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Optical fibre cables -- Part 4-10: Aerial optical cables along electrical power lines - Family specification for OPGW (Optical Ground Wires) (IEC 60794-4-10:2006)

Lichtwellenleiterkabel - Teil 4-10: Lichtwellenleiter-Erdseile auf Starkstromleitungen - Familienspezifikation für OPGW (Optical Ground Wires) (IEC 60794-4-10:2006)

Câbles a fibres optiques -- Partie 4-10: Câbles optiques aériens le long des lignes électriques de puissance - Spécification de famille pour les câbles de garde a fibres optiques (OPGW - Optical Ground Wires) (IEC 60794-4-10:2006)

Ta slovenski standard je istoveten z: EN 60794-4-10:2007

ICS:

33.180.10 Q] |ã } æÄ|æ } æÄ |ã } æÄ |ã Fibres and cables

SIST EN 60794-4-10:2007**en,fr,de**

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EUROPEAN STANDARD

EN 60794-4-10

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2007

ICS 33.180.10

English version

**Optical fibre cables -
Part 4-10: Aerial optical cables along electrical power lines -
Family specification for OPGW (Optical Ground Wires)
(IEC 60794-4-10:2006)**

Câbles à fibres optiques -
Partie 4-10: Câbles optiques aériens
le long des lignes électriques
de puissance -
Spécification de famille
pour les câbles de garde à fibres optiques
(OPGW - Optical Ground Wires)
(CEI 60794-4-10:2006)

Lichtwellenleiterkabel -
Teil 4-10: Lichtwellenleiter-Erdseile
auf Starkstromleitungen -
Familienspezifikation
für OPGW (Optical Ground Wires)
(IEC 60794-4-10:2006)

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This European Standard was approved by CENELEC on 2007-04-01. 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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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/1075/FDIS, future edition 1 of IEC 60794-4-10, 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 60794-4-10 on 2007-04-01.

This standard is to be used in conjunction with EN 60794-1-1, EN 60794-1-2 and EN 60794-4.

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) 2008-01-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2010-04-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60794-4-10:2006 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61395	NOTE	Harmonized as EN 61395:1998 (not modified).
IEC 60104	NOTE	EN 50183:2000, which is related to IEC 60104:1987, applies.
IEC 60889	NOTE	Harmonized as EN 60889:1997 (not modified).
IEC 61232	NOTE	Harmonized as EN 61232:1995 (modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

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 60304	- ¹⁾	Standard colours for insulation for low-frequency cables and wires	HD 402 S2	1984 ²⁾
IEC 60793-1-40 (mod)	- ¹⁾	Optical fibres - Part 1-40: Measurement methods and test procedures - Attenuation	EN 60793-1-40	2003 ²⁾
IEC 60793-1-44	- ¹⁾	Optical fibres - Part 1-44: Measurement methods and test procedures - Cut-off wavelength	EN 60793-1-44	2002 ²⁾
IEC 60793-1-48	- ¹⁾	Optical fibres - Part 1-48: Measurement methods and test procedures - Polarization mode dispersion	EN 60793-1-48	2003 ²⁾
IEC 60793-2-50	- ¹⁾	Optical fibres - Part 2-50 : Product specifications - Sectional specification for class B single-mode fibres	EN 60793-2-50 + corr. July	2004 ²⁾ 2004
IEC 60794-1-1	- ¹⁾	Optical fibre cables - Part 1-1: Generic specification - General	EN 60794-1-1	2002 ²⁾
IEC 60794-1-2	- ¹⁾	Optical fibre cables - Part 1-2: Generic specification - Basic optical cable test procedures	EN 60794-1-2	2003 ²⁾
IEC 60794-4	- ¹⁾	Optical fibre cables - Part 4: Sectional specification - Aerial optical cables along electrical power lines	EN 60794-4	2003 ²⁾
IEC 61089	- ¹⁾	Round wire concentric lay overhead electrical - stranded conductors	-	-
IEC 61394	- ¹⁾	Overhead lines - Characteristics of greases for aluminium, aluminium alloy and steel bare conductors	-	-

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 9001	- ¹⁾	Quality management systems - Requirements	EN ISO 9001	2000 ²⁾

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60794-4-10

Première édition
First edition
2006-08

Câbles à fibres optiques –

Partie 4-10:

**Câbles optiques aériens le long des lignes
électriques de puissance – Spécification
de famille pour les câbles de garde à fibres
optiques (OPGW – Optical Ground Wires)**

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Optical fibre cables –

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Part 4-10:

**Aerial optical cables along electrical
power lines – Family specification for OPGW
(Optical Ground Wires)**

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International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRE CABLES –

**Part 4-10: Aerial optical cables along electrical power lines –
Family specification for OPGW (Optical Ground Wires)**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60794-4-10 has been prepared by subcommittee 86A: Fibres and Cables, of IEC technical committee 86:

This standard is to be used in conjunction with IEC 60794-1-1, IEC 60794-1-2, and IEC 60794-4, Edition 1.

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

FDIS	Report on voting
86A/1075/FDIS	86A/1110/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.

A list of all parts of the IEC 60794 series, under the general title *Optical fibre cables*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

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OPTICAL FIBRE CABLES –

Part 4-10: Aerial optical cables along electrical power lines – Family specification for OPGW (Optical Ground Wires)

1 Scope

This part of IEC 60794-4 specifies the electrical, mechanical and optical requirements, and test methods for OPGW (Optical Ground Wire).

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

IEC 60793-1-40, *Optical Fibres – Part 1-40: Measurement methods and test procedures – Attenuation*

IEC 60793-1-44, *Optical Fibres – Part 1-44: Measurement methods and test procedures – Cut-off wavelength*

IEC 60793-1-48, *Optical Fibres – Part 1-48: Measurement methods and test procedures – Polarization mode dispersion*

IEC 60793-2-50, *Optical Fibres – Part 2-50: Product specifications – Sectional specifications for class B single-mode fibres*

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

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

IEC 60794-4, *Optical fibre cables – Part 4: Sectional Specification – Aerial optical cables along electrical power lines*

IEC 61089, *Round wire concentric lay overhead electrical stranded conductors*

IEC 61394, *Overhead lines – Characteristics of greases for aluminium, aluminium alloy and steel bare conductors*

ISO 9001, *Quality Management Systems – Requirements*