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

GB/T 19212.5-2025

**Safety of transformers, reactors, power supply units and combinations thereof -
Part 5: Particular requirements and tests for isolating transformers and power
supply units incorporating isolating transformers for general applications**

(English Translation)

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Foreword

This document was drafted in accordance with the provisions of GB/T 1.1-2020 Directives for standardization - Part 1.Rules for the structure and drafting of standardizing documents.

This document is Part 5 of GB/T 19212 Safety of transformers, reactors, power supply units and combinations thereof 1). GB/T 19212 has been published in the following parts.

- Part 1.General requirements and tests;
- Part 2.Particular requirements and tests for separating transformers and power supply units incorporating separating transformers for general applications;
- Part 3.Particular requirements and tests for control transformers and power supplies incorporating control transformers;
- Part 4.Particular requirements and tests for ignition transformers for gas and oil burners;
- Part 5.Particular requirements and tests for isolating transformers and power supply units incorporating isolating transformers for general applications;
- Part 6.Particular requirements and test for transformer for shavers, power supply units for shavers and shaver supply units;
- Part 7.Particular requirements and test for safety isolating transformers and power supply units incorporating safety isolating transformers;
- Part 8.Particular requirements and tests for transformers and power supplies for toys;
- Part 9.Particular requirements and tests for transformers and power supply units for bells and chimes;
- Part 10.Particular requirements and tests for transformers and power supply units for class III handlamps for tungsten filament lamps;

1) In this series of documents, some parts are under the title of "Safety of power transformers, power supplies, reactors and similar products", some parts are under the title of "Safety of transformers, reactors, power supply

units and similar products for supply voltages up to 1100 V", and some parts are under the title of "Safety of

transformers, reactors, power supply units and combinations thereof". All future releases of this series of

documents will be published under the title of "Safety of transformers, reactors, power supply units and

combinations thereof".

-- Part 11. Particular requirements and tests for separating transformers with high insulation level and separating transformers with output voltages exceeding 1000 V;

-- Part 13. Particular requirements and tests for constant voltage transformers and power supply units for constant voltage;

-- Part 14. Particular requirements and tests for auto-transformers and power supply units incorporating auto-transformers for general applications;

-- Part 15. Particular requirements and tests for variable transformers and power supply units incorporating variable transformers;

-- Part 16. Particular requirements and tests for isolating transformers for the supply of medical locations;

-- Part 17. Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units;

-- Part 20. Particular requirements for perturbation attenuation transformers;

-- Part 21. Particular requirements and tests for small reactors;

-- Part 24. Particular requirements and test for transformers and power supply units for construction sites;

-- Part 27. Particular requirements and tests for transformers and power supply units all for saving energy and other purposes.

This document replaces GB/T 19212.5-2011 Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1100V - Part 5. Particular requirements and tests for isolating transformers and power supply units incorporating

isolating transformers. Compared with GB/T 19212.5-2011, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

-- The scope has been changed and the rated power supply voltage of the applicable scope has been changed from "1100 V" to "1000 V" (see Chapter 1; see Chapter

1 of the 2011 edition);

-- The rated power supply voltage has been changed (see 6.104; see 6.104 of the

2011 edition);

-- The graphic symbols have been changed, and a new symbol for the output voltage of "linear power supply unit" has been added (see Chapter 8; see Chapter

8 of the 2011 edition);

Safety of transformers, reactors, power supply units and combinations thereof - Part 5.Particular requirements and tests for isolating transformers and power supply units incorporating isolating transformers for general applications

1 Scope

This chapter of GB/T 19212.1-2023 is replaced by the following content.

This document specifies the electrical, temperature and mechanical safety requirements and test requirements for isolating transformers and power supply units incorporating isolating transformers for general applications. Transformers with electronic circuits are also included in this document.

Unless otherwise specified, the term "transformer" below includes isolating transformers and power supply units incorporating isolating transformers for general applications.

For (linear) power supply units, this document applies. For switch mode power supply units, GB/T 19212.17 applies.

This document applies to stationary or mobile, single-phase or multi-phase, air-cooled (natural or air-cooled), independent or associated dry-type transformers. The windings