AS/NZS 3190:2016
(Incorporating Amendments up to and including No. 2)





Australian/New Zealand Standard™

Approval and test specification — Residual current devices (current operated earth-leakage devices)



AS/NZS 3190:2016

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-004, Electrical Accessories. It was approved on behalf of the Council of Standards Australia on 16 March 2016 and by the Standards New Zealand Approval Board on 20 April 2016.

This Standard was published on 10 May 2016.

The following are represented on Committee EL-004:

Association of Accredited Certification Bodies
Australian Chamber of Commerce and Industry
Australian Industry Group
Consumer Electronics Suppliers Association
Consumers Federation of Australia
Electrical Compliance Testing Association
Electrical Regulatory Authorities Council
Engineers Australia
International Accreditation New Zealand
Ministry of Business, Innovation and Employment, NZ
New Zealand Manufacturers and Exporters Association

NSW Fair Trading Plastics Industry Pipe Association of Australia

This Standard was issued in draft form for comment as DR2 AS/NZS 3190:2015.

Keeping Standards up-to-date

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

www.standards.org.au www.standards.govt.nz

AS/NZS 3190:2016

(Incorporating Amendments up to and including No. 2)

Australian/New Zealand Standard™

Approval and test specification — Residual current devices (current operated earthleakage devices)

Originated in Australia as AS 3190—1974. First New Zealand edition AS/NZS 3190:2002. Previous edition 2011. This edition 2016. Reissued incorporating Amendment No 1 (July 2020). Reissued incorporating Amendment No 2 (April 2024).

Standards Australia Limited/Standards New Zealand 2024

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, nless otherwise permitted under the Copyright Act 1968 (Australia) or the Copyright Act 1994 (New Zealand).

Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-004, Electrical Accessories, to supersede AS/NZS 3190:2011, *Approval and test specification—Residual current devices (current-operated earth-leakage devices)*.

This Standard incorporates Amendment No. 1 (July 2020) and Amendment No. 2 (April 2024). The start and end of changes introduced by the Amendments are indicated in the text by tags including the Amendment numbers 1 and 2.

This Standard will exist in parallel to the deemed to comply Standards listed in Clause 3.2.

A2 [Text deleted] (A2)

The essential safety requirements in AS/NZS 3820, *Essential safety requirements for electrical equipment*, that could be applicable to residual current devices (current-operated earth-leakage devices) are covered by this Standard taken in conjunction with any other relevant requirements affecting safety.

The objective of this Standard is to provide Australian and New Zealand electrical industries (including manufacturers, test laboratories, installers and regulators) with electrical safety requirements and test methods for residual current devices (current-operated earth-leakage devices).

This Standard is one of a series of Approval and Test Specifications to be read in conjunction with AS/NZS 3100, *Approval and test specification—General requirements for electrical equipment*. The purpose of this series is to outline conditions that need to be met to secure approval for the sale and use of electrical equipment in Australia and New Zealand. Only safety matters and related conditions are covered.

There is a general acceptance that Type III and Type IV residual current devices do not provide adequate personal protection, however, they are within the scope of this Standard.

This Standard was revised to introduce the following changes:

- (a) SRCD, EPOD, MCB, RCBO and RCCB definitions added.
- (b) <u>Clause 8.1.1</u> text relating to <u>Table 4</u> revised.
- (c) Table 4 reformatted, sample selection modified and footnotes incorporated into Clause 8.1.1.
- (d) Reinstate <u>Clause 8.16.1</u> prospective current test values.
- (e) Delete Appendix C (AS/NZS 3012 PSOA reference) and reference in Clause 7.3.2.2.
- (f) Insulation resistance test parameters in <u>Clause 8.2</u> clarified.
- (g) General editorial revision and correction of some minor errors.

Exceptions — These occur in the main body of the text as italic print and are exceptions or variations to mandatory requirements. These give specific examples where the essential requirements do not apply or where they are varied for certain applications.

The term 'normative' has been used in this Standard to define the application of the appendices to which it applies. A 'normative' appendix is an integral part of a Standard.

This Standard does not purport to include all the necessary provisions of a contract.

Contents

Preface		ii			
Section 1	Scope and referenced documents	1			
1.1	Scope				
1.2	Referenced documents				
Section 2	Definitions				
Section 3	Compliance with standards	6			
3.1	General requirements of AS/NZS 3100				
3.2	Requirements for conformance to this Standard				
	3.2.1 Specific requirements of this Standard				
3.3	3.2.2 Requirements for other Standards Requirements of other Standards				
	•				
Section 4	Classification				
4.1	General CDCCD				
4.2	Portable residual current devices (PRCDs)				
Section 5	Design and construction				
5.1	Enclosures				
	5.1.1 Relay enclosure(s)	10			
5.2	5.1.2 Enclosure of a PRCD or PSOA Encapsulation and sealing				
5.2	Corrosion protection				
5.4	Mounting facilities				
5.5	Insulating material				
5.6	Spacing between terminals intended for field wiring	10			
5.7	Portable devices	11			
	5.7.1 Socket-outlet faceplate				
	5.7.2 Flexible cord				
	5.7.3 Connection by pins				
	5.7.4 Mechanical strength				
	5.7.6 Earthing continuity				
	5.7.7 Means of connection to the supply				
	5.7.8 Power supply cord assembly				
5.8	Moving contact coupling				
	5.8.1 General	15			
	5.8.2 Switched neutral				
= 0	5.8.3 PRCD moving contacts				
5.9	Mechanical protection of PSOA socket-outlets				
5.10	PRCD configurations and location of RCDsRequirement for metal oxide varistors (MOVs) incorporated in RCDs				
Section 6	RCD isolation and test facility requirements	19			
6.1	General 6.1.1 Means of isolation associated with the operation of the RCD	19			
	6.1.2 Test facility	19			
6.2	Portable residual current devices (PRCDs)				
0.2	6.2.1 Rating				
	6.2.2 Overcurrent protection of PRCDs with socket-outlet assemblies				
	6.2.3 Operation of RCD and overcurrent protection	20			
	6.2.4 Switching requirements for PRCDs				
	6.2.5 Lampholders				
	6.2.6 Requirements for reeling or coiling arrangement				
Section 7	Marking				
7.1	Marking of RCDs	23			



The is a new provider i arenade and chare publication at the limit below	This is a free preview.	Purchase the	entire publication	at the link below:
--	-------------------------	--------------	--------------------	--------------------

Product Page

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation