

STN	Optické káble Časť 4: Rámcová špecifikácia Závesné optické káble na elektrické silnoprúdové vzdušné vedenia	STN EN IEC 60794-4 35 9213
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Optical fibre cables - Part 4: Sectional specification - Aerial optical cables along electrical power lines

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/19

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English Version

**Optical fibre cables - Part 4: Sectional specification - Aerial
optical cables along electrical power lines
(IEC 60794-4:2018)**

Câbles à fibres optiques - Partie 4: Spécification
intermédiaire - Câbles optiques aériens le long des lignes
électriques de transport d'énergie
(IEC 60794-4:2018)

Lichtwellenleiterkabel - Teil 4: Rahmenspezifikation -
Lichtwellenleiter-Luftkabel auf Starkstrom-Freileitungen
(IEC 60794-4:2018)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 60794-4:2018 (E)**European foreword**

The text of document 86A/1862/FDIS, future edition 2 of IEC 60794-4, prepared by SC 86A "Fibres and cables" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60794-4:2018.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2019-04-30
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2021-07-30

This document supersedes EN 60794-4:2003

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The text of the International Standard IEC 60794-4:2018 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 60794-1-2	NOTE	Harmonized as EN 60794-1-2
IEC 60794-1-23	NOTE	Harmonized as EN 60794-1-23
IEC 60794-1-31	NOTE	Harmonized as EN IEC 60794-1-31

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60104	-	Aluminium-magnesium-silicon alloy wire for overhead line conductors	-	-
IEC 60304	-	Standard colours for insulation for low-frequency cables and wires	HD 402 S2	-
IEC 60793-1-21	-	Optical fibres -- Part 1-21: Measurement methods and test procedures - Coating geometry	EN 60793-1-21	-
IEC 60793-1-32	-	Optical fibres -- Part 1-32: Measurement methods and test procedures - Coating strippability	EN 60793-1-32	-
IEC 60793-1-40	-	Optical fibres -- Part 1-40: Measurement methods and test procedures - Attenuation	EN 60793-1-40	-
IEC 60793-1-44	-	Optical fibres -- Part 1-44: Measurement methods and test procedures - Cut-off wavelength	EN 60793-1-44	-
IEC 60793-1-48	-	Optical fibres -- Part 1-48: Measurement methods and test procedures -Polarization mode dispersion	EN 60793-1-48	-
IEC 60793-2	-	Optical fibres - Part 2: Product specifications - General	EN 60793-2	-
IEC 60794-1-1	-	Optical fibre cables - Part 1-1: Generic specification - General	EN 60794-1-1	-
IEC 60794-1-21	-	Optical fibre cables - Part 1-21: Generic specification - Basic optical cable test procedures - Mechanical tests methods	EN 60794-1-21	-
IEC 60794-1-22	-	Optical fibre cables - Part 1-22: Generic specification - Basic optical cable test procedures - Environmental test methods	EN IEC 60794-1-22	-

EN IEC 60794-4:2018 (E)

IEC 60794-1-23	-	Optical fibre cables -- Part 1-23: Generic specification - Basic optical cable test procedures - Cable element test methods	EN 60794-1-23	-
IEC 60794-1-24	-	Optical fibre cables -- Part 1-24: Generic specification - Basic optical cable test procedures - Electrical test methods	EN 60794-1-24	-
IEC 60794-3	-	Optical fibre cables - Part 3: Outdoor cables - Sectional specification	EN 60794-3	-
IEC 60794-4-20	2012	Optical fibre cables -- Part 4-20: Aerial optical cables along electrical power lines - Family specification for ADSS (All Dielectric Self Supported) Optical cables	EN 60794-4-20	2012
IEC 60811-202	-	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 202: General tests - Measurement of thickness of non-metallic sheath	EN 60811-202	-
IEC 60811-203	-	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 203: General tests - Measurement of overall dimensions	EN 60811-203	-
IEC 60811-401	-	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 401: Miscellaneous tests - Thermal ageing methods - Ageing in an air oven	EN 60811-401	-
IEC 60811-406	-	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 406: Miscellaneous tests - Resistance to stress cracking of polyethylene and polypropylene compounds	EN 60811-406	-
IEC 60811-501	-	Electric and optical fibre cables - Test methods for non-metallic materials - Part 501: Mechanical tests - Tests for determining the mechanical properties of insulating and sheathing compounds	EN 60811-501	-
IEC 60811-604	2012	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 604: Physical tests - Measurement of absence of corrosive components in filling compounds	EN 60811-604	2012
IEC 60811-607	-	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 607: Physical tests - Test for the assessment of carbon black dispersion in polyethylene and polypropylene	EN 60811-607	-
IEC 60888	-	Zinc-coated steel wires for stranded conductors	-	-
IEC 60889	-	Hard-drawn aluminium wire for overhead line conductors	EN 60889	-
IEC 61089	1991	Round wire concentric lay overhead electrical stranded conductors	-	-
IEC 61232	-	Aluminium-clad steel wires for electrical purposes	EN 61232	-

IEC 61394	-	Overhead lines - Requirements for greases - for aluminium, aluminium alloy and steel bare conductors	-
IEC 61395	-	Overhead electrical conductors - Creep test EN 61395 procedures for stranded conductors	-



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Optical fibre cables –

Part 4: Sectional specification – Aerial optical cables along electrical power lines

Câbles à fibres optiques –

Partie 4: Spécification intermédiaire – Câbles optiques aériens le long des lignes électriques de transport d'énergie





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Edition 2.0 2018-06

INTERNATIONAL STANDARD

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Optical fibre cables –

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Câbles à fibres optiques –

Partie 4: Spécification intermédiaire – Câbles optiques aériens le long des lignes électriques de transport d'énergie

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CONTENTS

FOREWORD	4
1 Scope	6
2 Normative references	6
3 Terms, definitions, symbols and abbreviated terms	8
4 Optical fibre	8
4.1 General	8
4.2 Attenuation	8
4.2.1 Attenuation coefficient	8
4.2.2 Attenuation uniformity-attenuation discontinuities	8
4.3 Cut-off wavelength of cabled fibre	8
4.4 Fibre colouring	8
4.5 Polarization mode dispersion (PMD)	8
5 Cable element	8
5.1 General	8
5.2 Slotted core	9
5.3 Polymeric tube	9
5.4 Ribbon	10
5.5 Metallic tube	10
5.5.1 General	10
5.5.2 Metallic tube on the optical core	10
5.5.3 Fibres directly located in a metallic tube	10
6 Optical fibre cable construction	10
6.1 General	10
6.2 Lay-up of the cable elements	11
6.3 Cable core filling	11
6.4 Strength members	11
6.4.1 General	11
6.4.2 OPGW, OPPC and MASS	11
6.4.3 ADSS and OPAC	12
6.5 Cable sheath (ADSS and OPAC)	12
6.5.1 Inner sheath	12
6.5.2 Outer sheath	12
6.6 Sheath marking	13
7 Characterization of cable elements	13
8 Design characteristics	14
9 Optical fibre cable tests	14
9.1 General	14
9.2 Tensile performance	16
9.3 Stress-strain test on metallic cables	16
9.4 Sheave test	16
9.5 Short-circuit	16
9.6 Lightning test	16
9.7 Ageing	16
9.8 Fibre coating compatibility	17
9.9 Hydrogen gas	17

9.10	Aeolian vibration	17
9.11	Creep.....	17
9.12	Fitting compatibility	17
9.13	Grease.....	17
9.14	Attenuation	17
9.15	Tracking and erosion resistance test on ADSS and OPAC	17
9.16	UV resistance test on ADSS and OPAC	17
9.17	Shotgun resistance test on ADSS and OPAC	18
9.18	Conductor access trolley for OPAC	18
10	Quality assurance	18
11	Packaging	18
Annex A (normative) Recommended methods of calculating rated tensile strength, cross-section of a layer of trapezoidal shaped wires, modulus of elasticity, linear expansion and DC resistance for OPGW, OPPC and MASS.....		
A.1	Calculation of rated tensile strength (RTS).....	19
A.2	Calculation of the cross-sectional area of a layer of trapezoidal or Z- shaped wires.....	19
A.3	Calculation of the final modulus of elasticity (E)	19
A.4	Calculation of coefficient of linear expansion (β)	20
A.5	Calculation of DC resistance	20
Bibliography.....		21
Table 1 – Characteristics of different types of cable elements		13
Table 2 – Design characteristics		14
Table 3 – Mechanical and environmental applicable tests		15

INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRE CABLES –**Part 4: Sectional specification –
Aerial optical cables along electrical power lines**

FOREWORD

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International Standard IEC 60794-4 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee TC 86: Fibre optics.

This second edition cancels and replaces the first edition published in 2003. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) the specification has been streamlined by cross-referencing IEC 60794-1-1;
- b) the classification as type tests or routine tests has been deleted;
- c) cable kink test has been deleted;
- d) creep test for ADSS is referred to IEC 60794-4-20.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
86A/1862/FDIS	86A/1868/RVD

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

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

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

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

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

OPTICAL FIBRE CABLES –

Part 4: Sectional specification – Aerial optical cables along electrical power lines

1 Scope

This part of IEC 60794 covers cable construction, test methods, optical, mechanical, environmental and electrical performance requirements for aerial optical fibre cables and cable elements which are intended to be used along power lines (OCEPL) as a high bandwidth transport media for communications and control optical signals, including optical ground wires (OPGW), optical phase conductors (OPPC), metallic aerial self-supported cables (MASS), all-dielectric self-supporting cables (ADSS) and optical attached cables (OPAC).

This document excludes figure-8 optical cables to be used on telephone utility poles.

The IEC TR 62839-1 gives recommendations to provide the customer with the environmental declaration on request.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60104, *Aluminium-magnesium-silicon alloy wire for overhead line conductors*

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

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

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

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, *Optical fibres – Part 2: Product specifications – General*

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

IEC 60794-1-21, *Optical fibre cables – Part 1-21: Generic specification – Basic optical cable test procedures – Mechanical tests methods*

IEC 60794-1-22, *Optical fibre cables – Part 1-22: Generic specification – Basic optical cable test procedures – Environmental tests methods*

IEC 60794-1-23, *Optical fibre cables – Part 1-23: Generic specification – Basic optical cable test procedures – Cable element test methods*

IEC 60794-1-24, *Optical fibre cables – Part 1-24: Generic specification – Basic optical cable test procedures – Electrical test methods*

IEC 60794-3, *Optical fibre cables – Part 3: Outdoor cables – Sectional specification*

IEC 60794-4-20:2012, *Optical fibre cables – Part 4-20: Aerial optical cables along power lines – Family specification for ADSS (All Dielectric Self Supported) optical cables*

IEC 60811-202, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 202: General tests – Measurement of thickness of non-metallic sheath*

IEC 60811-203, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 203: General tests – Measurement of overall dimensions*

IEC 60811-401, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 401: Miscellaneous tests – Thermal ageing methods – Ageing in an air oven*

IEC 60811-406, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 406: Miscellaneous tests – Resistance to stress cracking of polyethylene and polypropylene compounds*

IEC 60811-501, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 501: Mechanical tests – Tests for determining the mechanical properties of insulating and sheathing compounds*

IEC 60811-604:2012, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 604: Physical tests – Measurement of absence of corrosive components in filling compounds*

IEC 60811-607, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 607: Physical tests – Test for the assessment of carbon black dispersion in polyethylene and polypropylene*

IEC 60888, *Zinc-coated steel wires for stranded conductors*

IEC 60889, *Hard-drawn aluminium wire for overhead line conductors*

IEC 61089:1991, *Round wire concentric lay overhead electrical stranded conductors*

IEC 61232, *Aluminium-clad steel wires for electrical purposes*

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

IEC 61395, *Overhead electrical conductors – Creep test procedures for stranded conductors*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN