

Railway applications — Environmental conditions for equipment —

Part 1: Equipment on board rolling stock

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National foreword

This British Standard is the UK implementation of EN 50125-1:1999, incorporating corrigendum May 2010.

The UK participation in its preparation was entrusted by Technical Committee GEL/9, Railway electrotechnical applications, to Subcommittee GEL/9/2, Rolling Stock.

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.

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

This British Standard, having been prepared under the direction of the Electrotechnical Sector Committee, was published under the authority of the Standards Committee and comes into effect on 15 December 1999

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31 August 2010	Implementation of CENELEC corrigendum May 2010; Addition of Annex ZZ

English version

Railway applications - Environmental conditions for equipment Part 1: Equipment on board rolling stock

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

Bahnanwendungen -
Umweltbedingungen für Betriebsmittel
Teil 1: Betriebsmittel auf Bahnfahrzeugen

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CENELEC

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Foreword

This European Standard was prepared by SC 9XB, Electromechanical material on board rolling stock, of Technical Committee CENELEC TC9X, Electrical and electronic applications for railways.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50125-1 on 1999-08-01.

The following dates were fixed:

- | | | |
|---|-------|------------|
| — latest date by which the European Standard has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2000-05-01 |
| — latest date by which the national standards conflicting with the European Standard have to be withdrawn | (dow) | 2002-05-01 |

Annexes designated "informative" are given for information only.

In this standard, annexes A and B are informative.

Contents

Page

Foreword	2
1 Scope	4
2 Normative references	4
3 Definitions	5
4 Environmental conditions	5
4.1 General	5
4.2 Altitude	6
4.3 Temperature	6
4.4 Humidity	7
4.5 Air movement.....	10
4.6 Rain	10
4.7 Snow and hail	10
4.8 Ice	10
4.9 Solar radiation.....	10
4.10 Lightning	10
4.11 Pollution	11
4.12 Vibrations and shocks	11
4.13 Electromagnetic environment.....	12
4.14 Acoustic noise environment.....	12
4.15 Supply system characteristics	12
Annex A (informative) Bibliography	14
Annex B (informative) Distortion of a.c. supply voltage	15
Annex ZZ (informative) Coverage of Essential Requirements of EC Directives	16

1 Scope

This standard intends to define environmental conditions within Europe.

NOTE can also be applied elsewhere by agreement.

The scope of this standard covers the use of on board electrical, electromechanical and electronic equipment for rolling stock, for the following parameters: Altitude, Temperature, Humidity, Air movement, Rain, Snow and hail, Ice, Solar radiation, Lightning, Pollution, Vibrations and shocks, Electromagnetic interference environment, Acoustic noise environment, Supply system characteristics.

In particular the standard defines:

- interface conditions between the vehicle and its environment;
- general environmental rules for the equipment of rolling stock, especially for the main sub-systems (level 3 - defined by R009-003 of a vehicle (cubicles, cabling, large components, etc.).

In this respect it gives general guidance in order to allow the fairness of bid assessments in the process of European Projects.

The defined environmental conditions are considered as normal in service; occasionally more severe conditions may be specified.

Microclimates surrounding components may be defined by relevant product standards or by special requirements.

This standard is not intended to apply to cranes, mining vehicles, cable cars.

Passenger effects on the equipment and equipment effect on the passengers are not considered in this standard.

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 latest edition of the publication referred to applies.

ENV 50121	series	<i>Railway applications — Electromagnetic compatibility</i>
EN 50124-2	1999	<i>Railway applications - Insulation coordination — Part 2: Overvoltages and related protection</i>
EN 50163	1995	<i>Railway applications — Supply voltages of traction systems</i>
EN 60529	1991	<i>Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)</i>
EN 60721-1	1995	<i>Classification of environmental conditions — Part 1: Environmental parameters and their severities (IEC 60721-1:1990 + A1:1992)</i>
EN 60721-3-0	1993	<i>Part 3: Classification of groups of environmental parameters and their severities - Introduction (IEC 60721-3-0:1984 + A1:1987)</i>
EN 60721-3-5	1997	<i>Section 5: Ground vehicle installations (IEC 60721-3-5:1997)</i>
EN 61373	1999	<i>Railway applications — Rolling stock equipment — Shock and vibration tests (IEC 61373:1999)</i>
HD 478.2.1 S1	1989	<i>Classification of environmental conditions — Part 2: Environmental conditions appearing in nature — Section 1: Temperature and humidity (IEC 60721-2-1:1982 + A1:1987)</i>