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

GB/T 6829-2024

**General safety requirements for residual current operated
protective devices
(English Translation)**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 6829-2017 "General requirements for residual current operated protective devices (RCD)" and is compatible with GB/T 6829-2017 Compared with the previous version, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- Deleted the voltage limit of 440V in the range (see Chapter 1 of the 2017 edition);
- Changed the terms and definitions (see Chapter 3, Chapter 3 of the 2017 edition);
- Changed the content of "based on the mode of action" (see 4.1, 4.1 of the 2017 edition);
- The classification has been added with "based on protection against external influences", "based on installation method", "based on wiring method" and "based on intended use".
- points" (see 4.6, 4.7, 4.8 and 4.15);
- "Based on whether there is automatic reclosing" has been deleted from the classification (see 4.11 of the 2017 edition);
- For equipment combined with RCD or embedded with RCD, product marking requirements, mechanical design requirements and action characteristics requirements are added (see 6.2, 8.1.1.2 and 8.5.4);
- Deleted the additional requirements for RCDs whose operating functions are related to the power supply voltage (see 8.3.3 of the 2017 edition);
- Added transient overvoltage (TOV) performance requirements (see 8.18);
- Added "Drafting of test clauses for RCD product standards and test clauses for RCD contained or embedded in equipment" (see Chapter 9);
- Added the relationship with product standards and gave the products related to this document (see Appendix D).

This document is equivalent to IEC 60755:2017 "General safety requirements for residual current operated protective devices".

The following minimal editorial changes were made to this document.

--- Add Note 3 to the scope, and introduce informative Appendix C;

--- Move the informative reference IEC 60068-3-4 from Chapter 2 to the references.

Introduction

This document is intended primarily for technical committees preparing residual current units, power supplies and other components for use in providing protection according to IEC 60364 (all parts).

Use when the energy or electrical appliance is in compliance.

There are two basic types of protection against electric shock hazards. fault protection (indirect contact) and basic protection (direct contact).

Fault protection means that the appliance is used to prevent the continuous dangerous voltage on the accessible metal parts of the electrical device in the event of a ground fault.

Under these circumstances, these grounded metal parts will become electrically charged.

In this case, the danger comes from the user coming into contact with a grounded metal part which itself is in contact with a live conductive part.

contact with live conductive parts rather than direct contact with them.

The main function or basic function of residual current operated protective devices is to provide fault protection.

The operating current does not exceed 30mA. It can also provide additional protection for people or livestock who are in direct contact with live conductors when other protective measures fail.

Protect.

Therefore, the operating characteristics given in this document are based on such requirements, which themselves are based on IEC 60479-1 and IEC 60479-2.

Information included.

The residual current operated protective device with a rated residual operating current not exceeding 300mA can also respond to long-term continuous ground fault current (not Provide protection against fire hazards caused by overcurrent protection devices.

General safety requirements for residual current operated protective devices