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Coaxial communication cables – Part 6: Sectional specification for CATV drop cables

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COMMISSION

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CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	7
4 Materials and cable construction	7
4.1 Cable construction	7
4.2 Inner conductor	7
4.2.1 Conductor material.....	7
4.2.2 Conductor construction	8
4.3 Dielectric	8
4.4 Outer conductor or screen	8
4.5 Sheath	8
4.6 Completed cable	9
5 Standard ratings and characteristics	9
6 Identification and marking	9
6.1 Cable identification.....	9
6.2 Cable Sheath marking	9
6.3 Labelling	9
7 Tests for completed cables	10
7.1 General.....	10
7.2 Electrical testing of the finished cable.....	10
7.2.1 Low-frequency and DC electrical measurements.....	10
7.2.2 High-frequency electrical and transmission measurements.....	11
7.3 Environmental testing of the finished cable	13
7.4 Tests for mechanical characteristics of the finished cable.....	14
7.5 Fire performance test methods	14
8 Quality assessment	15
9 Delivery and storage.....	15
10 Fire performance test methods (FFS)	15
Annex A (normative) Cable identification and marking	16
A.1 Cable identification.....	16
A.1.1 Type name.....	16
A.1.2 Variants	16
A.1.3 Screening classes.....	16
A.2 Cable marking.....	17
Bibliography	18
Table 1 – Low-frequency and DC electrical measurements	10
Table 2 – High-frequency electrical and transmission measurements	11
Table 3 – Environmental testing of the finished cable	13
Table 4 – Tests for mechanical characteristics of the finished cable.....	14
Table 5 – Fire performance test methods (FFS).....	15

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COAXIAL COMMUNICATION CABLES –

Part 6: Sectional specification for CATV drop cables

FOREWORD

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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 61196-6:2009. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

IEC 61196-6 has been prepared by subcommittee 46A: Coaxial cables, of IEC technical committee 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories. It is an International Standard.

This second edition cancels and replaces the first edition published in 2009. This edition constitutes a technical revision.

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

- a) extended scope,
- b) revised sheath marking and labelling.

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

FDIS	Report on voting
46A/1498/FDIS	46A/1514/RVD

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

The language used for the development of this International Standard is English.

A list of all the parts in the IEC 61196 series, published under the general title *Coaxial communication cables*, can be found on the IEC website.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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COAXIAL COMMUNICATION CABLES –

Part 6: Sectional specification for CATV drop cables

1 Scope

~~This part of IEC 61196 applies to coaxial communications cables. It specifies the requirements for CATV drop cables for use in cabled television distribution networks operating at temperature between $-40\text{ }^{\circ}\text{C}$ and $+70\text{ }^{\circ}\text{C}$ and in the frequency range from 5 MHz to 1 000 MHz or from 5 MHz to 3 000 MHz.~~

This part of IEC 61196 applies to coaxial communications cables. It specifies the requirements for CATV drop cables for analogue and digital one and two way signal transmission, e.g. for cable networks for television signals, sound signals, interactive services, surveillance & control systems, and satellite television receiving systems according to the requirements of IEC 60728-1, IEC 60728-1-1, IEC 60728-101, IEC 60728-10, ISO/IEC 11801-1 and ISO/IEC 11801-4. This also includes the transmission of BCT signals provided by a CATV, MATV or SMATV cable network.

The operating frequency is from 5 MHz to 1 000 MHz or from 5 MHz to 3 000 MHz.

Operating temperature is between $-40\text{ }^{\circ}\text{C}$ and $+70\text{ }^{\circ}\text{C}$.

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 60068-1:1988/2013, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-78, *Environmental testing – Part 2-78: Tests – Test Cab: Damp heat, steady state*

IEC 60096-0-1, *Radio frequency cables – Part 0-1: Guidelines to the design of detail specifications – Coaxial cables*

IEC 60811-605, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 605: Physical tests – Measurement of carbon black and/or mineral filler in polyethylene compounds*

IEC 61196-1:2005, *Coaxial communication cables – Part 1: Generic specification – General, definitions and requirements*

IEC 61196-1-1:2007, *Coaxial communication cables – Part 1-1: Capability approval for coaxial cables*

~~IEC 61196-1-100 (all parts), *Coaxial communication cables – Part 1-1XX: Electrical test methods*~~

~~IEC 61196-1-200 (all parts), Coaxial communication cables – Part 1-2XX: Environmental test methods~~

~~IEC 61196-1-300 (all parts), Coaxial communication cables – Part 1-3XX: Mechanical test methods~~

IEC 61196-1-101, Coaxial communication cables – Part 1-101: Electrical test methods – Test for conductor d.c. resistance of cable

IEC 61196-1-102, Coaxial communication cables – Part 1-102: Electrical test methods – Test for insulation resistance of cable dielectric

IEC 61196-1-105, Coaxial communication cables – Part 1-105: Electrical test methods – Test for withstand voltage of cable dielectric

IEC 61196-1-106, Coaxial communication cables – Part 1-106: Electrical test methods – Test for withstand voltage of cable sheath

IEC 61196-1-108, Coaxial communication cables – Part 1-108: Electrical test methods – Test for characteristic impedance, phase and group delay, electrical length and propagation velocity

IEC 61196-1-112, Coaxial communication cables – Part 1-112: Electrical test methods – Test for return loss (uniformity of impedance)

IEC 61196-1-113, Coaxial communication cables – Part 1-113: Electrical test methods – Test for attenuation constant

IEC 61196-1-115, Coaxial communication cables – Part 1-115: Electrical test methods – Test for regularity of impedance (pulse/step function return loss)

IEC 61196-1-201, Coaxial communication cables – Part 1-201: Environmental test methods – Test for cold bend performance of cable

IEC 61196-1-203, Coaxial communication cables – Part 1-203: Environmental test methods – Test for water penetration of cable

IEC 61196-1-206, Coaxial communication cables – Part 1-206: Environmental test methods – Climatic sequence

IEC 61196-1-209, Coaxial communication cables – Part 1-209: Environmental test methods – Thermal cycling

IEC 61196-1-212, Coaxial communication cables – Part 1-212: Environmental test methods – UV stability

IEC 61196-1-301, Coaxial communication cables – Part 1-301: Mechanical test methods – Test for ovality

IEC 61196-1-302, Coaxial communication cables – Part 1-302: Mechanical test methods – Test for eccentricity

IEC 61196-1-308, Coaxial communication cables – Part 1-308: Mechanical test methods – Test for tensile strength and elongation for copper-clad metals

IEC 61196-1-310, *Coaxial communication cables – Part 1-310: Mechanical test methods – Test for torsion characteristics of copper-clad metals*

IEC 61196-1-313, *Coaxial communication cables – Part 1-313: Mechanical test methods – Adhesion of dielectric and sheath*

IEC 61196-1-314:2015, *Coaxial communication cables – Part 1-314: Mechanical test methods – Test for bending*

IEC 61196-1-316, *Coaxial communication cables – Part 1-316: Mechanical test methods – Test of maximum pulling force of cable*

IEC 61196-1-317, *Coaxial communication cables – Part 1-317: Mechanical test methods – Test for crush resistance of cable*

IEC 61196-1-324, *Coaxial communication cables – Part 1-324: Mechanical test methods – Test for abrasion resistance of cable*

~~IEC 62153 (all parts), *Metallic communication cable test methods*~~

IEC 62153-1-1, *Metallic communication cables test methods – Part 1-1: Electrical – Measurement of the pulse/step return loss in the frequency domain using the Inverse Discrete Fourier (IDFT)*

IEC 62153-4-3, *Metallic communication cable test methods – Part 4-3: Electromagnetic compatibility (EMC) – Surface transfer impedance – Triaxial method*

IEC 62153-4-4, *Metallic communication cable test methods – Part 4-4: Electromagnetic compatibility (EMC) – Test method for measuring of the screening attenuation as up to and above 3 GHz, triaxial method*

IEC 62230, *Electric cables – Spark-test method*



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IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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CONTENTS

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1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	7
4 Materials and cable construction	7
4.1 Cable construction	7
4.2 Inner conductor	7
4.2.1 Conductor material.....	7
4.2.2 Conductor construction	7
4.3 Dielectric	7
4.4 Outer conductor or screen	8
4.5 Sheath	8
4.6 Completed cable	8
5 Standard ratings and characteristics	8
6 Identification and marking	9
6.1 Cable identification.....	9
6.2 Sheath marking	9
6.3 Labelling	9
7 Tests for completed cables	10
7.1 General.....	10
7.2 Electrical testing of the finished cable.....	10
7.2.1 Low-frequency and DC electrical measurements.....	10
7.2.2 High-frequency electrical and transmission measurements.....	11
7.3 Environmental testing of the finished cable	13
7.4 Tests for mechanical characteristics of the finished cable.....	14
7.5 Fire performance test methods	14
8 Quality assessment	15
9 Delivery and storage.....	15
10 Fire performance test methods (FFS).....	15
Annex A (normative) Cable identification and marking	16
A.1 Cable identification.....	16
A.1.1 Type name.....	16
A.1.2 Variants	16
A.1.3 Screening classes.....	16
A.2 Cable marking.....	17
Bibliography	18
Table 1 – Low-frequency and DC electrical measurements	10
Table 2 – High-frequency electrical and transmission measurements	11
Table 3 – Environmental testing of the finished cable	13
Table 4 – Tests for mechanical characteristics of the finished cable.....	14
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