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CCS K 04



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

GB/T 2423.40-2013

Replacing GB/T 2423.40-1997

**Environmental testing - Part 2: Test methods - Test Cx: Damp
heat, steady state (unsaturated pressurized vapour)**

环境试验 第2部分：试验方法 试验Cx：未饱和高压蒸汽恒定湿热
(English Translation)

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Foreword

This is Part 40 GB/T 2423, and part of the GB/T 2423 standard, see informative Annex NA.

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

This Part replaces GB/T 2423.40-1997 "Environmental testing for electric and electronic products Part 2. Test methods - Test Cx. unsaturated Constant pressure steam heat. " Section compared with the GB/T 2423.40-1997 The main changes are as follows.

--- According to GB/T 1.1-2009 requirements, and on the formatting has been modified;

--- Increased the preamble;

--- Notes to Table 1 will be the format changes, and the original content Note 3 as a requirement into the text;

--- Increase the informative appendix NA.

This section uses the translation method identical with IEC 60068-2-66:1994

"Environmental testing - Part 2. Test methods - Test Cx. not full Constant heat and high pressure steam, "the technical content of IEC 60068-2-66:1994 same, write the editorial changes made the following format.

--- Remove the IEC 60068-2-66:1994 foreword, preface to increase the national standards;

--- Increase the informative appendix NA.

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

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1 Scope

This section GB/T 2423 provisions a way to accelerate the assessment of small electrical and electronic products (mainly non-airtight element) heat resistance Standard Test Method

for degradation effects.

This test is not used to assess external effects such as corrosion and deformation.

2 Overview

In this test, the test sample in a relatively short period of time did not withstand extremely high vapor pressure (see Appendix A).

This test is usually applied electrical bias.

As the pilot has a very high acceleration, may have a significant impact on the type of failure mode that may arise (see Appendix B), and hence, again Select the test conditions to be carefully considered.

The test at 85% relative humidity conditions, provides for three groups of test temperature, test severity is determined by the temperature and duration of the test Given.

It should be noted, do not test the temperature reaches the maximum rated temperature of the test sample and/or the critical temperature of the encapsulating material. For example, plastic glass Glass transition temperature is typical of the critical transition temperature.

For plastic components, the deterioration is due to moisture absorption of plastic, caused by moisture penetration along the lead terminal.

3.1 Test Chamber

Chamber structure, shall meet the following requirements.

- a) produce Table 1 gives the temperature and relative humidity, and maintain a given pressure value.
 - b) during the test to provide a controlled temperature, relative humidity and pressure conditions, and can be raised or lowered by the slope required to Experimental conditions specified.
 - c) temperature and humidity chamber can be located in the working space and/or other areas (such as steam situated can give the same results Sensitive means for monitoring generator) inside.
- Note:** The survey work space relative humidity is about guide in Appendix C.
- d) before the start of the test water vapor the air can be used in a confined space is discharged outside the test chamber.
 - e) does not allow condensation water droplets fall on test samples.
 - f) structural materials used should not cause corrosion of the test sample, or the humidifying water quality degradation (see Appendix D of D.2).

Temperature tolerance of $\pm 2\text{ }^{\circ}\text{C}$, is considered for measurement absolute error within the workspace temperature fluctuations and all points in between any point temperature Variation terms.

However, the relative humidity is maintained at a predetermined tolerances within $\pm 5\%$, such that the temperature difference between any two points in the workspace (at any instant in Inter) remains within a more narrow range.

If the temperature difference is greater than $1.5\text{ }^{\circ}\text{C}$, relative humidity tolerances specified tolerance will also need to work periodically because the heater chamber the temperature for a short time caused by fluctuation limit to similar values.