TECHNICAL REPORT

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

CLC/TR 50442

January 2018

ICS 01.120; 13.280; 29.020

Supersedes CLC/TR 50442:2005

English Version

Guidelines for product committees on the preparation of standards related to human exposure from electromagnetic fields

Lignes directrices pour les comités de produit concernant l'établissement des normes relatives à l'exposition humaine aux champs électromagnétiques

Leitfaden für Produktkomitees zur Ausarbeitung von Normen in Bezug auf die Sicherheit von Personen in elektromagnetischen Feldern

This Technical Report was approved by CENELEC on 2018-12-25.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, 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

© 2018 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC Members.

Ref. No. CLC/TR 50442:2018 E

This document is a preview generated by EVS

Contents

Page

This document is a preview generated by EVS

European foreword

This document (CLC/TR 50442:2018) has been prepared by CLC/TC 106X, "Electromagnetic fields in the human environment".

This document supersedes CLC/TR 50442:2005.

This report has been accepted by ETSI and CEN as the basis for the development of electromagnetic fields (EMF) standards.

The main changes with respect to the previous edition of CLC/TR 50442 are:

a) Update of the introduction to take into account Directive 2014/53/EU, Directive 2014/35/EU and Directive 2013/35/EU;

b) Replacement of Clause 1 "Purpose" with new Clause 1 "Scope";

c) Replacement of Clause 2 with new Clause 2;

d) Replacement of Subclause 2.6 with new Clause 4;

e) Replacement of Clause 3 with new Clause 6;

f) Replacement of Clause 4 with new Clause 3;

g) Added requirements of Directives 2013/35/EU and 2014/53/EU to Clause 5 and renumbered Clauses 5 to 7;

h) Added new Clause 5 – "Titles of EMF standards";

i) Added new Annex A with examples of Annexes ZZ.

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 is a preview generated by EVS

Introduction

Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonization of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC Text with EEA relevance [OJ L 153, 22.5.2014] is applicable from 13 June 2016.

Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits (recast) [OJ L 96, 29 March 2014] is applicable from 20 April 2016.

The European Commission has given CENELEC, the task of preparing harmonized standards for the implementation of these Directives under Mandate M/536 and M/511 to provide a presumption of conformity to their Essential Safety Requirements.

The Essential Safety Requirements of the Directives include safety in relation to human exposure to electromagnetic fields.

In addition, 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 is applicable from 29 June 2013. The European Commission has given CENELEC, the task of preparing standards for the implementation of this Directive under Mandate M/351.

This document is a preview generated by EVS

1 Scope

The purpose of this Technical Report is to give advice on, and explanation of, the preparation of suitable EMF standards. It also aims to ensure that relevant deliverables from all CLC TCs will accurately reflect the current policy and legislative background on EMF exposure.

2 Types of EMF product-related standards

There are two types of EMF standards that are related to the assessment of EMF emissions from products: basic standards and product standards.

Basic EMF standards define measurement and calculation methods, test instrumentation and test set-ups to be used for the evaluation of compliance with limits on human exposure to electromagnetic fields. General types or ranges of assessment criteria appropriate to specific evaluation methods or procedures may be given, but a basic standard includes neither prescribed limits nor compliance criteria. Since basic standards define the applicable measurement and calculation methods, they constitute the broad foundation on which product standards are based on.

In general, product standards do not include applicable measurement or calculation methods, test instrumentation or test set-ups but refer for that purpose to the applicable basic standard or standards. Some product standards may determine that only certain parts of a basic standard apply while other parts of that basic standard do not. All EMF product standards shall include normative references to limits on human exposure to electromagnetic fields, and compliance assessment criteria applicable to products covered by Directives 2013/35/EU and 2014/53/EU.

Both basic standards and product standards can be either product-specific or generic (covering a number of different products). Moreover, they can address ‘placing-on-the-market’, ‘putting-into-service’ or ‘in-situ’ (i.e. dedicated to serve a special purpose or situation).

Table 1 gives an overview of the characteristics of the different types of product-related standards. They are described more fully in Annex I.

Table 1 — Basic *vs* product standards

Type	Contents	Aims
Basic	Measurement and calculation methods Instrumentation Test set-up Types and ranges of assessment criteria No limits or compliance criteria	Reference documents Called up by product standards or freestanding No conformance criteria, e.g. limits for products (Not capable of being referenced in the OJEU list)
Product	Scope describing to which products they apply Normative limits Compliance criteria Refer to basic standards for assessment methods (no repetition)	Conformance criteria for products Intended to be referenced in the OJEU list for the relevant Directive

Table 2 — Product specific *vs* generic standards

Type	Aim	Nature
Product-specific	Specific to a particular product, family of products or range of products	May be a basic or product standard
Generic	Can apply to a range of different products e.g. low power products or products not covered by any other product standard	May be a basic or product standard

This document is a preview generated by EVS