



SLOVENSKI STANDARD
SIST EN 60794-3:2004

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SIST EN 60794-3:2001

Optical fibres cables -- Part 3: Sectional specification - Outdoor cables (IEC 60794-3:2001)

Optical fibres cables - Part 3: Sectional specification - Outdoor cables (IEC 60794-3:2001)

Lichtwellenleiterkabel - Teil 3: Rahmenspezifikation - Außenkabel (IEC 60794-3:2001)

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Câbles à fibres optiques - Partie 3: Spécification intermédiaire - Câbles extérieurs (IEC 60794-3:2001)

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33.180.10 Fibres and cables

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EUROPEAN STANDARD

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NORME EUROPÉENNE

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English version

Optical fibre cables
Part 3: Sectional specification –
Outdoor cables
(IEC 60794-3:2001)

Câbles à fibres optiques
Partie 3: Spécification intermédiaire -
Câbles extérieurs
(CEI 60794-3:2001)

Lichtwellenleiterkabel
Teil 3: Rahmenspezifikation –
Außenkabel
(IEC 60794-3:2001)

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This European Standard was approved by CENELEC on 2002-03-05. 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 document 86A/684/FDIS, future edition 3 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 2002-03-05.

This European Standard supersedes EN 60794-3:1998.

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) 2002-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2005-03-01

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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Endorsement notice (standards.iteh.ai)

The text of the International Standard IEC 60794-3:2001 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	Series	Optical fibres	EN 60793	Series
IEC 60793-1-21	2001	Part 1-21: Measurement methods and test procedures - Coating geometry	EN 60793-1-21	2002
IEC 60793-1-32	2001	Part 1-32: Measurement methods and test procedures - Coating strippability	EN 60793-1-32	- 1)
IEC 60793-1-40	2001	Part 1-40: Measurement methods and test procedures - Attenuation	EN 60793-1-40	- 1)
IEC 60793-1-44	2001	Part 1-44: Measurement methods and test procedures - Cut-off wavelength	EN 60793-1-44	2002
IEC 60793-2	1998	Part 2: Product specifications	-	-
IEC 60794-1-1	1999	Optical fibre cables Part 1-1: Generic specification - General	EN 60794-1-1	1999 2)
IEC 60794-1-2	1999	Part 1-2: Generic specification - Basic optical cable test procedures	EN 60794-1-2	1999

1) To be published.

2) EN 60794-1-1:1999 is superseded by EN 60794-1-1:2002 based on IEC 60794-1-1:2001.

EN 60794-3:2002

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60811-5-1 (mod)	1990	Insulating and sheathing materials of electric and optical fibre cables - Common test methods 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	EN 60811-5-1	1999
IEC/TR 61282-3	2001	Guidelines for the calculation of PMD in fibre optic systems	-	-
IEC/TS 61941	2000	Optical fibres - Polarization mode dispersion measurement techniques for single-mode optical fibres	-	-
ITU-T Recommendation K.25	2000	Protection of optical fibre cables	-	-

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**CEI
IEC**

60794-3

Troisième édition
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Câbles à fibres optiques –

**Partie 3:
Spécification intermédiaire –
Câbles extérieurs**

iTeh STANDARD PREVIEW

Optical fibre cables –

**Part 3:
Sectional specification –
Outdoor cables**

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International Electrotechnical Commission
Telefax: +41 22 919 0300

3, rue de Varembe 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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For price, see current catalogue*

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRE CABLES –

Part 3: Sectional specification –
Outdoor cables

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 specifications, 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 third edition cancels and replaces the second edition, published in 1998, and constitutes a technical revision.

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

FDIS	Report on voting
86A/684/FDIS	86A/723/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.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

Annex A is for information only.

IEC 60794 consists of the following parts under the general title *Optical fibre cables*:

- Part 1-1: Generic specification – General
- Part 1-2: Generic specification – Basic optical cable test procedures
- Part 2: Product specification
- Part 3: Sectional specification – Outdoor cables
- Part 4-1: Aerial optical cables for high-voltage power lines

The committee has decided that the contents of this publication will remain unchanged until 2005. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

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OPTICAL FIBRE CABLES –

Part 3: Sectional specification – Outdoor cables

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, for directly buried application, aerial cables and cables for lake and river crossings are included 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.

For cables for lake and river crossings, this standard does not cover methods of cable repair, nor repair capability, nor does it cover cables for use with underwater line amplifiers.

2 Normative references

[SIST EN 60794-3:2004](#)

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60189 (all parts), *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 (all parts), *Optical fibres*

IEC 60793-1-21:2001, *Optical fibres – Part 1-21: Measurement and test procedures – Coating geometry measuring methods*

IEC 60793-1-32:2001, *Optical fibres – Part 1-32: Measurement and test procedures – Coating strippability*

IEC 60793-1-40:2001, *Optical fibres – Part 1-40: Attenuation measurement methods*

IEC 60793-1-44:2001, *Optical fibres – Part 1-44: Cut-off wavelength measurement methods*