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Standards

Irish Standard  
I.S. EN 61557-11:2009

Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. - Equipment for testing, measuring or monitoring of protective measures -- Part 11: Effectiveness of residual current monitors (RCMs) type A and type B in TT, TN and IT systems (IEC 61557-11:2009 (EQV))

## I.S. EN 61557-11:2009

*Incorporating amendments/corrigenda issued since publication:*

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61557-11**

March 2009

ICS 17.220.20; 29.080.01; 29.240.01

English version

**Electrical safety in low voltage distribution systems  
up to 1 000 V a.c. and 1 500 V d.c. -  
Equipment for testing, measuring or monitoring of protective measures -  
Part 11: Effectiveness of residual current monitors (RCMs)  
type A and type B in TT, TN and IT systems  
(IEC 61557-11:2009)**

Sécurité électrique dans les réseaux  
de distribution basse tension  
de 1 000 V c.a. et 1 500 V c.c. -  
Dispositifs de contrôle, de mesure ou  
de surveillance de mesures de protection -  
Partie 11: Efficacité des contrôleurs  
d'isolement à courant différentiel résiduel  
(RCM) de type A et de type B  
dans les réseaux TT, TN et IT  
(CEI 61557-11:2009)

Elektrische Sicherheit  
in Niederspannungsnetzen  
bis AC 1 000 V und DC 1 500 V -  
Geräte zum Prüfen, Messen oder  
Überwachen von Schutzmaßnahmen -  
Teil 11: Wirksamkeit von Differenzstrom-  
Überwachungsgeräten (RCMs) Typ A  
und Typ B in TT-, TN- und IT-Systemen  
(IEC 61557-11:2009)

This European Standard was approved by CENELEC on 2009-02-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 85/338/FDIS, future edition 1 of IEC 61557-11, prepared by IEC TC 85, Measuring equipment for electrical and electromagnetic quantities, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61557-11 on 2009-02-01.

This standard is to be used in conjunction with EN 61557-1:2007.

The following dates were fixed:

- latest date by which the EN has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2009-11-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2012-02-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61557-11:2009 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60364-4-41	NOTE	Harmonized as HD 60364-4-41:2007 (modified).
IEC 60364-5-53	NOTE	Clause 534 (in IEC/A1:2002) harmonized as HD 60364-5-534:2008 (modified).
IEC 60364-6	NOTE	Harmonized as HD 60364-6:2007 (modified).
IEC 60947-2	NOTE	Harmonized as EN 60947-2:2006 (not modified).
IEC 61008-1	NOTE	Harmonized as EN 61008-1:2004 (modified).

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC/TR 60755	2008	General requirements for residual current operated protective devices	-	-
IEC 61010-1	2001	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements	EN 61010-1 + corr. June	2001 2002
IEC 61326-2-2	- <sup>1)</sup>	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-2: Particular requirements - Test configurations, operational conditions and performance criteria for portable test, measuring and monitoring equipment used in low-voltage distribution systems	EN 61326-2-2	2006 <sup>2)</sup>
IEC 61557-1	- <sup>1)</sup>	Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. - Equipment for testing, measuring or monitoring of protective measures - Part 1: General requirements	EN 61557-1	2007 <sup>2)</sup>
IEC 61557-6	- <sup>1)</sup>	Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. - Equipment for testing, measuring or monitoring of protective measures - Part 6: Effectiveness of residual current devices (RCD) in TT, TN and IT systems	EN 61557-6	2007 <sup>2)</sup>
IEC 62020	1998	Electrical accessories - Residual current monitors for household and similar uses (RCMs)	EN 62020	1998

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<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRICAL SAFETY IN LOW VOLTAGE DISTRIBUTION  
SYSTEMS UP TO 1 000 V a.c. AND 1 500 V d.c. –  
EQUIPMENT FOR TESTING, MEASURING OR  
MONITORING OF PROTECTIVE MEASURES –****Part 11: Effectiveness of residual current monitors (RCMs)  
type A and type B in TT, TN and IT systems**

## 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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International Standard IEC 61557-11 has been prepared by IEC technical committee 85: Measuring equipment for electrical and electromagnetic quantities.

The text of this standard is based on the following documents:

FDIS	Report on voting
85/338/FDIS	85/343/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

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

This part is to be used in conjunction with IEC 61557-1:2007, Part 1: *General requirements*.

A list of all parts of the IEC 61557 series, published under the general title *Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. – Equipment for testing, measuring or monitoring of protective measures*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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.



# **ELECTRICAL SAFETY IN LOW VOLTAGE DISTRIBUTION SYSTEMS UP TO 1 000 V a.c. AND 1 500 V d.c. – EQUIPMENT FOR TESTING, MEASURING OR MONITORING OF PROTECTIVE MEASURES –**

## **Part 11: Effectiveness of residual current monitors (RCMs) type A and type B in TT, TN and IT systems**

### **1 Scope**

This part of IEC 61557 specifies the requirements for testing equipment applied to the testing of the effectiveness of residual current monitors (RCMs) of type A and type B, which are already installed in distribution systems.

This test equipment can be used in any kind of network like a TN, TT or IT system. The test equipment may also be used for testing directionally discriminating RCMs in IT-Systems.

### **2 Normative references**

The following referenced documents are indispensable for the application 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 60755:2008, *General requirements for residual current operated protective devices*

IEC 61010-1:2001, *Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements*

IEC 61326-2-2, *Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 2-2: Particular requirements – Test configurations, operational conditions and performance criteria for portable test, measuring and monitoring equipment used in low-voltage distribution systems*

IEC 61557-1, *Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 1: General requirements*

IEC 61557-6, *Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 6: Effectiveness of residual current devices (RCD) in TT, TN and IT systems*

IEC 62020:1998, *Electrical accessories – Residual current monitors for household and similar uses (RCMs)*

### **3 Terms and definitions**

For the purposes of this document, the terms and definitions given in IEC 61557-1, IEC 61557-6 and the following apply.

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