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

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**Electrical fire monitoring system - Part 7: Current limiting
protector for electric fire prevention**

电气火灾监控系统 第7部分：电气防火限流式保护器

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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 7 of GB 14287 "Electrical Fire Monitoring Systems". GB 14287 has the following parts published.

1. Electrical Fire Monitoring Equipment;

2. Residual Current Type Electrical Fire Monitoring Detector;

3. Temperature-measuring electrical fire monitoring detectors;

4. Fault Arc Detectors;

5. Measurement of Pyrolytic Particle Electrical Fire Monitoring Detectors;

7. Electrical Fire Protection Current Limiting Protectors 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 and is under the jurisdiction of the State Fire and Rescue Administration.

With the rapid development of modern society and the continuous improvement of people's living standards, electricity consumption has increased significantly, leading to frequent electrical fire accidents. Electrical fires can cause incalculable losses. To reduce the incidence of electrical fires and prevent or minimize losses, electrical fire monitoring systems are used. Monitoring and early warning of electrical fires plays a vital role. Unlike fire detection and alarm systems, electrical fire monitoring systems belong to... The main function of a fire early warning system is to detect potential electrical fire hazards as early

as possible, preventing electrical fires caused by electrical faults, hidden dangers, and other risk factors. Fire. With the development of electrical fire monitoring and detection technology, relevant domestic institutions have developed electrical fire protection current-limiting protectors and other electrical fire monitoring technologies. This product, as a crucial component of electrical fire monitoring systems, is used for electrical fire prevention and control. Based on technological innovation and industrial application needs, there is an urgent need to develop... Establish the national standard "Electrical Fire Monitoring System Part

7. Electrical Fire Protection Current Limiting Devices" to improve the GB 14287 standard system. By establishing standardized documents, manufacturers and users of electrical fire monitoring system products can better conduct product design and production. Activities such as usage can improve the application effect of electrical fire monitoring systems and better promote trade, exchange and technological cooperation. This document standardizes the technical requirements and testing methods for electrical fire-resistant current-limiting protective devices, guiding industry players in product design and production. Production, inspection, and engineering applications enhance the effectiveness of electrical fire monitoring systems, providing technical support for international trade, technological exchange, and collaborative industrial innovation. Technical standards. GB 14287 "Electrical Fire Monitoring Systems" is the basic standard guiding the production, inspection, and use of electrical fire monitoring system products in my country. The standard is composed of nine parts.

1. Electrical Fire Monitoring Equipment. The purpose is to standardize the general technical requirements for electrical fire monitoring equipment products and improve production efficiency. Product quality.

2. Residual Current Type Electrical Fire Monitoring Detectors. The purpose is to standardize residual current type electrical fire monitoring detectors. General technical requirements for products, to improve product quality.

3. Temperature-Sensing Electrical Fire Monitoring Detectors. The purpose is to standardize the use of temperature-sensing electrical fire monitoring detectors. Use technical requirements to improve product quality.

4. Arc Fault Detectors. The purpose is to standardize the general technical requirements for arc fault detector products and improve product quality. quality.

1 Scope

Part 7 of GB 14287 covers a device that does more than watch: the current limiting protector cuts the fault current itself, limiting the energy that reaches an arcing or overheating point instead of only reporting it. The standard sets the general requirements, the packaging and appearance, the basic functions, the alarm performance and - as

important - the non-action performance that keeps it from tripping on normal load transients, together with repeatability, tolerance of voltage fluctuation and of the climatic environment. It then gives the test methods, including low-temperature, damp heat, impact and collision tests in the operating state, the inspection rules, the marking and a normative annex on the combustion behaviour of the enclosure. Issued on 31 October 2025, in force since 1 November 2026; first edition. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the edition it replaces are taken from there. The clause text, the tables and the numeric limits are not reproduced on this page - they are in the document itself, which is delivered in full in English translation.

This document defines the terminology for electrical fire-resistant current-limiting protective devices, specifies the requirements, inspection rules, and markings, and describes the corresponding tests. method. This document applies to the design, manufacture, and application of electrical fire-prevention current-limiting protective devices (hereinafter referred to as "protective devices") in electrical fire monitoring systems. test.

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 9969 General Rules for Instructions for Use of Industrial Products

GB 12978 Inspection Rules for Fire Protection Electronic Products

GB/T 16838 Environmental testing methods and severity levels for fire protection electronic products

GB/T 17626.2 Electromagnetic compatibility testing and measurement techniques - Electrostatic discharge immunity test

GB/T 17626.3 Electromagnetic compatibility testing and measurement techniques - Part

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 A protective device that limits current in the event of a short circuit or overload in the protected circuit.

3.2 Rated current The maximum current value that the protector can continuously and safely pass under normal operating conditions.