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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 2424.11-2013

Environmental testing -- Part 2: Test methods -- Guidance to test Kc: Sulphur dioxide test for contacts and connections

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Foreword

GB/T 2424 contains the following sections.

--- GB/T 2424.1 electric and electronic products environmental testing high temperature and low temperature tests;

--- GB/T 2424.2 electric and electronic products environmental testing for damp heat tests;

--- GB/T 2424.5 electric and electronic products environmental testing to confirm performance of temperature chambers;

--- GB/T 2424.6 electric and electronic products environmental testing temperature/humidity chamber performance confirmation;

--- GB/T 2424.7 electric and electronic products environmental testing test A and B (with load) measure the temperature of the chamber;

--- GB/T 2424.10 Environmental testing atmospheric corrosion accelerated testing of common guidelines;

--- GB/T 2424.11 Environmental testing - Part 2. sulfur dioxide test for contacts and connections. Tests - Test Kc

Guidelines;

--- GB/T 2424.13 Environmental testing for electric and electronic products Part 2. Test methods for temperature change Test Guidelines;

--- GB/T 2424.14 Environmental testing for electric and electronic products Part 2. Test methods for solar radiation testing;

--- GB/T 2424.15 electric and electronic products environmental testing temperature/low air pressure tests guidelines;

--- GB/T 2424.17 Environmental testing for electric and electronic products soldering Test Guidelines;

--- Environmental Test Guidelines GB/T 2424.19 electric and electronic products environmental testing simulated the effects of storage;

--- GB/T 2424.22 electric and electronic products environmental testing procedures for temperature (cold and heat) and vibration (sinusoidal) tests

Guidelines;

--- GB/T 2424.25 Environmental testing for electric and electronic products - Part 3. Test pilot Seismic test methods;

--- GB/T 2424.26 Environmental testing for electric and electronic products - Part 3. Supporting documentation and guidance vibration test selection;

--- GB/T 2424.27 Environmental testing Supporting documentation and guidance temperature and humidity chamber uncertainty calculation.

This section GB/T 2424 Part 11.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the translation method identical with IEC 60068-2-49. 1983 (first edition) "Basic environmental testing procedures - Part 2. Test

Test Kc. the point of contact and connections sulfur dioxide test guidelines. "

This part of IEC 60068-2-49. compared to 1983 (first edition), mainly to do the following editorial changes.

Name --- this section read as follows. sulfur dioxide contact points and connections. "Environmental testing - Part 2. Tests - Test Kc

Test Guidelines ";

--- For the/T 2424 standard format is consistent with the new GB , increased Chapter 1, "scope" and Chapter 2, "Normative references" and phase

Other clauses should be adjusted number;

--- According to the national standard guidelines for the preparation made editorial changes;

--- The Chapter 8 Table 1 and Table 2 as an information appendix "sulfur dioxide pollution data" (see Appendix A).

This part of the National Electrical and Electronic Products Environmental conditions and environmental tests for Standardization Technical Committee (SAC/TC8) and focal points.

This section drafted by. China Electric Apparatus Research Institute Co., Ltd. Southern Jiangsu Wuxi Test Equipment Co., Ltd., Ningbo Jiesheng Ocean Development

Co., Ningbo Branch of the IC Design Center Co., Ltd., Ningbo-Run Auto Parts Co. shaft.

1 Scope

This section GB/T 2424 applies to the relevant design and test personnel to provide guidance in the application of sulfur dioxide test specification.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein

Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 2423.19-2013 Environmental testing - Part 2. sulfur dioxide test for contacts and connections. Tests - Test Kc

Test (IEC 60068-2-42.2003, IDT)

3 Overview

Contacts and connections during the life expectancy of whether it has good performance depends on many parameters, some of which parameters are set by

Count determined (such as type, material, stress, etc.), the other part is determined by its working environment parameters of the decision. The environmental impact, with particular

Note pollutants contained in the atmosphere (usually very little content). GB/T 2423.19-2013 relates to urban and industrial pollution in the atmosphere is the most important

One was that the sulfur dioxide (SO2).

4 atmospheric sulfur dioxide

Atmospheric corrosion of metals is usually caused by atmospheric moisture and contaminants caused. Products of combustion of fossil fuels is the main pollutant to

One source. These combustion products there are a lot of sulfur dioxide (SO2) corrosive components; also can detect a very low concentration of sulfur trioxide

(SO3), oxides of nitrogen and chlorine.

Appendix A gives the concentration of sulfur dioxide in air of urban and industrial environment, usually in the 1 x 10-9 ~ 100 x 10-9 (volume concentration

Degree), but in some areas the peak can reach 10-6 (volume concentration), or even more.

In humid atmosphere, in addition to precious metals and silver, sulfur dioxide can corrode

all other metals, and can significantly affect the provisional type contact

Performance points. In extreme cases, the contact points due to the accumulation of corrosion products prevents metal to metal contact of which was open.

5.1 Type of contacts and connections

This test is designed for a specific type of contacts and connections (except for welding and brazing), it is necessary to briefly describe these type contact

And the connecting member.

Contacts and connections can be divided into two categories. permanent and temporary type. Both types are the metal surface by an external force combined with each other.

Permanent connection force is very large, often lead to permanent deformation of the metal, and may form a local welding. Such connections are not

Can-off during its lifetime. Permanent connections have inclusion and wrap form.