BRITISH STANDARD

BS EN
60947-2:2006

corrigendum
November
2013

Low-voltage switchgear and controlgear —

Part 2: Circuit-breakers

ICS 29.130.20

BSI
British Standards

This British Standard is the UK implementation of EN 60947-2:2006+A2:2013. It is identical to IEC 60947-2:2006, incorporating amendments 1:2009 and 2:2013. It supersedes BS EN 60947-2:2006+A1:2009 which will be withdrawn on 7 March 2016.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by A1 A1.

The UK participation in its preparation was entrusted by Technical Committee PEL/17, Switchgear, controlgear, and HV-LV co-ordination, to Subcommittee PEL/17/2, Low voltage switchgear and controlgear.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 29 September 2006

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Amendments/corrigenda issued since publication

Date	Comments
31 December 2009	Implementation of IEC amendment 1:2009 with CENELEC endorsement A1:2009
31 July 2013	Implementation of IEC amendment 2:2013 with CENELEC endorsement A2:2013. Annex ZZ updated
30 November 2013	Correction to text introduced by amendment 2:2013 in subclauses 5.2 b), 5.2 c) and A.5.1

EUROPÄISCHE NORM

May 2013

ICS 29.130.20

English version

Low-voltage switchgear and controlgear
Part 2: Circuit-breakers
(IEC 60947-2:2006)

Appareillage à basse tension
Partie 2: Disjoncteurs
(CEI 60947-2:2006)

Niederspannungsschaltgeräte
Teil 2: Leistungsschalter
(IEC 60947-2:2006)

This European Standard was approved by CENELEC on 2006-07-01. 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, 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: rue de Stassart 35, B - 1050 Brussels

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Foreword

The text of document 17B/1455/FDIS, future edition 4 of IEC 60947-2, prepared by SC 17B, Low-voltage switchgear and controlgear, of IEC TC 17, Switchgear and controlgear, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60947-2 on 2006-07-01.

This European Standard supersedes EN 60947-2:2003.

The main changes introduced in EN 60947-2:2006 are an amendment to the verification of dielectric properties, the improvement of EMC clauses in Annexes B, F, J and M, and the addition of a new Annex O regarding instantaneous trip circuit-breakers.

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)	2007-04-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2009-07-01

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive EMC (89/336/CEE). See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 60947-2:2006 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 60112	NOTE	Harmonized as EN 60112:2003 (not modified).
IEC 60269-1	NOTE	Harmonized as EN 60269-1:1998 (not modified), new edition at draft stage.
IEC 60269-2-1	NOTE	Harmonized as HD 60269-2-1:2005 (not modified).
IEC 60269-3	NOTE	Harmonized as EN 60269-3:1995 (not modified), new edition at draft stage.
IEC 60439	NOTE	Harmonized as EN 60439 (Series) (not modified).
IEC 60947-3	NOTE	Harmonized as EN 60947-3:1999 (not modified).
IEC 60947-5-1	NOTE	Harmonized as EN 60947-5-1:2004 (not modified).

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Foreword to amendment A1

The text of document 17B/1636/FDIS, future amendment 1 to IEC 60947-2:2006, prepared by SC 17B, Low-voltage switchgear and controlgear, of IEC TC 17, Switchgear and controlgear, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60947-2:2006 on 2009-07-01.

The following dates were fixed:

– latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2010-04-01
– latest date by which the national standards conflicting with the amendment have to be withdrawn	(dow)	2012-07-01

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of amendment 1:2009 to the International Standard IEC 60947-2:2006 was approved by CENELEC as an amendment to the European Standard without any modification.

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Foreword to amendment A2

The text of document 17B/1796/FDIS, future edition 1 of IEC 60947-2:2006/A2, prepared by SC 17B, "Low-voltage switchgear and controlgear", of IEC TC 17, "Switchgear and controlgear" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60947-2:2006/A2:2013.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2013-12-07
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2016-03-07

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive see informative Annex ZZ, which is an integral part of this document.

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

Endorsement notice

The text of the International Standard IEC 60947-2:2006/A2:2013 was approved by CENELEC as a European Standard without any modification.

CONTENTS

LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

Part 2: Circuit-breakers

1 General

The provisions of the general rules dealt with in IEC 60947-1 are applicable to this standard, where specifically called for. Clauses and subclauses, tables, figures and annexes of the general rules thus applicable are identified by reference to IEC 60947-1, for example, 1.2.3 of IEC 60947-1, Table 4 of IEC 60947-1, or Annex A of IEC 60947-1.

1.1 Scope and object

This standard applies to circuit-breakers, the main contacts of which are intended to be connected to circuits, the rated voltage of which does not exceed 1 000 V a.c. or 1 500 V d.c.; it also contains additional requirements for integrally fused circuit-breakers.

It applies whatever the rated currents, the method of construction or the proposed applications of the circuit-breakers may be.

The requirements for circuit-breakers which are also intended to provide earth-leakage protection are contained in Annex B.

The additional requirements for circuit-breakers with electronic over-current protection are contained in Annex F.

The additional requirements for circuit-breakers for IT systems are contained in Annex H.

The requirements and test methods for electromagnetic compatibility of circuit-breakers are contained in Annex J.

The requirements for circuit-breakers not fulfilling the requirements for over-current protection are contained in Annex L.

The requirements for modular residual current devices (without integral current breaking device) are contained in Annex M.

The requirements and test methods for electromagnetic compatibility of circuit-breaker auxiliaries are contained in Annex N.

Supplementary requirements for circuit-breakers used as direct-on-line starters are given in IEC 60947-4-1, applicable to low-voltage contactors and starters.

The requirements for circuit-breakers for the protection of wiring installations in buildings and similar applications, and designed for use by uninstructed persons, are contained in IEC 60898.

The requirements for circuit-breakers for equipment (for example electrical appliances) are contained in IEC 60934.