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

GB/T 47985.1-2026

**Voltage detectors - Part 1: Capacitive type to be used for
voltages exceeding 1 kV AC**

验电器 第1部分：交流1kV以上电压等级用电容型

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 1 of GB/T 47985 "Electrical Detectors". GB/T 47985 has the following parts published.

---Part 1: Capacitor type for AC voltage levels above 1kV.

This document is modified to adopt IEC 61243-1:2021 "Live working detectors - Part 1: Electrical equipment for use at voltage levels above 1kV AC".

"Content type".

This document has undergone significant structural adjustments compared to IEC 61243-1:2021. A comparison of the structural numbering changes between the two documents is provided below.

See Appendix A for the table.

This document differs significantly from IEC 61243-1:2021. The relevant clauses are indicated in the margins using vertical markers.

The following editorial changes have been made to this document.

---To align with existing standards, the standard title has been changed to "Electrical Detectors Part 1: Capacitive Type for AC Voltage Levels Above 1kV";

---Informative Appendices A and B have been added;

---The contents of informative appendices C, F, and G have been revised;

---Informative Annex H and references have been removed from IEC 61243-1:2021.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Electricity Council.

This document is under the jurisdiction of the National Technical Committee on Standardization of Live-Line Working (SAC/TC36).

Introduction

During maintenance and repair, the quality of the equipment directly affects the safety of the workers and related equipment. Depending on the principle of voltage detection, voltage detectors have...

Various types of products. GB/T 47985 "Electrical Detectors" is a standard guiding the design, production, and testing of electrical detectors in my country, and is proposed to consist of two parts.

constitute.

---Part 1: Capacitor Types for AC Voltage Levels Above 1kV. The purpose is to specify the types of capacitors used for AC voltage levels above 1kV.

Product requirements for type testing electrical appliances.

---Part 2: Bipolar Low-Voltage Type. The purpose is to specify the product requirements for bipolar low-voltage type detectors.

Electroscope Part 1: AC 1kV the above voltage levels use capacitor type

1 Scope

This document defines the classification and nomenclature of capacitive electroscopes, specifies technical requirements, inspection rules, marking, packaging, transportation, and

storage, and describes...

The corresponding experimental methods are described.

This document applies to capacitive voltage detectors used in AC voltage levels above 1kV that directly contact exposed parts of the component under test.

Design, production, testing and use.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 1800.1 Product Geometric Specification (GPS) - Linear Dimensional Tolerances - ISO Notation System - Part 1: Tolerances, Deviations and the basis for the coordination (GB/T 1800.1-2020, ISO 286-1:2010, MOD) Codes and Limit Deviation Tables for Holes and Shafts (GB/T 1800.2-2020, ISO 286-2:2010, MOD) GB/T 2421 Overview and Guidelines for Environmental Testing (GB/T 2421-2020, IEC 60068-1:2013, IDT) GB/T 2423.7 Environmental Testing - Part 2: Test Methods - Test Ec. Shocks caused by rough handling (mainly for equipment types) (Sample) (GB/T 2423.7-2018, IEC 60068-2-31:2008, IDT) GB/T 2423.10 Environmental testing - Part 2: Test methods - Test Fc. Vibration (sine) (GB/T 2423.10-2019) IEC 60068-2-6:2007, IDT GB/T 2423.22 Environmental testing-Part 2: Test methods-Test N. Temperature change (GB/T 2423.22-2012) IEC 60068-2-14:2009, IDT GB/T 2423.55 Environmental testing - Part 2: Test methods - Test Eh. Hammer impact test (GB/T 2423.55-2023) IEC 60068-2-75:2014, IDT GB/T 2900.55 Electrical Terminology - Live Working (GB/T 2900.55-2016, IEC 60050-651:2014, IDT) GB/T 3241.1 Electroacoustic octave and fractional octave filters - Part 1: Specifications (GB/T 3241.1-2025) IEC 61260-1:2014, IDT GB/T 3767 Engineering method for determining the sound power level and sound energy level of a noise source using acoustic pressure method in an approximately free field above a reflecting surface.

(GB/T 3767-2016, ISO 3744:2010, IDT) GB/T 3785.1 Electroacoustic sound level meters - Part 1: Specifications (GB/T 3785.1-2023, IEC 61672-1:2013, IDT) GB/T 3978 Standard Illuminating Bodies and Geometric Conditions GB 4824 Limits and methods of measurement for radio frequency interference characteristics of industrial, scientific and medical devices (GB 4824-2025, CISPR11.

2024, IDT)

IEC 62271-1:2017, MOD) GB/T 13398 Hollow insulating tubes, foam-filled insulating tubes

and solid insulating rods for live-line working (GB/T 13398-2026)