

STN	Elektrické spotrebiče pre domácnosť a na podobné účely. Bezpečnosť. Časť 2-35: Osobitné požiadavky na prietokové ohrievače vody.	STN EN 60335-2-35 36 1055
------------	---	---

Household and similar electrical appliances - Safety - Part 2-35: Particular requirements for instantaneous water heaters

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/16

Rozpracovanie prekladom.

Obsahuje: EN 60335-2-35:2016, IEC 60335-2-35:2012

Oznámením tejto normy sa od 12.10.2018 ruší
STN EN 60335-2-35 (36 1055) z júla 2004

122659

EUROPEAN STANDARD

EN 60335-2-35

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2016

ICS 13.120; 97.040.50

Supersedes EN 60335-2-35:2002

English Version

**Household and similar electrical appliances - Safety - Part 2-35:
Particular requirements for instantaneous water heaters
(IEC 60335-2-35:2012 , modified)**

Appareils électrodomestiques et analogues - Sécurité -
Partie 2-35: Exigences particulières pour les chauffe-eau
instantanés
(IEC 60335-2-35:2012 , modifiée)

Sicherheit elektrischer Geräte für den Hausgebrauch und
ähnliche Zwecke - Teil 2-35: Besondere Anforderungen für
Durchflusserwärmer
(IEC 60335-2-35:2012 , modifiziert)

This European Standard was approved by CENELEC on 2015-10-12. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

	Page
European foreword	3
1 Scope	4
2 Normative references	4
7 Marking and instructions	4
15 Moisture resistance	5
22 Construction	5
Annex ZA (normative) Special national conditions	6
Annex ZB (informative) A-deviations	6
Annex ZC (normative) Normative references to international publications with their corresponding European publications	6
Bibliography	6

European foreword

The text of document 61/4454/FDIS, future edition 5 of IEC 60335-2-35, prepared by IEC/TC 61 "Safety of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60335-2-35:2016.

A draft amendment, which covers common modifications to IEC 60335-2-35:2012, was prepared by CLC/TC 61 "Safety of household and similar electrical appliances" and approved by CENELEC.

The following dates are fixed:

- latest date by which the amendment has to be implemented (dop) 2016-10-12
at national level by publication of an identical
national standard or by endorsement
- latest date by which the national standards conflicting (dow) 2018-10-12
with the amendment have to be withdrawn

EN 60335-2-35:2016 supersedes EN 60335-2-35:2002 and its amendments.

This standard supplements or modifies the corresponding clauses of EN 60335-1:2012.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 60335-2-35:2012 are prefixed "Z".

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

Endorsement notice

The text of the International Standard IEC 60335-2-35:2012 was approved by CENELEC as a European Standard with agreed common modifications.

COMMON MODIFICATIONS

1 Scope

Replace the fourth paragraph including the two dashed items by:

As far as is practicable, this European Standard deals with the common hazards presented by appliances that are encountered by all persons in household and similar environments.

However, in general, it does not take into account

- **children** playing with the appliance,
- the use of the appliance by **very young children** without supervision,
- **user maintenance** by **children**, including the cleaning of the appliance.

It is recognized that **very vulnerable people** may have needs beyond the level addressed in this European Standard.

2 Normative references

Add the following new reference:

EN 60335-2-5:2003 + A1:2005 + A2:2008 + A11:2009+ A12:2012, *Household and similar electrical appliances – Safety – Part 2-5: Particular requirements for dishwashers (IEC 60335-2-5:2002, mod. + corrigendum May 2003 + A1:2005 + A2:2008)*

7 Marking and instructions

7.11 Addition:

Controls that are operated in use and that affect the water temperature shall be detectable by a shape, a position or an indication. When only an indication is used, the height of the letters or symbols measured on the capital letters shall be at least 5 mm. If only indicated by increasing dots or bands, the height of the indication for maximum setting shall be at least 7 mm with the minimum value less than 25 % of the maximum value used.

When a digital display is used for the indication of the water temperature, the height of the digits of the display shall be at least 10 mm.

These requirements are not applicable

- for settings that are normally adjusted by the installer during the installation and that can be adjusted by the user only after having removed a detachable cover, or
- for maximum temperature setting of 38 °C.

In giving these indications, a suitable contrast shall be given between indications and background.

NOTE Z101 Guidance on contrast can be found in CEN ISO/TR 22411:2011, 8.5 ^{Z1)}.

Z1) CEN ISO/TR 22411:2011, *Ergonomics data and guidelines for the application of ISO/IEC Guide 71 to products and services to address the needs of older persons and persons with disabilities (ISO/TR 22411:2008)*.

7.12 Modification

Replace the first sentence in the fourth paragraph of EN 60335-1:2012, by the following:

This appliance can be used by children aged from 3 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

7.12 Addition:

Add the substance of the following for single point open outlet water heaters for showering purposes.

'Fit only shower heads recommended by the manufacturer and never fit any additional device to restrict the water outlet flow'.

15 Moisture resistance

Add the following new subclause:

15.Z101 Water heaters installed in shower cabinets above shower basins or baths shall be protected against penetration of water and chemicals that can remain on the top of the enclosure.

Appliances allowing a 50 mm diameter, 100 mm high cylinder to be placed on the top when the water heater is mounted in accordance with the manufacturer's instructions shall be subjected to the following test:

A quantity of 0,5 l of water containing approximately 1 % NaCl and 0,6 % of any commercially available rinsing agent may be used, but if there is any doubt with regards to the test results, a rinsing agent, as specified in EN 60335-2-5:2003, Annex AA, is poured over the top of the appliance, the controls being placed in the ON position. The controls are then operated through their working range, this operation being repeated after a period of 5 min.

The appliance shall then withstand the electric strength test of 16.3 and inspection shall show that there is no trace of water on insulation that could result in reduction of clearances and creepage distances below the values specified in Clause 29.

Compliance is checked by the relevant test and by inspection.

22 Construction

22.40 Addition:

Water heaters shall be fitted with an accessible switch to stop the water heating function.

NOTE Z101 A tap is considered a suitable device.

EN 60335-2-35:2016

Add the following annexes:

Annex ZA (normative)

Special national conditions

Annex ZA of EN 60335-1:2012 is applicable, with the following **addition**:

<u>Clause</u>	<u>Special national condition</u>
22.101	<p>Denmark, Finland, Norway, Sweden</p> <p>For closed water heaters, the minimum rated pressure is 1,0 MPa.</p>

Annex ZB (informative)

A-deviations

Annex ZB of EN 60335-1:2012 is applicable, with the following **addition**:

<u>Clause</u>	<u>Deviation</u>
1	<p>Spain (Royal Decree 842/2002; Spanish regulation on low voltage installations: Technical Instruction ICT-BT-45, subclause 2.1)</p> <p>The household use of appliances incorporating bare heating elements immersed in water as well as those where the water is part of the electric circuit is prohibited.</p>

Annex ZC (normative)

Normative references to international publications with their corresponding European publications

Annex ZC of EN 60335-1:2012 is applicable, with the **addition** of the EN reference mentioned in Clause 2.

Bibliography

The Bibliography of EN 60335-1:2012 is applicable, except that the following notes have to be **added** for the standards indicated:

IEC 60335-2-15	NOTE	Harmonized as EN 60335-2-15.
IEC 60335-2-21	NOTE	Harmonized as EN 60335-2-21.
IEC 60335-2-75	NOTE	Harmonized as EN 60335-2-75.



INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Household and similar electrical appliances – Safety –
Part 2-35: Particular requirements for instantaneous water heaters**

**Appareils électrodomestiques et analogues – Sécurité –
Partie 2-35: Exigences particulières pour les chauffe-eau instantanés**





THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2012 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester.

If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de la CEI ou du Comité national de la CEI du pays du demandeur.

Si vous avez des questions sur le copyright de la CEI ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de la CEI de votre pays de résidence.

IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

Useful links:

IEC publications search - www.iec.ch/searchpub

The advanced search enables you to find IEC publications by a variety of criteria (reference number, text, technical committee,...).

It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available on-line and also once a month by email.

Electropedia - www.electropedia.org

The world's leading online dictionary of electronic and electrical terms containing more than 30 000 terms and definitions in English and French, with equivalent terms in additional languages. Also known as the International Electrotechnical Vocabulary (IEV) on-line.

Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: csc@iec.ch.

A propos de la CEI

La Commission Electrotechnique Internationale (CEI) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications CEI

Le contenu technique des publications de la CEI est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Liens utiles:

Recherche de publications CEI - www.iec.ch/searchpub

La recherche avancée vous permet de trouver des publications CEI en utilisant différents critères (numéro de référence, texte, comité d'études,...).

Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

Just Published CEI - webstore.iec.ch/justpublished

Restez informé sur les nouvelles publications de la CEI. Just Published détaille les nouvelles publications parues. Disponible en ligne et aussi une fois par mois par email.

Electropedia - www.electropedia.org

Le premier dictionnaire en ligne au monde de termes électroniques et électriques. Il contient plus de 30 000 termes et définitions en anglais et en français, ainsi que les termes équivalents dans les langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (VEI) en ligne.

Service Clients - webstore.iec.ch/csc

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: csc@iec.ch.



INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Household and similar electrical appliances – Safety –
Part 2-35: Particular requirements for instantaneous water heaters**

**Appareils électrodomestiques et analogues – Sécurité –
Partie 2-35: Exigences particulières pour les chauffe-eau instantanés**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

T

ICS 13.120; 97.040.50

ISBN 978-2-83220-455-9

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

FOREWORD.....	4
INTRODUCTION.....	7
1 Scope.....	8
2 Normative references.....	8
3 Terms and definitions.....	9
4 General requirement.....	9
5 General conditions for the tests.....	9
6 Classification.....	10
7 Marking and instructions.....	10
8 Protection against access to live parts.....	11
9 Starting of motor-operated appliances.....	12
10 Power input and current.....	12
11 Heating.....	12
12 Void.....	12
13 Leakage current and electric strength at operating temperature.....	12
14 Transient overvoltages.....	12
15 Moisture resistance.....	12
16 Leakage current and electric strength.....	13
17 Overload protection of transformers and associated circuits.....	13
18 Endurance.....	13
19 Abnormal operation.....	13
20 Stability and mechanical hazards.....	14
21 Mechanical strength.....	14
22 Construction.....	14
23 Internal wiring.....	18
24 Components.....	18
25 Supply connection and external flexible cords.....	19
26 Terminals for external conductors.....	19
27 Provision for earthing.....	19
28 Screws and connections.....	20
29 Clearances, creepage distances and solid insulation.....	20
30 Resistance to heat and fire.....	20
31 Resistance to rusting.....	20
32 Radiation, toxicity and similar hazards.....	20
Annexes.....	23
Annex A (informative) Routine tests.....	23
Annex R (normative) Software evaluation.....	24
Bibliography.....	25
Figure 101 – Diagram for the leakage current measurement for single-phase bare-element water heaters.....	21

Figure 102 – Diagram for the leakage current measurement for three-phase bare-element water heaters	21
Figure 103 – Diagram for the leakage current measurement for single-phase bare-element water heaters supplied by a supply cord fitted with a plug.....	22

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –
SAFETY –****Part 2-35: Particular requirements for instantaneous water heaters**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

This part of International Standard IEC 60335 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

This fifth edition cancels and replaces the fourth edition published in 2002 including its Amendment 1 (2006) and its Amendment 2 (2009). It constitutes a technical revision.

The principal changes in this edition as compared with the fourth edition of IEC 60335-2-35 are as follows (minor changes are not listed):

- converted notes to normative text (7.12, 7.102, 8.1.5, 22.104, and 22.109.3);
- deleted notes in 19.13, 22.109, and A.101;
- added Annex R and 22.108 for appliances with programmable electronic circuits;
- added requirements for water heaters (22.50, 22.51).

The text of this standard is based on the following documents:

FDIS	Report on voting
61/4454/FDIS	61/4507/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This part 2 is to be used in conjunction with the latest edition of IEC 60335-1 and its amendments. It was established on the basis of the fifth edition (2010) of that standard.

NOTE 1 When “Part 1” is mentioned in this standard, it refers to IEC 60335-1.

This part 2 supplements or modifies the corresponding clauses in IEC 60335-1, so as to convert that publication into the IEC standard: Safety requirements for instantaneous water heaters.

When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states “addition”, “modification” or “replacement”, the relevant text in Part 1 is to be adapted accordingly.

NOTE 2 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.

NOTE 3 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

NOTE 4 The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 12 months or later than 36 months from the date of publication.

A list of all parts of the IEC 60335 series, under the general title: *Household and similar electrical appliances – Safety*, can be found on the IEC website.

The following differences exist in the countries indicated below.

- 6.1: Bare-element water heaters are not allowed (India).
- 6.1: Class 0I appliances are allowed (Japan).
- 7.1: Marking of rated pressure is different and marking of water resistivity is not required (USA).
- 19.4: Flow switches tested for reliability are not short-circuited (USA).
- 19.13: The water temperatures are different (USA).
- 22.101: For closed water heaters, the minimum rated pressure is 1,0 MPa (Norway, Sweden).
- 22.103: Closed water heaters have to incorporate a temperature relief valve or a combined temperature and pressure relief valve that has to operate before the water temperature reaches 100 °C (United Kingdom).
- 22.103: The pressure relief valve is not required to be provided with the heater (USA).

INTRODUCTION

It has been assumed in the drafting of this International Standard that the execution of its provisions is entrusted to appropriately qualified and experienced persons.

This standard recognizes the internationally accepted level of protection against hazards such as electrical, mechanical, thermal, fire and radiation of appliances when operated as in normal use taking into account the manufacturer's instructions. It also covers abnormal situations that can be expected in practice and takes into account the way in which electromagnetic phenomena can affect the safe operation of appliances.

This standard takes into account the requirements of IEC 60364 as far as possible so that there is compatibility with the wiring rules when the appliance is connected to the supply mains. However, national wiring rules may differ.

If an appliance within the scope of this standard also incorporates functions that are covered by another part 2 of IEC 60335, the relevant part 2 is applied to each function separately, as far as is reasonable. If applicable, the influence of one function on the other is taken into account.

When a part 2 standard does not include additional requirements to cover hazards dealt with in Part 1, Part 1 applies.

NOTE 1 This means that the technical committees responsible for the part 2 standards have determined that it is not necessary to specify particular requirements for the appliance in question over and above the general requirements.

This standard is a product family standard dealing with the safety of appliances and takes precedence over horizontal and generic standards covering the same subject.

NOTE 2 Horizontal and generic standards covering a hazard are not applicable since they have been taken into consideration when developing the general and particular requirements for the IEC 60335 series of standards. For example, in the case of temperature requirements for surfaces on many appliances, generic standards, such as ISO 13732-1 for hot surfaces, are not applicable in addition to Part 1 or part 2 standards.

An appliance that complies with the text of this standard will not necessarily be considered to comply with the safety principles of the standard if, when examined and tested, it is found to have other features that impair the level of safety covered by these requirements.

An appliance employing materials or having forms of construction differing from those detailed in the requirements of this standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be considered to comply with the standard.

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-35: Particular requirements for instantaneous water heaters

1 Scope

This clause of Part 1 is replaced by the following.

This International Standard deals with the safety of electric **instantaneous water heaters** for household and similar purposes and intended for heating water below boiling temperature, their **rated voltage** being not more than 250 V for single-phase appliances and 480 V for other appliances.

NOTE 101 **Instantaneous water heaters** incorporating bare heating elements are within the scope of this standard.

Appliances not intended for normal household use but which nevertheless may be a source of danger to the public, such as appliances intended for use in shops, in light industry and on farms, are within the scope of this standard.

As far as is practicable, this standard deals with the common hazards presented by appliances which are encountered by all persons in and around the home. However, in general, it does not take into account

- persons (including children) whose
 - physical, sensory or mental capabilities; or
 - lack of experience and knowledgeprevents them from using the appliance safely without supervision or instruction;
- children playing with the appliance.

NOTE 102 Attention is drawn to the fact that

- for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements may be necessary;
- in many countries, additional requirements are specified by the national health authorities, the national authorities responsible for the protection of labour and similar authorities;
- in many countries regulations exist for the installation of equipment connected to the water mains.

NOTE 103 This standard does not apply to

- appliances for heating liquids (IEC 60335-2-15);
- storage water heaters (IEC 60335-2-21);
- appliances intended exclusively for industrial purposes;
- appliances intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas);
- commercial dispensing appliances and vending machines (IEC 60335-2-75).

2 Normative references

This clause of Part 1 is applicable.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN