
**Elektroakustika – Slušni pripomočki – 7. del: Merjenje zmogljivostnih
karakteristik slušnih pripomočkov za zagotavljanje kakovosti pri proizvodnji,
oskrbi in dostavi (IEC 60118-7:2005)**

Electroacoustics – Hearing aids – Part 7: Measurement of the performance
characteristics of hearing aids for production, supply and delivery quality
assurance purposes (IEC 60118-7:2005)

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English version

**Electroacoustics –
Hearing aids
Part 7: Measurement of the performance characteristics of hearing aids
for production, supply and delivery quality assurance purposes
(IEC 60118-7:2005)**

Electroacoustique –
Appareils de correction auditive
Partie 7: Mesure des caractéristiques
fonctionnelles des appareils de correction
auditive aux fins d'assurance de la qualité
de la production, de la livraison
et des approvisionnements
(CEI 60118-7:2005)

Akustik –
Hörgeräte
Teil 7: Messung der
Übertragungseigenschaften von
Hörgeräten zum Zwecke der
Qualitätssicherung in der Herstellung,
Versorgung und Lieferung
(IEC 60118-7:2005)

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This European Standard was approved by CENELEC on 2005-12-01. 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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 29/585/FDIS + 29/587/INF, future edition 2 of IEC 60118-7, prepared by IEC TC 29, Electroacoustics, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60118-7 on 2005-12-01.

This European Standard supersedes EN 60118-7:1993 + A1:1994.

This European Standard includes major changes, e.g. regarding the definition of reference test gain. In general this edition aligns IEC 60118-7 and the ANSI S3.22 (2003) standard.

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) 2006-09-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2008-12-01

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 60118-7:2005 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 60068	NOTE	Harmonized in the EN 60068 series (not modified).
IEC 60118-0	NOTE	Harmonized as EN 60118-0:1993 (not modified).
IEC 60118-1	NOTE	Harmonized as EN 60118-1:1995 (not modified).
IEC 60118-2	NOTE	Harmonized as EN 60118-2:1995 (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE Where 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 60318-5	- 1)	Electroacoustics - Simulators of human head and ear Part 5: 2 cm ³ coupler for the measurement of hearing aids and earphones coupled to the ear by means of ear inserts	-	-

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1) At draft stage.

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC

60118-7

Deuxième édition
Second edition
2005-10

**Electroacoustique –
Appareils de correction auditive –**

**Partie 7:
Mesure des caractéristiques fonctionnelles
des appareils de correction auditive aux fins
d'assurance de la qualité de la production,
de la livraison et des approvisionnements**

[SIST EN 60118-7:2006](https://standards.iteh.ai/catalog/standards/sist/85d72fe9-8053-47ce-8b1e-672200002051/en-60118-7-2006)

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**Electroacoustics –
Hearing aids –**

**Part 7:
Measurement of the performance characteristics
of hearing aids for production, supply and
delivery quality assurance purposes**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTROACOUSTICS – HEARING AIDS –**Part 7: Measurement of the performance characteristics
of hearing aids for production, supply and delivery
quality assurance purposes**

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.
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International Standard IEC 60118-7 has been prepared by IEC technical committee 29: Electroacoustics.

This second edition cancels and replaces the first edition published in 1983. This technical revision includes major changes eg. regarding the definition of reference test gain. In general this edition aligns IEC 60118-7 and the ANSI S3.22 (2003) standard.

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

FDIS	Report on voting
29/585/FDIS	29/590/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.

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

IEC 60118 consists of the following parts, under the general title *Electroacoustics – Hearing aids* ¹⁾:

- Part 0: Measurement of electroacoustical characteristics
- Part 1: Hearing aids with induction pick-up coil input
- Part 2: Hearing aids with automatic gain control circuits
- Part 3: Hearing aid equipment not entirely worn on the listener
- Part 4: Magnetic field strength in audio-frequency induction loops for hearing aid purposes
- Part 5: Nipples for insert earphones
- Part 6: Characteristics of electrical input circuits for hearing aids
- Part 7: Measurement of the performance characteristics of hearing aids for production, supply and delivery quality assurance purposes
- Part 8: Methods of measurement of performance characteristics of hearing aids under simulated in situ working conditions
- Part 9: Methods of measurement of characteristics of hearing aids with bone vibrator output
- Part 11: Symbols and other markings on hearing aids and related equipment
- Part 12: Dimensions of electrical connector systems
- Part 13: Electromagnetic compatibility (EMC)
- Part 14: Specification of a digital interface device

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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

¹⁾ Various parts of the series were published under the general title *Hearing aids*. Future editions of these parts will appear under the new general title.

ELECTROACOUSTICS – HEARING AIDS –

Part 7: Measurement of the performance characteristics of hearing aids for production, supply and delivery quality assurance purposes

1 Scope

This part of IEC 60118 gives recommendations for the measurement of the performance characteristics of air-conduction hearing aids of a particular model for production, supply and delivery quality assurance purposes. The manufacturer will normally assign nominal values.

This standard does not relate to mechanical or environmental tests. It should not be used as the basis for the exchange of information about hearing aid characteristics in general, nor is it intended to be used as a predictor for real-ear performance.

NOTE Terms such as "manufacturer" and "purchaser" are used in this standard. These terms may be understood, however, to refer to the supplier and recipient respectively in any arrangement for the supply of hearing aids in which the use of this standard is called for.

Though the number of measurements covered by this standard is limited, it is not intended that all measurements described herein shall be made in every case.

This second edition now specifies performance requirements. Conformance to the specifications in this standard is demonstrated only when the result of a measurement, extended by the actual expanded uncertainty of measurement of the testing laboratory, lies fully within the tolerances specified in this standard extended by the values for U_{\max} given in Table 4.

In case of custom-made in-the-ear instruments, the data supplied by the manufacturer applies only to the particular hearing aid being tested.

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 60318-5, *Electroacoustics – Simulators of human head and ear – Part 5: 2 cm³ coupler for the measurement of hearing aids and earphones coupled to the ear by means of ear inserts*²⁾

3 Terms and definitions

For the purpose of this document, the following terms and definitions apply:

²⁾ To be published. IEC 60318-5 is a revision of IEC 60126:1973, *IEC reference coupler for the measurement of hearing aids using earphones coupled to the ear by means of ear inserts*.