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Järnvägsanläggningar – Miljöförhållanden – Del 1: Utrustning i fordon

*Railway applications –
Environmental conditions for equipment –
Part 1: Rolling stock and on-board equipment*

Som svensk standard gäller europastandarden EN 50125-1:2014. Den svenska standarden innehåller den officiella engelska språkversionen av EN 50125-1:2014.

Nationellt förord

Tidigare fastställd svensk standard SS-EN 50125-1, utgåva 1, 1999, gäller ej fr o m 2017-02-24.

Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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English version

**Railway applications -
Environmental conditions for equipment -
Part 1: Rolling stock and on-board equipment**

Applications ferroviaires -
Conditions d'environnement pour le
matériel -
Partie 1: Equipement embarqué du
matériel roulant

Bahnanwendungen – Umweltbedingungen
für Betriebsmittel – Teil 1: Betriebsmittel
auf Bahnfahrzeugen

This European Standard was approved by CENELEC on 2014-02-24. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre 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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Contents

	Page
Foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Environmental conditions	5
4.1 General	5
4.2 Altitude	5
4.3 Temperature	6
4.4 Humidity	7
4.5 Air movement	10
4.5.1 Wind	10
4.5.2 Surrounding air	10
4.6 Rain	10
4.7 Snow and hail	10
4.8 Ice	11
4.9 Solar radiation	11
4.10 Lightning	11
4.11 Pollution	11
4.12 Large animals on the track	12
Annex ZZ	13
Bibliography	14

Foreword

This document (EN 50125-1:2014) has been prepared by CLC/SC 9XB "Electromechanical material on board rolling stock" 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) 2015-02-24
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2017-02-24

This document supersedes EN 50125-1:1999.

EN 50125-1:2014 is a revision of EN 50125-1:1999 with an extended scope to cover mechanical requirements, as requested by the European Railway Agency (ERA).

EN 50125 is divided into the following parts:

- EN 50125-1, *Railway applications — Environmental conditions for equipment — Part 1: Rolling stock and on-board equipment* (the present document).
- EN 50125-2 *Railway applications — Environmental conditions for equipment — Part 2: Fixed electrical installations.*
- EN 50125-3 *Railway applications — Environmental conditions for equipment — Part 3: Equipment for signalling and telecommunications.*

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This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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

1 Scope

This European Standard intends to define environmental conditions within Europe.

NOTE 1 It can also be applied elsewhere by agreement.

The scope of this European Standard covers the definitions and ranges of the following parameters:

Altitude, temperature, humidity, air movement, rain, snow and hail, ice, solar radiation, lightning, pollution for rolling stock and on-board equipment (mechanical, electromechanical, electrical, electronic).

In particular, this European Standard defines interface conditions between the vehicle and its environment. The defined environmental conditions are considered as normal in service.

NOTE 2 Further guidance on severe conditions can be found within prCEN/TR 16251.

Rolling stock or parts of it can also be used outside the specification with reduced performance.

NOTE 3 In these cases, relevant operating rules could be necessary to ensure the technical compatibility between the rolling stock and environmental conditions.

Microclimates surrounding components may be defined by relevant product standards or by special requirements. Passenger effects on the equipment and equipment effects on the passengers are not considered in this European Standard.

This European Standard does not apply to cranes, mining vehicles, cable cars. This European Standard also does not apply to natural disaster (e.g. earthquake).

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 14067-6, *Railway applications — Aerodynamics — Part 6: Requirements and test procedures for cross wind assessment*

EN 50124-2, *Railway applications — Insulation coordination — Part 2: Overvoltages and related protection*

EN 60529, *Degrees of protection provided by enclosures (IP Code) (IEC 60529)*

EN 60721-3-5, *Classification of environmental conditions — Part 3: Classification of groups of environmental parameters and their severities — Section 5: Ground vehicle installations (IEC 60721-3-5)*

HD 478.2.3 S1, *Classification of environmental conditions — Part 2: Environmental conditions appearing in nature — Air pressure (IEC 60721-2-3)*