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## **Koaxialkablar med påmonterade anslutningsdon – Del 1: Artspecifikation – Allmänna fordringar och provningsmetoder**

*Radio frequency and coaxial cable assemblies –  
Part 1: Generic specification –  
General requirements and test methods*

Som svensk standard gäller europastandarden EN 60966-1:1999. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60966-1:1999.

### **Nationellt förord**

Europastandarden EN 60966-1:1999\*)

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60966-1, Second edition, 1999 - Radio frequency and coaxial cable assemblies - Part 1: Generic specification - General requirements and test methods**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 60966-1, utgåva 1, 1993.

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\*) EN 60966-1:1999 ikraftsattes 1999-10-29 som SS-EN 60966-1 genom offentliggörande, d v s utan utgivning av något svenskt dokument.

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### **SEK Svensk Elstandard**

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English version

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

Ensembles de cordons coaxiaux et  
de cordons pour fréquences  
radioélectriques  
Partie 1: Spécification générique  
Généralités et méthodes d'essai  
(CEI 60966-1:1999)

Konfektionierte Koaxial- und  
Hochfrequenzkabel  
Teil 1: Fachgrundspezifikation  
Allgemeine Anforderungen und  
Prüfverfahren  
(IEC 60966-1:1999)

This European Standard was approved by CENELEC on 1999-05-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, 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/343/FDIS, future edition 2 of IEC 60966-1, prepared by SC 46A, Coaxial cables, of IEC TC 46, Cables, wires, waveguides, R.F. connectors, and accessories for communication and signalling, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60966-1 on 1999-05-01.

This European Standard supersedes EN 60966-1:1993.

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) 2000-02-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2002-05-01

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annexes A, E and ZA are normative and annexes B, C and D are informative.  
Annex ZA has been added by CENELEC.

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### Endorsement notice

The text of the International Standard IEC 60966-1:1999 was approved by CENELEC as a European Standard without any modification.

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 60068-2-3                  | 1969               | Basic environmental testing procedures<br>Part 2: Tests - Test Ca: Damp heat, steady state                  | HD 323.2.3 S2 <sup>1)</sup>  | 1987        |
| IEC 60068-2-6<br>+ corr. March | 1995<br>1995       | Part 2: Tests - Test Fc: Vibration<br>(sinusoidal)                                                          | EN 60068-2-6                 | 1995        |
| IEC 60068-2-11                 | 1981               | Part 2: Tests - Test Ka: Salt mist                                                                          | EN 60068-2-11                | 1999        |
| IEC 60068-2-14                 | 1984               | Part 2: Tests - Test N: Change of temperature                                                               | HD 323.2.14 S2 <sup>2)</sup> | 1987        |
| IEC 60068-2-27                 | 1987               | Part 2: Tests - Test Ea and guidance: Shock                                                                 | EN 60068-2-27                | 1993        |
| IEC 60068-2-29<br>+ corr.      | 1987               | Part 2: Tests - Test Eb and guidance: Bump                                                                  | EN 60068-2-29                | 1993        |
| IEC 60068-2-42                 | 1982               | Part 2: Tests - Test Kc: Sulphur dioxide test for contacts and connections                                  | -                            | -           |
| IEC 60068-2-68                 | 1994               | Part 2: Tests - Test L: Dust and sand                                                                       | EN 60068-2-68                | 1996        |
| IEC 60096-1                    | 1986               | Radio-frequency cables<br>Part 1: General requirements and measuring methods                                | -                            | -           |
| IEC 60332-1                    | 1993 <sup>3)</sup> | Tests on electric cables under fire conditions<br>Part 1: Test on a single vertical insulated wire or cable | -                            | -           |

1) HD 323.2.3 S2 includes A1:1984 to IEC 60068-2-3.

2) HD 323.2.14 S2 includes A1:1986 to IEC 60068-2-14.

3) HD 405.1 S1 is superseded by EN 50265-1:1998 and EN 50265-2-1:1998, which are related to IEC 60332-1:1993.

| <u>Publication</u> | <u>Year</u> | <u>Title</u>                                                                                                                                                                                                              | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|
| IEC 60339          | series      | General purpose rigid coaxial transmission lines and their associated flange connectors                                                                                                                                   | HD 350       | series      |
| IEC 60512-5        | 1992        | Electromechanical components for electronic equipment, basic testing procedures and measuring methods<br>Part 5: Impact tests (free components), static load tests (fixed components), endurance tests and overload tests | -            | -           |
| IEC 61169-1        | 1992        | Radio-frequency connectors<br>Part 1: Generic specification - General requirements and measuring methods                                                                                                                  | EN 61169-1   | 1994        |
| IEC 61196-1        | 1995        | Radio-frequency cables<br>Part 1: Generic specification - General, definitions, requirements and test methods                                                                                                             | -            | -           |
| IEC 61726          | 1995        | Cable assemblies, cables, connectors and passive microwave components - Screening attenuation measurement by the reverberation chamber method                                                                             | -            | -           |
| IEC QC 001002      | 1986        | Rules of procedure of the IEC Quality Assessment System for Electronic Components (IECQ)                                                                                                                                  | -            | -           |
| ISO 9000           | series      | Quality management and quality assurance standards                                                                                                                                                                        | EN ISO 9000  | series      |
| ISO 9001           | 1994        | Quality systems - Model for quality assurance in design/ development, production, installation and servicing                                                                                                              | EN ISO 9001  | 1994        |
| ISO 9002           | 1994        | Quality systems - Model for quality assurance in production, installation and servicing                                                                                                                                   | EN ISO 9002  | 1994        |

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## RADIO FREQUENCY AND COAXIAL CABLE ASSEMBLIES –

## Part 1: Generic specification – General requirements and test methods

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The 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 the 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 National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
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- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60966-1 has been prepared by subcommittee 46A: Coaxial cables, of IEC technical committee 46: Cables, wires, waveguides, r.f. connectors and accessories for communication and signalling.

This second edition cancels and replaces the first edition published in 1988, amendment 1 (1990) and amendment 2 (1995) and constitutes a technical revision.

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

| FDIS         | Report on voting |
|--------------|------------------|
| 46A/343/FDIS | 46A/346/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.

Annexes A and E form an integral part of this standard.

Annexes B, C and D are for information only.

## RADIO FREQUENCY AND COAXIAL CABLE ASSEMBLIES –

### Part 1: Generic specification – General requirements and test methods

#### 1 Scope

This International Standard specifies requirements for radio frequency coaxial cable assemblies operating in the transverse electromagnetic mode (TEM) and establishes general requirements for testing the electrical, mechanical and environmental properties of radio frequency coaxial cable assemblies composed of cables and connectors. Additional requirements relating to specific families of cable assemblies are given in the relevant sectional specifications.

NOTE 1 – The design of the cables and connectors used should preferably conform to the applicable parts of IEC 61196 and IEC 61169 respectively.

NOTE 2 – This specification does not include tests which are normally performed on the cables and connectors separately. These tests are described in IEC 61196-1 and IEC 61169-1 respectively.

NOTE 3 – Wherever possible, cables and connectors used in cable assemblies, even if they are not described in the IEC 61196 or IEC 61169 series are tested separately according to the tests given in the relevant generic specification.

NOTE 4 – Where additional protection is applied to a cable assembly, the mechanical and environmental tests described in this standard are applicable.

#### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60966. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 60966 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60068-2-3:1969, *Environmental testing – Part 2: Tests – Test Ca: Damp heat, steady state*

IEC 60068-2-6:1995, *Environmental testing – Part 2: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-11:1981, *Environmental testing – Part 2: Tests – Test Ka: Salt mist*

IEC 60068-2-14:1984, *Environmental testing – Part 2: Tests – Test N: Change of temperature*

IEC 60068-2-27:1987, *Environmental testing – Part 2: Tests – Test Ea and guidance: Shock*

IEC 60068-2-29:1987, *Environmental testing – Part 2: Tests – Test Eb and guidance: Bump*

IEC 60068-2-42:1982, *Environmental testing – Part 2: Tests – Test Kc: Sulphur dioxide test for contacts and connections*

IEC 60068-2-68:1994, *Environmental testing – Part 2: Tests – Test L: Dust and sand*

IEC 60096-1:1986, *Radio frequency cables – Part 1: General requirements and measuring methods*

IEC 60332-1:1993, *Tests on electric cables under fire conditions – Part 1: Test on a single vertical insulated wire or cable*

IEC 60339 (all parts), *General purpose rigid coaxial transmission lines and their associated flange connectors*

IEC 60512-5:1992, *Electromechanical components for electronic equipment, basic testing procedures and measuring methods – Part 5: Impact tests (free components), static load tests (fixed components), endurance tests and overload tests*

IEC 61169-1:1992, *Radio-frequency connectors – Part 1: Generic specification – General requirements and measuring methods*

IEC 61196-1:1995, *Radio-frequency cables – Part 1: Generic specification – General definitions, requirements and test methods*

IEC 61726:1995, *Cable assemblies, cables, connectors and passive microwave components – Screening attenuation measurement by the reverberation chamber method*

IEC QC 001002:1986, *Rules of procedure of the IEC quality assessment system for electronic components (IECQ)*

ISO 9000, *Quality management and quality assurance standards*

ISO 9001:1994, *Quality systems – Model for quality assurance in design, development, production, installation and servicing*

ISO 9002:1994, *Quality systems – Model for quality assurance in production, installation and servicing*