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

**GB/T 17248.6-2007**

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**Acoustics -- Noise emitted by machinery and equipment -- Engineering method  
for the determination of emission sound pressure levels in situ at the work  
station and at other specified positions using sound intensity**

声学 机器和设备发射的噪声 声强法现场测定工作位置和其它指定位置发射声压  
级的工程法

**(English Translation)**

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## Table of Contents

Introduction

1 Scope

2 Normative references

3 Terms and definitions

Measurement Uncertainty 3

PRINCIPLE

6 Instruments

Installing and running the sound source 4

8 Test Procedure

9 Record content

Content report 10

Criterion Appendix A (normative) sound intensity vector direction to meet the requirements of

Processing Method Appendix B (normative) frequencies above 5000Hz

Processing method Appendix C (normative) Measurement not meet the requirements of

Annex D (informative) Example 12 Test Bench

References

## Foreword

GB/T 17248 "Acoustics - Noise emitted by machinery and equipment" includes the following six sections.

--- GB/T 17248.1-2000 Acoustics machinery and equipment noise emission measurement operating position and at other specified positions launch Guidelines for the use of basic standards of the SPL

--- GB/T 17248.2-1999 Acoustics - Noise emitted by machinery and equipment and other operating positions specified position emission sound pressure Level measurement over a reflecting plane free field engineering method

--- GB/T 17248.3-1999 Acoustics - Noise emitted by machinery and equipment and other operating positions specified position emission sound pressure Level measurement method in situ

--- GB/T 17248.4-1998 Acoustics - Noise emitted by machinery and equipment is determined by the sound power level and other working position means Emission sound

pressure level given location

--- GB/T 17248.5-1999 Acoustics - Noise emitted by machinery and equipment and other operating positions specified position emission sound pressure Level measurement environment Amendment Act

--- GB/T 17248.6-2007 Acoustics - Noise emitted by machinery and equipment sound intensity measurement method work site location and other means Given position emission sound pressure - Engineering method this part of GB/T 17248 Part 6, this part identical with ISO 11205:2003 "Acoustic noise emitted by machinery and equipment Situ measurements of sound intensity method work station and at other specified positions of emission sound pressure - Engineering method "(in English).

This section of the Appendix A, Appendix B, Appendix C is normative appendix, Appendix D is an informative annex.

This section proposed by the Chinese Academy of Sciences.

The acoustics in part by the National Standardization Technical Committee (SAC/TC17) centralized.

This part of the National Standardization Technical Committee responsible for interpreting acoustics.

This part mainly drafted by. Institute of Acoustics, Chinese Academy of Sciences, Hefei University of Technology, Shanghai Electric Institute of Science.

## 1 Scope

This section provides an engineering method (Grade 2 accuracy), which use sound intensity measurement method field machinery and equipment and its operating position He specified the location of emission sound pressure, which is GB/T 17248.2, GB/T 17248.3 and GB/T 17248.5 outside An alternative Optional on-site measurements. When the background noise and acoustic field index to meet the requirements, which apply to all of the test environment.

This section applies to stationary broadband noise emitting devices. These noises in different operation periods can vary, noise can be There is no discrete or narrow-band frequency component or components.

## 2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this part. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this section, however, encourage the parties to this part of the research agreement Whether the latest versions of these documents. For

undated reference documents, the latest versions apply to this section.

GB/T 14573.1 determining and verifying equipment statistical method prescribed noise emission values Part I. Overview and Define (GB/T 14573.1-1993, neq ISO 7574-1. 1985)  
Noise Noise Test Standards GB/T 19052 Acoustics emitted by machinery and equipment specification drafting and presentation (GB/T 19052-2003, ISO 12001:1996, IDT) IEC 60942 electrical sound calibrator IEC 61043 electrical sound intensity meter microphone pressure measurement pairing Sound

### 3 Terms and Definitions

The following terms and definitions apply GB/T 17248 in this section.

Sound field at some point, instantaneous sound on the basis of the instantaneous particle velocity perpendicular to the direction of energy per unit time by time average.

$I = \lim$

$T \rightarrow \infty$

Where.

$T$  --- integration time in seconds (s).

**Note 1:** The sound intensity is a vector, in units of watts per square meter (W/m<sup>2</sup>).

**Note 2:** In the specified direction like  $I$  like the sound intensity equal to  $I \cdot \text{shape}$ .

**Note 3:** In the case of the free spherical wave or a plane wave sound propagation direction is strong where.

$\rho$  --- medium density in kilograms per cubic meter (kg/m<sup>3</sup>)

$c$  --- speed of sound in meters per second (m/s).

GB/T 17248.6-2007/ISO 11205:2003