

Radio frequency and coaxial cable assemblies —

Part 2-1: Sectional specification for flexible coaxial cable assemblies

The European Standard EN 60966-2-1:2003 has the status of a
British Standard

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National foreword

This British Standard is the official English language version of EN 60966-2-1:2003. It is identical with IEC 60966-2-1:2003. It supersedes BS EN 60966-2-1:1996 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee EPL/46, Cables, wires, waveguides, r.f. connectors, r.f. and microwave passive components and accessories, to Subcommittee EPL/46/1, Coaxial cables, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

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Radio frequency and coaxial cable assemblies
Part 2-1: Sectional specification for flexible coaxial cable assemblies
(IEC 60966-2-1:2003)

Ensembles de cordons coaxiaux
et de cordons pour fréquences
radioélectriques
Partie 2-1: Spécification intermédiaire
pour cordons coaxiaux souples
(CEI 60966-2-1:2003)

Konfektionierte Koaxial- und
Hochfrequenzkabel
Teil 2-1: Rahmenspezifikation
für flexible konfektionierte Koaxialkabel
(IEC 60966-2-1:2003)

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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, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, 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 46A/545/FDIS, future edition 2 of IEC 60966-2-1, prepared by SC 46A, Coaxial cables, of IEC TC 46, Cables, wires, waveguides, r.f. connectors, r.f. and microwave passive components and accessories, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60966-2-1 on 2003-10-01.

This European Standard supersedes EN 60966-2-1:1995 + A1:1997.

The major change with respect to EN 60966-2-1:1995 is the reference to the 1999 edition of the generic specification EN 60966-1.

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) 2004-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2006-10-01

This sectional specification is to be read with EN 60966-1:1999, *Radio frequency and coaxial cable assemblies – Part 1: Generic specification - General requirements and test methods*.

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60966-2-1:2003 was approved by CENELEC as a European Standard without any modification.

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RADIO FREQUENCY AND COAXIAL CABLE ASSEMBLIES –

Part 2-1: Sectional specification for flexible coaxial cable assemblies

1 Scope

This part of IEC 60966 is a sectional specification that relates to flexible coaxial cable assemblies operating in the transverse electromagnetic mode (TEM). It establishes uniform requirements for testing the electrical, mechanical and climatic properties of flexible cable assemblies composed of flexible coaxial cables and coaxial connectors.

NOTE 1 The numbering of the clauses is the same as in the generic specification.

NOTE 2 For the purpose of this sectional specification, a cable assembly is always regarded as an integral unit. All specifications apply to the finished assembly and not to individual and non-assembled parts thereof.

NOTE 3 This sectional specification should be supplemented with detail specifications giving additional details as required by the particular application. This application will not necessarily require all tests.

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 60068-2-6: *Environmental testing – Part 2: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60096-2:1988, *Radio-frequency cables – Part 2: Relevant cable specifications*

IEC 60169 (all parts), *Radio-frequency connectors*

IEC 60410:1973, *Sampling plans and procedures for inspection by attributes* IEC 60966-1:1999, *Radio-frequency and coaxial cable assemblies – Part 1: Generic specification – General requirements and test methods*

IEC 60966-1:1999, *Radio frequency and coaxial cable assemblies – Part 1: Generic specification – General requirements and test methods*

IEC 61169 (all parts), *Radio-frequency connectors*

IEC 61196 (all parts), *Radio-frequency cables*

ISO 9000, *Quality management systems – Fundamentals and vocabulary*

3 Definitions

For the purpose of this document, the definitions given in IEC 60966-1 apply.

4 Design and manufacturing requirements

The subclauses of Clause 4 of IEC 60966-1 are replaced by the following.

4.1 Cable design and construction

Cables should conform to IEC 60096-2 or IEC 61196. Where cable designs deviating from these publications are required they shall comply with the requirements of the detail specification.

If required, the manufacturer may use additional protective tubing or cable deviating from IEC 61196, in order to comply with the requirements of the detail specification.

The materials used in the cable shall be given as engineering information in the detail specification.

4.2 Connector design and construction

Connectors should conform to IEC 61169. Where connector designs deviating from IEC 61169 are required, the interface should conform to the relevant part of IEC 61169 where available and shall comply with the requirements of the detail specification.

The materials used in the connector shall be given as engineering information in the detail specification.

4.3 Outline and interface dimensions

The outline and interface dimensions shall be in accordance with the detail specification of the cable assembly.

The length, unless otherwise specified in the detail specification, is defined as between the reference planes of the connectors. In case of right angle connectors the length applies to the axis of the connectors (see Figure 1).

If not indicated in the detail specification, the length tolerance shall be ± 1 % for cables equal to, or longer than, 300 mm and ± 3 mm for cables shorter than 300 mm.