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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 25302-2025

Replacing GB/T 25302-2010

Specification for high efficiency three-phase induction motor for textile purpose (frame sizes 90 to 225)

纺织专用高效率三相异步电动机技术规范（机座号 90~225）

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 25302-2010 "Technical Specifications for High Efficiency Three-phase Asynchronous Motors for Textile Industry (Frame Size 90~225)" and Compared with GB/T 25302-2010, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

a) The motor efficiency in this document is changed to IE4, and the external dimensions refer to the YE4 motor product (see Table 2 to Table 5, 2010 edition Table 2 to Table 5);

b) Deleted the provision that "the motor shall comply with the requirements of this standard and be manufactured in accordance with the drawings and technical documents approved through the prescribed procedures" (See 4.1 of the 2010 edition);

c) Change the rated power of 2.6kW, 6.3kW, 8.6kW, etc. to 2.8kW, 6.5kW, 9kW (see 4.1.6, 2010 edition) 3.6);

d) Change the N dimension 350mm limit deviation ±0.016, 400mm limit deviation ±0.018 to 0-0.036 (see Table 3, Table 4, Table 5, Table 3, Table 4, Table 5 of the 2010 edition);

e) When measuring the efficiency of the motor, the provision of "shaft seal ring should be removed" has been added (see 7.12);

f) The motor efficiency index has been revised. Most specifications of the 2010 version of the standard only reach IE2 efficiency, and some specifications reach IE3 Efficiency, it is modified to IE4 energy efficiency level, that is, to achieve the level 2 energy efficiency specified in GB 18613-2020 (see 6.2, Table 11, 4.4, Table 11 of the 2010 edition);

g) Added the guaranteed value of the stall torque multiple, maximum torque multiple, minimum torque multiple and stall current multiple, which is "at rated frequency".

"Prerequisites" (see 6.3~6.6, 5.5~5.8 of the 2010 edition);

h) The deviation value of any phase of the motor's three-phase no-load current from the average value of the three phases has been changed from 10% to ±10% (see 6.21, 4.22 of the 2010 edition);

i) Added the provisions for the deviation of any phase of the DC resistance of the three-phase stator winding of the motor in the actual cold state from the average value of the three phases (see 6.21);

j) Added test methods (see Chapter 7);

k) The words "Handle with care" in appropriate places on the packaging box are changed to "Upward" (see 9.2.2, 6.7 of the 2010 edition).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the China Electrical Equipment Industry Association.

This document is under the jurisdiction of the National Technical Committee for Standardization of Rotating Electrical Machines (SAC/TC26).

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The previous versions of this document and the documents it replaces are as follows.

- First published in 2010 as GB/T 25302-2010;

- This is the first revision.

Technical specification for high efficiency three-phase asynchronous motors for textile applications (Frame size 90~225)

1 Scope

This document specifies the basic parameters, dimensions, general requirements and technical requirements of high-efficiency three-phase asynchronous motors for textile applications.

The corresponding test methods are specified, and the inspection rules, marking, packaging and warranty period are stipulated.

This document is applicable to high-efficiency three-phase asynchronous motors for textile industry (frame size 90~225).

The motor has an effective anti-fiber clogging capability and a high overload capacity, and is particularly suitable for use in short fiber environments.

It can work under the condition of low temperature and humidity. Other motors derived from this series of motors shall be implemented as a reference.

2 Normative references

GB/T 191

GB/T 755

GB/T 997

GB/T 1032-2023

GB/T 1971

GB/T 1993

GB/T 4772.1

GB/T 4942

GB/T 10068

GB/T 10069.1

GB/T 12665

GB/T 14711

GB/T 22719.1

GB/T 22719.2

3 Terms and definitions

There are no terms or definitions that require definition in this document.

4.1 Basic parameters

4.1.1 The enclosure protection grade of high-efficiency three-phase asynchronous motors for textile applications (hereinafter referred to as motors) shall comply with the provisions of GB/T 4942. It is IP54.