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ICS 19.040;29.020

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GB/T 2423.39-2018 / IEC 60068-2-55:2013

Replacing GB/T 2423.39-2008

Environmental testing - Part 2: Test methods - Test Ee and guidance: Loose cargo testing including bounce

环境试验 第 2 部分: 试验方法

试验 Ee 和导则:散装货物试验包含弹跳

(IEC 60068-2-55:2013, Environmental testing - Part 2-55: Tests - Test Ee and guidance - Loose cargo testing including bounce, IDT)

Issued on: December 28, 2018 **Implemented on: July 01, 2019**

Issued by: State Administration for Market Regulation;

Standardization Administration of the People's Republic of China.

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Foreword

GB/T 2423 "Environmental testing - Part 2: Test methods - Test Ee and guidance: Loose cargo testing including bounce" is divided into several parts according to the test methods.

This Part is Part 39 of GB/T 2423.

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

This Part replaces GB/T 2423.39-2008 "Environmental testing for electric and electronic products - Part 2: Tests - Test Ee: Bounce". Compared with GB/T 2423.39-2008, the main technical changes in this Part are as follows:

- change the standard's name;

- allow bulk cargo testing in a more general sense; no longer correspond to special testing machines; allow the use of any suitable equipment; sine and random vibration can be used; rotating table movement test is listed in Annex A as a historical method;

- add Clause 9 "Recovery" and Clause 12 "Information to be given in the test report";

- delete Figure 3; adjust Figure 1 and Figure 2 to Annex A; add typical reference point position icon in Figure A.1;

- Annex A is modified from "informative" to "normative";

- Annex B is changed in the form of tables; delete the comparison with Test Eb and Test Ed Method 1 and Method 2.

This Part uses translation method to identically adopt IEC 60068-2-55:2013 "Environmental testing - Part 2-55: Tests - Test Ee and guidance - Loose cargo testing including bounce".

The Chinese documents which have consistency with the international normative references in this Part are as follows:

- GB/T 2421.1-2008, Environmental testing for electric and electronic products - General and guidance (IEC 60068-1:1988, IDT);

- GB/T 2423.10-2008, Environmental testing - Part 2: Test methods - Test Fc: Vibration (sinusoidal) (IEC 60068-2-6:1995, IDT);

- GB/T 2423.56-2006, Environmental testing for electric and electronic products - Part 2: Test methods - Test Fh: Vibration, broad-band random

Environmental testing - Part 2: Test methods - Test Ee and guidance: Loose cargo testing including bounce

1 Scope

This Part of GB/T 2423 provides a standard procedure for determining the ability of a specimen to withstand specified severities of bounce, e. g. when transported as loose cargo on wheeled vehicles.

This test is primarily intended for specimens prepared for transportation, including specimens in their transport case when the latter may be considered as part of the specimen itself or packages. This test should not be used as a low-frequency vibration test.

Although primarily intended for electrotechnical products, this test is not restricted to them and may be used in other fields where desired.

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 60068-1, *Environmental testing - Part 1: General and guidance 1*

IEC 60068-2-6, *Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)*

IEC 60068-2-64, *Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance*

IEC 60068-2-80, *Environmental testing - Part 2-80: Tests - Test Fi: Vibration - Mixed mode*

ISO 13355, *Packaging - Complete, filled transport packages and unit loads - Vertical random vibration test*

ASTM D4169-09, *Standard Practice for Performance Testing of Shipping Containers and Systems*

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