standards is given in Figure 1.

This document does not specify limits expressed by means of basic restrictions and/or reference levels. Such limits are subject to the applied assessment scheme, for example by means of regional limits.

NOTE 2 The assessment methods and criteria to evaluate equipment against basic restrictions or reference levels can be used with regard to either general public or occupational exposure.

2 Normative references

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.

IEC 60050-161:1990, *International Electrotechnical Vocabulary – Chapter 161: Electromagnetic compatibility* (available at <http://www.electropedia.org>)

IEC 62232:2017, *Determination of RF field strength, power density and SAR in the vicinity of radiocommunication base stations for the purpose of evaluating human exposure*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-161 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
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