
**Železniške naprave - Elektromagnetna združljivost - 3-2. del: Vozna sredstva -
Naprave**

Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock - Apparatus

Bahnanwendungen - Elektromagnetische Verträglichkeit - Teil 3-2: Bahnfahrzeuge -
Geräte

Applications ferroviaires - Compatibilité électromagnétique - Partie 3-2: Matériel roulant -
Appareils

Ta slovenski standard je istoveten z: prEN 50121-3-2:2025

<https://standards.iteh.ai/catalog/standards/sist/b9d31115-1596-4807-8548-86df0d8ef3f6/osist-pren-50121-3-2-2025>

ICS:

33.100.01	Elektromagnetna združljivost na splošno	Electromagnetic compatibility in general
45.060.01	Železniška vozila na splošno	Railway rolling stock in general

oSIST prEN 50121-3-2:2025**en**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 50121-3-2

August 2025

ICS 29.280; 33.100.01; 45.020

Will supersede EN 50121-3-2:2016; EN 50121-3-2:2016/A1:2019

English Version

**Railway applications - Electromagnetic compatibility - Part 3-2:
Rolling stock - Apparatus**

Applications ferroviaires - Compatibilité électromagnétique -
Partie 3-2: Matériel roulant - Appareils

Bahnanwendungen - Elektromagnetische Verträglichkeit -
Teil 3-2: Bahnfahrzeuge - Geräte

This draft European Standard is submitted to CENELEC members for enquiry.
Deadline for CENELEC: 2025-10-24.

It has been drawn up by CLC/TC 9X.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CENELEC 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.

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.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

Contents

Page

European foreword.....	3
1 Scope.....	5
2 Normative references.....	5
3 Terms definitions and abbreviations.....	6
3.1 Terms and definitions.....	6
3.2 Abbreviations.....	8
4 Overall aspects.....	8
4.1 Conditions during testing.....	8
4.2 Applicability.....	9
5 Emission.....	9
6 Immunity.....	15
6.1 Performance Criteria.....	15
6.2 Immunity requirements.....	15
Annex A (informative) Examples of apparatus and ports.....	20
Annex B (informative) Disturbances generated by power converters.....	29
Annex C (informative) Reasons for changes in immunity requirements and additional information about railway specific influences.....	30
C.1 Justification for changed surge requirements for battery supply input referenced ports and auxiliary AC / DC supply input ports.....	30
C.2 Justification for changed fast transients requirements.....	30
C.3 Justification for added surge requirements for DC or AC input ports and DC or AC output ports of specific supply systems.....	30
C.4 Justification for changed radio-frequency electromagnetic field tests.....	31
C.5 Justification for added Power frequency magnetic field test.....	31
Bibliography.....	33

28 European foreword

29 This document (prEN 50121-3-2:2025) has been prepared by CLC/TC 9X "Electrical and electronic
30 applications for railways".

31 This document is currently submitted to the Enquiry.

32 The following dates are proposed:

- latest date by which the existence of this document has to be announced at national level (doa) dav + 6 months
- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) dav + 12 months
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) dav + 36 months (to be confirmed or modified when voting)

33 This document has been prepared according to Decision 69/09 taken during the TC 9X meeting.

34 This document will supersede EN 50121-3-2:2016.

35 prEN 50121-3-2:2025 includes the following significant technical changes with respect to
36 EN 50121-3-2:2016:

- 37 — clarification added in scope, last paragraph;
- 38 — update of normative references;
- 39 — update of terms and definitions and abbreviations;
- 40 — new structure with Clause 4: Overall aspects, Clause 5: Emission and Clause 6: Immunity;
- 41 — conditions during testing summarized in new Clause 4.1;
- 42 — applicability summarized in new Clause 4.2;
- 43 — clarification of Clause 5, Emission;
- 44 — update of Tables 1 and 2, introduction of new Table 3 in Clause 5, Emission;
- 45 — update of Tables 4 to 6 in Clause 6, Immunity;
- 46 — update of informative Annex A, clarification in last sentence of first paragraph, new Figures A.6 and
47 A.7 included, new ports 23 and 24 added in Table A.2 and following figures;
- 48 — new informative Annex C with reasons for new immunity requirements and additional information
49 about railway specific influences included;
- 50 — deletion of Annex ZZ.

51 This European Standard is read in conjunction with prEN 50121-1:2025.