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

GB/T 10962-2022

Replacing GB/Z 10962-2008

**Machine tool electric appliance reliability evaluation general
principles**

机床电器可靠性评价通则

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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 of Standardization Documents" drafted. This document replaces GB /Z 10962-2008 "General Rules for the Reliability of Machine Tool Electrical Appliances". Compared with GB /Z 10962-2008, except for structural adjustment In addition to editorial changes, the main technical changes are as follows:

- a) The scope regulations and applicable content have been changed, and it is clarified that the reliability improvement of machine tool electrical component products in the development stage is clarified. row validation (see Chapter 1);
- b) Modified normative references (see Chapter 2, Chapter 2 of the.2008 edition);
- c) Changed the relevant terms, definitions and symbols (see Chapter 3, Chapter 3 of the.2008 edition);
- d) Delete the reliability index of the original standard (see Chapter 4 of the.2008 edition);
- e) Added parameters and indicators for reliability evaluation (see Chapter 4);
- f) Added the category and severity of faults (see Chapter 5);
- g) The content of Chapter 5 of the original standard is merged into Chapter 6 of this document (see Chapter 6), and the contact circuit conditions are deleted (see the.2008 edition of the 5.1.4); deleted the operating conditions (see 5.1.5 of the.2008 edition); increased the excitation conditions (see 6.2.6); changed the inspection of the test product. test (see 6.4, 5.3 of the.2008 edition);
- h) Added reliability growth test (see 6.5);
- i) Deleted the original Chapter 6 reliability verification test scheme and test procedure (see Chapter 6 of the.2008 edition);
- j) Add the chapter on reliability evaluation method (see Chapter 7);

1 Scope

GB/T 10962-2022 is the Chinese national standard on machine tool electric appliance reliability evaluation general principles, in the field of electrical engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 11 July 2022 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 February 2023. Classification: ICS 29.100.01, CCS K30. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the parameters and indicators for reliability evaluation of machine tool electrical appliances (hereinafter referred to as electrical appliances), the types and severity of faults, reliability Test and reliability evaluation methods. This document applies to the verification of reliability of machine tool electrical components in the development stage, as well as the special characteristics of products in the production process. Sexuality is monitored and checked. This document can also be applied to electrical products with similar reliability requirements.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 2900.13-2008 Reliability and Service Quality of Electrotechnical Terminology

GB/T 2900.18-2008 Electrical terminology low-voltage electrical appliances

GB/T 4086.2-1983 Statistical distribution numerical table chi² distribution

GB/T 4086.4-1983 Statistical distribution numerical table F distribution

GB/T 5080.1-2012 Reliability Test Part

3 Terms, Definitions and Symbols

3.1 Terms and Definitions GB/T 2900.13-2008, GB/T 2900.18-2008, GB/T 5080.1-2012, GB/T 5080.2-2012 and the following terms and definitions apply to this document.

3.1.1 The sum of the design, management, development, testing and production work

performed to meet product reliability requirements.

3.1.2 A series of activities and functions such as organization, planning, planning, control, coordination, supervision, etc. to determine and meet the reliability requirements of products management.

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