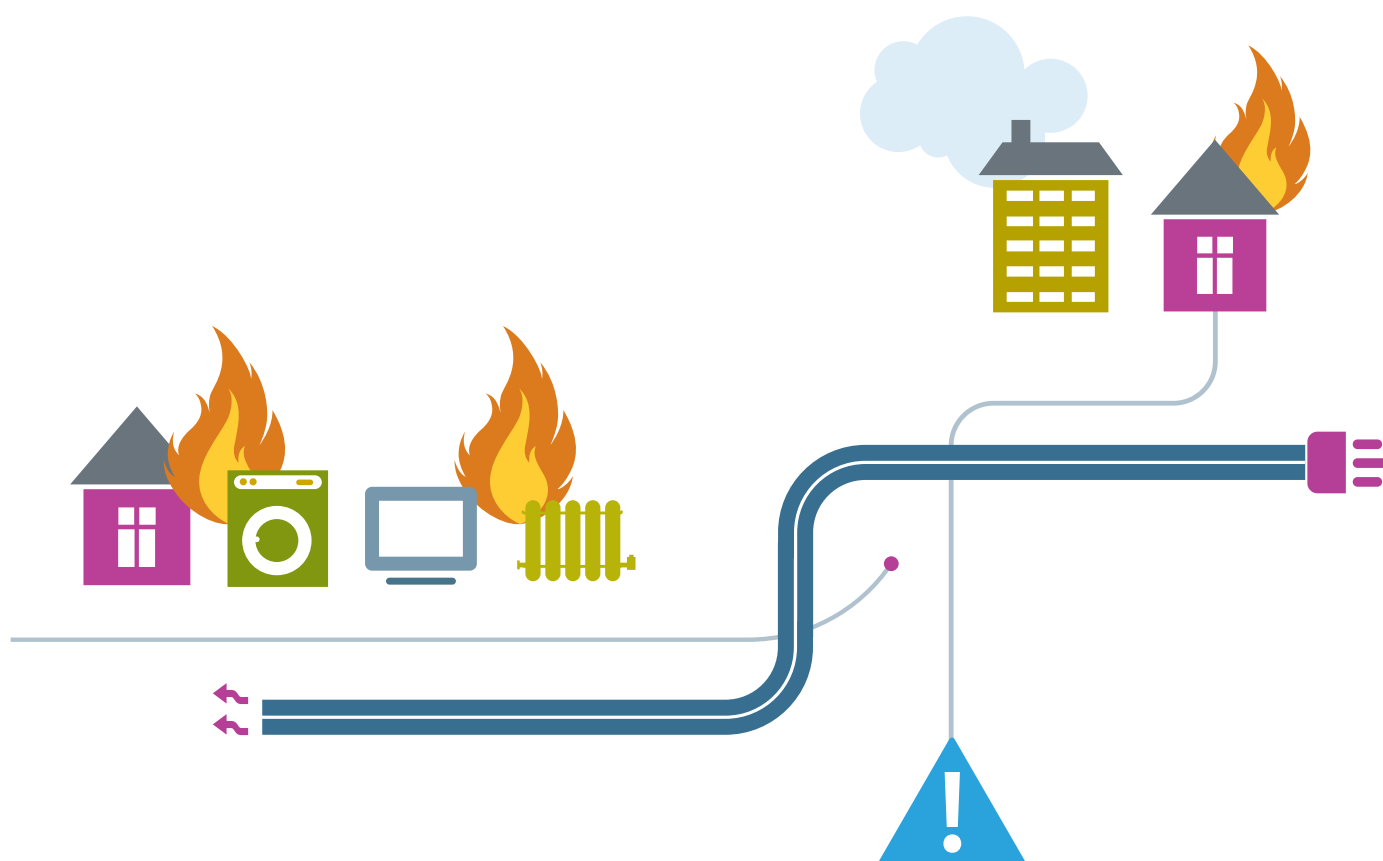


TECHNICAL BULLETIN

GUIDE TO RESIDUAL CURRENT DEVICE (RCD) E MARKING



ABOUT BEAMA

BEAMA is the UK manufacturing trade association for the electrotechnical sector, providing leadership, expertise and independent influence in the areas of product safety, performance, energy efficiency, digitalisation and sustainability. Our activities span a broad spectrum of technology groups, from energy networks through to electrical infrastructure and service technologies in the built environment.

The association has a strong history in the development and implementation of standards to promote safety and product performance for the benefit of manufacturers and their customers.

This publication provides information to assist specifiers and installers understand E markings for Residual Current Devices (RCDs).

This publication has been produced by BEAMA's Building Electrical Systems Sector and specifically by BEAMA's Low Voltage Circuit Breakers Technical Committee.

Details of other BEAMA Guides can be found on the BEAMA website www.beama.org.uk

ACKNOWLEDGEMENTS

BEAMA would like to thank BSI, CENELEC and IEC for allowing references to their standards.

DISCLAIMER

This publication is subject to the copyright of BEAMA Ltd. While the information herein has been compiled in good faith, no warranty is given or should be implied for its use and BEAMA hereby disclaims any liability that may arise from its use to the fullest extent permitted under applicable law.

© BEAMA Ltd 2025

Copyright and all other intellectual property rights in this document are the property of BEAMA Ltd. Any party wishing to copy, reproduce or transmit this document or the information contained within it in any form, whether paper, electronic or otherwise should contact BEAMA Ltd to seek permission to do so.

BEAMA MEMBERS INVOLVED IN THE PRODUCTION OF THIS PUBLICATION



ABB Ltd

Tower Court; Courtaulds Way
Foleshill Enterprise Park
Coventry, West Midlands CV6 5NX
Tel: +44 (0) 2476 368 500
<https://new.abb.com/uk>



BG Luceco plc

Luceco Distribution Centre,
Stafford Park 1, Telford,
Shropshire TF3 3BD
Tel: +44 (0) 1952 238 100
www.luceco.com/uk



Contactum Ltd

Unit 18, Eyncourt Road,
Woodside Estate,
Dunstable, LU5 4TS, United Kingdom
Tel: +44 (0) 208 208 7400
enquiries@contactum.co.uk



Deta Electrical Company Limited

Panattoni Park, Luton Road,
Chalton, Bedfordshire LU4 9TT
Tel: +44 (0) 1582 544500
sales@deta.co.uk
www.deta.co.uk



Powering Business Worldwide

Eaton Electric Limited

252 Bath Road, Slough,
Berkshire SL1 4DX
Tel: +44 (0) 8700 545 333



Electrium Sales Limited

A Siemens Company
Lakeside Tower
Lakeside Business Park
Walkmill Way, Cannock, WS11 0XE
Tel: +44 (0) 1543 455000
info@electrium.co.uk
www.electrium.co.uk



Europa Components

Europa House, Airport Way,
Luton, LU2 9NH
Tel: +44 (0) 1582 692 440
sales@europa-plc.com
www.europa-plc.com



GreenBrook Electrical

62 West Road, Harlow,
Essex, CM20 2BG
Tel +44 (0) 1279 772772
www.greenbrook.co.uk



Hager Ltd

Hortonwood 50, Telford,
Shropshire TF1 7FT
Tel: +44 (0) 1952 675 689
Technical@hager.co.uk
www.hager.co.uk



Legrand Electric Ltd

Great King Street North,
Birmingham B19 2LF
Tel: +44 (0) 370 608 9020
Email: powersales.uk@legrand.co.uk
www.legrand.co.uk



The Electricians' Choice

Lewden Ltd

Unit 4, Bradbury Drive
Springwood Industrial Estate
Braintree, Essex, CM7 2SD
Tel: +44 (0) 1376 336200
Email: sales@lewden.co.uk
www.lewden.com



Proteus Switchgear

Proteus Consumer, Pipers Road,
Park Farm Industrial Estate,
Redditch, Worcestershire, B98 0HU
Tel: +44 (0) 1527 517117
cons@proteusswitchgear.co.uk
www.proteusswitchgear.com



Schneider Electric Ltd

Stafford Park 5, Telford,
Shropshire TF3 3BL
Tel: +44 (0) 1952 290029
Fax: +44 (0) 1952 292238
www.schneider-electric.co.uk



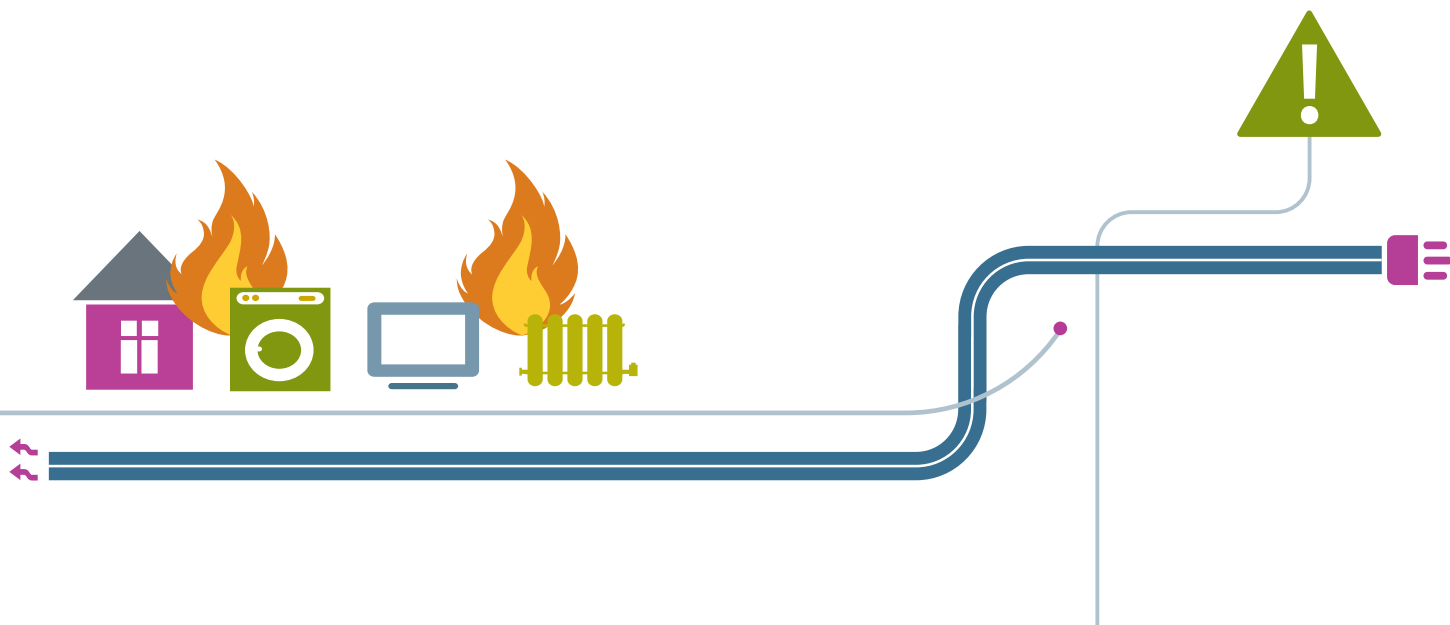
Western Automation R&D

2 Atrius Place, Poolboy, Ballinalsoe,
Co. Galway, Ireland H53 TD 78
Tel: +353 (0) 90 9643359
Fax: +353 (0) 90 9643094
Email: info@westernautomation.com
www.westernautomation.com



Contents

1. Introduction	5
2. E marking	5
3. Ambiguity and clarification of E3 protection	6
4. Discontinuation of E marking	6
5. Timeline for discontinuation of E marking within the product standards	6
6. Guidance for specifiers and installers	6



1. Introduction

This publication provides guidance and clarification on E marking applied to Residual Current Devices (RCDs) manufactured in accordance with **BS EN (IEC) 61008** (Residual Current Operated Circuit-Breaker without Integral Overcurrent protection (RCCB) and **BS EN (IEC) 61009** (Residual Current Operated Circuit-Breaker with Integral Overcurrent protection (RCBO) series standards.

2. E Marking

E marking does not originate from the international standards (IEC). They were introduced as a **CENELEC common modification** during the adoption of the IEC standard into the European (EN) standard. As the United Kingdom is a CENELEC member, these markings were also adopted nationally. For example, a new Table Z1 was introduced to categorise RCBOs according to their method of operation.

Table Z1 – Survey of the types of RCBOs / RCCBs according to their method of operation

Classification	4.1.1	4.1.2.2 a)	4.1.2.1 b)	4.1.2.2 b)
Marking of use	Without	E1	E2	E3
Protection	Indirect contact and additional protection ^a	Indirect contact and additional protection ^a	Additional protection ^a	Additional protection ^{a b}
Service continuity ^c	Yes	Yes	No	Yes

^a Additional protection, provided only by RCBOs / RCCBs with $I_{\Delta n} \leq 0.03$ A.

^b Only devices integrated in one unit with a socket-outlet or designed exclusively for being associated locally with a socket outlet in a same mounting box.

^c This information is given for guidance only.

Table Z1. corresponds to the E marking protection level i.e. suitable for both protection against indirect contact (fault protection) and additional protection or additional protection only.

3 Ambiguity and clarification of E3 protection

Many devices are currently marked as E3 indicating **additional protection only** when integrated in, or local to a socket-outlet. Table Z1 E3 could indicate RCBOs are not suitable for use in a Consumer Unit (CU) or Distribution Board (DB).

E3 marking is often the result of ambiguity in the existing version of the standard rather than a true limitation in product performance. This ambiguity is reflected in the absence of any recognized test laboratory or certification body interpretation sheet with the product standard ambiguity.

The new version of the standard IEC 61009-2-2: 2024 resolves this ambiguity and provides clearer alignment between device functionality and protection capability.

Subject to the manufacturer's Declaration of Conformity (DoC), a device previously marked E3 may, in fact, meet the technical requirements corresponding to E1 performance i.e. suitable for both protection against indirect contact (fault protection) and additional protection.

4 Discontinuation of E marking

The new versions of BS IEC 61008-2-2 and BS IEC 61009-2-2 are anticipated for publication in January 2027 and will align with the already published IEC 61008-2-2:2024 and IEC 61009-2-2:2024 respectively by removing the E marking classification entirely. Under this new framework, device suitability will be defined by conformity with performance requirements rather than by an E marking, simplifying product marking and interpretation for installers and specifiers.

5 Timeline for discontinuation of E marking within the product standards

BS IEC 61009-2-2 is expected for publication in **Q1 2027**, alongside updates to **BS EN 61009-1** and **BS EN 61009-2-1**. A **five-year transition period** is anticipated before the withdrawal of current standards. Therefore, **E markings may continue to appear on devices until approximately 2032**, after which **BS EN 61009-1:2012 + A13:2021** will be withdrawn. It is anticipated that the publication of BS IEC 61008-2-2, BS EN 61008-1 and BS EN 61008-2-1 will follow a similar timeframe to that described for the 61009 series.

6 Guidance for Specifiers and Installers

According to a manufacturer's **Declaration of Conformity (DoC)**, a device marked **E3** may, in practice, meet E1 performance criteria i.e. suitable for both protection against indirect contact (fault protection) and additional protection.

If there is uncertainty regarding a device's classification or suitability, always **consult the manufacturer** for clarification and supporting documentation.



Rotherwick House
3 Thomas More Street
London E1W 1YZ

www.beama.org.uk