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

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**Acoustics - Determination of high-frequency sound power
levels emitted by machinery and equipment**

声学 机器设备发射的高频声功率级测定

(English Translation)

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Table of Contents

Preface
Introduction
1 Scope
2 Normative references
3 Terms and Definitions
4 Conformance Requirements
5 Requirements for measurements in a reverberation test chamber
6 Using the method of measuring reverberation time
7 Using the method for calculating airborne sound absorption
8 Methods of using standard sound sources
9 Method using a free field above a reflecting surface
10 Calculation of sound power level under standard meteorological conditions
11 Measurement uncertainty
12 Record information
13 Report Information
Appendix A (Normative) Calculation of air sound absorption coefficient
Reference

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is equivalent to ISO 9295:2015 "Determination of high-frequency sound power levels emitted by acoustic equipment".

Introduction

Some machines and equipment emit high-frequency noise, which may be broadband noise (such as paper noise from high-speed printing), or narrowband noise and Scattered pure sounds (such as switching power supplies and video monitor or medical device noise).

The main purpose of this document is to specify the method for determining sound power levels and pure tone frequencies in 16 kHz octave bands.

Determination of high frequency sound power levels emitted by acoustic equipment

1 Scope

This document describes four methods for determining the sound power level of high frequency noise emitted by machinery and equipment, with a center frequency of 16 kHz.

These methods are an improvement over those described in ISO 3741 and ISO 3744.

Supplement. The first three methods are based on reverberation chamber technology, and the fourth method uses a free field above a reflecting surface.

The equipment described in this document is installed and operated under the same test conditions as specified in ISO 3741 and ISO 3744.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

ISO 3741 Acoustics-Determin-Note. GB/T 6881-2023 Acoustics - Determination of sound power level and sound energy level of noise source by sound pressure method - Reverberation chamber precision method (ISO 3741:2010, IDT) ISO 3744 Acoustics - Determination of sound power level and sound energy level of noise sources by sound pressure method - Engineering method for approximation to free field above reflecting surfaces Note. GB/T 3767-2016 Acoustics - Determination of sound power level and sound energy level of noise source by sound pressure method - Engineering method for approximate free field above reflecting surface (ISO 3744:2010, IDT) ISO 6926 Acoustics - Requirements for the performance and calibration of standard sound sources for the determination of sound power levels power levels) Note. GB/T 4129-2003 Acoustics Performance and calibration requirements for standard sound sources used in sound power level determination (ISO 6926:1999, IDT) ISO 9613-1 Acoustics - Attenuation of outdoor sound propagation - Part 1: Calculation of atmospheric sound absorption Note. GB/T 17247.1-2000 Acoustics Outdoor sound propagation attenuation Part 1: Calculation of atmospheric sound absorption (ISO 9613-1:1999, eqv)

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 3741 and ISO 3744 apply.

4 Consistency requirements

If the method used to measure high frequency noise meets all the technical requirements of one of the four methods described in Chapters 6 to 9, and the If the information recorded and reported complies with the requirements of Chapters 12 and 13, the measurement method complies with this document.