

SRI LANKA STANDARD 1099-1 : 2015
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**SPECIFICATION FOR
RESIDUAL CURRENT OPERATED
CIRCUIT-BREAKERS WITHOUT
INTEGRAL OVERCURRENT
PROTECTION FOR HOUSEHOLD AND
SIMILAR USES (RCCBs)–
PART 1 GENERAL REQUIREMENTS**
(Third Revision)

SRI LANKA STANDARDS INSTITUTION

Sri Lanka Standard
SPECIFICATION FOR RESIDUAL CURRENT OPERATED
CIRCUIT-BREAKERS WITHOUT INTEGRAL OVERCURRENT
PROTECTION FOR HOUSEHOLD AND SIMILAR USES (RCCBs) –
PART 1 GENERAL REQUIREMENTS
(Third Revision)

SLS 1099-1 : 2015
IEC 61008-1 : 2013

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SRI LANKA STANDARDS INSTITUTION
17, Victoria Place
Elvitigala Mawatha
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Sri Lanka Standard
SPECIFICATION FOR RESIDUAL CURRENT OPERATED
CIRCUIT-BREAKERS WITHOUT INTEGRAL OVERCURRENT
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PART 1 GENERAL REQUIREMENTS
(Third Revision)

NATIONAL FOREWORD

This standard was approved by the Sectoral Committee on Electrical Appliances and Accessories and was authorized for adoption and publication as a Sri Lanka Standard by the Council of Sri Lanka Standards Institution on 2015- 04-09.

Part 1 of SLS 1099 is identical with **IEC 61008-1: 2013**, Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) Part 1 General rules, Edition 3.2 2013-09, published by the International Electrotechnical Commission (IEC).

Terminology and conventions

The text of the International Standard has been accepted as suitable for publication as a Sri Lanka Standard with additional information indicated in the National Appendix. However, certain terminology and conventions are not identical with those used in Sri Lanka Standards; attention is therefore drawn to the following:

- a) Wherever the words “International Standard” appear referring to this standard they should be interpreted as “Sri Lanka Standard”.
- b) Wherever the page numbers are quoted they are page numbers of IEC standard.
- c) The comma has been used as a decimal marker. In the Sri Lanka Standards it is the current practices to use full point on the base line as a decimal marker.
- d) Whenever standard value of rated frequency appears it shall be taken as 50 Hz.

This part of the standard shall apply in conjunction with Part 2-1 Applicability of the general requirements to RCCBs functionally independent of line voltage.

Standard for RCCB,s functionally dependent on line voltage is not published as this type is not suitable to use for household and similar uses. (See National Appendix)

CROSS REFERENCES

International Standards

Corresponding Sri Lanka Standards

IEC 60529 Degrees of protection provided by enclosures (IP Code)

SLS 963 Degrees of protection provided by enclosures (IP Code)

IEC 61009 : Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) – Part 1: General rules

SLS 1022 : Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) – Part 1: General requirements

NOTE : *Corresponding Sri Lanka Standards for other international standards listed under references in IEC 61008-1 are not available.*

NATIONAL APPENDIX

1. Clause 4.1.2.2

Delete the existing “NOTE” and include the following “NOTE” immediately after the **b)** of **4.1.2.2**.

NOTE: The selection of the RCCBs in b) is subject to the following conditions of 532.2.2.2 of IEC 364-5-53

The use of residual current protective devices with an auxiliary source not operating automatically in the case of failure of auxiliary source is permitted only if one of the following conditions is fulfilled:

- i) Protection against indirect contact according to clause 413.1 of IEC 364-4-41 is ensured even in the case of failure of the auxiliary supply*
 - ii) The devices are installed in installations operated, tested and inspected by instructed persons or skilled persons*
-

CONSOLIDATED VERSION

VERSION CONSOLIDÉE



**Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) –
Part 1: General rules**

**Interrupteurs automatiques à courant différentiel résiduel sans dispositif de protection contre les surintensités incorporé pour usages domestiques et analogues (ID) –
Partie 1: Règles générales**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**RESIDUAL CURRENT OPERATED CIRCUIT-BREAKERS
WITHOUT INTEGRAL OVERCURRENT PROTECTION
FOR HOUSEHOLD AND SIMILAR USES (RCCBs) –****Part 1: General rules**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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This Consolidated version of IEC 61008-1 bears the edition number 3.2. It consists of the third edition (2010) [documents 23E/681/FDIS and 23E/685/RVD], its amendment 1 (2012) [documents 23E/740/FDIS and 23E/744/RVD] and its amendment 2 (2013) [documents 23E/795/FDIS and 23E/819/RVD]. The technical content is identical to the base edition and its amendments.

This Final version does not show where the technical content is modified by amendments 1 and 2. A separate Redline version with all changes highlighted is available in this publication.

This publication has been prepared for user convenience.

International Standard IEC 61008-1 has been prepared by subcommittee 23E: Circuit-breakers and similar equipment for household use, of IEC technical committee 23: Electrical accessories.

This edition includes the following significant technical changes with respect to the previous edition:

- complete revision of EMC sequences, including the new test T.2.6 already approved in IEC 61543;
- clarification of RCDs current/time characteristics reported in Tables 1 and 2;
- revision of test procedure for $I_{\Delta n}$ between 5 A and 200 A;
- testing procedure regarding the 6mA d.c. current superimposed to the fault current;
- improvement highlighting RCDs with multiple sensitivity;
- tests for the use of RCCBs in IT systems.

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

A list of all parts of the IEC 61008 series, published under the general title, *Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs)*, can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendments 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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

The contents of the corrigendum of January 2014 have been included in this copy.

INTRODUCTION

This part includes definitions, requirements and tests, covering all types of RCCBs. For the applicability to a specific type this part applies in conjunction with the relevant part, as follows:

Part 2-1: Applicability of the general rules to RCCBs functionally independent of line voltage.

Part 2-2: Applicability of the general rules to RCCBs functionally dependent on line voltage.