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

GB/T 19212.27-2017

Safety of transformers, reactors, power supply units and combinations thereof -- Part 27: Particular requirements and tests for transformers and power supply units all for saving energy and other purposes

变压器、电抗器、电源装置及其组合的安全 第27部分：节能和其他目的用变压器和电源装置的特殊要求和试验

(English Translation)

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Foreword

GB/T 19212 "Transformers, Reactors, Power Supplies and Their Combination Safety" 1) consists of the following parts.

1) Some of the standards in this series are under the heading "Safety of Power Transformers, Power Supplies, Reactors and Similar Products" and some are under the heading "Supply Voltage Under the heading "Safety of transformers, reactors, power supply units and similar products up to and including 1100V" under the heading "Transformers, Reactors, Power Source device and its combination of security "heading, the title of the series of standards released in the future may be modified.

--- Part 1. General requirements and tests;

--- Part 2. Particular requirements and tests for the power supply for general purposes separation transformers and built-in separation transformers;

- Part 3. Particular requirements and tests for controlling the power supply of transformers and control transformers built in;
- Part 4. Gas and oil burners ignition transformers special requirements and tests;
- Part 5. Particular requirements and tests for isolating transformers and power supply units incorporating isolating transformers;
- Part 6. Particular requirements and tests for razor transformers, shaver power supply units and razor power supply units;
- Part 7. Particular requirements and tests for power supply units for safety-isolated transformers and built-in safety isolating transformers;
- Part 8. Particular requirements and tests for transformers and power supplies for toys;
- Part 9. Bell and electric bell transformers and power supply special requirements and tests;
- Part 10. Particular requirements and tests for transformers and power supply units for class III portable tungsten lamps;
- Part 13. Constant voltage transformer special requirements;
- Part 14. Particular requirements and tests for autotransformers and power supply units incorporating autotransformers;
- Part 15. Particular requirements and tests for the power supply of voltage regulators and built-in voltage regulators;
- Part 16. Particular requirements and tests for isolation transformers for power supply in medical premises;
- Part 17. Particular requirements and tests for transformers for switching power supply units and switching power supply units;
- Part 20. Interference attenuation transformer special requirements;
- Part 21. Particular requirements and tests for small reactors;
- Part 24. Particular requirements for transformers used in construction sites;
- Part 27. Particular requirements and tests for energy-saving and other purposes for transformers and power supply units.

This section GB/T 19212 Part 27. This section is based on the GB/T 19212.1-2016 developed on the basis of this section Need to be used with GB/T 19212.1-2016. This section is GB/T 19212.1-2016 the corresponding chapter, Article supplement and repair Change in order to GB/T 19212.1-2016 content into the contents of this section. This section is for GB/T 19212.1-2016 added the added content starts from 101.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the redrafted law to amend the use of IEC 61558-2-26:2013 "transformers, reactors, power supply units and combinations of safety Part 2-26. Particular requirements and tests for transformers and power supply units for energy conservation and other purposes".

This section compared with IEC 61558-2-26:2013 there are technical differences, all of these differences are due to the standard part of this standard GB/T 19212.1-2016 and IEC 61558-1:2009 in Chapter 2 arising from the technical differences arising.

This part is proposed by China Electrical Equipment Industry Association.

This part of the national small-scale power transformers, reactors, power devices and similar products Standardization Technical Committee (SAC/TC418) Focused.

This part of the drafting unit. Shenyang Transformer Research Institute Co., Ltd., Shanghai Institute of Quality Supervision, Inspection and Technical Supervision, the State Radio and Television as Product Quality Supervision and Inspection Center, Ministry of Industry and Information Technology Institute of the Fifth Institute of Quality and Safety Testing Center, Shanghai Exit Inspection and Quarantine Epidemic mechanical and electrical products testing technology center.

1 Scope

This clause GB/T 19212.1-2016 is replaced by the following.

This section GB/T 19212 specifies the safety requirements for energy-saving and other purposes with transformers, power supply units and switching power supply units, in electrical installations, energy savings and other purposes are achieved by adjusting the output voltage and/or other electrical characteristics of the output circuit, free from transformers, Power supply and switching power supply unit interrupts.

Note 1: Safety requirements include electrical, temperature and mechanical aspects.

Energy saving is achieved through voltage stabilization and/or voltage regulation of the electrical installation. This standard can also be used to adjust the voltage or scheduled the final adjustment of other electrical characteristics of the power supply and switching power supply unit.

Note 2: Lighting for outdoor or indoor use is an example of an electrical installation.

Note 3: The reduction of output voltage in some special applications may affect the safety and performance of power supply equipment.

This section applies to single-phase or three-phase, air-cooled (self-cooled or air-cooled), independently or with the following GB/T 19212 series of standards Energy-saving transformers, power supply units and switching power supply units for the provision of

transformers and/or power supply units.

--- Part 2. Particular requirements and tests for power supply units for general purposes separation transformers and built-in separation transformers;

--- Part 5. Particular requirements and tests for isolating transformers and power supply units incorporating isolating transformers;

--- Part 7. Particular requirements and tests for power supply units for safety-isolated transformers and built-in safety isolating transformers;

--- Part 14. Particular requirements and tests for autotransformers and power supply units incorporating autotransformers;

--- Part 15. Particular requirements and tests for the power supply of voltage regulators and built-in voltage regulators;

--- Part 17. Particular requirements and tests for transformers for switching power supply units and switching power supply units.

Rated supply voltage does not exceed AC 1000V, rated power frequency does not exceed 500Hz.

This section applies to the internal frequency does not exceed 500Hz linear power supply unit.

This section GB/T 19212.17 combined with the use, but also for internal work frequency of more than 500Hz energy-saving switching power supply unit Set and transformer.

GB/T 19212 series for the other part of the corresponding specific application, in addition to the requirements listed in this section, the corresponding necessary requirements be applicable.

When the two requirements conflict, priority is given to the most stringent requirements.

Rated output does not exceed.

--- 150kVA, for single-phase energy-saving transformers, power supply and switching power supply unit;

--- 400kVA, for three-phase energy-saving transformers, power supply and switching power supply unit.

This section also applies to energy-saving transformers, power supply units, and power supply units not limited to the rated output if purchaser and manufacturer have otherwise agreed Switching power supply unit.

This section does not apply to be scheduled to be connected to the energy-saving transformer, power supply and switching power supply input terminals and/or output External circuit of the terminal and its components.