

INTERNATIONAL STANDARD

IEC 60364-4-43

Second edition
2001-08

Electrical installations of buildings –

Part 4-43: Protection for safety – Protection against overcurrent

*This **English-language** version is derived from the original **bilingual** publication by leaving out all French-language pages. Missing page numbers correspond to the French-language pages.*



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL INSTALLATIONS OF BUILDINGS –**Part 4-43: Protection for safety –
Protection against overcurrent**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
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- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60364-4-43 has been prepared by IEC technical committee 64: Electrical installations and protection against electric shock.

The IEC 60364 series (parts 1 to 6), is currently being restructured, without any technical changes, into a more simple form (see annex B).

According to a unanimous decision by the Committee of Action (CA/1720/RV (2000-03-21)), the restructured parts of IEC 60364 have not been submitted to National Committees for approval.

The text of this second edition of IEC 60364-4-43 is compiled from and replaces

- part 4-43, first edition (1977) and its amendment 1 (1997),
- part 4-473, first edition (1977) and its amendment 1 (1998).

This publication has been drafted, as close as possible, in accordance with the ISO/IEC Directives, Part 3.

Annexes A and B are for information only.

The committee has decided that the contents of this publication will remain unchanged until 2006. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

The contents of the corrigendum of August 2002 have been included in this copy.

ELECTRICAL INSTALLATIONS OF BUILDINGS –

Part 4-43: Protection for safety – Protection against overcurrent

430 Introduction

430.1 (431)¹ Scope

Part 4-43 of IEC 60364 describes how live conductors are protected by one or more devices for automatic interruption of the supply in the event of overload (see clause 433) and short-circuits (see clause 434) except in cases where the overcurrent is limited in accordance with clause 436 or by the conditions described in 433.3, 433.5 or 434.3 are met. Further, protection against overload and against short-circuits shall be co-ordinated in accordance with clause 435.

NOTE 1 Live conductors protected against overload in accordance with clause 433 are considered to be protected also against faults likely to cause overcurrents of a magnitude similar to overload currents.

NOTE 2 The requirements of this standard do not take account of external influences. For the application of protective measures in relation to conditions of external influences, see 410.3.4 of IEC 60364-4-41 and clause 422 of IEC 60364-4-42.

NOTE 3 Protection of conductors according to this standard does not necessarily protect the equipment connected to the conductors.

(433.1 and 434.1)¹

Protective devices shall be provided to break any overcurrent flowing in the circuit conductors before such a current could cause a danger due to thermal and mechanical effects or a temperature rise detrimental to insulation, joints, terminations, or surroundings of the conductors.

430.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60364. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 60364 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60269-1:1998, *Low-voltage fuses – Part 1: General requirements*

IEC 60269-2:1986, *Low-voltage fuses – Part 2: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application)*

IEC 60269-3:1987, *Low-voltage fuses – Part 3: Supplementary requirements for fuses used by unskilled persons (fuses mainly for household and similar applications)*

IEC 60364-4-41: *Electrical installations of buildings – Part 4-41: Protection for safety – Protection against electric shock*

IEC 60364-5-52: *Electrical installations of buildings – Part 5-52: Selection and erection of electrical equipment – Wiring systems*

¹ In this standard, references in brackets refer to the previous numbering system.

IEC 60724:1984, *Guide to the short-circuit temperature limits of electric cables with a rated voltage not exceeding 0,6/1,0 kV*

IEC 60898:1995, *Electrical accessories – Circuit-breakers for overcurrent protection for household and similar installations*

IEC 60947-1:1999, *Low-voltage switchgear and controlgear – Part 1: General rules*

IEC 60947-2:1995, *Low-voltage switchgear and controlgear – Part 2: Circuit-breakers*

IEC 60947-4-1:1990, *Low-voltage switchgear and controlgear – Part 4-1: Contactors and motor-starters – Electromechanical contactors and motor-starters*

IEC 61009 (all parts), *Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs)*