

---

**Sestavi radiofrekvenčnih in koaksialnih kablov - 3. del: Področna specifikacija za sestave polzviljavih koaksialnih kablov (IEC 60966-3:2023)**

Radio frequency and coaxial cable assemblies - Part 3: Sectional specification for semi-flexible coaxial cable assemblies (IEC 60966-3:2023)

Konfektionierte Koaxial- und Hochfrequenzkabel - Teil 3: Rahmenspezifikation für halbflexible konfektionierte Koaxialkabel (IEC 60966-3:2023)

Cordons coaxiaux et cordons pour fréquences radioélectriques - Partie 3: Spécification intermédiaire pour cordons coaxiaux semi-flexibles (IEC 60966-3:2023)

**Ta slovenski standard je istoveten z: EN IEC 60966-3:2023**

[SIST EN IEC 60966-3:2024](#)

<https://standards.ienorm.eu/catalog/standards/sist/1c330720-1856-4c96-b036-988456c72d8b/sist-en-iec-60966-3-2024>

**ICS:**

33.120.10      Koaksialni kabli. Valovodi      Coaxial cables. Waveguides

**SIST EN IEC 60966-3:2024**

**en**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN IEC 60966-3

December 2023

ICS 33.120.10

Supersedes EN 60966-3:2009

English Version

Radio frequency and coaxial cable assemblies - Part 3:  
Sectional specification for semi-flexible coaxial cable assemblies  
(IEC 60966-3:2023)

Cordons coaxiaux et cordons pour fréquences  
radioélectriques - Partie 3: Spécification intermédiaire pour  
cordons coaxiaux semi-flexibles  
(IEC 60966-3:2023)

Konfektionierte Koaxial- und Hochfrequenzkabel - Teil 3:  
Rahmenspezifikation für halbflexible konfektionierte  
Koaxialkabel  
(IEC 60966-3:2023)

This European Standard was approved by CENELEC on 2023-12-04. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

<https://standards.iteh.ai>  
SIST EN IEC 60966-3:2024

<https://standards.iteh.ai/catalog/standards/sist/1c330720-48b6-4c96-b056-9804f36e72db/sist-en-iec-60966-3-2024>



European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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

**EN IEC 60966-3:2023 (E)****European foreword**

The text of document 46/945/FDIS, future edition 4 of IEC 60966-3, prepared by IEC/TC 46 "Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60966-3:2023.

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) 2024-09-04
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-12-04

This document supersedes EN 60966-3:2009 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

**Endorsement notice**

The text of the International Standard IEC 60966-3:2023 was approved by CENELEC as a European Standard without any modification.

SIST EN IEC 60966-3:2024

<https://standards.iteh.ai/catalog/standards/sist/1c330720-48b6-4c96-b056-9804f36e72db/sist-en-iec-60966-3-2024>

## 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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-1	2013	Environmental testing - Part 1: General and guidance	EN 60068-1	2014
IEC 60966-1	2019	Radio frequency and coaxial cable assemblies - Part 1: Generic specification - General requirements and test methods	EN IEC 60966-1	2019
IEC 61169	series	Radio frequency connectors	EN 61169	series
IEC 61196-1-126	-	Coaxial communication cables - Part 1-119: Electrical test methods - Corona extinction voltage	-	-
IEC 61196-1-314	2015	Coaxial communication cables - Part 1-314: Mechanical test methods - Test for bending	-	-
IEC 61196-8	-	Coaxial communication cables - Part 8: Sectional specification for semi-flexible cables with fluoropolymer dielectric	-	-





IEC 60966-3

Edition 4.0 2023-10

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Radio frequency and coaxial cable assemblies –  
Part 3: Sectional specification for semi-flexible coaxial cable assemblies**

**Cordons coaxiaux et cordons pour fréquences radioélectriques –  
Partie 3: Spécification intermédiaire pour cordons coaxiaux semi-flexibles**

SIST EN IEC 60966-3:2024

<https://standards.iteh.ai/catalog/standards/sist/1c330720-48b6-4c96-b056-9804f36e72db/sist-en-iec-60966-3-2024>

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

ICS 33.120.10

ISBN 978-2-8322-7724-9

**Warning! Make sure that you obtained this publication from an authorized distributor.  
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

## CONTENTS

FOREWORD .....	3
1 Scope .....	5
2 Normative references .....	5
3 Terms and definitions .....	6
4 Design and construction .....	6
4.1 Cable design and construction .....	6
4.2 Connector design and construction .....	6
4.3 The relative position dimensions of the interface .....	6
4.4 Outline of the cable assembly .....	6
5 Workmanship, marking and packaging .....	7
6 IEC type designation .....	8
7 Rating and characteristics .....	9
7.1 Nominal characteristic impedance .....	9
7.2 Temperature range .....	9
8 Requirements of finished cable assemblies .....	9
8.1 General .....	9
8.2 Electrical requirements .....	9
8.3 Mechanical requirements .....	11
8.4 Environmental requirements .....	13
9 Quality management .....	15
10 Test schedules .....	16
10.1 Qualification test .....	16
10.2 Acceptance tests .....	17
10.3 Periodic tests .....	18
Annex A (normative) The relative position dimensions of the interface of some typical connectors .....	19
Annex B (normative) Preferred arrangement for vibrations, shocks test .....	22
Figure 1 – Length definition of cable assemblies with two connectors .....	7
Figure 2 – Length definition of cable assemblies with one connector .....	7
Figure 3 – The marking example of a cable assembly .....	8
Figure A.1 – The relative position dimensions of the interface of some typical connectors .....	20
Figure B.1 – Preferred arrangement for vibrations, shocks test .....	22
Table 1 – Rated temperature of cable assemblies with semi-flexible cables with polytetrafluoroethylene dielectric (IEC 61196-8) .....	9
Table 2 – Electrical requirements .....	10
Table 3 – Mechanical requirements .....	12
Table 4 – Environmental requirements .....	14
Table 5 – Qualification test .....	16
Table 6 – Acceptance test .....	17
Table 7 – Sampling plan .....	17
Table 8 – Periodic test .....	18
Table A.1 – The dimensions of A and B in Figure A.1 .....	21



## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## RADIO FREQUENCY AND COAXIAL CABLE ASSEMBLIES –

## Part 3: Sectional specification for semi-flexible coaxial cable assemblies

## 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.
- 2) The formal decisions or agreements of 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 IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 60966-3 has been prepared by IEC technical committee 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2008. This edition constitutes a technical revision.

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

- a) Added "4.3 The relative position dimensions of the interface";
- b) Added "Figure 2";
- c) Added "6 IEC type designation";
- d) Modified "Figure 3";

- e) Added “7 Rating and characteristics”;
- f) Added “Requirements/Remarks” to all the tests in Clause 8;
- g) Added some characteristics, such as insertion loss stability, intermodulation level measurement, corona extinction voltage, single bending, abrasion test of cable assembly, mechanical endurance, etc.;
- h) Rewrote test schedules;
- i) Added Annex A and Annex B.

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

Draft	Report on voting
46/945/FDIS	46/957/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.

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\\_experiments/refdocs](http://www.iec.ch/members_experiments/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

A list of all parts in the IEC 60966 series, published under the general title *Radio frequency and coaxial cable assemblies*, 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 [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

SIST EN IEC 60966-3:2024

<https://standards.iteh.ai/catalog/standards/sist/1c330720-48b6-4c96-b056-9804f36e72db/sist-en-iec-60966-3-2024>