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FZ

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

FZ/T 99006-2016

Replacing FZ/T 99006-1992

**Specification for FX series of high efficiency three-phase
induction motor for textile purpose(Frame size 90~225)**

FX系列纺织用高效率三相异步电动机技术条件（机座号90-225） 清晰版
(English Translation)

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009.

This standard is for FZ/T 99006-1992 "FX series of high-efficiency three-phase asynchronous motor technology (H90 ~ 225mm)" Revised, compared with FZ/T 99006-1992, in addition to editorial changes, the main technical changes are as follows.

- H90 ~ 225mm in the standard name is changed to frame number 90 ~ 225;
- increase the power of 55kW motor (see Table 1);
- increase the tolerance of the keyway and the tolerance of the mounting hole K, S position tolerance (see Table 2 to Table 5);
- (Note 2 in Table 4), note 2 in Table 4) (see Note 2 in Table 5), note b,
- to cancel the original standard "3.2.3 relative humidity" requirements;
- increase the "minimum ambient air temperature" requirement [see c in 4.2)];
- increase the "efficiency measurement method" provisions (see 4.4);
- the increase in "tolerance of tolerance" in the tolerance of electrical performance guarantees (see 4.9);
- Change the insulation class of machine block 132 and below from Class E to Class B (see 4.10.1);
- increased the time limit for the intermittent time in the temperature rise test (see 4.10.2);
- increase the motor overcurrent requirements (see 4.12);
- increase the motor safety speed requirements (see 4.13);
- less than 1kW motor stator winding withstand voltage test test voltage from 1260V to 1760V, 1510V changed to 2110V (see 4.16);
- The peak value of the impulse voltage of the stator winding withstand voltage test is in accordance with the provisions of GB/T 22719.2-2008 (see 4.17);

- Constant stator temperature test of motor stator winding is carried out according to FZ/T 90059-2009 (see 4.18);

- mechanical vibration of the motor according to GB 10068-2008 "shaft center height of 56mm and above the mechanical vibration of the motor vibration Measurement, assessment and limitation "(see 4.19);

- Motor noise limits according to GB 10069.3-2008 "Rotating motor noise measurement method and limits Part 3 Noise limits Value "(see 4.20);

The direction of rotation of the motor shall comply with the provisions of GB 1971-2006 (see 4.27);

- requirements for increased motor safety performance (see 4.28);

- check the measurement of the increase in vibration and the direction of rotation in the test items [see i in 5.2) j)];

- check the increase in slip in the test project [see c in 5.4)];

- check the sampling method in the pilot project to be developed by the manufacturer (see 5.6);

- increase the occasional overcurrent test (see 5.7);

- Check the inter-turn insulation test in the test item to GB/T 22719.1-2008 (see 5.8);

- increase the power factor in the item to be indicated on the nameplate [see k in 6.2)];

- Increase the motor warranty (see 6.8).

This standard is proposed by China Textile Industry Federation.

This standard by the National Textile Machinery and Accessories Standardization Technical Committee (SAC/TC215) centralized, the national industrial machinery electrical system standard Qualification Technical Committee Technical Committee for Textile Machinery Electrical System Subcommittee (SAC/TC231/SC1) Professional.

The main drafting unit of this standard. Qingdao and Li Da Electric Co., Ltd. is mainly responsible for, Weinan Qingfeng Technology Co., Ltd., Jiangsu Anjie Electrical Technology Co., Ltd., Beijing in the spinning fine Electrical and Mechanical Equipment Co., Ltd., Beijing Zhong Ren Zhijie Technology Development Co., Ltd., Qingdao Hongda textile machinery Limited liability company.

1 Scope

This standard specifies the FX series of high-efficiency three-phase asynchronous motor type, the basic parameters and size, technical requirements, inspection regulations the test method and the requirements for marking, packaging and warranty.

This standard applies to cotton, wool, linen, silk and chemical fiber and other types of textile equipment dedicated FX series of high efficiency three-phase asynchronous motor (frame number 90 to 225) (hereinafter referred to as "motor"). The motor specified in this standard has a fiber-blocking ability and a high overload capacity, Used in short fiber environments.

Note: According to user requirements, made of hot and humid type of motor.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document.

GB/T 191-2008 packaging and storage icon Rotating motor quota and performance GB 755-2008 GB/T 997-2008 Rotary motor structure type, type of installation and the location of the junction box classification (IM code) Test method for three - phase asynchronous motor GB/T 1032-2012 Rotating electrical machinery - Terminal marking and direction of rotation GB 1971-2006 Rotating motor cooling method GB/T.1993-1993 GB/T 4772.1-1999 Rotating motor dimensions and output power class - Part 1. Frame numbers 56 to 400 and flange numbers 55 ~ 1080 Protection class (IP code) classification of the overall structure of rotating electrical machines GB/T 4942.1-2006 GB 10068-2008 Measurement, evaluation and limits of mechanical vibration of a motor with a shaft center height of 56 mm or more GB/T 10069.1-2006 Methods and limits for the determination of noise of rotating electrical machines - Part 1. Determination of noise of rotating electrical machines General safety requirements for small and medium - sized rotating electrical machines GB 14711-2013 GB/T 22719.1-2008 Interchange insulation of alternating voltage low-voltage motors - Part 1. Test methods GB/T 22719.2-2008 Interchange insulation of alternating voltage low-voltage motors - Part 2. Test limits Test method for constant damp heat of textiles for textile use FZ/T 90059-2009

3 Type, basic parameters and dimensions

3.1

Motor enclosure protection class IP44 (according to GB/T 4942.1-2006).

3.2

motor cooling method for the IC411 (according to GB/T.1993-1993 requirements).

3.3

The structure and installation of the motor are IMB3, IMB5, IMB35, IMV1 (according to GB/T 997-2008). user when required, other structures and installation types can be made.

3.4

The motor quota is a continuous quota based on the continuous working system (S1).

3.5

The rated frequency of the motor is 50Hz and the rated voltage is 380V.

3.6

The motor shall be manufactured at the following rated power. 0.55kW, 0.75kW, 1.1kW, 1.3kW, 1.5kW, 1.8kW, 2.2kW,