

SLOVENSKI STANDARD oSIST prHD 60364-5-537:2014

01-december-2014

Nadomešča: SIST HD 384.5.537 S2:2002

Električne inštalacije zgradb - 5-53. del: Izbira in namestitev električne opreme -Stikalne in krmilne naprave - 537. oddelek: Naprave za ločevanje in stikanje

Low voltage electrical installations - Part 5-53: Selection and erection of electrical equipment - Switchgear and controlgear - Clause 537: Isolation and switching

Errichten von Niederspannungsanlagen - Teil 5: Auswahl und Errichtung elektrischer Betriebsmittel - Kapitel 53: Schaltgeräte und Steuergeräte - Abschnitt 537: Geräte zum Trennen und Schalten

Installations électriques basse tension - Partie 5-53: Choix et mise en œuvre des matériels - Appareillage - Article 537: Sectionnement et coupure

Ta slovenski standard je istoveten z: prHD 60364-5-537:2014

ICS:

29.120.50	Varovalke in druga medtokovna zaščita	Fuses and other overcurrent protection devices
91.140.50	Sistemi za oskrbo z elektriko	Electricity supply systems

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en,fr,de

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oSIST prHD 60364-5-537:2014

HARMONIZATION DOCUMENT DOCUMENT D'HARMONISATION HARMONISIERUNGSDOKUMENT

DRAFT prHD 60364-5-537

August 2014

ICS 29.120.50; 91.140.50

Will supersede HD 384.5.537 S2:1998

English Version

Low voltage electrical installations - Part 5-53: Selection and erection of electrical equipment - Switchgear and controlgear - Clause 537: Isolation and switching

Installations électriques basse tension - Partie 5-53: Choix et mise en œuvre des matériels - Appareillage - Article 537: Sectionnement et coupure Errichten von Niederspannungsanlagen - Teil 5: Auswahl und Errichtung elektrischer Betriebsmittel - Kapitel 53: Schaltgeräte und Steuergeräte - Abschnitt 537: Geräte zum Trennen und Schalten

This draft Harmonization Document is submitted to CENELEC members for enquiry. Deadline for CENELEC: 2015-01-23.

It has been drawn up by CLC/TC 64.

iTeh Standards

If this draft becomes a Harmonization Document, CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document on a national level.

This draft Harmonization Document was established by CENELEC in three official versions (English, French, German).

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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1	Foreword
2 3 4	This document (prHD 60364-5-537:2014) was prepared by CLC/TC 64 "Electrical installations and protection against electric shock".
5 6	This document is currently submitted to the enquiry.
7 8	This document will supersede HD 384.5.537 S2:1998.
9	Secretary note: During its last plenary meeting, CLC/TC 64 took the following decision:
10 11	WG7 has prepared a first draft of the revision of HD 60364-5-537 that is now submitted to the National Committees as first enquiry.
	D8) The plenary supported the proposal of WG 7 to integrate HD 384-5-537 in the new part 53. The plenary asked WG 7 to have a look at part 46 with respect to possible integration into part 53 and report back the result of this analysis at the next TC 64 meeting
12 13 14	The text of this first enquiry of prHD 60364-5-537 has been kept separated from the prHD 60364-4-46 since the present structure of HD 60364 is to be kept unchanged until TC 64 decides otherwise.
15 16 17	Also, taking into account that in the next CLC/TC 64 plenary meeting TC 64 may decide to integrate prHD 60364-4-46 into prHD 60364-5-537, this project is presented separated from the general project prHD 60364-5-53 (project 24327).

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537 Isolation and switching 19

20 537.1 General

21 **537.1.1** Any device for isolation and switching according to Sections 462 to 465 shall comply 22 with the relevant requirements included in this clause.

- General and common requirements of Clause 530.4 apply. 23
- 24 NOTE 1 In certain instances, additional requirements may be necessary for combined functions.

25 26 NOTE 2 The Table A.1 of the Annex A summarizes the functions provided by the devices for isolation and switching, together with indication of the relevant product standards.

- 27 NOTE 3 For some applications such as motor control, the switching equipment needs to withstand the inrush 28 current.
- 29

30 537.1.2 Where an installation or an item of equipment or enclosure contains live parts connected to more than one supply, a durable warning notice shall be placed in such a 31 position that any person before gaining access to live parts, will be warned of the need to 32 isolate those parts from the various supplies unless an interlocking arrangement is provided 33 to ensure that all the circuits concerned are isolated. 34

35 **Devices for Isolation** 537.2

- 36 Selection and erection of devices for isolation shall be in accordance with the following 37 subclauses.
- 38 537.2.1 Devices for isolation shall be devices for which the isolation function is explicitly 39 recognized by the relevant product standard.
- The suitability for isolation is indicated in: 40
- the manufacturer's instructions; and/or 41
- 42 by the vertical line used in the following symbol --- marked on the product.
- 43
- 44 NOTE The symbol might be combined with other markings depending on the functionality of the device.
- 45 46 537.2.2 The devices providing isolation function shall be selected in accordance with 47 Annex A.
 - 48 537.2.3 Semiconductor devices shall not be used as isolating devices.
 - 49 537.2.4 Devices suitable for isolation shall be selected according to the requirements which 50 are based on the overvoltage categories applicable at their point of installation.
 - 51 Only equipment classified for over voltage category III or IV, shall be used for isolation except the plug of a plug and socket-outlet identified in Table A.1 as suitable for isolation. 52
 - 53 NOTE 1 Examples of overvoltage categories for devices are given in Section 443 of Part 4-44.
 - 54 Equipment used for isolation shall comply with 537.2.5 to 537.2.9.
 - 55 537.2.5 Devices for isolation shall be designed and/or installed so as to prevent unintentional or inadvertent closure (see 462.3). 56
 - 57 537.2.6 Provision shall be made for securing off-load isolating devices against inadvertent 58 and unauthorized opening.
 - This may be achieved by locating the device in a lockable space or enclosure or by 59 padlocking. Alternatively, the off-load device may be interlocked with a load-breaking one. 60
 - 61 537.2.7 Means of isolation shall preferably be provided by a multipole switching device which 62 disconnects all poles of the relevant supply but single-pole devices situated adjacent to each
 - other are not excluded, subject to the provisions of 461.2. 63

537.2.8 Each device used for isolation shall be clearly identified by position or durablemarking to indicate the installation or circuit it isolates.

537.2.9 Where a link is inserted in the neutral conductor for isolating purposes, the link shall comply with either or both of the following requirements:

- 68 It cannot be removed without the use of a tool;
- 69 It is accessible to skilled persons only.
- 70

71 537.3 Devices for switching

72 **537.3.1** Functional switching and control devices

- 73 Selection and erection of devices for functional switching and control shall be in accordance74 with the following subclauses.
- 537.3.1.1 The devices for functional switching and control shall be selected in accordancewith Annex A.

537.3.1.2 Functional switching devices shall be suitable for the most onerous duty they are
intended to perform. The characteristic of the load to be switched shall be considered (e.g.
utilization category).

- 537.3.1.3 Functional switching devices may control the current without necessarily opening
 the corresponding poles.
- 82 NOTE Semiconductor switching devices and some control auxiliaries are examples of devices capable of 83 interrupting the current in the circuit but not opening the corresponding poles.
- 84

85 537.3.2 Switching-off devices for mechanical maintenance

86 Selection and erection of devices for Switching-off for mechanical maintenance shall be in 87 accordance with the following subclauses.

- 537.3.2.1 Devices for switching-off for mechanical maintenance shall be inserted in the supply
 circuit.
- 90 Where switches are provided for this purpose, they shall be capable of cutting off the full load 91 current of the relevant part of the installation. They need not necessarily interrupt the neutral 92 conductor.
 - 93 Interruption of a control circuit of a drive is permitted only where a condition equivalent to the 94 direct interruption of the main supply is provided by one of the following:
 - 95 supplementary safeguards, such as mechanical restrainers, or
 - 96 compliance with the requirements of a CENELEC specification for the control devices
 97 used.
 - 98 NOTE Switching-off for mechanical maintenance may be achieved, for example, by means of:
- 99 multipole switches;
- 100 circuit-breakers;
- 101 control and protective switching devices (CPS);
- 102 plugs and sockets.