

<b>STN</b>	<b>Elektroakustika. Sluchové protézy. Časť 0: Meranie prevádzkových charakteristík sluchových protéz.</b>	<b>STN EN 60118-0</b>  36 8860
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Electroacoustics - Hearing aids - Part 0: Measurement of the performance characteristics of hearing aids

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 12/15

Obsahuje: EN 60118-0:2015, IEC 60118-0:2015

Oznámením tejto normy sa od 14.07.2018 ruší  
STN EN 60118-0 (36 8860) z decembra 1999

STN EN 60118-1 (36 8860) z júna 2001

STN EN 60118-2 (36 8860) z júna 2001

STN EN 60118-6 (36 8860) z júna 2001

**122197**

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Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2016  
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy  
rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

EUROPEAN STANDARD

**EN 60118-0**

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2015

ICS 17.140.50

Supersedes EN 60118-0:1993, EN 60118-1:1995, EN  
60118-2:1995, EN 60118-6:1999

English Version

## Electroacoustics - Hearing aids - Part 0: Measurement of the performance characteristics of hearing aids (IEC 60118-0:2015)

Electroacoustique - Appareils de correction auditive - Partie  
0: Mesure des caractéristiques fonctionnelles des appareils  
de correction auditive  
(IEC 60118-0:2015)

Akustik - Hörgeräte - Teil 0: Messung der  
Leistungsmerkmale von Hörgeräten  
(IEC 60118-0:2015)

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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## European foreword

The text of document 29/867A/FDIS, future edition 3 of IEC 60118-0, prepared by IEC TC 29, Electroacoustics, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60118-0:2015.

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) 2016-04-14
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-07-14

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In the official version, for Bibliography, the following note has to be added for the standard indicated :

IEC 60068 (series)	NOTE	Harmonized as EN 60068 (series).
IEC 60118-7:2005	NOTE	Harmonized as EN 60118-7:2005.
IEC 60118-8:2005	NOTE	Harmonized as EN 60118-8:2005.
IEC 60118-12	NOTE	Harmonized as EN 60118-12.
IEC 60118-15	NOTE	Harmonized as EN 60118-15.
IEC 60318-1	NOTE	Harmonized as EN 60318-1.
IEC 60118-15	NOTE	Harmonized as EN 60118-15.
IEC 60318-4:2010	NOTE	Harmonized as EN 60318-4:2010.

## Annex ZA (normative)

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

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When 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 60318-5	-	Electroacoustics - Simulators of human head and ear -- Part 5: 2 cm <sup>3</sup> coupler for the measurement of hearing aids and earphones coupled to the ear by means of ear inserts	EN 60318-5	-
ISO 3	-	Preferred numbers; Series of preferred numbers	-	-



# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

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**Electroacoustics – Hearing aids –  
Part 0: Measurement of the performance characteristics of hearing aids**

**Électroacoustique – Appareils de correction auditive –  
Partie 0: Mesure des caractéristiques fonctionnelles des appareils de correction  
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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

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**Electroacoustics – Hearing aids –  
Part 0: Measurement of the performance characteristics of hearing aids**

**Électroacoustique – Appareils de correction auditive –  
Partie 0: Mesure des caractéristiques fonctionnelles des appareils de correction  
auditive**

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ICS 17.140.50

ISBN 978-2-8322-2692-6

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**ELECTROACOUSTICS –  
HEARING AIDS –****Part 0: Measurement of the performance  
characteristics of hearing aids**

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International Standard IEC 60118-0 has been prepared by IEC technical committee 29: Electroacoustics.

This third edition cancels and replaces the second edition published in 1983 and its Amendment 1:1994 as well as IEC 60118-1:1995, Amendment 1:1998, IEC 60118-2:1983, Amendment 1:1993, Amendment 2:1997 and IEC 60118-6:1999. This edition constitutes a technical revision.

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

- a) the use of an acoustic coupler according to IEC 60318-5;
- b) the addition of measurements for automatic gain control circuits, for induction pick-up coil inputs and for electrical inputs.

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

FDIS	Report on voting
29/867A/FDIS	29/874/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.

A list of all parts in the IEC 60118 series, published under the general title *Electroacoustics – Hearing aids*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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.

## ELECTROACOUSTICS – HEARING AIDS –

### Part 0: Measurement of the performance characteristics of hearing aids

#### 1 Scope

This part of IEC 60118 gives recommendations for the measurement of the performance characteristics of air conduction hearing aids based on a free field technique and measured with an acoustic coupler.

This part of IEC 60118 is applicable to the measurement and evaluation of the electroacoustical characteristics of hearing aids, for example for type testing and manufacturer data sheets.

The test results obtained by the methods specified in this part of IEC 60118 will express the performance under conditions of the test and may deviate substantially from the performance of the hearing aid under actual conditions of use.

This part of IEC 60118 uses an acoustic coupler according to IEC 60318-5 which is only intended for loading a hearing aid with a specified acoustic impedance and is not intended to model the sound pressure in a person's ear. The use of this acoustic coupler will yield different results from those obtained using the occluded ear simulator of IEC 60318-4 as used in former editions of IEC 60118-0.

For the measurement of the performance characteristics of hearing aids for simulated *in situ* working conditions, IEC 60118-8 can be used. For measurement of hearing aids under typical user settings and using a speech-like signal, IEC 60118-15 can be used.

For the measurement of the performance characteristics of hearing aids for production, supply and delivery quality-assurance purposes, IEC 60118-7 can be used. The frequency range has been extended to 8 kHz in this part of IEC 60118 as opposed to 5 kHz in IEC 60118-7.

Though the number of measurements covered by this part of IEC 60118 is limited, it is not intended that all measurements described herein are mandatory.

In cases 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 documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 cm<sup>3</sup> coupler for the measurement of hearing aids and earphones coupled to the ear by means of ear inserts*

ISO 3, *Preferred numbers -- Series of preferred numbers*

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