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

GB/T 37751.33-2019

**Residual current operated circuit-breakers for household and similar use -- Part 3-3:
Specific requirements for RCDs with screw-type terminals for external untreated
aluminium conductors and with aluminium screw-type terminals for use with copper or
with**

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Foreword

GB/T 37751 "Residual current operated circuit breakers for household and similar purposes" is divided into the following sections.

--- Part 1. Overview of independent modules and unit modules for residual current electrical standards (GB/T 37751.1);

--- Part 2. Residual current electrical appliances (RCD) vocabulary (GB/T 37751.2);

--- Part 3-1. Particular requirements for RCDs with non-threaded terminals to be connected to external copper conductors (GB/T 37751.31);

--- Part 3-2. Particular requirements for RCDs with flat quick-connect ends (GB/T 37751.32);

---Part 3-3. Threaded terminal blocks with external untreated aluminium conductors and aluminium threaded connection to copper or aluminium conductors

Special requirements for type terminal block RCD (GB/T 37751.33).

This part is part 3-3 of GB/T 37751.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to IEC 62873-3-3.2016 "Residual current operated circuit breakers for household and similar purposes"

Part 3-3. Threaded terminal blocks with external untreated aluminum conductors and aluminium threaded terminals with copper or aluminium conductors

Special requirements for sub-RCD.

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

---GB/T 16916.1-2014 Residual current operated circuit breaker (RCCB) without overcurrent protection for household and similar purposes

Part 1. General rules (IEC 61008-1.2012, MOD);

---GB/T 16917.1-2014 Residual current operated circuit breaker (RCBO) with overcurrent protection for household and similar purposes

Part 1. General rules (IEC 61009-1.2012, MOD);

--- GB/T 37751.2-2019 Residual current operated circuit breakers for household and similar purposes - Part 2

(RCD) vocabulary (IEC 62873-2.2016, IDT).

This section has made the following editorial changes.

--- Deleted the original note in Chapter 1, the content of which has nothing to do with China;

--- Table 4 "Connectable wires and their theoretical diameter" Note in the reference file "ASTM B172-01a" is incorrect, changed to

"ASTMB172-17" is also modified accordingly in the references.

This part was proposed by China Electrical Equipment Industry Association.

This part is under the jurisdiction of the National Low Voltage Electrical Appliance Standardization Technical Committee (SAC/TC189).

This section drafted by. Shanghai Electric Apparatus Research Institute, Zhejiang Zhengtai Electric Co., Ltd., Zhongshan Kaipu Electric Co., Ltd., Su

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1 Scope

This part of GB/T 37751 applies to threaded terminals with untreated aluminum conductors or aluminium with copper or aluminium conductors.

The RCD of the threaded terminal block. Threaded terminal blocks for connecting untreated aluminum conductors are made of copper or contain at least 58%

Made of copper (cold worked) or copper alloy containing at least 50% copper (other processed), or with corrosion resistance not lower than copper and with suitable machine

Mechanical properties of other metals or coated metals.

This part cannot be used alone and must be used in conjunction with the RCD product standard (IEC 61008-1 or IEC 61009-1) for external connection.

Threaded terminal block for untreated aluminum wire and aluminum threaded terminal block for connecting copper or aluminum wire.

In this section, copper-plated, nickel-plated aluminum conductors are considered aluminum

conductors.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

IEC 61008-1 Residual current operated circuit-breakers (RCCB) without overcurrent protection for household and similar purposes - Part 1. 1

General rule [Residual current operated circuit-breakers without integral overcurrent protection for

Household and similar uses (RCCBs) - Part 1. General rules]

IEC 61009-1 Residual current operated circuit breakers (RCBO) with overcurrent protection for household and similar purposes - Part 1. General

Rule

[Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) - Part 1. General rules]

Residual current operated circuit breakers for household and similar purposes - Part 2.

Residual current electrical appliances (RCD) vocabulary [Re-

Sidual current operated circuit-breakers for household and similar uses - Part

2. Residual current de-

Vices (RCDs) - Vocabulary]

3 Terms and definitions

The following terms and definitions as defined by IEC 62873-2 apply to this document.

3.1

Treated wire treated conductor

The contact portion of the wire, the oxide layer on the outer layer of the strand is erased, and/or the compound is added to improve the bonding ability and/or corrosion resistance. ability.

3.2

Untreated wire untreated/unprepared conductor

A wire that has been cut and stripped of the insulating layer in order to insert the terminal.

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