SLOVENSKI STANDARD
SIST EN 50122-1:2011/A1:2011

01-september-2011

Železniške naprave - Stabilne naprave električne vleke - Električna varnost, ozemljitev in povratni tokokrog - 1. del: Zaščitni ukrepi proti električnemu udaru - Dopolnilo A1

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

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

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

Ta slovenski standard je istoveten z: **EN 50122-1:2011/A1:2011**

ICS:

13.260	Varstvo pred električnim udarom. Delo pod napetostjo	Protection against electric shock. Live working
29.280	Električna vlečna oprema	Electric traction equipment

SIST EN 50122-1:2011/A1:2011 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50122-1/A1

June 2011

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

This amendment A1 modifies the European Standard EN 50122-1:2011; it was approved by CENELEC on 2011-04-25. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 Central Secretariat or to any CENELEC member.

This amendment 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.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

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Foreword

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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

The following dates were fixed:

– latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2012-04-25
– latest date by which the national standards conflicting with the amendment have to be withdrawn	(dow)	2014-04-25

Text of A1 to EN 50122-1:2011

Clause 2, Normative references

Add "EN 50345, *Railway applications – Fixed installations – Electric traction – Insulating synthetic rope assemblies for support of overhead contact lines*"

Clause 5, Protective provisions against direct contact

In 5.1, **replace** the last sentence by:

Exceptions are the parts of synthetic ropes which are further away from live parts than the creepage length (according to EN 50345) with a minimum of 1 m.

Clause 6, Protective provisions against indirect contact and impermissible rail potential

Replace the text of 6.2.1 by:

Except as noted below, exposed conductive parts of traction and non traction power supply which are located within the contact line or the current collector zone shall be directly connected to the return circuit.

NOTE 1 Connection to the running rails or to the return conductor is the preferred method to achieve this.

If it is determined that exposed conductive parts cannot be directly connected to the return circuit, then appropriate alternative measures shall be adopted in order to prevent dangerous touch voltages.

NOTE 2 One possible solution is the use of a voltage-limiting device (minimum functionality VLD-F) to provide a path for the current in the event of these exposed conductive parts becoming live.

In 6.3.1.1, **add** one new line at the end of NOTE 1:

– running rails which are not connected to the return circuit e. g. used for track circuits.

In 6.3.1.2, **replace** the last paragraph by:

In case of an assembly of several small conductive parts the basic requirements in 6.3.1.1 are valid. In particular, the assembly shall not be able to transfer dangerous potential from the fault location over a distance exceeding the maximum dimensions given in Table 1.

Add the new subclause 6.3.1.5:

6.3.1.5 Protective provisions by means of bare conductive parts connected to the return circuit

The structure or equipment to be protected does not need to be connected to the return circuit if a bare conductive part with appropriate design regarding position and current carrying capacity, connected to the return circuit, is present between the structure to be protected and an overhead contact line or a current collector. By this strategy a remaining dangerous touch voltage of the structure is unlikely because of fault tripping. The bare conductive part shall be installed (or arranged) inside of the overhead contact line zone and/or current collector zone.

NOTE The running rails fulfil this protective function for structures or equipment within 0,8 m on both sides of the running rails and below. For d.c. railways this is applicable for open formation only.