

**Madalpingelised elektripaigaldised. Osa 5-54:  
Elektriseadmete valik ja paigaldamine.  
Maandamine, kaitsejuhid ja kaitse-  
potentsiaaliühtlustusjuhid**

Low-voltage electrical installation - Part 5-54:  
Selection and erection of electrical equipment -  
Earthing arrangements, protective conductors and  
protective bonding conductors

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-HD 60364-5-54:2007 sisaldab Euroopa standardi HD 60364-5-54:2007 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 15.01.2003 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

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This Estonian standard EVS-HD 60364-5-54:2007 consists of the English text of the European standard HD 60364-5-54:2007.

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**Võtmesõnad:** elektripaigaldised, juht, kaitse, maandussüsteem

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English version

**Low-voltage electrical installations –  
Part 5-54: Selection and erection of electrical equipment -  
Earthing arrangements, protective conductors  
and protective bonding conductors  
(IEC 60364-5-54:2002, modified)**

Installations électriques à basse tension –  
Partie 5-54: Choix et mise en oeuvre  
des matériels électriques -  
Mises à la terre, conducteurs  
de protection et conducteurs  
d'équipotentialité de protection  
(CEI 60364-5-54:2002, modifiée)

Errichten von Niederspannungsanlagen –  
Teil 5-54: Auswahl und Errichtung  
elektrischer Betriebsmittel -  
Erdungsanlagen, Schutzleiter  
und Schutzpotentialausgleichsleiter  
(IEC 60364-5-54:2002, modifiziert)

This Harmonization Document was approved by CENELEC on 2006-06-01. 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 60364-5-54:2002, prepared by IEC TC 64, Electrical installations and protection against electric shock, together with the common modifications prepared by SC 64A, Electrical Installations and protection against electric shock, of Technical Committee CENELEC TC 64, Electrical installations of buildings, was submitted to the formal vote and was approved by CENELEC as HD 60364-5-54 on 2006-06-01.

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The following dates were fixed:

- latest date by which the existence of the HD  
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- latest date by which the HD has to be implemented  
at national level by publication of a harmonized  
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- latest date by which the national standards conflicting  
with the HD have to be withdrawn (dow) 2009-06-01

Annexes ZA, ZB, ZC and ZD have been added by CENELEC.

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

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## **Introduction**

Clause numbering is sequential, preceded by the number of this part (e.g. 541). Numbering of figures and tables takes the number of this part followed by a sequential number, i.e. Table 54.1, 54.2, etc. Numbering of figures and tables in annexes takes the letter of the annex, followed by the number of the part, followed by a sequential number, e.g. A.54.1, A.54.2, etc.

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## 541 General

### 541.1 Scope

This part of HD 60364 addresses the earthing arrangements, protective conductors and protective bonding conductors in order to satisfy the safety of the electrical installation.

### 541.2 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.

EN 60702-1, *Mineral insulated cables and their terminations with a rated voltage not exceeding 750 V - Part 1: Cables* (IEC 60702-1)

EN 61140, *Protection against electric shock - Common aspects for installation and equipment* (IEC 61140)

EN 61534-1, *Powertrack systems - General requirements* (IEC 61534-1)

HD 60364-4-41:2007, *Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock* (IEC 60364-4-41:2005, mod.)

HD 384.4.442:1997, *Electrical installations of buildings - Part 4: Protection for safety - Chapter 44: Protection against overvoltages - Section 442: Protection of low-voltage installations against faults between high-voltage systems and earth* (IEC 60364-4-442:1993 + A1:1995, related)

HD 384.5.51 S2:1996, *Electrical installations of buildings - Part 5: Selection and erection of electrical equipment - Chapter 51: Common rules* (IEC 60364-5-51:1994, mod.)

IEC 60050-195, *International Electrotechnical Vocabulary (IEV) - Part 195: Earthing and protection against electric shock*

IEC 60050-826, *International Electrotechnical Vocabulary (IEV) - Part 826:Electrical installations*

IEC 60724, *Short-circuit temperature limits of electric cables with rated voltages of 1 Kv ( $U_m = 1,2 \text{ kV}$ ) and 3 kV ( $U_m = 3,6 \text{ kV}$ )*

IEC 60949, *Calculation of thermally permissible short-circuit currents, taking into account non-adiabatic heating effects*

R064-004:1999, *Electrical installations of buildings - Protection against electromagnetic interferences (EMI) in installations of buildings* (IEC 60364-4-444:1996, mod.)