

ICS 59.120.01
CCS W 90

FZ

**TEXTILE INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

FZ/T 90059-2009

Replacing FZ/T 90059-1994

Textile motor test method of damp heat in steady state

纺织用电机恒定湿热试验方法 清晰版

(English Translation)

Issued on: January 20, 2010

Implemented on: June 1, 2010

**Issued by: Ministry of Industry and Information Technology of the
People's Republic of China**

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Foreword

This standard is the FZ/T 90059-1994 "textile motor Damp heat test method" amendments.

Instead of the standard FZ/T 90059-1994.

Compared with the standard FZ/T 90059-1994 The main changes are as follows.

- a) This standard GB/T 2423.3-2006 "Electrical and Electronic Products Environmental Testing Part 2. Test methods - Test Cab. Constant Constant heat test "provisions of the former version 2.5 of the chamber humidity tolerance from the" + 2-3% "is replaced by" $\pm 3\%$ "(see Chapter 5); Cancellation Version 2.6 "indicates the point of relative humidity fluctuation is less than $\pm 1\%$ ".
- b) cancel the previous version of the standard 2.7.
- c) The standard version 3.3.1b before the "warm-up time 1h", to "try to make the motor reaches the temperature is stable" (see 7.2).
- d) the former version of the standard 3.3.2 "should be in the tank 0.5h relative humidity to 93% + 2-3" to "box should be within 2h Increased relative humidity ($93 \pm 3\%$)" (see 7.3).
- e) Cancel "Damp heat test conditions Control Chart."
- f) The pre-version 3.5 "relative humidity drops ($75 \pm 3\%$), then within half an hour the temperature was lowered to $35\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ " to "Relative humidity dropped to 73% to 77% and then over 0.5h temperature was adjusted to laboratory temperature and the temperature tolerance of $\pm 1\text{K}$ " (See Chapter 9).
- g) The former version of the 4.1 formula " $R = U100$ "To" $R = U 1000 + P100$ "(See 10.2).

h) Cancellation Standard Edition 4.2.2.

i) Cancellation Standard Edition Chapter 6, an increase of Chapter 12, "additional instructions." the standard proposed by China Textile Industry Association.

This standard by the national textile machinery and accessories for Standardization Technical Committee.

This standard was drafted. Qingdao Qingdao Textile Machinery and Electric Co., Ltd. Lida.

1 Scope

This standard specifies the test methods for textile motor constant heat.

This standard applies to hot and humid environments textile asynchronous motor.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB 755-2008 rotating motor fixed and performance GB/T 2421-1999 Environmental testing for electric and electronic products - Part 1. General GB/T 2423.3-2006 Environmental testing for electric and electronic products Part 2. Test methods - Test Cab. Damp heat test GB/T 5170.5-1996 Environmental testing for electric and electronic equipment basic parameters of test methods Damp heat test equipment Damp heat test requirements GB/T 12665-1990 motor under normal ambient conditions

3 Chamber

Constant heat chamber should be consistent with GB/T 2423.3-2006 requirements in Chapter 4 GB/T 5170.5-1996's.

4 Test sample requirements

4.1

subjects in general motor is not energized, the state placed without packaging. Once there are special requirements, shall be specified in the product standard.

4.2

When the motor than one test may not overlap each other and the inner wall of the chamber to avoid condensation of water droplets and falls on top of the motor under test.

5 Severities

Test severities, temperature, relative humidity is determined by the duration of the test.

Textile Motor Damp heat test severities according to GB/T 2423.3-2006 provisions choice.

--- Test temperature. $(40 \pm 2) ^\circ\text{C}$;

--- Relative humidity. $(93 \pm 3)\%$;

--- Test Duration. 4d.

In order to maintain the relative humidity of the test chamber within the tolerances specified range, should be maintained between any two points in the test chamber at any time of its Temperature differences as small as possible. If the temperature difference exceeds 1K, it can not achieve the desired humidity conditions. Short-term temperature fluctuations should also be kept in Within the range of $\pm 0.5\text{K}$ to maintain the desired humidity conditions.

6 Initial detection

6.1

Before the test subjects to deal with the functioning of the motor for testing.

6.2 Measurement of insulation resistance

Measuring the motor winding insulation resistance of the cabinet as both ends of each phase winding separately derived, should be measured separately for each phase winding absolute housing White insulation resistance and insulation resistance.

7 Test conditions

7.1

no packaging, no power is placed in a test chamber test motor preheating, preheat temperature $(30 \pm 2) ^\circ\text{C}$, time 6h, this