



**NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**GB/T 4214.1-2017**

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**Test method for noise of household and similar electrical  
appliances -- General requirements**

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### Foreword

GB/T 4214 "Test method for noise of household and similar electrical appliances" consists of several parts. Part 1 is the general requirements. Other parts are particular requirements.

This Part is Part 1 of GB/T 4214.

This Part is drafted in accordance with the rules given in GB/T 1.1-2009.

This Part replaces GB/T 4214.1-2000 "Acoustics - Household and similar electrical appliances - Test code for determination of airborne acoustical noise

- Part 1.General requirements". As compared with GB/T 4214.1-2000, in addition to editorial changes, the main technical changes are as follows.

- For Clause 1 Scope, modify the scope of the appliance not applicable;
- ADD the term and definition of 3.10;
- ADD instructions for testing the parts of household appliances, including loading and testing enveloping surface, etc. (See 6.2.5, 6.4.1, 7.1.4);
- Propose the test method for frequency-conversion household appliances (See 6.4.1);
- Describe the installation of wall-mounted appliances in detail (See 6.5.4, 7.1.2);
- For the test of wall built-in appliance, GIVE a detailed description of the test method and the test enclosure (See 6.5.5, Annex B);
- For the selection of hemispherical enveloping surface, MAKE a division and description. The radius is not limited to 1.5 m and 2 m. For small appliances and household appliance parts etc., a test radius of 1 m can be used (See 7.1.4);
- ADD a test method for the operational noise of non-stationary appliances (See 7.4.1);
- Modify the provisions for corrected value of background noise (See 8.2).

This Part uses redraft law to modify and adopt IEC 60704-1.2010 (Edition 3.0) "Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 1.General requirements".

As compared with IEC 60704-1.2010, the main technical differences in this Part and their reasons are as follows.

- About normative references, this Part has made adjustments with technical

differences, to adapt to the technical conditions of China. The adjustments are reflected in Clause 2 "Normative references", as follows.

? Replace IEC 61260.1995 with GB/T 3241-2010 which modifies and adopts the international standard;

? Replace ISO 3744.1994 with GB/T 3767-1996 which is not equivalent to the international standard.

- For Clause 1 Scope, modify the scope of the appliance not applicable.

Reason. Household and similar air conditioners are covered by this Standard.

- ADD the term and definition of 3.10. Reason. This term appears in 7.4.1.

- ADD instructions for testing the parts of household appliances, including loading and testing enveloping surface, etc. (6.2.5, 6.4.1, 7.1.4). Reason. Define the test method for parts of household appliances.

- Propose the test method for frequency-conversion household appliances (6.4.1). Reason. Define the test method for frequency-conversion household appliances.

- Describe the installation of wall-mounted appliances in detail (7.1.2).

Reason. Define the installation of wall-mounted appliances.

- For the selection of hemispherical enveloping surface, MAKE a division and description. The radius is not limited to 1.5 m and 2 m. For small appliances and household appliance parts etc., a test radius of 1 m can be used (7.1.4).

Reason. Define the method of selecting a hemispherical enveloping surface.

- ADD a test method for the operational noise of non-stationary appliances (7.4.1). Reason. Define the test method for the operational noise of non-stationary appliances.

- CORRECT the mis-presentation of the comparison-method calculation formula in 8.5. Reason. Corrigendum.

- Delete Annex C. Reason. This Standard does not use the contents of Annex

C.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The issuing authority of this document shall not be held responsible for identifying any or all such patent rights.

This Part was proposed by China National Light Industry Council.

This Part shall be under the jurisdiction of National Standardization Technical Committees on Household Electric Appliances (SAC/TC 46).

The previous editions of the standard replaced by this Part were released as follows.

- GB/T 4214.1-2000;

- GB/T 4214-1984.

## 1 Scope and object

This Part of GB/T 4214 applies to electric appliances (including their accessories or components) for household and similar use, supplied from mains or from batteries.

## 2 Normative references

The following documents are indispensable for the application of this document.

For the dated references, only the editions with the dates indicated are applicable to this document. For the undated references, the latest edition (including all the amendments) are applicable to this document.

GB/T 3241-2010 Electroacoustics - Octave-band and fractional-octave-band filters (IEC 61260.1995, MOD)

GB/T 3767-1996 Acoustics - Determination of Sound Power Levels of Noise Sources Using Sound Pressure - Engineering Method in an Essentially Free Field over a Reflecting Plane (eqv ISO 3744.1994)

GB/T 3785.1-2010 Electroacoustics - Sound level meters - Part 1. Specifications (IEC 61672-1.2002, IDT)

GB/T 4129-2003 Acoustics - Requirements for the performance and