

Svenska Elektriska Kommissionen, SEK

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Järnvägsanläggningar – Installation av kablar och ledningssystem i rälsfordon

Railway applications –

Rolling stock –

Rules for installation of cabling

Som svensk standard gäller europastandarden EN 50343:2003. Den svenska standarden innehåller den officiella engelska språkversionen av EN 50343:2003.

ICS 45.060.01

Denna standard är fastställd av Svenska Elektriska Kommissionen, SEK, som också kan lämna upplysningar om **sakinnehållet** i standarden.

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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.

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Stora delar av arbetet sker internationellt

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EUROPEAN STANDARD

EN 50343

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2003

ICS 45.060.01

English version

**Railway applications -
Rolling stock -
Rules for installation of cabling**

Applications ferroviaires -
Matériel roulant -
Règles d'installation du câblage

Bahnanwendungen -
Fahrzeuge -
Regeln für die Installation von
elektrischen Leitungen

This European Standard was approved by CENELEC on 2002-12-03. 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 has been prepared by the Working Group B8 of SC 9XB "Electromechanical material on board of rolling stock" of the Technical Committee CENELEC TC 9X, Electrical and electronic applications for railways. As the subjects „Cabling“ and „Cables“ have much in common, a close co-operation between the above Working Group and Working Group 12 „Railway cables“ of CENELEC TC 20 „Electric cables“ has been maintained during preparation.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50343 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 "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, Annexes A, C, D, E, H and J are normative and Annexes B, F, G, and I are informative.

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1 Scope

This European Standard specifies requirements for the installation of cabling on railway vehicles and within electrical enclosures on railway vehicles, including magnetic levitation trains and trolley buses.

NOTE With respect to trolley buses, this standard applies to the whole electric traction system, including current collecting circuits, power converters and the respective control circuits. The installation of other circuits is covered by street vehicle standards for example those for combustion driven buses.

This standard covers cabling for making electrical connections between items of electrical equipment, including cables, busbars, terminals and plug/socket devices. It does not cover special effect conductors like fibre optic cables or hollow conductors (waveguides).

The material selection criteria given here are applicable to cables with a copper conductor.

This standard is not applicable to the following:

- special purpose vehicles, such as track-laying machines, ballast cleaners and personnel carriers;
- vehicles used for entertainment on fairgrounds;
- vehicles used in mining;
- electric cars;
- funicular railways.

As the field of cabling in rolling stock is also dealt with in the cable makers' standard, references are made to EN 50264, EN 50306 and EN 50355.

This European Standard applies in conjunction with the relevant product and installation standards. Stricter requirements than those given in this standard may be necessary.

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.

EN 45545-1 ¹⁾	Railway applications - Fire protection on railway vehicles - Part 1: General
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 50121-3-1	Railway applications - Electromagnetic compatibility - Part 3-1: Rolling stock - Train and complete vehicle
EN 50121-3-2	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
EN 50153	Railway applications - Rolling stock - Protective provisions relating to electrical hazards
EN 50200	Method of test for resistance to fire of unprotected small cables for use in emergency circuits

¹⁾ At draft stage.