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IEC 60268-5

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# INTERNATIONAL STANDARD

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**Sound system equipment –  
Part 5: Loudspeakers**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### SOUND SYSTEM EQUIPMENT –

#### Part 5: Loudspeakers

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International Standard IEC 60268-5 has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

This consolidated version of IEC 60268-5 consists of the third edition (2003) [documents 100/648/FDIS and 100/674/RVD] and its amendment 1 (2007) [documents 100/1189/CDV and 100/1245/RVC].

The technical content is therefore identical to the base edition and its amendment(s) and has been prepared for user convenience.

It bears the edition number 3.1.

A vertical line in the margin shows where the base publication has been modified by amendment 1.

This standard is to be read in conjunction with IEC 60268-1, IEC 60268-2 and ISO 3741.

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

The committee has decided that the contents of the base publication and its amendments 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- withdrawn,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.

A bilingual edition of this standard may be issued at a later date.

## SOUND SYSTEM EQUIPMENT –

### Part 5: Loudspeakers

#### 1 Scope

This standard applies to sound system loudspeakers, treated entirely as passive elements. Loudspeakers with built-in amplifiers are excluded.

NOTE 1 The term “loudspeaker” used in this standard relates to loudspeaker drive units themselves and also to loudspeaker systems, which comprise one or more loudspeaker drive units provided with a baffle, enclosure or horn and such relevant devices as built-in crossover filters, transformers and any other passive element.

The purpose of this standard is to give the characteristics to be specified and the relevant methods of measurement for loudspeakers using sinusoidal or specified noise or impulsive signals.

NOTE 2 The methods of measurement given in this standard have been chosen for their appropriateness to the characteristics.

NOTE 3 If equivalent results can be obtained using other methods of measurement, details of the methods used should be presented with the results.

NOTE 4 The following items are under consideration:

- loudspeakers with built-in amplifiers;
- measurements under conditions other than free-field, half-space free-field and diffuse field;
- measurements with signals other than sinusoidal or noise or impulsive signals.

#### 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 60050(151), *International Electrotechnical Vocabulary (IEV) – Part 151: Electrical and magnetic devices*

IEC 60263, *Scales and sizes for plotting frequency characteristics and polar diagrams*

IEC 60268-1, *Sound system equipment – Part 1: General*

IEC 60268-2, *Sound system equipment – Part 2: Explanation of general terms and calculation methods*

IEC 60268-3, *Sound system equipment – Part 3: Amplifiers*

IEC 60268-11, *Sound system equipment – Part 11: Application of connectors for the interconnection of sound system components*

IEC 60268-12, *Sound system equipment – Part 12: Application of connectors for broadcast and similar use*

IEC 60268-14, *Part 14: Circular and elliptical loudspeakers; outer frame diameters and mounting dimensions*

IEC 60651, *Sound level meters*

IEC 61260, *Electroacoustics – Octave-band and fractional-octave-band filters*

ISO 3741, *Acoustics – Determination of sound power levels of noise sources using sound pressure – Precision methods for reverberation rooms*

ISO 3744, *Acoustics – Determination of sound power levels of noise sources using sound pressure – Engineering method in an essentially free field over a reflecting plane*

ISO 3745, *Acoustics – Determination of sound power levels of noise sources – Precision methods for anechoic and semi-anechoic rooms*