



SLOVENSKI STANDARD
SIST EN 60794-3:2001

01-februar-2001

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SIST EN 60794-3:1997

**Optical fibre cables - Part 3: Duct, buried and aerial cables - Sectional specification
(IEC 60794-3:1998)**

Optical fibre cables -- Part 3: Duct, buried and aerial cables - Sectional specification

Lichtwellenleiter-Kabel -- Teil 3: Röhren-, Erd- und Luftpipeline - Rahmenspezifikation

Câbles à fibres optiques -- Partie 3: Câbles pour conduites, enterrés et aériens -
Spécification intermédiaire

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Ta slovenski standard je istoveten z: EN 60794-3:1998

ICS:

33.180.10 Fibres and cables

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60794-3

April 1998

ICS 33.180.10

Supersedes EN 60794-3:1994 and EN 187000:1992 + A1:1995

Descriptors: Optical fibres, duct cables, buried cables, aerial cables

English version

Optical fibre cables
Part 3: Duct, buried and aerial cables
Sectional specification
(IEC 60794-3:1998)

Câbles à fibres optiques
Partie 3: Câbles pour conduites,
enterrés et aériens
Spécification intermédiaire
(CEI 60794-3:1998)

Lichtwellenleiter-Kabel
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This European Standard was approved by CENELEC on 1998-04-01. 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, 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 document 86A/418/FDIS, future edition 2 of IEC 60794-3, prepared by SC 86A, Fibres and cables, of IEC TC 86, Fibre optics, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60794-3 on 1998-04-01.

This European Standard supersedes EN 60794-3:1994 and EN 187000:1992 + A1:1995.

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) 1999-01-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2001-01-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60794-3:1998 was approved by CENELEC as a European Standard without any modification.

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Annex ZA (normative)

**Normative references to international publications
with their corresponding European publications**

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 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).

NOTE: When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-----------------|---|--------------|-------------|
| IEC 60189 | series | Low-frequency cables and wires with PVC insulation and PVC sheath | - | - |
| IEC 60304 | 1982 | Standard colours for insulation for low-frequency cables and wires | HD 402 S2 | 1984 |
| IEC 60708-1 | 1981 | Low-frequency cables with polyolefin insulation and moisture barrier polyolefin sheath Part 1: General design details and requirements | - | - |
| IEC 60793-1-2 | 1995 | Optical fibres Part 1: Generic specification Section 2: Measuring methods for dimensions | - | - |
| IEC 60793-1-3 | 1995 | Section 3: Measuring methods for mechanical characteristics | - | - |
| IEC 60793-1-4 | 1995 | Section 4: Measuring methods for transmission and optical characteristics | - | - |
| IEC 60793-2 | 1992 | Part 2: Product specifications | - | - |
| IEC 60794-1 | 1996 | Optical fibre cables Part 1: Generic specification | - | - |
| IEC 60794-1-1 | - ¹⁾ | Optical fibre cables Part 1: Generic specification Section 1: General | - | - |
| IEC 60974-1-2 | - ¹⁾ | Section 2: Basic optical cable test procedures | - | - |

1) To be published.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|---------------------------------|-------------|---|---------------|-------------|
| IEC 60811-4-2 | 1990 | Common test methods for insulating and sheathing materials of electric cables Part 4: Methods specific to polyethylene and polypropylene compounds Section 2: Elongation at break after pre-conditioning - Wrapping test after thermal ageing in air - Measurement of mass increase Long-term stability test (Appendix A) Test method for copper-catalysed oxidative degradation (Appendix B) | HD 505.4.2 S1 | 1992 |
| IEC 60811-5-1 | 1990 | Part 5: Methods specific to filling compounds Section 1: Drop-point - Separation of oil - Lower temperature brittleness - Total acid number - Absence of corrosive components - Permittivity at 23°C - D.C. resistivity at 23°C and 100°C | HD 505.5.1 S1 | 1992 |
| ITU-T Recommendation K.25 | 1996 | Protection of optical fibre cables | - | - |

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC
60794-3**

Deuxième édition
Second edition
1998-02

**Câbles à fibres optiques –
Partie 3:
Câbles pour conduites, enterrés et aériens –
Spécification intermédiaire**

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**Optical fibre cables –
(standards.iteh.ai)**

**Part 3:
Duct, buried and aerial cables –
Sectional specification**

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International Electrotechnical Commission
Telefax: +41 22 919 0300

3, rue de Varembé Geneva, Switzerland
e-mail: inmail@iec.ch IEC web site <http://www.iec.ch>



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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PRICE CODE

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For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRE CABLES –

Part 3: Duct, buried and aerial cables –
Sectional specification

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60794-3 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition published in 1994 and constitutes a technical revision.

The text of this standard is based on the following documents:

| FDIS | Report on voting |
|--------------|------------------|
| 86A/418/FDIS | 86A/437/RVD |

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

IEC 60794 consists of the following parts under the general title: Fibre optic cables.

- Part 1: Generic specification;
- Part 2: Product specification;
- Part 3: Sectional specification.

OPTICAL FIBRE CABLES –

Part 3: Duct, buried and aerial cables – Sectional specification

1 Scope

This part of IEC 60794 specifies the requirements of single-mode optical fibre cables and cable elements which are intended to be used primarily in public telecommunications networks. Other types of applications requiring similar types of cables can be considered.

Requirements for cables to be used in ducts or for directly buried application and aerial cables are covered in this standard.

For aerial application, this standard does not cover all functional aspects of cables installed in the vicinity of overhead power lines. In the case of such application additional requirements and test methods may be necessary. Moreover, this standard excludes optical ground wires and cables attached to the phase or earth conductors of overhead power lines.

2 Normative references

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The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60794. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 60794 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60189, *Low-frequency cables and wires with PVC insulation and PVC sheath*

IEC 60304:1982, *Standard colours for insulation for low-frequency cables and wires*

IEC 60708-1:1981, *Low-frequency cables with polyolefin insulation and moisture barrier polyolefin sheath – Part 1: General design details and requirements*

IEC 60793-1-2:1995, *Optical fibres – Part 1: Generic specification – Section 2: Measuring methods for dimensions*

IEC 60793-1-3:1995, *Optical fibres – Part 1: Generic specification – Section 3: Measuring methods for mechanical characteristics*

IEC 60793-1-4:1995, *Optical fibres – Part 1: Generic specification – Section 2: Measuring methods for transmission and optical characteristics*

IEC 60793-2:1992, *Optical fibres – Part 2: Product specification*

IEC 60794-1:1996, *Optical fibre cables – Part 1: Generic specification*