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RAILWAY APPLICATIONS - ROLLING STOCK - D.C. SUPPLIED ELECTRONIC BALLASTS FOR LIGHTING FLUORESCENT LAMPS

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English version

Railway applications – Rolling stock – D.C. supplied electronic ballasts for lighting fluorescent lamps

Applications ferroviaires – Matériel roulant – Ballasts électroniques à courant continu pour lampes fluorescentes d'éclairage

Bahnanwendungen – Schienenfahrzeuge – Gleichstromversorgte elektronische Vorschaltgeräte für Leuchtstofflampen

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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.

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CENELEC

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

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Foreword

This European Standard was prepared by SC 9XB, Electromechanical material on board of rolling stock, of the 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 50311 on 2002-12-03.

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) 2003-12-01

- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2005-12-01

Annexes designated “informative” are given for information only.
In this standard, Annexes A to H are informative.

Contents

Page

Introduction

Environmental conditions and general requirements for electronics for rolling stock are given by the following standards EN 50125-1 and EN 50155.

This standard has been developed specifically for railway applications, to supplement the current standards. It covers general, safety and performance requirements in addition to or in place of those contained in EN 60925 and EN 60924.

NOTE 1 When applied unchanged the clauses of EN 60924 are either referred in this standard or introduced into if they are short texts.

NOTE 2 When a clause of EN 60924 applies with changes or is replaced by more specific requirements generally a short note explains the difference or the reason for that.

NOTE 3 Annex H gives clause by clause correspondence between EN 60924 and this standard.

NOTE 4 EN 60924 will be replaced by EN 61347-1, EN 61347-2-4, EN 61347-2-5, EN 61347-2-6 and EN 61347-2-7.

1 Scope

This standard specifies the performance and constructional requirements, and associated tests, for d.c. supplied electronic ballasts used to supply fluorescent lamps for lighting on railway rolling stock. Its requirements replace those of EN 60925 for all railway rolling stock applications and precise and complete those of EN 60924 for the specific needs of railway rolling stock applications.

This standard applies to electronic ballasts

- supplying pre-heated cathode fluorescent lamps without integrated starters, tubular or single capped, according to EN 60081 and EN 60901 respectively,
- having a single and non adjustable luminous flux level.

It does not apply to electronic ballasts supplying non pre-heated cathode lamps and/or lamps with integrated starters.

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 (including amendments).

EN 45545-5 [1)]		Railway applications - Fire protection on railway vehicles Part 5: Fire safety requirements for electrical equipment including that of trolley buses, track guided buses and magnetic levitation vehicles
EN 50121-3-2	2000	Railway applications - Electromagnetic compatibility Part 3-2: Rolling stock - Apparatus
EN 50124-1		Railway applications - Insulation coordination Part 1: Basic requirements - Clearances and creepage distances for all electrical and electronic equipment
EN 50125-1		Railway applications - Environmental conditions for equipment Part 1: Equipment on board rolling stock

1) At draft stage.