BS EN 50122-1:2011+A4:2017
Incorporating corrigenda November 2012 and May 2013

BSI Standards Publication

Railway applications — Fixed installations — Electrical safety, earthing and the return circuit

Part 1: Protective provisions against electric shock

bsi.

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National foreword

This British Standard is the UK implementation of EN 50122-1:2011+A4:2017, incorporating corrigendum November 2012. It supersedes BS EN 50122-1:2011+A3:2016 which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CENELEC text carry the number of the CENELEC amendment. For example, text altered by CENELEC amendment A1 is indicated by [A1] ⟨A1⟩.

The start and finish of text introduced or altered by corrigendum is indicated in the text by tags. Text altered by CENELEC corrigendum November 2012 is indicated in the text by [AC1] ⟨AC1⟩.

In 7.4.1 NOTE 1, reference is made to the TN and TT systems of earth connection for low-voltage distribution systems. Table 2 shows only TT and TN systems, although other systems are allowed by the NOTE 2. For application in the UK, it should be noted that IT systems are not prohibited by this standard.

Attention is drawn to the fact that work is currently in hand to replace the United Kingdom special national condition set out in Annex G (5.2.1). Until this national condition is revised, an appropriate risk assessment is considered essential if public area clearances of less than the minimum set out in Figure 4 (clause 5.2.1) are to be used.

The UK participation in its preparation was entrusted by Technical Committee GEL/9, Railway Electrotechnical Applications to Subcommittee GEL/9/3, Railway Electrotechnical Applications – Fixed Equipment.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Amendments/corrigenda issued since publication

Date	Text affected
31 July 2011	Implementation of CENELEC amendment A1:2011
31 November 2012	Implementation of CENELEC corrigendum November 2012
31 May 2013	Additional information included in the national foreword
31 January 2016	Implementation of CENELEC amendment A2:2016
30 November 2016	Implementation of CENELEC amendment A3:2016: Annex ZZ updated
28 February 2017	Implementation of CENELEC amendment A4:2017

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50122-1:2011+A4

February 2017

Incorporating corrigendum November 2012

ICS 29.280

English version

Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 1: Protective provisions against electric shock

Applications ferroviaires - Installations fixes - Sécurité électrique, mise à la terre et circuit de retour - Partie 1: Mesures de protection contre les chocs électriques

Bahnanwendungen - Ortsfeste Anlagen - Elektrische Sicherheit, Erdung und Rückleitung - Teil 1: Schutzmaßnahmen gegen elektrischen Schlag

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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 Central Secretariat has the same status as the official versions.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

This European Standard was prepared by SC 9XC, Electric supply and earthing systems for public transport equipment and ancillary apparatus (Fixed installations), of Technical Committee CENELEC TC 9X, Electrical and electronic applications for railways. It was submitted to the formal vote and was approved by CENELEC as EN 50122-1 on 2010-11-16.

This document supersedes EN 50122-1:1997.

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- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2011-11-16
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2013-11-16

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directives 96/48/EC (HSR), 2001/16/EC (CONRAIL) and 2008/57/EC (RAIL). See Annex ZZ.

Foreword to amendment A1

This amendment to the European Standard EN 50122-1:2011 was prepared by SC 9XC, Electric supply and earthing systems for public transport equipment and ancillary apparatus (Fixed installations), of Technical Committee CENELEC TC 9X, Electrical and electronic applications for railways.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as Amendment A1 to EN 50122-1:2011 on 2011-04-25.

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- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2014-04-25

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Foreword to amendment A2

This document (EN 50122-1:2011/A2:2016) has been prepared by CLC/SC 9XC "Electric supply and earthing systems for public transport equipment and ancillary apparatus (Fixed installations)", of CLC/TC 9X, "Electrical and electronic applications for railways".

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)	2016-11-23
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2018-11-23

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For the relationship with EU Directive(s) see informative Annex ZZ, included in EN 50122-1:2011.

Foreword to amendment A3

This document (EN 50122-1:2011/A3:2016) has been prepared by CLC/SC 9XC "Electric supply and earthing systems for public transport equipment and ancillary apparatus (Fixed installations)".

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)	2016-12-03
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2016-12-03

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For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

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Foreword to amendment A4

This document (EN 50122-1:2011/A4:2017) has been prepared by CLC/SC 9XC "Electric supply and earthing systems for public transport equipment and ancillary apparatus (Fixed installations)".

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)	2017-12-14
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2019-12-14

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For the relationship with EU Directive(s) see informative Annex ZZ of EN 50122-1:2011.

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Annex ZZ
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2008/57/EC

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant essential requirements as given in Annex III of the EC Directive 2008/57/EC (also named as New Approach Directive 2008/57/EC Rail Systems: Interoperability).

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this standard given in Table ZZ.1 for "Energy" confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZZ.1 - Correspondence between this European Standard, the TSI "Energy" (REGULATION (EU) No 1301/2014 of 18 November 2014) and Directive 2008/57/EC

Clauses of this European Standard	Chapter / § / points / of ENE TSI	Essential Requirements (ER) of Directive 2008/57/EC	Comments
The whole standard is applicable.		1. General Requirements 1.1 Safety 1.5 Technical compatibility	
Clauses directly referenced in the TSI: 5.2.4 5.2.5	4.2.7. Electrical protection coordination arrangements 4.2.9. Geometry of the overhead contact line 4.2.9.1. Contact wire height	2. Requirements specific to each sub-subsystem 2.2 Energy 2.2.1 Safety 2.2.3. Technical compatibility	References to the standard EN 50122-1 should be updated in the TSI
5.2.1 5.3.1 5.3.2 6.1.6.2 9.2.2.1 9.2.2.2 9.3.2.1 9.3.2.2	4.2.18. Protective provisions against electric shock		

WARNING: Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

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