



NSAI
Standards

Irish Standard Recommendation
S.R. HD 60364-1:2008&A11:2017

Low-voltage electrical installations - Part 1: Fundamental principles, assessment of general characteristics, definitions

S.R. HD 60364-1:2008&A11:2017

Incorporating amendments/corrigenda/National Annexes issued since publication:

HD 60364-1:2008/A11:2017

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National Foreword

S.R. HD 60364-1:2008&A11:2017 is the adopted Irish version of the European Document HD 60364-1:2008, Low-voltage electrical installations - Part 1: Fundamental principles, assessment of general characteristics, definitions

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HARMONIZATION DOCUMENT
DOCUMENT D'HARMONISATION
HARMONISIERUNGSDOKUMENT

HD 60364-1:2008/A11

August 2017

ICS 91.140.50

English Version

Low-voltage electrical installations - Part 1: Fundamental principles, assessment of general characteristics, definitions

Installations électriques à basse tension - Partie 1:
Principes fondamentaux, détermination des caractéristiques
générales, définitions

Errichten von Niederspannungsanlagen - Teil 1: Allgemeine
Grundsätze, Bestimmungen allgemeiner Merkmale, Begriffe

This amendment A11 modifies the Harmonization Document HD 60364-1:2008; it was approved by CENELEC on 2017-05-31. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this amendment at national level.

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This amendment exists in three official versions (English, French, German).

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

HD 60364-1:2008/A11:2017 (E)

European foreword

This document (HD 60364-1:2008/A11:2017) has been prepared by CLC/TC 64, "Electrical installations and protection against electric shock".

The following dates are fixed:

- latest date by which this document has (dop) 2018-05-31
to be implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2020-05-31
standards conflicting with this document
have to be withdrawn

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HARMONIZATION DOCUMENT
DOCUMENT D'HARMONISATION
HARMONISIERUNGSDOKUMENT

HD 60364-1

August 2008

ICS 91.140.50

Supersedes HD 384.1 S2:2001 and HD 384.3 S2:1995

English version

**Low-voltage electrical installations -
Part 1: Fundamental principles,
assessment of general characteristics, definitions
(IEC 60364-1:2005, modified)**

Installations électriques à basse tension -
Partie 1: Principes fondamentaux,
détermination des caractéristiques
générales, définitions
(CEI 60364-1:2005, modifiée)

Errichten von Niederspannungsanlagen -
Teil 1: Allgemeine Grundsätze,
Bestimmungen allgemeiner Merkmale,
Begriffe
(IEC 60364-1:2005, modifiziert)

This Harmonization Document was approved by CENELEC on 2008-05-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document at national level.

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

This Harmonization Document exists in three official versions (English, French, German).

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: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of the International Standard IEC 60364-1:2005, prepared by IEC TC 64, Electrical installations and protection against electric shock, together with the common modifications prepared by the Technical Committee CENELEC TC 64, Electrical installations and protection against electric shock, was submitted to the formal vote and was approved by CENELEC as HD 60364-1 on 2008-05-01.

This Harmonization Document supersedes HD 384.1 S2:2001 + HD 384.3 S2:1995.

The following dates were fixed:

- latest date by which the existence of the HD
has to be announced at national level (doa) 2008-11-01
- latest date by which the HD has to be implemented
at national level by publication of a harmonized
national standard or by endorsement (dop) 2009-05-01
- latest date by which the national standards conflicting
with the HD have to be withdrawn (dow) 2011-05-01

In this Harmonization Document the common modifications to the International Standard are indicated by a vertical line in the left margin of the text.

Annex ZA has been added by CENELEC.

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11 Scope ¹⁾

HD 60364-1 gives the rules for the design, erection, and verification of low-voltage electrical installations. The rules are intended to provide for the safety of persons, livestock and property against dangers and damage which may arise in the reasonable use of electrical installations and to provide for the proper functioning of those installations.

11.1 HD 60364-1 applies to the design, erection and verification of electrical installations such as those of

- a) residential premises;
- b) commercial premises;
- c) public premises;
- d) industrial premises;
- e) agricultural and horticultural premises;
- f) prefabricated buildings;
- g) caravans, caravan sites and similar sites;
- h) construction sites, exhibitions, fairs and other installations for temporary purposes;
- i) marinas;
- j) external lighting and similar installations (see, however, 11.3 e));
- k) medical locations;
- l) mobile or transportable units;
- m) photovoltaic systems;
- n) low-voltage generating sets.

NOTE "Premises" covers the land and all facilities including buildings belonging to it.

11.2 HD 60364-1 covers

- a) circuits supplied at nominal voltages up to and including 1 000 V a.c. or 1 500 V d.c.;
For a.c., the preferred frequencies which are taken into account in this standard are 50 Hz, 60 Hz and 400 Hz. The use of other frequencies for special purposes is not excluded.
- b) circuits, other than the internal wiring of apparatus, operating at voltages exceeding 1 000 V and derived from an installation having a voltage not exceeding 1 000 V a.c., for example, discharge lighting, electrostatic precipitators;
- c) wiring systems and cables not specifically covered by the standards for appliances;
- d) all consumer installations external to buildings;
- e) fixed wiring for information and communication technology, signalling, control and the like (excluding internal wiring of apparatus);
- f) the extension or alteration of the installation and also parts of the existing installation affected by the extension or alteration.

NOTE The rules of HD 60364-1 are intended to apply to electrical installations generally but, in certain cases, they may need to be supplemented by the requirements or recommendations of other CENELEC standards (for example, for installations in explosive gas atmospheres).

¹⁾ The numbering system is explained in Annex A of IEC 60364-1:2005.



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IEC 60364-1

Edition 5.0 2005-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Low-voltage electrical installations –
Part 1: Fundamental principles, assessment of general characteristics,
definitions**

**Installations électriques à basse tension –
Partie 1: Principes fondamentaux, détermination des caractéristiques générales,
définitions**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 1: Fundamental principles, assessment of general characteristics, definitions

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 60364-1 has been prepared by IEC Technical Committee 64: Electrical installations and protection against electric shock.

This fifth edition cancels and replaces the fourth edition, published in 2001. It constitutes a technical revision.

The main changes with respect to the previous edition are:

- in order to complete the scope, the new items external lighting and similar installations, medical locations, mobile or transportable units, photovoltaic power supply units and low-voltage generating sets are added;
- in Clause 131, "Fundamental principles", the list of hazards which may arise in electrical installations is completed; furthermore, a new subclause dealing with protection against voltage disturbances and measures against electromagnetic influences and a new subclause dealing with protection against power supply interruption are added;

- in Clause 132, "Design", the new subclause "Documentation for the electrical installation" is added;
- in Clause 134, "Erection and verification of electrical installations", the new subclause "periodic verification" is added;
- the former Clause 312, "Types of distribution system" is renamed "Conductor arrangement and system earthing" and, in the relevant subclauses, several new figures are included for better understanding of the different kind of a.c. and d.c. circuits and types of systems and their earthing being applied nowadays in IEC member countries;
- in 33.1, "Compatibility of characteristics", a new item for excessive PE conductor currents is added;
- a new Clause 36, "Continuity of service", is included;
- Annex B is aligned with the second edition of IEC 60050-826:2004.

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

FDIS	Report on voting
64/1488/FDIS	64/1499/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.

IEC 60364 consists of the following parts, under the general title *Low-voltage electrical installations*:

- Part 1: Fundamental principles, assessment of general characteristics, definitions
- Part 4: Protection for safety
- Part 5: Selection and erection of electrical equipment
- Part 6: Verification
- Part 7: Requirements for special installations or locations

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.

The contents of the corrigendum of August 2009 have been included in this copy.

LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 1: Fundamental principles, assessment of general characteristics, definitions

11 Scope ¹

IEC 60364-1 gives the rules for the design, erection, and verification of electrical installations. The rules are intended to provide for the safety of persons, livestock and property against dangers and damage which may arise in the reasonable use of electrical installations and to provide for the proper functioning of those installations.

11.1 IEC 60364-1 applies to the design, erection and verification of electrical installations such as those of

- a) residential premises;
- b) commercial premises;
- c) public premises;
- d) industrial premises;
- e) agricultural and horticultural premises;
- f) prefabricated buildings;
- g) caravans, caravan sites and similar sites;
- h) construction sites, exhibitions, fairs and other installations for temporary purposes;
- i) marinas;
- j) external lighting and similar installations (see, however, 11.3e));
- k) medical locations;
- l) mobile or transportable units;
- m) photovoltaic systems;
- n) low-voltage generating sets.

NOTE "Premises" covers the land and all facilities including buildings belonging to it.

11.2 IEC 60364-1 covers

- a) circuits supplied at nominal voltages up to and including 1 000 V a.c. or 1 500 V d.c.;
For a.c., the preferred frequencies which are taken into account in this standard are 50 Hz, 60 Hz and 400 Hz. The use of other frequencies for special purposes is not excluded.
- b) circuits, other than the internal wiring of apparatus, operating at voltages exceeding 1 000 V and derived from an installation having a voltage not exceeding 1 000 V a.c., for example, discharge lighting, electrostatic precipitators;

¹ The numbering system is explained in Annex A.

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