



NSAI
Standards

Irish Standard
I.S. EN 50499:2019

Procedure for the assessment of the exposure of workers to electromagnetic fields

I.S. EN 50499:2019

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN 50499:2019 is the adopted Irish version of the European Document EN 50499:2019, Procedure for the assessment of the exposure of workers to electromagnetic fields

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EUROPEAN STANDARD

EN 50499

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2019

ICS 17.240

Supersedes EN 50499:2008 and all of its amendments
and corrigenda (if any)

English Version

Procedure for the assessment of the exposure of workers to electromagnetic fields

Procédure pour l'évaluation de l'exposition des travailleurs
aux champs électromagnétiques

Verfahren für die Beurteilung der Exposition von
Arbeitnehmern gegenüber elektromagnetischen Feldern

This European Standard was approved by CENELEC on 2019-08-20. 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

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EN 50499:2019 (E)

European foreword

This document (EN 50499:2019) has been prepared by CLC/TC 106X, “*Electromagnetic fields in the human environment*”.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-08-20
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2022-08-20

This document supersedes EN 50499:2008 and all of its amendments and corrigenda (if any).

EN 50499:2019 includes the following significant technical changes with respect to EN 50499:2008:

- the replacement of directive 2004/40/EC by directive 2013/35/UE. The requirements in the document were modified accordingly, as for example the assessment process.

The latest editions of standards of basic and generic standards was also taken into account, for example in the annex D for multiple frequencies

This standard is intended to be a standard under which other standards related to the assessment of a workplace can be used.

The approaches outlined in this standard, are intended to be simple, allowing most employers to make an assessment with the minimum of technical knowledge and effort.

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.

1 Scope

The scope of this document is to provide a general procedure for the assessment of workers' exposure to electric, magnetic and electromagnetic fields in a workplace in order to determine compliance with exposure limit values and/or action levels as stated in European Directive 2013/35/EU.

The purpose of this document is to

- specify how to perform an initial assessment of the levels of workers' exposure to electromagnetic fields (EMF), if necessary, including specific exposure assessment of such levels by measurements and/or calculations,
- determine whether it is necessary to carry out a detailed risk assessment of EMF exposure.

This document can be used by employers for the risk assessment and, where required, measurement and/or calculation of the exposure of workers. Based on specific workplace and other standards, it can be determined whether preventive measures/actions have to be taken to comply with the provisions of the Directive.

The frequencies covered are from 0 Hz to 300 GHz.

NOTE 1 This document relates to the exposure limits as specified in the Directive 2013/35/EU. It is intended to protect workers from risks to their health and safety arising or likely to arise from exposure to electromagnetic fields (0 Hz to 300 GHz) during their work. However, this and other Directives can include additional measures for the protection of specific groups of workers and/or specific workplaces for which the employer is required to investigate other protective measures as a part of the overall risk assessment. See Annex A.

NOTE 2 Directive 2013/35/EU has been transposed into national legislation in all the EU member countries. It is intended that users of this standard consult the national legislation related to this transposition in order to identify the national regulations and requirements. These national regulations and requirements can have additional requirements that are not covered by this standard.

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.

Council Recommendation 1999/519/EC of 12 July 1999, on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz), Official Journal, L199, of 1999-7-30, p.59-70

Directive 2013/35/EU of 26 June 2013, on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields). Official Journal, L179, of 2013-6-29, p. 1–21

EN 50413:—,¹ *Basic standard on measurement and calculation procedures for human exposure to electric, magnetic and electromagnetic fields (0 Hz - 300 GHz)*

EN 50496, *Determination of workers' exposure to electromagnetic fields and assessment of risk at a broadcast site*

EN 50647:2017, *Basic standard for the evaluation of workers' exposure to electric and magnetic fields from equipment and installations for the production, transmission and distribution of electricity*

EN 50663:2017, *Generic standard for assessment of low power electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10 MHz - 300 GHz)*

¹ Under preparation. Stage at the time of publication: FprEN 50413:2019.

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