

**MADALPINGELISED ELEKTRIPAIGALDISED. OSA 1:
PÕHIALUSED, ÜLDISELOOMUSTUS, MÄÄRATLUSED**

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

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-HD 60364-1:2008+A11:2017 sisaldab Euroopa standardi HD 60364-1:2008 ja selle muudatuse A11:2017 ingliskeelset teksti.	This Estonian standard EVS-HD 60364-1:2008+A11:2017 consists of the English text of the European standard HD 60364-1:2008 and its amendment A11:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 14.08.2008, muudatuse A11 11.08.2017.	Date of Availability of the European standard is 14.08.2008, for amendment A11 11.08.2017
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

14.08.2008.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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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

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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.

11.3 HD 60364-1 does not apply to

- a) electric traction equipment, including rolling stock and signaling equipment;
- b) electrical equipment of motor vehicles, except those covered in Part 7;
- c) electrical installations on board ships and mobile and fixed offshore platforms;
- d) electrical installations in aircraft;
- e) public street-lighting installations which are part of the public power grid;
- f) installations in mines and quarries;
- g) radio interference suppression equipment, except where it affects the safety of the installation;
- h) electric fences;
- i) external lightning protection systems for buildings (LPS);
NOTE Atmospheric phenomena are covered in HD 60364-1 but only insofar as effects on the electrical installations are concerned (for example, with respect to selection of surge protective devices).
- j) certain aspects of lift installations;
- k) electrical equipment of machines.

11.4 HD 60364-1 is not intended to apply to

- systems for distribution of energy to the public, or
- power generation and transmission for such systems.

NOTE 1 Countries wishing to do so may, however, use this document in whole or in part for that purpose.

NOTE 2 According to HD 637 which provides common rules for the design and the erection of electrical power installations in systems with nominal voltages above 1 kV a.c. and nominal frequency up to and including 60 Hz, low-voltage a.c. and d.c. protection and monitoring systems should be in accordance with HD 60364 series.

11.5 Electrical equipment is dealt with only so far as its selection and application in the installation are concerned.

This applies also to assemblies of electrical equipment complying with the relevant standards.

12 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.

<u>EN/HD</u>	<u>Year</u>	<u>Title</u>	<u>IEC</u>	<u>Year</u>
HD 472 S1	1989	Nominal voltages for low voltage public electricity supply systems ²⁾	IEC 60038 (mod)	1983
-	-	International Electrotechnical Vocabulary (IEV) Chapter 691: Tariffs for electricity	IEC 60050-691	
-	-	International Electrotechnical Vocabulary (IEV) Part 826: Electrical installations	IEC 60050-826	
HD 384 / HD 60364	Series	Electrical installations of buildings	IEC 60364 (mod)	Series
EN 60445		Basic and safety principles for man-machine interface, marking and identification - Identification of equipment terminals and conductor terminations	IEC 60445 (mod)	
EN 60446		Basic and safety principles for man-machine interface, marking and identification - Identification of conductors by colours or numerals	IEC 60446	
-	-	Graphical symbols for diagrams	IEC 60617	Database
EN 60721	Series	Classification of environmental conditions	IEC 60721	Series

²⁾ The title of IEC 60038 is: "IEC standard voltages".