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Railway applications –

Fixed installations –

Part 1: Protective provisions relating to electrical safety and earthing

Som svensk standard gäller europastandarden EN 50122-1:1997. Den svenska standarden innehåller den officiella engelska språkversionen av EN 50122-1:1997.

ICS 29.120.50; 45.020

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English version

Railway applications - Fixed installations
Part 1: Protective provisions relating to electrical safety and earthing

Applications ferroviaires
Installations fixes
Partie 1: Mesures de protection
relatives à la sécurité électrique
et à la mise à la terre

Bahnanwendungen - Ortsfeste Anlagen
Teil 1: Schutzmaßnahmen in Bezug auf
elektrische Sicherheit und Erdung

This European Standard was approved by CENELEC on 1996-10-01. 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.

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 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

This European Standard was prepared by SC 9XC, Electrical supply and earthing systems the 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 EN 50122-1 on 1996-10-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 1997-12-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1997-12-01

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annexes B, E and G are normative and annexes A, C, D, F and H are informative.

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1 Scope

This standard specifies requirements for the protective provisions relating to electrical safety in fixed installations associated with a.c.- and d.c.-traction systems and to any installations that may be endangered by the traction power supply system.

It also applies to all fixed installations that are necessary to ensure electrical safety during maintenance work within electric traction systems.

Note: Other provisions may be required to protect work sites for maintenance purposes which are not included in this standard.

This standard applies to all new lines and to all major revisions to existing lines for the following electric traction systems:

- railways;
- guided mass transport systems such as:
Tramways, elevated and underground railways, mountain railways, trolleybus systems and magnetic levitated systems;
- material transportation systems.

This standard does not apply to:

- mine traction systems in underground mines;
- cranes, transportable platforms and similar transportation equipment on rails, temporary structures (e.g. exhibition structures) in so far as these are not supplied directly or via transformers from the contact line system and are not endangered by the traction power supply system;
- suspended cable cars;
- funicular railways;
- maintenance work.

2 Normative references

This European Standard incorporates by dated and undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 50122-2*)	Railway applications - Fixed installations -- Part 2: Protective provisions against the effects of stray currents caused by d.c. traction systems
EN 50124-1*)	Railway applications - Insulation co- ordination -- Part 1: Basic requirements - Clearances and creepage distances
EN 50153	Railway applications - Rolling stock - Protective provisions relating to electrical hazards
EN 50163	Railway applications - Supply voltages of traction systems
EN 50179*)	Power installations exceeding 1 kV a.c.
EN 60529	Degrees of protection provided by enclosures (IP Code) (IEC 529)
HD 384.4.41	Electrical installations of buildings -- Part 4: Protection for safety Chapter 41: Protection against electric shock (IEC 364-4-41, modified)
HD 384.4.47	Electrical installations of buildings -- Part 4: Protection for safety Chapter 47: Application of protective measures for safety Section 471: Measures of protection against electric shock (IEC 364-4-47, modified)
HD 366	Classification of electrical and electronic equipment with regard to protection against electric shock
IEC 479-1	Effects of current passing through the human body Part 1: General aspects
ISO 3864	Safety colours and safety signs

*) In preparation