

### **SVENSK STANDARD**

## SS-EN IEC 60335-2-75+A11, utg 3.2:2023

Fastställd 2023-10-18 Sida Ansvarig kommitté 1 (71) SEK TK 61

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### Elektriska hushållsapparater och liknande bruksföremål – Säkerhet – Del 2-75: Särskilda fordringar på kommersiella varu- och dryckesautomater

Household and similar electrical appliances – Safety –

Part 2-75: Particular requirements for commercial dispensing appliances and vending machines

Som svensk standard gäller europastandarden EN IEC 60335-2-75:2023. Den svenska standarden innehåller de officiella engelska språkversionerna av EN IEC 60335-2-75:2023 och EN IEC 60335-2-75:2023/A11:2023.

#### Nationellt förord

Europastandarden EN IEC 60335-2-75:2023

består av:

- europastandardens ikraftsättningsdokument, utarbetat inom CENELEC
- IEC 60335-2-75, Third edition, 2012<sup>\*</sup>) Household and similar electrical appliances Safety Part 2-75: Particular requirements for commercial dispensing appliances and vending machines

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 60335-2-75, utg 2:2004 med eventuella tillägg, ändringar och rättelser gäller ej fr o m 2026-05-05.

\*) Amendment No 1:2015 och No 2:2018 till IEC 60335-2-75:2012 är inarbetade i standarden. Amendment No 1:2023, No 2:2023 och No 11:2023 till EN IEC 60335-2-75:2023 ingår i standarden.

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Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

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## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

## EN IEC 60335-2-75

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**English Version** 

### Household and similar electrical appliances - Safety - Part 2-75: Particular requirements for commercial dispensing appliances and vending machines (IEC 60335-2-75:2012)

Appareils électrodomestiques et analogues - Sécurité -Partie 2-75: Exigences particulières pour les distributeurs commerciaux avec ou sans moyen de paiement (IEC 60335-2-75:2012) Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Teil 2-75: Besondere Anforderungen für Ausgabegeräte und Warenautomaten für den gewerblichen Gebrauch (IEC 60335-2-75:2012)

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Ref. No. EN IEC 60335-2-75:2023 E

### **European foreword**

This document (EN IEC 60335-2-75:2023) consists of the text of document IEC 60335-2-75:2012 edition 3.0 prepared by IEC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to be (dop) 2023-11-05 implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards (dow) 2026-05-05 conflicting with this document have to be withdrawn

This document supersedes EN 60335-2-75:2004+A1:2005+A11:2006+A2:2008+A12:2010 when EN IEC 60335-2-75/A11:2023 is published.

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This document is read in conjunction with EN IEC 60335-2-75:2023/A1:2023, EN IEC 60335-2-75:2023/A2:2023 and EN IEC 60335-2-75:2023/A11:2023.

This document has been prepared under a Standardization Request given to CENELEC by the European Commission and the European Free Trade Association.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

#### **Endorsement notice**

The text of the International Standard IEC 60335-2-75:2012 was approved by CENELEC as a European Standard without any modification.





Edition 3.2 2018-10

# CONSOLIDATED VERSION

VERSION CONSOLIDÉE



Household and similar electrical appliances – Safety – Part 2-75: Particular requirements for commercial dispensing appliances and vending machines

Appareils électrodomestiques et analogues – Sécurité – Partie 2-75: Exigences particulières pour les distributeurs commerciaux avec ou sans moyen de paiement

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 55.230

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Edition 3.2 2018-10

# **REDLINE VERSION**

# **VERSION REDLINE**



Household and similar electrical appliances – Safety – Part 2-75: Particular requirements for commercial dispensing appliances and vending machines

Appareils électrodomestiques et analogues – Sécurité – Partie 2-75: Exigences particulières pour les distributeurs commerciaux avec ou sans moyen de paiement



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#### INTERNATIONAL ELECTROTECHNICAL COMMISSION

#### HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

## Part 2-75: Particular requirements for commercial dispensing appliances and vending machines

#### 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.
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This Consolidated version is not an official IEC Standard and has been prepared for user convenience. Only the current versions of the standard and its amendment(s) are to be considered the official documents.

This Consolidated version of IEC 60335-2-75 bears the edition number 3.2. It consists of the third edition (2012-12) [documents 61/4458/FDIS and 61/4512/RVD], its amendment 1 (2015-10) [documents 61/4956/FDIS and 61/5005/RVD] and its amendment 2 (2018-10) [documents 61/5567/CDV and 61/5651A/RVC]. The technical content is identical to the base edition and its amendments.

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendments 1 and 2. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication. This part of International Standard IEC 60335 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

- 4 -

The principal changes in this edition as compared with the second edition of IEC 60335-2-75 are as follows (minor changes are not listed):

- some notes have been deleted or converted to normative text (5.2, 5.6, 5.104, 7.12.1, 7.12.101.1, 11.2, 11.8, 15.2.103, 15.2.104, 15.2.106, 15.2.109, 15.2.111, 19.102, 19.6, 19.13, 19.101, 22.6, 22.7, 22.112, 22.113, 22.114, 24.102, 27.2).
- added requirements for espresso coffee makers in 3.115, 22.114 and throughout standard;
- modified 11.4 to address heating appliances with electronic process controls and 11.6 to address combined appliances without electronic process controls;
- modified Clause 22 to indicate that pressure regulating devices are to be rendered inoperable;
- deleted ISO 13732-1 from Bibliography.

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 commercial dispensing appliances and vending machines.

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 the base publication and its amendments 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.

#### IEC 60335-2-75:2012+AMD1:2015 +AMD2:2018 CSV © IEC 2018

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: Class 0I is allowed for appliances used indoors having a rated voltage not exceeding 150 V (Japan).
- 13.2: The leakage current limits are different (Japan).
- 16.2: The leakage current limits are different (Japan).

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

#### 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 2-75: Particular requirements for commercial dispensing appliances and vending machines

#### 1 Scope

This clause of Part 1 is replaced by the following.

This International Standard deals with the safety of electric commercial **dispensing appliances** and **vending machines** for preparation or delivery of food, drinks and consumer products, their **rated voltage** being not more than 250 V for single-phase appliances and 480 V for other appliances.

NOTE 101 Examples of appliances that are within the scope of this standard are

- bulk tea or coffee brewing machines;
- cigarette vending machines;
- coffee grinders;
- commercial liquid heaters;
- coffee makers with or without integrated coffee grinder;
- coffee makers with cooling systems;
- hot and cold beverage vending machines;
- hot water dispensers;
- ice cream and whipped cream dispensers;
- ice dispensers;
- newspaper, audio or video tape or disc vending machines;
- packaged food and drink vending machines;
- refrigerated merchandisers.

Appliances can have more than one function.

NOTE 102 Other standards may be applicable for some functions such as

- refrigeration (IEC 60335-2-24);
- heating by microwaves (IEC 60335-2-25).

This standard also deals with the hygiene aspects of appliances.

As far as is practicable, this standard deals with the common hazards presented by appliances that are encountered by users and **maintenance persons**. However, in general, it does not take into account young children playing with the appliance.

#### NOTE 103 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 for appliances incorporating pressure vessels are specified;
- in many countries, additional requirements are specified by the national health authorities, the national authorities responsible for the protection of labour, the national water supply authorities and similar authorities.

NOTE 104 This standard does not apply to

- appliances intended to be used exclusively for household purposes;
- appliances intended to be used 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);

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- commercial electric boiling pans (IEC 60335-2-47);
- commercial electric bains-marie (IEC 60335-2-50);
- amusement machines and personal service machines (IEC 60335-2-82);
- commercial refrigerating appliances (IEC 60335-2-89);
- appliances solely used for dispensing money;
- display cabinets;
- appliances incorporating electrode-type water heaters.
- requirements for dispensed potentially hazardous food (these are covered by national health regulations in many countries).

#### 2 Normative references

This clause of Part 1 is applicable except as follows.

Addition:

IEC 60335-2-34, Household and similar electrical appliances – Safety – Part 2-34: Particular requirements for motor-compressors

ISO 1817:<del>2011</del> 2015, *Rubber, vulcanized or thermoplastic – Determination of the effect of liquids* 





Edition 3.2 2018-10

# **FINAL VERSION**

# **VERSION FINALE**

Household and similar electrical appliances – Safety – Part 2-75: Particular requirements for commercial dispensing appliances and vending machines

Appareils électrodomestiques et analogues – Sécurité – Partie 2-75: Exigences particulières pour les distributeurs commerciaux avec ou sans moyen de paiement



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#### INTERNATIONAL ELECTROTECHNICAL COMMISSION

#### HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

# Part 2-75: Particular requirements for commercial dispensing appliances and vending machines

#### FOREWORD

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- added requirements for espresso coffee makers in 3.115, 22.114 and throughout standard;
- modified 11.4 to address heating appliances with electronic process controls and 11.6 to address combined appliances without electronic process controls;
- modified Clause 22 to indicate that pressure regulating devices are to be rendered inoperable;
- deleted ISO 13732-1 from Bibliography.

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 commercial dispensing appliances and vending machines.

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 the base publication and its amendments 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.

#### IEC 60335-2-75:2012+AMD1:2015 +AMD2:2018 CSV © IEC 2018

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: Class 0I is allowed for appliances used indoors having a rated voltage not exceeding 150 V (Japan).
- 13.2: The leakage current limits are different (Japan).
- 16.2: The leakage current limits are different (Japan).

#### 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 2-75: Particular requirements for commercial dispensing appliances and vending machines

#### 1 Scope

This clause of Part 1 is replaced by the following.

This International Standard deals with the safety of electric commercial **dispensing appliances** and **vending machines** for preparation or delivery of food, drinks and consumer products, their **rated voltage** being not more than 250 V for single-phase appliances and 480 V for other appliances.

NOTE 101 Examples of appliances that are within the scope of this standard are

- bulk tea or coffee brewing machines;
- cigarette vending machines;
- coffee grinders;
- commercial liquid heaters;
- coffee makers with or without integrated coffee grinder;
- coffee makers with cooling systems;
- hot and cold beverage vending machines;
- hot water dispensers;
- ice cream and whipped cream dispensers;
- ice dispensers;
- newspaper, audio or video tape or disc vending machines;
- packaged food and drink vending machines;
- refrigerated merchandisers.

Appliances can have more than one function.

NOTE 102 Other standards may be applicable for some functions such as

- refrigeration (IEC 60335-2-24);
- heating by microwaves (IEC 60335-2-25).

This standard also deals with the hygiene aspects of appliances.

As far as is practicable, this standard deals with the common hazards presented by appliances that are encountered by users and **maintenance persons**. However, in general, it does not take into account young children playing with the appliance.

#### NOTE 103 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 for appliances incorporating pressure vessels are specified;
- in many countries, additional requirements are specified by the national health authorities, the national authorities responsible for the protection of labour, the national water supply authorities and similar authorities.

NOTE 104 This standard does not apply to

- appliances intended to be used exclusively for household purposes;
- appliances intended to be used 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);

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- commercial electric boiling pans (IEC 60335-2-47);
- commercial electric bains-marie (IEC 60335-2-50);
- amusement machines and personal service machines (IEC 60335-2-82);
- commercial refrigerating appliances (IEC 60335-2-89);
- appliances solely used for dispensing money;
- display cabinets;
- appliances incorporating electrode-type water heaters.
- requirements for dispensed potentially hazardous food (these are covered by national health regulations in many countries).

#### 2 Normative references

This clause of Part 1 is applicable except as follows.

#### Addition:

IEC 60335-2-34, Household and similar electrical appliances – Safety – Part 2-34: Particular requirements for motor-compressors

ISO 1817:2015, Rubber, vulcanized or thermoplastic – Determination of the effect of liquids