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Optokablar – Del 3: Utomhuskablar – Gruppspecifikation

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

Som svensk standard gäller europastandarden EN 60794-3:2002. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60794-3:2002.

Nationellt förord

Europastandarden EN 60794-3:2002^{*)}

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60794-3, Third edition, 2001 - Optical fibre cables - Part 3: Sectional specification - Outdoor cables**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 60794-3, utgåva 2, 1999, gäller ej fr o m 2005-03-01.

^{*)} EN 60794-3:2002 ikraftsattes 2003-08-26 som SS-EN 60794-3 genom offentliggörande, d v s utan utgivning av något svenskt dokument.

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EUROPEAN STANDARD

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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)

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.

Endorsement notice

The text of the International Standard IEC 60794-3:2001 was approved by CENELEC as a European Standard without any modification.

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.

<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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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

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*

IEC 60793-2:1998, *Optical fibres – Part 2: Product specifications*

IEC 60794-1-1:1999, *Optical fibre cables – Part 1-1: Generic specification – General*

IEC 60794-1-2:1999, *Optical fibre cables – Part 1-2: Generic specification – Basic optical cable test procedures*

IEC 60811-5-1:1990, *Common test methods for insulating and sheathing materials of electric cables – 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 – DC resistivity at 23 °C and 100 °C*

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*