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

GB/T 22566-2017

**Electrical insulating materials and systems -- General method
of evaluation of electrical endurance under repetitive voltage
impulses**

电气绝缘材料和系统 重复电压冲击下电气耐久性评定的通用方法

(English Translation)

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces GB/T 22566.1-2008 "electrical insulation system electrical stress generated by repeated pulses Part 1. Electrical Aging Review Set the general method ", and GB/T 22566.1-2008 compared to the main technical changes are as follows.

- Modify the "standard range" (see Chapter 1, 2008 edition Chapter 1);
- Modify the "normative references" (see Chapter 2, 2008 edition Chapter 2);
- Modify the "number of test items" (see 4.2, 2008 version 4.2);
- Modify the "test voltage impact characteristics" (see Table 1, 2008 edition of Table 1).

This standard uses the translation method identical with IEC 62068:2013 "electrical insulation materials and systems under repeated voltage impact electrical durability General method of assessment. " My documents referring to the normative references to this International Standard in this standard are as follows.

- GB/Z 23756.1-2009 Electrical insulation systems - Evaluation of electrical resistance Part 1. Assessment procedures based on normal distribution and general principles (IEC 60727-1/T R60727-1.1982, IDT);
- GB/T 29310-2012 Electrical insulation breakdown data statistical analysis guidelines (IEC 62539:2007, IDT).

For ease of use, this standard also made the following editorial changes.

- Chapter 2 supplemented IEC 62068:2013 omission normative references IEC 60727-1.

This standard proposed by the China Electrical Equipment Industry Association.

This standard by the National Electrical Insulation Materials and Insulation Evaluation Committee Standardization Technical Committee (SAC/TC301) centralized.

This standard was drafted unit. Shanghai Electric Apparatus Research Institute, Beijing Institute of Electrical Engineering and Mechanical Technology, Zhuzhou Motor Co., Ltd. in the car Division, China Automotive Yongji Electric Co., Ltd., Beijing Goldwind Branch Wind Power Equipment Co., Ltd., Suzhou Taihu New Materials Co., Ltd. Suzhou, Suzhou Jufeng Electrical Insulation Systems Co., Ltd., Changzhou Weiyuan Electrical Equipment Co., Ltd., Shanghai Shenfa Testing Instruments Co., Ltd., Xi'an Traffic the University.

1 Scope

This standard specifies the screening for electrical insulation materials (EIM) and electrical insulation system (EIS), and access to the conditions of repeated voltage shock Under insulation test results relative to the general evaluation of the durability of the rules.

This standard applies to the insulation system, but does not consider the voltage level of electrical equipment, the equipment connected to the electronic power supply and the repetitive voltage Under the impact of insulation requirements for durability assessment.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

IEC 60727-1 Electrical insulation systems - Evaluation of electrical resistance - Part 1. Assessment procedures and general principles based on normal distribution (Evaluation of electricalenduranceofelectricalinsulationsystems-Part 1: Generalconsiderations andevaluationproceduresbasedonnormaldistributions) IEC 62539 Electrical insulation breakdown data statistical analysis guide (Guideforthestatisticalanalysisofelectricalinsulationbreakdowndata)

3 Terms and definitions

The following terms and definitions apply to this document.

Electrical insulation materials Materials with negligible low electrical conductivity for the isolation of conductive parts of different electrical potential in electrical equipment.

Electrical insulation systems;

Insulation combinations containing one or more electrically insulating materials for use in conjunction with conductive parts of electrical equipment.

To be evaluated EIS candidateEIS the EIS is being evaluated to determine its electrical

durability under repeated voltage surges.

Baseline EIS referenceEIS EIS has been assessed and identified, which had actual operating experience under repeated voltage shocks or had been compared to functional assessment.

Partial discharge; PD Inter-conductor insulation is only partially bridged by electrical discharges.