

Residual Current Devices



Annual Report 2015

Scope

The RCD TF was established by ETCI in September 1996 to provide a specialist focus for the formulation of standards for residual current devices. The Task Force is responsible for monitoring the work of CLC TC23E and IEC SC23E in so far as it relates to RCDs and for providing appropriate advice to ETCI Council.

The Task Force is also responsible for ETCI [Publication ET 214](#) (Guide to the Selection and Use of Residual Current Devices), which is available as a free download from the ETCI web site.

The work of ETCI RCDTF leads to the publication of European Standards, which in turn are transposed into Irish Standards.

A full catalogue of Irish Standards is available at www.standards.ie

International TCs Shadowed by this TC

[IEC SC23E](#): Circuit breakers and similar equipment for household use

[CLC TC23E](#): Circuit breakers and similar devices for household and similar applications

Irish Industry/Sector Served by this TC

Manufacturers and users of residual current devices. The standards developed by IEC SC23E/CLC TC 23E are also referenced by other ETCI TC's such as TC2 in the Wiring Rules, ET101.

Residual Current Devices

1. Review of the Year 2015

ETCI RCDTF met on two occasions in 2015:

DATE	VENUE
28 May 2015	ETCI Head Office
8 December 2015	ETCI Head Office

IEC

IEC/SC23E/WG2

WG2 is responsible for product standards in relation to shock and fire protection for products for household and similar use. This covers MCBs, RCDs and arc fault detectors (AFDs).

The main areas covered during 2015 were as follows:

Revision of IEC 61008 & IEC 61009

This work involves converting these standards into a "Blocks & Modules" format to facilitate the easier development of new RCD standards by taking appropriate Blocks or Modules from existing standards and dropping them into the new standards. This should save time and effort in the drafting of the new standards.

It is worth noting that the latest revision of IEC 61008 was published in 2014, and in 2015 the engineers at Western Automation discovered an error in the Standard in relation to the titles and sequencing of Type Tests to the new revision. The problem was raised at the WG2 meeting in Barcelona in October 2015 and it was acknowledged that there was indeed an error in the published Standard. It is a credit to the staff at Western Automation that they found an error that had gone unnoticed by Third Party Test Houses and Test Departments at multinational companies worldwide, and it goes to show that small companies can have an influence on international standards bodies.

Revision and updating of IEC 62640 (SRCD's)

Changes to this standard were proposed by Ireland and accepted by WG2. The new revision of this standard will be published shortly with the agreed changes.

IEC 62606: Arc Fault Detection Devices (AFD)

This standard was published in 2013, and sets out the requirements for arc fault protecting devices. Consideration is now being given to extending this standard to cover multiphase products.

Classifications

It is proposed to replace the existing four classifications for RCDs in IEC 61008 and IEC 61009 with six classifications to cover the different characteristics of RCDs available on the market. This work started in 1991 and has been stalled on numerous occasions due to commercial interests overriding technical requirements. The work was expected to

have made considerable progress during 2014, but no progress was made and the work stalled once again. No progress was made in this area in 2015.

WG7: Requirements for RCD protection in Mode 2 Electric Vehicle Charging.

Shock protection for Mode 2 charging is provided by an RCD fitted within the plug or the cable supplying power to the electric vehicle (EV). IEC 62752 for Mode 2 charging of EV's was published in 2015.

WG8: Requirements for RCD protection in Mode 3 Electric Vehicle Charging.

Shock protection for Mode 3 charging is provided by an RCD fitted within the EV charging station. This work continued with two meetings in 2015 and will be carried into 2016.

Current work and future work for SC23E/WG2

In addition to the ongoing work within WG2, the following is a list of the main areas of new work under consideration by WG2.

- Consideration of requirements for RCDs for DC systems.
- Consideration of requirements for Auto Reclosing RCDs (ARD)
- Revision of IEC 62020 RCMs
- Consideration of requirements for Power Overvoltage Protection Devices (POP)

CENELEC

CENELEC TC23E largely mirrors the work done in IEC. CLC TC23E met on 10 June 2015. Ireland did not attend the meeting this year because there were minimal technical discussions held at the meeting.

2. Membership 2015

NAME	ORGANIZATION
Mr. J. O'Dwyer	UCD, CHAIRMAN
Mr. P. Ward	Western Automation
Mr. B. Abbott	NSAI, SECRETARY

2. International Meetings 2015

Mr Ward is an active member of the following international bodies:

- IEC/SC23E/WG2 - RCDs for household and similar use
- IEC/SC23E/WG7 - RCDs for electric vehicles – Mode 2
- IEC/SC23E/WG8 - RCDs for electric vehicles – Mode 3

- CLC/TC23E - RCDs for household and similar use in a European context

Mr. Ward attended the following IEC meetings in 2015:

DATE	COMMITTEE	LOCATION
25-27 February 2015	IEC/SC23E/WG7	Frankfurt
19-21 May 2015	IEC/SC23E/WG2	Vienna
15-16 June 2015	IEC/SC23E/WG8	Frankfurt
10-12 October 2015	IEC/SC23E/WG2	Barcelona

4. ETCI Publications Developed by TC During 2015

No new ETCI publications in 2015.

5. Programme for Coming Year

The RCD TF will maintain a high level of contact with IEC SC23E and CENELEC TC23 through active participation in the work and activities of these bodies. The RCD TF will continue to operate in an efficient and effective manner, particularly through the use of electronic communications.