SLOVENSKI STANDARD
SIST HD 384.4.46 S1:2000

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Electrical installations of buildings - Part 4: Protection for safety - Chapter 46: Isolation and switching (IEC 364-4-46:1981, modifed)

Electrical installations of buildings -- Part 4: Protection for safety -- Chapter 46: Isolation and switching (IEC 364-4-46:1981, modifed)

Elektrische Anlagen von Gebaüden -- Teil 4: Schutzmaßnahmen -- Kapitel 46: Trennen und Schalten

Installations électriques des bâtiments -- Partie 4: Protection pour assurer la sécurité -- Chapitre 46: Sectionnement et commande

Ta slovenski standard je istoveten z: **HD 384.4.46 S1:1987**

ICS:

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

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ENGLISH VERSION

UDC: 621.316.172.001.25 621.316.545 621.3.064.2-7 621.3.064-5

KEY WORDS: Electrical installations of buildings; safety requirements; isolator switches; maintenance of machinery; functional switching

ELECTRICAL INSTALLATIONS OF BUILDINGS
PART 4: PROTECTION FOR SAFETY
CHAPTER 46: ISOLATION AND SWITCHING

Installations électriques des bâtiments
Quatrième partie: Protection pour assurer la sécurité
Chapitre 46: Sectionnement et commande

Elektrische Anlagen von Gebäuden
Teil 4: Schutzmaßnahmen
Kapitel 46: Trennen und Schalten

BODY OF THE HD

The Harmonization Document consists of:

- IEC 364-4-46 (1981) ed 1; IEC/TC 64, not appended
- with common modifications prepared by CENELEC/SC 64A

This Harmonization Document was approved by CENELEC on 1987-06-15.

The English and French versions of this Harmonization Document are provided by the text of the IEC publication and the German version is the official translation of the IEC text. The German translation is available.
All texts prepared by CENELEC exist in three official versions (English, French and German).

According to the CENELEC Internal Regulations the CENELEC member National Committees are bound:

to announce the existence of this Harmonization Document at national level by or before 1988-01-01

to publish their new harmonized national standard by or before 1988-07-01

to withdraw all conflicting national standards by or before 1989-01-01.

Harmonized national standards are listed on the HD information sheet, which is available from the CENELEC National Committees or from the CENELEC Central Secretariat.

The CENELEC National Committees are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

FOREWORD

This Harmonization Document has been recommended by CENELEC/SC.64A: Electrical installations of buildings, Protection against electric shock.

This Harmonization Document necessitates reference to the following Standards:

- HD 384.5.537 Electrical installations of buildings,
  Part 5: Selection and erection of electrical equipment,
  Chapter 53: Switchgear and controlgear,
  Section 537: Devices for isolation and switching.

- prHD 384.5.54 Electrical installations of buildings,
  Part 5: Selection and erection of electrical equipment,
  Chapter 54: Earthing arrangements and protective conductors.

ENDORSEMENT

The text of the International Standard IEC Publication 364-4-46, First Edition, 1981, applies as a CENELEC Harmonization Document with agreed common modifications as given below.

COMMON MODIFICATIONS

Clause 461.2

Replaced by:

461.2 In TN-C systems, the PEN conductor shall not be isolated or switched. In TN-S systems the neutral conductor need not be isolated or switched where supply system conditions are such that the neutral conductor can reliably be regarded as being at earth potential.

Note 1: The neutral conductor is not recognized as being reliably at earth potential in France and Norway.

The existing Note to clause 461.2 is numbered "Note 2".

Clause 464.1

In the text of the Note:

- the fourth item is replaced by "high voltage discharge lighting (e.g. neon signs),"
- a further item is added "- teachirg laboratories".

Sub-clause 465.1.5

In the text, the words "shall affect all live conductors" are replaced by the words "shall switch all live conductors".

Sub-clause 465.3.3

In the text, the words "or to a reversal of phases" are deleted.

621.316.172.001.25 621.316.545 621.3.064.2-7 621.3.064-5

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Quatrième partie: Protection pour assurer la sécurité

Chapitre 46: Sectionnement et commande

Electrical installations of buildings

Part 4: Protection for safety

Chapter 46: Isolation and switching

Mots clés: installations électriques des bâtiments; exigences de sécurité; interrupteurs de sectionnement; entretien mécanique; commande fonctionnelle.

Key words: electrical installations of buildings; safety requirements; isolator switches; maintenance of machinery; functional switching.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL INSTALLATIONS OF BUILDINGS

Part 4: Protection for safety

Chapter 46: Isolation and switching

FOREWORD

1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.

2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.

3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

PREFACE

This standard has been prepared by Technical Committee No. 64: Electrical Installations of Buildings.

A draft of this standard was discussed at the meeting held in Sydney in 1979. As a result of this meeting, a draft, Document 64(Central Office)80, was submitted to the National Committees for approval under the Six Months' Rule in September 1979.

The National Committees of the following countries voted explicitly in favour of publication:

Argentina	Korea (Republic of)
Australia	Netherlands
Austria	Poland
Belgium	Romania
Bulgaria	South Africa (Republic of)
Canada	Sweden
China	Switzerland
Denmark	Turkey
Egypt	Union of Soviet Socialist Republics
Germany	United Kingdom
Israel	United States of America
Japan	

The French National Committee has cast a negative vote in view of the provision made in Clause 461.2 for TN-S systems which conflicts with its national legislation.

This standard should be read in conjunction with the following IEC publications:

157-1: Low-voltage Switchgear and Controlgear, Part 1: Circuit breakers.
277: Definitions for Switchgear and Controlgear.
337: Control Switches (Low-voltage Switching Devices for Control and Auxiliary Circuits, including Contactor Relays).
408: Low-voltage Air-break Switches, Air-break Disconnectors, Air-break Switch-disconnectors and Fuse-combination Units.

ELECTRICAL INSTALLATIONS OF BUILDINGS

Part 4: Protection for safety

Chapter 46: Isolation and switching

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46. ISOLATION AND SWITCHING

460. INTRODUCTION

This chapter 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 machines.

461. GENERAL

461.1 According to the intended function(s), every device provided for isolation or switching shall comply with the relevant requirements of Section 537.

461.2 In TN-C systems, the PEN conductor shall not be isolated or switched. In TN-S systems, the neutral conductor need not be isolated or switched.

Note. — Protective conductors in all systems are required not to be isolated or switched (see also Sub-clause 543.3.3).

461.3 The measures described in this chapter are not alternatives to the protective measures described in Chapters 41 to 45 inclusive.

462. ISOLATION

462.1 Every circuit shall be capable of being isolated from each of the live supply conductors, except as detailed in Clause 461.2 above.

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

462.2 Suitable means shall be provided to prevent any equipment from being unintentionally energized.

Note. — Such precautions may include one or more of the following measures:

- padlocking,
- warning notices,
- location within a lockable space or enclosure.

Short-circuiting and earthing may be used as a supplementary measure.

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