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

GB/T 21205-2022

Replacing GB/T 21205-2007

Rotating electrical machines - Repair, overhaul and reclamation

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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 21205-2007 "Code for Renovation of Rotating Electric Machines". Compared with GB/T 21205-2007, except for structural adjustment and

In addition to editorial revisions, the main technical content changes are as follows.

--- Modified the scope, adding the requirement to consider environmental factors, excluding the need to redesign and modify the performance of the motor (see Section

Chapter 1, Chapter 1 of the.2007 edition);

--- Added the basic principles to be followed in motor repair (see Chapter 4);

--- Changed the general requirements for motor repair (see Chapter 5, Chapter 4 of the.2007 edition);

--- Added inspection, testing and evaluation requirements for the whole machine (see Chapter 6);

--- Added inspection, testing and evaluation requirements for disassembled motors (see Chapter 7);

--- Added and changed the content of repair work (see Chapter 8, Appendix B of the.2007 edition);

- Increased and changed the final test requirements (see Chapter 9, Chapter 5 and Appendix B of the 2007 edition);
- Added additional requirements for DC motors (see Chapter 10);
- Added additional requirements for high-voltage AC motors (see Chapter 11);
- Added additional test requirements for high-voltage generators (see Chapter 12);
- Increased customer reporting and handover requirements (see Chapter 13).

This document is equivalent to IEC 60034-23:2019 "Rotating electrical machines - Part 23. Repair, overhaul and restoration".

The following minimal editorial changes have been made to this document.

- In order to coordinate with existing standards, change the name of the standard to "Repair, Overhaul and Restoration of Rotating Electric Machines";
- In order to comply with the national standard writing requirements, the introductory words of some listed items are added;
- Modify the errors in the international documents, and change the footnote e that has no corresponding label in Table 3 to a note;
- In order to comply with the national standard writing requirements, 5.5 supplementary reference to Appendix A.

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the necessary procedures for the repair, overhaul and restoration of all types and sizes of rotating electrical machines covered by the IEC 60034 series.

This document establishes a common industry practice covering all aspects of complete repair of electric motors. Operating range depends on motor type, rated value, environmental conditions, and reliability and safety of the device. include.

- If necessary, determine the cause of the failure;
- Determine the scope of repair as appropriately as possible;
- If required, define the modified performance, operating requirements and environmental conditions;
- If required, review the original design and update the design specifications;
- Inspect the quality and performance of the repaired motor, maintain or improve the rated

energy efficiency;

---Ensure that environmental factors are taken into account.

This document does not supersede the requirements specified in IEC 60079-19, or other requirements concerning the repair or overhaul of motors used in explosive atmospheres Require.

Motors for special occasions such as airtight type, submersible type, nuclear energy application type, hydrogen-cooled motor, military type, aviation motor and traction motor

The technical requirements shall be negotiated between the service unit and the user.

This document does not replace the original motor manufacturer's instructions and recommendations.

Redesigns and performance changes that would require motor designer involvement are beyond the scope of this document.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document.

GB/T 2900.25-2008 Electrotechnical terminology for rotating electrical machines (IEC 60050-411.1996, IDT)

ISO 21940-11 Mechanical vibration rotor balancing - Part 11.Procedures and tolerances for rigid rotors (Mechanical

and performance)

Note. GB/T 755-2019 Rating and performance of rotating electrical machines (IEC 60034-1.2017, IDT)

Note. GB/T 1993-1993 cooling method for rotating electrical machines (IEC 60034-6.1991, eqv)

protection)

Note. GB/T 13002-2022 Thermal protection of rotating electrical machines (IEC 60034-11.2020, IDT)

Note. GB/T 32891.1-2016 Efficiency Classification of Rotating Electrical Machines (IE

Code) Part 1.Mains-Powered AC Motors (IEC 60034-30-1.
2014, IDT)

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