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Järnvägsanläggningar – Elutrustning för rälsfordon – Del 1: Driftförhållanden och allmänna regler

Railway applications –

Electric equipment for rolling stock –

Part 1: General service conditions and general rules

Som svensk standard gäller europastandarden EN 60077-1:2002. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60077-1:2002.

Nationellt förord

Europastandarden EN 60077-1:2002

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60077-1, First edition, 1999 - Railway applications - Electric equipment for rolling stock - Part 1: General service conditions and general rules**

utarbetad inom International Electrotechnical Commission, IEC.

EUROPEAN STANDARD

EN 60077-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English version

**Railway applications -
Electric equipment for rolling stock
Part 1: General service conditions and general rules
(IEC 60077-1:1999, modified)**

Applications ferroviaires -
Equipements électriques
du matériel roulant
Partie 1: Conditions générales
de service et règles générales
(CEI 60077-1:1999, modifiée)

Bahnanwendungen -
Elektrische Betriebsmittel auf
Bahnfahrzeuge
Teil 1: Allgemeine Betriebsbedingungen
und allgemeine Regeln
(IEC 60077-1:1999, modifiziert)

This European Standard was approved by CENELEC on 2002-03-01. 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, Iceland, Ireland, Italy, Luxembourg, Malta, 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

The text of the International Standard IEC 60077-1:1999, prepared by IEC TC 9, Electric railway equipment, together with the common modifications prepared by SC 9XB, Electromechanical material on board of rolling stock, of Technical Committee CENELEC TC 9X, Electrical and electronic applications for railways, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 60077-1 on 2002-03-01.

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) 2003-03-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2005-03-01

In this European Standard the common modifications to the International Standard are indicated by a vertical line in the left margin of the text.

Subclauses, tables and figures which are additional to those in IEC 60077-1 are prefixed "Z".

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

Annexes designated "informative" are given for information only.

In this standard, annex ZA is normative and annex A is informative.

Annex ZA has been added by CENELEC.

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Introduction

Although this European Standard specifies the general service conditions and general rules for electric equipment for rolling stock, further special details of certain types of traction equipment may be given in other European standards. In particular, product standards give further details. The product standards which are part of the EN 60077 series are:

IEC 60077: Railway applications – Electric equipment for rolling stock:

- Part 2: Electrotechnical components - General rules,
- Part 3: Electrotechnical components - Rules for d.c. circuit-breakers,
- Part 4: Electrotechnical components - Rules for a.c. circuit-breakers,
- Part 5: Electrotechnical components - Rules for HV fuses.

Although all circuits of power or control electronic equipments connected to battery or line voltages and all circuits comprising switchgear or controlgear are covered by this standard, internal circuits of these may be subject to special requirements covered by relevant product standards.

For electric equipment for rolling stock which conforms to an appropriate European Standard, including items of industrial equipment, this standard, plus the relevant railway equipment product standard where appropriate, specifies only those additional requirements to ensure satisfactory operation on rolling stock.

This document has used IEC 60077-1 as its base, and its form and structure has been modified to take account of already existing European Standards covering related subjects.

1 Scope

This European Standard specifies the general service conditions and requirements for all electric equipment installed in power circuits, auxiliary circuits and control circuits etc. on rolling stock.

NOTE 1 Certain of these rules may, after agreement between user and manufacturer, be used for electrical equipment installed on other vehicles such as mine locomotives, trolley-buses etc.

The purpose of this standard is to harmonize as far as practicable all rules and requirements of a general nature applicable to electric equipment for rolling stock. This is in order to obtain uniformity of requirements and tests throughout the corresponding range of equipment to avoid the need for testing to different standards.

This general standard is to be read in conjunction with the relevant equipment standard hereafter referred to as "the relevant product standard" or "product standard".

NOTE 2 In the event of there being a difference in requirements between the basic standard and a product standard produced by the Technical Committee TC 9X, the product standard requirements are to take precedence.

For a general rule to apply to a specific product standard, it is to be explicitly referred to in the latter, by quoting the relevant clauses of this standard e.g. see 7.7 of EN 60077-1.

A specific product standard may not require, and hence may omit, a general rule (as being not applicable), or it may add to it (if deemed inadequate in the particular case), but it may not deviate from it, unless there is a substantial technical justification.

All requirements relating to

- the construction,
- the performance and the associated tests which can be considered as general,

have therefore been gathered in this standard together with specific subjects of wide interest and application, for example temperature rise, dielectric properties, etc.

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