



SLOVENSKI STANDARD SIST-V CLC Guide 34:2024

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Nadomešča:

SIST-V CLC Guide 24:2010

SIST-V CLC Guide 25:2010

**Vodilo za pripravo in uporabo harmoniziranih in neharmoniziranih standardov
EMC**

Guide to the drafting and use of harmonized and non-harmonized EMC standards

Leitfaden für den Entwurf und die Verwendung von harmonisierten und nicht
harmonisierten EMV-Normen

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ICS:

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33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general

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**Guide to the drafting and use
of harmonized and non-
harmonized EMC standards**

Edition 1, 2024-02



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CLC Guide 34:2024

Foreword

This CENELEC Guide 34:2024 has been prepared by CENELEC Technical Committee CLC/TC 210, Electromagnetic Compatibility (EMC).

This first edition of CENELEC Guide 34 was approved by the CENELEC Technical Board on 2023-12-13. It supersedes CENELEC Guide 24:2009 (3rd edition) 'Electromagnetic Compatibility (EMC) Standardization for Product Committees concerned with apparatus' and CENELEC Guide 25:2009 (3rd edition) 'Guide on the use of standards for the implementation of the EMC Directive to apparatus'.

The main changes in relation to CENELEC Guide 24 and Guide 25 include the following:

- 1) Change of the Title;
- 2) In the Introduction, addition of information that the text of this Guide is based on the merging of Guide 24 and Guide 25, deletion of redundant information;
- 3) Re-structuring of the document by introduction of Clause 1 "Scope", Clause 2 "References", Clause 3 "Terms and definitions, Clause 4 "Types of EMC publications or standards, respectively", etc.;
- 4) Update of information, e.g. concerning the European EMC Directive and further inclusion of the Radio Equipment Directive;
- 5) Deletion of Clause 9;
- 6) Shift of definitions from Guide 24, Annex B and Guide 25, Annex B to new Clause 3 and addition of further definitions;
- 7) Removal of Annex B stemming from Guide 24 and of Annex B stemming from Guide 25;
- 8) Removal of Annex C stemming from Guide 24 as it seems that there was no application of this annex;
- 9) Addition of a new Annex D concerning radio enabled products / combined equipment;
- 10) Addition of a new Annex E containing guidance for the preparation of Annexes ZZ for harmonized European Standards;
- 11) Editorial improvements.

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, Türkiye and the United Kingdom.

Introduction

In Europe, Directive 2014/30/EU (EMC Directive (EMCD)) published 2014-03-29 is valid at the time of publication of this CENELEC Guide. This Directive contains essential requirements for the EMC of equipment, which it defines as apparatus and fixed installations.

NOTE 1 The essential requirements are set out in Annex I, 1(a) (emission) and 1(b) (immunity) of Directive 2014/30/EU.

In Europe, Directive 2014/53/EU (Radio Equipment Directive (RED)) published 2014-05-22 is also valid at the time of publication of this CENELEC Guide. This Directive contains essential requirements for radio equipment including EMC requirements.

NOTE 2 The essential requirements in the field of EMC are set out in Article 3.1(b) of Directive 2014/53/EU.

NOTE 3 Further essential, non-EMC requirements for radio equipment are contained in Article 3.1(a) (safety), Article 3.2 (efficient use of radio spectrum), Article 3.3 (miscellaneous) and Article 3.4 (Charging capabilities) of Directive 2014/53/EU.

The essential requirements of these Directives related to electromagnetic compatibility (EMC) can be divided into electromagnetic emission and immunity requirements.

EMC Directive 2014/30/EU, Article 13, states that equipment which is in conformity with harmonized standards or parts thereof whose references have been published in the Official Journal of the European Union (OJEU) shall be presumed to be in conformity with the essential requirements covered by these standards or parts thereof. The presumption of conformity is limited to the scope of the harmonized standard(s) applied and the relevant essential requirements covered by the harmonized standard(s). These harmonized standards can be regarded as tools that can be used for the declaration of conformity of a product with – here in the field of EMC – essential requirements of the EMC Directive or the Radio Equipment Directive (depending on which Directive the product falls under).

The European Commission has commissioned CEN, CENELEC and ETSI to draft harmonized standards for electromagnetic compatibility in support of the EMC Directive and its essential requirements.

The European Commission has also commissioned CEN, CENELEC and ETSI with the task of preparing the necessary harmonized standards for the implementation of the essential requirements of the Radio Equipment Directive in the field of EMC.

This first edition of CENELEC Guide 34 updates the guidance information of CENELEC Guides 24 and 25 with particular focus on the application of Directives 2014/30/EU (EMCD) and 2014/53/EU (RED) and merges the contents of both Guides.

It is recommended that this CENELEC Guide is read in conjunction with IEC Guide 107.

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1 Scope

This CENELEC Guide establishes useful guidelines for the preparation and use of standards in the field of electromagnetic compatibility (EMC) in general, and in particular for the implementation of the EMC Directive and the Radio Equipment Directive (RED). This Guide is intended to be used by Technical Committees.

The purpose of this guide is to give advice on:

- the preparation of dedicated Product and Product Family Standards;
- the application of EMC Standards.

Certification aspects are not covered by this Guide.

NOTE Certification is the action by a third party demonstrating that adequate confidence is provided that a duly identified product, process or service is in conformity with a standard or with other normative documents.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-161, in Directive 2014/30/EU and in EU Regulation 1025/2012 and the following apply. For facilitating the application of this Guide, the following definitions are repeated:

3.1

electromagnetic compatibility EMC

ability of an equipment or system to function satisfactorily in its electromagnetic environment without introducing intolerable electromagnetic disturbances to anything in that environment

[SOURCE: IEC 60050-161:1990, 161-01-07]

3.2

EMC Directive EMCD

Directive of the European Parliament and of the Council on the harmonization of the laws of the Member States relating to electromagnetic compatibility

3.3

Radio Equipment Directive RED

Directive of the European Parliament and of the Council on the harmonization of the laws of the Member States relating to the making available on the market of radio equipment

3.4

standard (in the sense of EU Regulation 1025/2012)

technical specification, adopted by a recognized standardization body, for repeated or continuous application, with which compliance is not compulsory, and which is one of the following:

- (a) International standard means a standard adopted by an international standardization body;
- (b) European standard means a standard adopted by a European standardization body;
- (c) harmonized standard means a European standard adopted on the basis of a request made by the Commission for the application of Union harmonization legislation;
- (d) national standard means a standard adopted by a national standardization body

[SOURCE: EU Regulation 1025/2012, Article 2 (1)]

3.5**harmonized standard**

European standard adopted on the basis of a request made by the Commission for the application of Union harmonization legislation

[SOURCE: Regulation (EU) 1025/2012, Article 2 (1c)]

Note 1 to entry: See also 3.4.

3.6**Official Journal of the European Union
OJEU**

Official Journal of the European Union

Note 1 to entry: Among other information of the European Union or the European Commission the references of the harmonized European standards are published in Category L publications of the OJEU.

3.7**date of applicability** (in the OJEU)

date published in the OJEU in conjunction with the reference of a harmonized standard when a presumption of conformity with applicable (the) essential requirement(s) for products covered by the harmonized standard starts or started

3.8**date of withdrawal** (in the OJEU)

<date of the end of the coexistence period> date when a presumption of conformity ends or ended as published in the OJEU in conjunction with a reference to a harmonized standard to which the withdrawal is deferred

Note 1 to entry: This definition should not be confused with the definition of the date of withdrawal according to CEN/CENELEC Internal Regulations Part 2:2020-07, 2.2.1.

3.9**industrial, scientific and medical (ISM) applications (of radio frequency energy)
ISM applications (of radio frequency energy)**

operation of equipment or appliances designed to generate and use locally radio frequency energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of telecommunications

Note 1 to entry: Typical applications are the production of physical, biological, or chemical effects such as heating, ionization of gases, mechanical vibrations, hair removal, acceleration of charged particles. A non-exhaustive list of examples is given in EN IEC 55011, Annex A.

[SOURCE: ITU Radio Regulations Volume 1: 2012 – Chapter I, Definition 1.15]

[SOURCE: EN IEC 55011, Definition 3.13]

3.10**ISM RF equipment and appliances**

equipment or appliances designed to generate and/or use locally radio-frequency energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of telecommunications and information technology and other applications covered by other CISPR publications

Note 1 to entry: The abbreviation “ISM RF” is used for such equipment or appliances only.

[SOURCE: EN IEC 55011, Definition 3.14]

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4 Types of EMC publications

4.1 General

EMC standards are divided into the following categories:

- a) Basic EMC standards;
- b) Generic EMC standards;
- c) Product family EMC standards;
- d) Product EMC standards.

NOTE 1 The standards classifications given above are not in line with IEC Guide 108 which deals with horizontal standards and defines the terms Generic and Basic Standards, however they are in line with the existing IEC Guide 107 which applies to EMC standards. The standards classifications will be re-considered if a modification of the relevant definitions in IEC Guide 107 is made.

A short description of the principal content of these categories of EMC standards is given below. Detailed information can be found in IEC Guide 107.

NOTE 2 There are also other types of publications dealing with EMC issues, such as Technical Specifications (TS), Technical Reports (TR), Publicly Available Specifications (PAS).

Table 1 gives an overview of the categories of standards, their principal content and aims.

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Table 1 — Structure, content and purpose of EMC standards

Type	Content	Purpose
Basic ^a	<ul style="list-style-type: none"> - Measurement and test methods - Instrumentation - Test set-up - Recommended ranges of test levels (immunity) - No limits - No specific performance criteria 	<ul style="list-style-type: none"> - To be referenced in other documents, e.g. Generic, Product family and Product EMC Standards - Not sufficient for conformance testing on its own
Generic	<ul style="list-style-type: none"> - Precise and essential requirements (limits, test levels) for all products intended for use in the relevant environment, e.g. residential, commercial, light industry, industry - Referring to Basic EMC Standards for measurement/test methods (no repetition of content, however additional information may be given if necessary) - General performance criteria for the immunity testing of products - General operating conditions 	<ul style="list-style-type: none"> - Co-ordination for the requirements given in Product (Family) EMC Standards - Conformance testing of products for which no dedicated Product family or Product EMC Standard exists (if published in the OJEU)
Product family	<ul style="list-style-type: none"> - EMC requirements for a family of products - Performance criteria for immunity testing more detailed - Specific test set-up, etc. - Referring to Basic EMC Standards for measurements/tests (no repetition of content, however additional information may be given if necessary) - Specific product (family) operating conditions 	<ul style="list-style-type: none"> - Conformance testing of products - Offered for publication in the OJEU - Precedence over Generic EMC Standards but to be co-ordinated with them
Product	<ul style="list-style-type: none"> - Same as for Product family EMC standards but more specific 	<ul style="list-style-type: none"> - Same as for Product family EMC standards but more specific - Offered for publication in the OJEU - Product standards covering electromagnetic emission requirements are seldom justified. See also 4.4.2.
<p>In other types of publications reference should also be made to Basic EMC standards for tests and measurements.</p>		

4.2 Basic EMC standards

4.2.1 Basic EMC standards for measurement and/or test purposes

Basic EMC standards give the fundamental principles, concepts, terminology, technical characteristics and/or test procedures for the achievement of EMC. They should be used as reference documents by technical/product committees. In the context of this guide, Basic EMC standards have the same status as horizontal publications.

Basic EMC standards for immunity may include ranges of test levels for the specific electromagnetic phenomenon with respect to the characteristics of measuring equipment or measuring methods.