

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



**Residual current operated circuit-breakers for household and similar use –  
Part 1: Outline of blocks and modules for residual current device standards**

**Interrupteurs automatiques à courant différentiel résiduel pour usage  
domestique et analogue –  
Partie 1: Présentation des blocs et modules pour les normes des dispositifs  
différentiels résiduels**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### RESIDUAL CURRENT OPERATED CIRCUIT-BREAKERS FOR HOUSEHOLD AND SIMILAR USE –

#### Part 1: Outline of blocks and modules for residual current device standards

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**IEC 62873-1 edition 1.1 contains the first edition (2017-01) [documents 23E/945/CDV and 23E/988/RVC] and its amendment 1 (2020-11) [documents 23E/1196/FDIS and 23E/1202/RVD].**

**In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.**

International Standard IEC 62873-1 has been prepared by subcommittee 23E: Circuit breakers and similar equipment for household use, of IEC technical committee 23: Electrical accessories.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 62873 series published under the general title *Residual current operated circuit-breakers for household and similar use* can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendment will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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## INTRODUCTION

When revising standards within the same group of standards (e.g. RCCBs, RCBOs), it can be clearly seen that there are some common clauses (e.g. reliability of terminals, markings), some clauses with limited differences and some clauses that are completely different (e.g. short-circuit test clauses for RCCBs and RCBOs).

In many cases, there are some mistakes or inconsistencies in clauses which should be identical. Moreover, during each revision, some modifications are made in a document and not systematically introduced in the other documents of the same group of standards, thus leading to new inconsistencies or mistakes. In addition, there are also some significant differences between IEC TR 60755 and IEC 61008-1 or IEC 61009-1, although these three standards should be consistent.

In consultation with the IEC Central Office, SC 23E developed a new approach allowing the production of short papers dealing with only one topic (e.g. one clause of a standard) in order to improve the efficiency of the work and to avoid the many mistakes and discrepancies introduced within the standards over the years. A template was agreed for producing this work.

This approach was launched with several clauses in order to avoid the mistakes and the discrepancies within clauses which should be similar or identical.

This document defines the objectives of this approach, the scope, the methodology and the processes. This document constitutes also a summary of the blocks and modules.

## RESIDUAL CURRENT OPERATED CIRCUIT-BREAKERS FOR HOUSEHOLD AND SIMILAR USE –

### Part 1: Outline of blocks and modules for residual current device standards

#### 1 Scope

The IEC 62873 series covers available common standards intended to be used in conjunction with or for the preparation of RCD (residual current device) standards.

This part of IEC 62873 defines the methodology and processes used when producing standards based on a new approach (hereafter referred to as blocks and modules) aiming at harmonizing a family of standards, thus avoiding mistakes, inconsistencies or discrepancies within this family of standards. The family of standards considered in this document consists of standards for RCCBs (Residual Current Circuit-Breakers without overcurrent protection), RCBOs (Residual Current Circuit-Breakers with overcurrent Protection), and general safety requirements for residual current operated protective devices (namely IEC 61008-1, IEC 61009-1 and IEC TR 60755).

The prepared modules may be used for the preparation of standards other than those for RCCBs, RCBOs and IEC 60755, provided that the relevance of content of the module is carefully verified.

This approach defines a way to optimize drafting of standards, aiming to keep a common or similar structure, to have common clauses (as far as possible), to avoid inconsistencies, to do editorial work only once, to speed up production of standards, to ensure that a comment on one clause in one standard is also taken into account in other standards, if needed.

The principles of the blocks and modules approach are:

- to identify those parts of the standards which need to be identical (or with limited differences), and those parts of the standards which should remain different;
- to set a library of those common parts;
- to identify the parts which should be published as stand-alone standards;
- to draft product standards, using the library;
- to keep track of the common parts used in a product standard when revision will be needed in the future.

This document also lists the available blocks and modules which were prepared for RCD product standards.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC TR 60755, *General requirements for residual current operated protective devices*

IEC 61008-1, *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 with integral overcurrent protection for household and similar uses (RCBOs) – Part 1: General rules*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

#### 3.1

##### **harmonized clause**

clause whose content is common to several standards

#### 3.2

##### **module**

harmonized clause intended to be copied and assembled in a product standard

Note 1 to entry: Modules may be partially harmonized (e.g. part applicable to RCCB only).

Note 2 to entry: Modules are kept in the SC 23E secretary library.

#### 3.3

##### **block**

harmonized and self-standing clause(s), referred to in a product standard and published as a separate standard (e.g. glossary for definitions for all RCDs)

### 4 Methodology

#### 4.1 General

The process for harmonization of clauses and preparation of a module or a block is explained in Figure 1.

#### 4.2 Harmonization of clauses

##### 4.2.1 Drafting of a harmonized clause

Preparation of a harmonized clause requires the following tasks to be performed:

- comparison of the same clauses within the family of standards where harmonization is being done and proposal if those clauses may be harmonized;
- drafting of the harmonized clause for the given family of standards, using the specific template. In case a paragraph is only applicable to a specific standard, this is indicated above the paragraph.
- revision of the harmonized clause by a task force of one or two experts and then analysis of the result of by an ad hoc group;
- proposals from task forces and ad hoc group are then submitted to SC 23E for decision regarding this harmonized clause. The decisions taken by SC 23E cover technical and editorial aspects and circulation as a module or as a block.

NOTE 1 Clauses are harmonized first and later become either a block or a module.