

Svenska Elektriska Kommissionen, SEK

Fastställt	Utgåva	Sida	Ingår i
2003-11-17	1	1 (1+33)	SEK Område 20

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Järnvägsanläggningar – Kablar med särskilda brandegenskaper avsedda för rälsfordon – Kablar med tunna och normala isolerskikt – Vägledning

Railway applications –

Railway rolling stock cables having special fire performance –

Thin wall and standard wall –

Guide to use

Som svensk standard gäller europastandarden EN 50355:2003. Den svenska standarden innehåller den officiella engelska språkversionen av EN 50355:2003.

Nationellt förord

Standarden skall användas tillsammans med SS-EN 50264, SS-EN 50306 och SS-EN 50343.

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

Svenska Elektriska Kommissionen, SEK, 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.

SEK

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English version

**Railway applications -
Railway rolling stock cables having special fire performance -
Thin wall and standard wall -
Guide to use**

Applications ferroviaires -
Câbles à comportement au feu spécifié
pour matériel roulant ferroviaire -
Isolation mince et d'épaisseur normale -
Guide d'emploi

Bahnanwendungen -
Kabel und Leitungen für
Schienenfahrzeuge mit verbessertem
Verhalten im Brandfall -
Reduzierte Isolierwanddicken
und Standard-Isolierwanddicken -
Leitfaden für die Verwendung

This European Standard was approved by CENELEC on 2003-06-01. 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, Hungary, Iceland, Ireland, Italy, Lithuania, 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 was prepared for Technical Committee CENELEC TC 20 "Electric cables" by Working Group 12 " Railway cables" as part of the overall programme of work in the Technical Committee CENELEC TC 9X "Electrical and electronic applications for railways".

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50355 on 2003-06-01.

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) 2004-06-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2006-06-01

Annexes designated "informative" are given for information only.
In this standard, Annexes A and B are informative.

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Introduction

The railway industry is generally concerned with the movement of people as well as goods. It is therefore essential that safety is achieved, even when failures occur which may involve fire, howsoever caused, affecting railway rolling stock.

Hence it is necessary to provide cables for use in railway environments which minimise the hazard to people when a fire may damage the cable, irrespective of whether the fire is caused by an external source or from within the electrical system.

The objects of this guide are

- to inform railway vehicle manufacturers, installers of cables and railway operators of the properties and limiting conditions of rolling stock cables in order to safeguard life and equipment,
- to avoid misuse of rolling stock cables.

The information is given as limiting values and illustrated by examples which cannot be exhaustive but nevertheless indicate ways by which safety (a tolerable level of risk) can be obtained.

It has been assumed in the preparation of this guide that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

This guide should be used in conjunction with:

EN 50264 Railway applications – Railway rolling stock cables having special fire performance – Standard wall

EN 50306 Railway applications – Railway rolling stock cables having special fire performance – Thin wall

EN 50343 Railway applications – Rolling stock – Rules for installation of cabling

1 Scope

This European Standard gives guidance in the safe use of rolling stock cables specified in EN 50264 and EN 50306.

NOTE EN 50355 will be extended in future to cover also EN 50382, which is currently under preparation.

These cables should only be used for the wiring of railway rolling stock and within the limits given in the manner described in this European Standard. All these cables are for fixed installation where there is no free movement of cable, except for stresses due to typical service.

This European Standard is to be applied in conjunction with the relevant product and installation standards. Stricter requirements than those given in this standard could be necessary; see in particular EN 50343.

This European Standard is not applicable to

- intercarriage jumpers,
- cables subject to continual flexing,
- pantograph cables,
- coaxial and fibre optic cables,
- wire wrap,
- cables rated at voltages greater than 3,6/6 kV,
- national types,
- applications other than the cabling of railway rolling stock.

Legal or statutory requirements do take precedence over the guidance given in this document.

In cases where no guidance exists or where it cannot be derived from general information, it is recommended that advice should be sought from the cable manufacturer.

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