

**Raudteealased rakendused.
Keskkonnatingimused seadmete jaoks. Osa
2: Paiksed elektripaigaldised**

Railway applications - Environmental conditions for
equipment - Part 2: Fixed electrical installations

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 50125-2:2003 sisaldab Euroopa standardi EN 50125-2:2002 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 12.03.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 50125-2:2003 consists of the English text of the European standard EN 50125-2:2002.</p> <p>This document is endorsed on 12.03.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This standard defines influences from the surroundings on fixed electrical installations in open air, in covered areas, tunnels and within cubicles placed in above areas. Such influences include altitude, temperature & humidity, air movement, rain, snow, hail, ice, sand, solar radiation, lightning, pollution and vibrations. In this respect it gives general guidance in order to allow the fairness of bid assessments and the process of railway projects. The environmental conditions are considered for normal operation. More severe conditions may be specified for the equipment to withstand, when not operating, without suffering damage. Microclimates surrounding components may need special requirements which are covered by product standards. In case of environmental conditions not covered by the standard the data to be adopted for a specific project shall be clearly stipulated when preparing a specification. This standard is not intended to apply to cranes, installations in underground mines, suspended cable cars and funicular railways. Biological influences, EMC, electromagnetic interference and nuclear radiation are excluded. Signalling and telecommunications systems are not considered in this standard. Equipment in tunnels will include the running tunnel and the platform together with fixed equipment essential to operate the railway. Not included will be escalators, lifts, fire protection, lighting in tunnels and on</p>	<p>Scope:</p> <p>This standard defines influences from the surroundings on fixed electrical installations in open air, in covered areas, tunnels and within cubicles placed in above areas. Such influences include altitude, temperature & humidity, air movement, rain, snow, hail, ice, sand, solar radiation, lightning, pollution and vibrations. In this respect it gives general guidance in order to allow the fairness of bid assessments and the process of railway projects. The environmental conditions are considered for normal operation. More severe conditions may be specified for the equipment to withstand, when not operating, without suffering damage. Microclimates surrounding components may need special requirements which are covered by product standards. In case of environmental conditions not covered by the standard the data to be adopted for a specific project shall be clearly stipulated when preparing a specification. This standard is not intended to apply to cranes, installations in underground mines, suspended cable cars and funicular railways. Biological influences, EMC, electromagnetic interference and nuclear radiation are excluded. Signalling and telecommunications systems are not considered in this standard. Equipment in tunnels will include the running tunnel and the platform together with fixed equipment essential to operate the railway. Not included will be escalators, lifts, fire protection, lighting in tunnels and on</p>
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platforms, ticket machines, toilets and ventilation systems.	platforms, ticket machines, toilets and ventilation systems.
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ICS 29.280

Võtmesõnad:

English version

**Railway applications -
Environmental conditions for equipment
Part 2: Fixed electrical installations**

Applications ferroviaires -
Conditions d'environnement
pour le matériel
Partie 2: Installations électriques fixes

Bahnanwendungen -
Umweltbedingungen für Betriebsmittel
Teil 2: Ortsfeste elektrische Anlagen

This European Standard was approved by CENELEC on 2002-07-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, 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, 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 formal vote and was approved by CENELEC as EN 50125-2 on 2002-07-01.

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) 2003-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2005-07-01

Annexes designated "informative" are given for information only.
In this standard, Annex A is informative.

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1 Scope

This European Standard takes into account environmental conditions within Europe.

This European Standard deals with the environmental influences on fixed electrical installations for traction power supply and equipment essential to operate a railway

- in open air;
- in covered areas;
- in tunnels;
- within enclosures placed in above areas.

Escalators, lifts, fire protection, lighting in tunnels and on platforms, ticket machines, ventilation systems and non-essential functions are not included.

Such influences include altitude, temperature and humidity, air movement, rain, snow, hail, ice, sand, solar radiation, lightning, pollution, vibration, shocks and EMC.

This standard does not specify the test requirements for equipment.

In case of environmental conditions not covered by the standard the data to be adopted for a specific project should be clearly stipulated when preparing a specification.

This standard is not intended to apply to cranes, installations in underground mines, suspended cable cars and funicular railways.

Nuclear radiation is excluded.

Signalling and telecommunications systems are not considered in this standard.

Fixed installed signalling and telecommunication equipment shall comply with EN 50125-3.

2 Normative references

This European Standard incorporates by dated or undated references, provisions from other publications. These normative references are cited at the appropriate place 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 last edition of the publication referred to applies (including amendments).

EN 50121-5	Railway applications – Electromagnetic compatibility Part 5: Emission and immunity of fixed power supply installations and apparatus
EN 50124-1	Railway applications - Insulation coordination Part 1: Basic requirements - Clearances and creepage distances for all electrical and electronic equipment
EN 50124-2	Railway applications - Insulation coordination Part 2: Overvoltages and related protection

EN 50125-3	Railway applications – Environmental conditions for equipment Part 3: Equipment for signalling and telecommunications
EN 60529	Degrees of protection provided by enclosures (IP code) (IEC 60529)
EN 60721-3-3	Classification of environmental conditions Part 3: Classification of groups of environmental parameters and their severities – Section 3: Stationary use at weatherprotected locations (IEC 60721-3-3)
EN 60721-3-4	Classification of environmental conditions Part 3: Classification of groups of environmental parameters and their severities – Section 4: Stationary use at non-weatherprotected locations (IEC 60721-3-4)
ENV 1991-2-4	Eurocode 1: Basis of design and actions on structures – Part 2-4: Actions on structures – Wind actions
HD 478.2.1	Classification of environmental conditions Part 2: Environmental conditions appearing in nature - Temperature and humidity (IEC 60721-2-1)
HD 478.2.2	Classification of environmental conditions Part 2: Environmental conditions appearing in nature - Precipitation and wind (IEC 60721-2-2)
HD 478.2.3	Classification of environmental conditions Part 2: Environmental conditions appearing in nature - Air pressure (IEC 60721-2-3)

3 Definitions

For the purpose of this standard the following definitions apply.

3.1

covered area

protected from precipitation, but open to the effects of humidity and wind

NOTE 1 Some constructions may be affected by solar radiation.

NOTE 2 Tunnels are excluded from this definition.

3.2

cubicle

closed space where the direct open air influences are excluded

3.3

environment

the surrounding objects, region or circumstances which may influence the behaviour of the system and/or may be influenced by the system