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Low-voltage electrical installations - Part 4-46:
Protection for safety - Isolation and switching

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-HD 60364-4-46:2016 sisaldab Euroopa standardi HD 60364-4-46:2016 ingliskeelset teksti.	This Estonian standard EVS-HD 60364-4-46:2016 consists of the English text of the European standard HD 60364-4-46:2016.
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 11.11.2016.	Date of Availability of the European standard is 11.11.2016.
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English Version

**Low-voltage electrical installations -
Part 4-46: Protection for safety -
Isolation and switching**

Installations électriques à basse tension -
Partie 4-46 : Protection pour assurer la sécurité -
Sectionnement et commande

Errichten von Niederspannungsanlagen -
Teil 4-46: Schutzmaßnahmen -
Trennen und Schalten

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This Harmonization Document 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

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Contents	Page
European foreword	3
460 Introduction	4
460.1 Scope	4
460.2 Normative references	4
461 General	4
462 Isolation	4
463 Functional switching (control)	5
463.1 General	5
463.2 Auxiliary circuits	6
463.3 Motor control	6
464 Switching off for mechanical maintenance	6
465 Emergency switching off	7
Annex A (informative) Explanation of emergency operation functions	8
A.1 General	8
A.2 Emergency operation	8
A.3 Emergency stop	8
A.4 Emergency start	8
A.5 Emergency switching off	8
A.6 Emergency switching on	8
Annex B (normative) Special national conditions	9
Annex C (informative) A-deviations	11

European foreword

This document (HD 60364-4-46:2016) was prepared by CLC/TC 64 "Electrical installations and protection against electric shock".

The following dates are fixed:

- latest date by which the document has to be implemented (dop) 2017-05-11
at national level by publication of an identical national
standard or by endorsement
- latest date by which the national standards conflicting with (dow) 2019-11-11
the document have to be withdrawn

This document supersedes HD 384.4.46 S2:2001.

HD 60364-4-46:2016 includes the following significant technical changes with respect to the previous edition: the contents of this document has been revised so that it only includes general requirements on measures for isolation and switching to provide for the safety of persons, livestock and property.

NOTE Complementarily the text of HD 60364-5-537:2016 has been adapted to give requirements on implementation of the measures provided in HD 60364-4-46:2016 and requirements for proper functioning, in terms of selection and erection of electrical equipment for isolation and switching.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

460 Introduction

460.1 Scope

This Harmonization Document deals with

- non-automatic local and remote isolation and switching measures which prevent or remove dangers associated with electrical installations or electrically powered equipment; and
- switching for the control of circuits or equipment.

460.2 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.

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

HD 60364-5-53:2015-11, *Low-voltage electrical installations – Part 5-53: Selection and erection of electrical equipment - Switchgear and controlgear*

HD 60364-5-557:2013 + A11:2016, *Low-voltage electrical installations – Part 5-557: Selection and erection of electrical equipment – Auxiliary circuits* (IEC 60364-5-55:2011/A1:2012)

461 General

461.1 According to the intended function(s), every device provided for isolation or switching shall comply with the relevant requirements of HD 60364-5-53.

NOTE Clause 537 of HD 60364-5-53:2015-11 refers to HD 384.5.537 S2, which is now replaced by HD 60364-5-537:2016.

461.2 In TN-C systems and in the TN-C part of the TN-C-S systems, the PEN conductor shall not be isolated or switched.

In TN-S systems and in the TN-S part of the TN-C-S systems, isolation or switching of the neutral conductor is not required if protective equipotential bonding is installed and either

- the neutral conductor is reliably connected to earth by a low resistance to meet the disconnection times of the protective devices according to the requirements of HD 60364-4-41 or
- the distribution system operator (DSO) declares that either the PEN or the N conductor of the supply is reliably connected to earth by a low resistance to meet the disconnection times of the protective devices according to the requirements of HD 60364-4-41.

462 Isolation

462.1 Each electrical installation shall have provisions for isolation from each supply.

462.2 Every circuit shall be provided with isolation means for all live conductors, except as detailed in 461.2.

Provisions may be made for isolation of a group of circuits by a common means, if the service conditions allow this.