

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Low voltage electrical installations –
Part 6: Verification**

**Installations électriques à basse tension –
Partie 6: Vérification**





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IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00
info@iec.ch
www.iec.ch

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LOW VOLTAGE ELECTRICAL INSTALLATIONS –**Part 6: Verification****FOREWORD**

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International Standard IEC 60364-6 has been prepared by the IEC technical committee 64: Electrical installations and protection against electric shock.

This second edition cancels and replaces the first edition published in 2006 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Normative references updated to current publications;
- b) Re-numbered to align with current IEC numbering;
- c) Initial inspection requirements: 3 items added;
- d) Testing sequence changed;
- e) General requirements for periodic reporting – more details added;
- f) New Annex A: Table A.1 – Specific resistance values for copper conductors;

- g) Annex D: Example of a diagram suitable for evaluation of voltage drop. Content removed;
- h) Annex E: Recommendation for electrical equipment which is being re-used in an electrical installation. Content removed;
- i) Annex F: Content replaced with new Annex E – Model forms for reporting;
- j) Annex G: Changed to Annex F – Model forms for inspection of electrical installations;
- k) Annex H: Changed to Annex G – Model schedule of circuit details and test results;
- l) Annex H: Listing of notes concerning some countries;
- m) Bibliography – Updated:

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

FDIS	Report on voting
64/2107/FDIS	64/2114/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.

A list of all parts in the IEC 60364 series, published under the general title *Low voltage electrical installations*, can be found on the IEC website.

The reader's attention is drawn to the fact that Annex H lists all of the “in-some-country” clauses on differing practices of a less permanent nature relating to the subject of this standard.

The committee has decided that the contents of this publication will remain unchanged until the stability 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

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LOW VOLTAGE ELECTRICAL INSTALLATIONS –

Part 6: Verification

6.1 Scope

This part of IEC 60364 provides requirements for initial and periodic verification of an electrical installation.

Clause 6.4 provides requirements for initial verification, by inspection and testing, of an electrical installation to determine, as far as reasonably practicable, whether the requirements of the other parts of IEC 60364 have been met and requirements for the reporting of the results of the initial verification. The initial verification takes place upon the completion of a new installation or completion of an addition or an alteration to an existing installation.

Clause 6.5 provides requirements for periodic verification of an electrical installation to determine, as far as reasonably practicable, whether the installation and all its constituent equipment are in a satisfactory condition for use and requirements for the reporting of the results of the periodic verification.

6.2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60079-17, *Explosive atmospheres – Part 17: Electrical installations inspection and maintenance*

IEC 60364 (all parts), *Low-voltage electrical installations*

IEC 60364-4-41:2005, *Low-voltage electrical installations – Part 4-41: Protection for safety – Protection against electric shock*

IEC 60364-4-42:2010, *Low-voltage electrical installations – Part 4-42: Protection for safety – Protection against thermal effects*
IEC 60364-4-42:2010/AMD1:2014

IEC 60364-4-44:2007, *Low-voltage electrical installations – Part 4-44: Protection for safety – Protection against voltage disturbances and electromagnetic disturbances*
IEC 60364-4-44:2007/AMD1:2015

IEC 60364-5-51:2005, *Electrical installations of buildings – Part 5-51:– Selection and erection of electrical equipment – Common rules*

IEC 60364-5-52:2009, *Low-voltage electrical installations – Part 5-52: Selection and erection of electrical equipment – Wiring systems*

IEC 60364-5-53:2001, *Electrical installations of buildings – Part 5-53: Selection and erection of electrical equipment – Isolation, switching and control*
IEC 60364-5-53:2001/AMD1:2002
IEC 60364-5-53:2001/AMD2:2015

IEC 60364-5-54, *Low-voltage electrical installations – Part 5-54: Selection and erection of electrical equipment – Earthing arrangements and protective conductors*

IEC 61557 (all parts), *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*

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*

6.3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

6.3.1 verification

all measures by means of which compliance of the electrical installation with the relevant requirements of IEC 60364 is checked

Note 1 to entry: Verification comprises inspection, testing and reporting.

6.3.2 inspection

examination of an electrical installation using all appropriate senses in order to ascertain correct selection and proper erection of electrical equipment

6.3.3 testing

implementation of measures to assess an electrical installation by means through which its effectiveness is proved

Note 1 to entry: Testing includes ascertaining values by means of appropriate measuring instruments, said values not being detectable by inspection.

6.3.4 reporting

recording of the results of inspection and testing

6.3.5 maintenance

combination of all technical and administrative actions, including supervisory actions, intended to retain an item in, or restore it to, a state in which it can perform a required function

6.4 Initial verification

6.4.1 General

6.4.1.1 Every installation shall be verified during erection, as far as reasonably practicable, and on completion, before being put into service.

6.4.1.2 The information required by IEC 60364-5-51:2005, 514.5 and other information necessary for initial verification shall be made available to the person carrying out the initial verification.

6.4.1.3 The initial verification shall include comparison of the results with relevant criteria to confirm that the requirements of the IEC 60364 series have been met.