# SVENSK STANDARD SS-EN 50264-3


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# Järnvägsanläggningar – Kablar med särskilda brandegenskaper avsedda för rälsfordon – Del 3: Flerledarkablar

*Railway applications – Railway rolling stock cables having special fire performance – Standard wall – Part 3: Multicore cables*

Som svensk standard gäller europastandarden EN 50264-3:2002. Den svenska standarden innehåller den officiella engelska språkversionen av EN 50264-3:2002.

## Nationellt förord

Standarden skall användas tillsammans med tidigare utgiven svensk standard SS-EN 50264-1.

ICS 13.220.20; 29.060.20; 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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EUROPEAN STANDARD **EN 50264-3**

NORME EUROPÉENNE

EUROPÄISCHE NORM August 2002

ICS 13.220.20; 29.060.20; 45.060.01

English version

# Railway applications - Railway rolling stock cables having special fire performance - Standard wall Part 3: Multicore cables

Applications ferroviaires - Câbles pour matériel roulant ferroviaire ayant des performances particulières de comportement au feu - Câbles à isolation d'épaisseur normale Partie 3: Câbles multiconducteurs

Bahnanwendungen - Kabel und Leitungen für Schienenfahrzeuge mit verbessertem Verhalten im Brandfall - Standard Isolierwanddicken Teil 3: Mehr- und vieladrige Leitungen

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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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Ref. No. EN 50264-3:2002 E

## 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 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 50264-3 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) 2003-07-01

- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2008-07-01

Annexes designated “informative” are given for information only.
In this standard annex A is informative.

**Contents**

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**Introduction**

EN 50264 covers cables with standard wall thickness of insulation , both sheathed and un-sheathed, based upon halogen free materials, for use in railway rolling stock. It is divided into 3 parts:

Part 1: General requirements;

Part 2: Single core cables;

Part 3: Multicore cables.

Special test methods referred to in EN 50264 are given in EN 50305. A Guide to use is given in (EN 50355 – under development).

Part 1, General requirements, contains a more extensive introduction to EN 50264, and should be read in conjunction with this Part 3.

## 1 Scope

Part 3 of EN 50264 specifies requirements for, and constructions and dimensions of, multicore cables of the following types and voltage ratings:

- 300 V/500 V Screened or unscreened (1 $mm^2$, 1,5 $mm^2$ and 2,5 $mm^2$, number of cores from 2 to 40)

- 0,6 kV/1 kV Screened or unscreened, (1 $mm^2$ to 50 $mm^2$, 2, 3 and 4 core)

NOTE 1 Not all conductor sizes or number of cores are specified for every type.

All cables have class 5 tin coated annealed copper conductors to HD 383, halogen-free insulation and halogen-free sheath. They are for use in railway rolling stock as fixed wiring, or wiring where limited flexing in operation is encountered. The requirements provide for a continuous conductor temperature not exceeding 90 °C and a maximum temperature for short circuit conditions of 200 °C based on a duration of 5 seconds.

Under fire conditions the cables exhibit special performance characteristics in respect of maximum permissible flame propagation (flame spread) and maximum permissible emission of smoke and toxic gases. These requirements are specified to permit the cables to satisfy Hazard Levels 2, 3 or 4 of EN 45545-1.

NOTE 2 Requirements for the emission of smoke and gases are not specified for hazard level 1 of EN 45545-1.

NOTE 3 EN 45545-1 is still under development and should be consulted.

Part 3 of EN 50264 should be used in conjunction with Part 1, General requirements.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of these references 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.

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| EN 10002-1 | Tensile testing of metallic materials - method of test at ambient temperature |
| EN 45545-1[1)] | Railway applications - Fire protection of railway vehicles - Part 1: General |
| EN 50264-1 | Railway applications - Railway rolling stock cables having special fire performance - Standard wall - Part 1: General Requirements |
| EN 50264-2 | Railway rolling stock cables having special fire performance - Standard wall - Part 2: Single core cables |
| EN 50265-2-1 | Common test methods for cables under fire conditions - Test for resistance to vertical flame propagation for single insulated conductor or cable - Part 2-1: Procedures – 1 kW pre-mixed flame |

[1)] At draft stage.