

English version

**Household and similar electrical appliances -
Safety -
Part 1: General requirements**

Appareils électrodomestiques
et analogues -
Sécurité -
Partie 1: Prescriptions générales

Sicherheit elektrischer Geräte
für den Hausgebrauch
und ähnliche Zwecke -
Teil 1: Allgemeine Anforderungen

This amendment A14 modifies the European Standard EN 60335-1:2002; it was approved by CENELEC on 2010-04-14. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 Central Secretariat or to any CENELEC member.

This amendment 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 Central Secretariat has the same status as the official versions.

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CENELEC

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

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Foreword

This amendment to the European Standard EN 60335-1:2002 was prepared by the Technical Committee CENELEC TC 61, Safety of household and similar electrical appliances.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A14 to EN 60335-1:2002 on 2010-04-14.

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

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2010-11-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2013-05-01

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 2006/42/EC. See Annex ZZ.

Introduction

Replace “73/23/EEC” by “2006/95/EC” and “98/37/EC” by “2006/42/EC”¹⁾.

Add the following footnote:

¹⁾ Annex ZE has also to be applied for the verification of compliance of the relevant product to the Essential Health and Safety Requirements (EHSR) of Directive 2006/42/EC. The application of EN 60335-1 alone does not give presumption of conformity for a product. This is achieved by complying with the requirements of EN 60335-1 and the relevant Part 2, when this Part 2 is also listed in the OJ under the Directive.

1 Scope

Replace the first two paragraphs, NOTE 1 and the first sentence of the third paragraph by:

This European Standard deals with the safety of electrical appliances and machines for household environment and commercial purpose, their rated voltage being not more than 250 V for single-phase appliances and machines and 480 V for other appliances and machines.

NOTE Z1 Examples of appliance for household environment are appliances for typical housekeeping functions used in the household environment that may also be used by non expert users for typical housekeeping functions:

- in shops, offices and other similar working environments;
- in farm houses;
- by clients in hotels, motels and other residential type environments;
- in bed and breakfast type environments.

NOTE Z2 Household environment includes the dwelling and its associated buildings, the garden, etc.

Appliances and machines intended to be used by expert or trained users in shops, in light industry and on farms, and appliances and machines which are declared to be for commercial use by lay persons are within the scope of this standard.

Additional requirements for such appliances are given in Annex ZE.

NOTE Z3 Examples of such appliances and machines are catering equipment, cleaning machines for commercial use, and appliances for hairdressers.

NOTE Z4 Criteria applied for the allocation of products covered by standards in the EN 60335 series under either the Low Voltage Directive (LVD) or the Machinery Directive (MD) are given for information in Annex ZF.

This standard deals with the reasonably foreseeable hazards presented by appliances and machines that are encountered by all persons.

2 Normative references

Add the following references:

CLC/TR 50417, *Safety of household and similar electrical appliances – Interpretations related to European Standards within the scope of CENELEC/TC 61*

EN 50366:2003¹⁾, *Household and similar electrical appliances - Electromagnetic fields - Methods for evaluation and measurement*

EN 62233, *Measurement methods for electromagnetic fields of household appliances and similar apparatus with regard to human exposure (IEC 62233)*

¹⁾ EN 50366:2003 will be superseded by EN 62233:2008 on 2012-12-01.

3 Definitions

3.1 Add as a first paragraph:

When the term “appliance” is used, it is intended to cover appliances and/or machines for household use and appliances and/or machines for commercial use.

4 General requirement

Add:

The interpretations included in CLC/TR 50417 shall be taken into consideration together with the relevant requirements in the standards listed therein.

19 Abnormal operation

19.14 Modification:

Add the content of the note to the requirement as follows:

Appliances are operated under the conditions of Clause 11. Any contactor or relay contact that operates under the conditions of Clause 11 is short-circuited. If a relay or contactor with more than one contact is used, all contacts are short-circuited at the same time.

24 Components

24.1 Replace by:

Components shall comply with the safety requirements specified in the relevant standards as far as they reasonably apply.

NOTE Z1 Compliance with the standard for the relevant component does not necessarily ensure compliance with the requirements of this standard.

NOTE Z2 Motors are not required to comply with EN 60034-1.

Unless otherwise specified, the requirements of Clause 29 of this standard apply between **live parts** of components and **accessible parts** of the appliance.

Unless otherwise specified, the requirements of 30.2 of this standard apply to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections inside components.

Components that have not been previously tested or do not comply with the standard for the relevant component are tested according to the requirements of 30.2 of this standard.

NOTE Z3 Components that have been previously tested and shown to comply with the resistance to fire requirements in the standard for the relevant component need not be retested provided that:

- the severity specified in the component standard is not less than the severity specified in 30.2 of this standard,
- and
- unless the preselection alternative is used, the test report for the component states whether it complied with the standard for the relevant component with or without flame. Flames existing for a cumulative time not exceeding 2 s during the test are ignored.

If the above two conditions are not satisfied, the component is tested as part of the appliance.

There are two levels of severity specified for appliances for which 30.2.3 is applicable.

Unless components have been previously tested and found to comply with the relevant standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9.

Components that have not been separately tested and found to comply with the relevant standard, components that are not marked or not used in accordance with their marking, are tested in accordance with the conditions occurring in the appliance, the number of samples being that required by the relevant standard.

NOTE Z4 For automatic controls, marking includes documentation and declaration as specified in Clause 7 of EN 60730-1.

Lampholders and starterholders that have not been previously tested and found to comply with the relevant standard are tested as a part of the appliance and shall additionally comply with the gauging and interchangeability requirements of the relevant standard under the conditions occurring in the appliance. Where the relevant standard for lampholders and starterholders specifies gauging and interchangeability requirements at elevated temperatures, the temperatures measured during the tests of Clause 11 are used.

When no standard does exist for a component, there are no additional tests specified.

25 Supply connection and external flexible cors

25.7 Modification:

Add the content of NOTE 1 to the requirement as follows:

Their properties shall be at least those of ordinary tough rubber sheathed cords (code designation 60245 IEC 53). These cords are not suitable for appliances intended to be used outdoors or when they are liable to be exposed to significant amounts of ultraviolet radiation.

26 Terminals for external conductors

26.2 Modification:

Change the Note into a requirement.

26.11 Modification:

Change the Note into a requirement.

29 Clearances, creepage distances and solid insulation

29.1 Modification:

Replace NOTE 6 by:

NOTE 6 Attention is drawn on the fact that for appliances intended for use at altitudes exceeding 2 000 m, the altitude correction factors, relevant to the intended altitude, for clearances specified in Table A.2 of EN 60664-1 may need to be taken into account.

29.2 Modification:

Change NOTE 6 into a requirement.

32 Radiation , toxicity and similar hazards

Add at the end:

Compliance regarding electromagnetic fields is checked according to EN 50366 or EN 62233.

Annex ZC*Add:*

–	–	Safety of household and similar electrical appliances – Interpretations related to European Standards within the scope of CENELEC/TC 61	CLC/TR 50417	–
–	–	<i>Household and similar electrical appliances - Electromagnetic fields - Methods for evaluation and measurement</i>	EN 50366 ²⁾	2003
IEC 62233	–	<i>Measurement methods for electromagnetic fields of household appliances and similar apparatus with regard to human exposure</i>	EN 62233	–

²⁾ EN 50366:2003 will be superseded by EN 62233:2008 on 2012-12-01.

Add the following annex:

Annex ZE
(informative)

**Specific additional requirements for appliances
and machines intended for commercial use**

The following modifications to this standard are applicable for appliances and machines intended for commercial use.

Introduction

Add:

For the verification of compliance of appliances or machines intended for commercial use with the Essential Health and Safety Requirements (EHSR) of the Directive 2006/42/EC, the requirements in this Annex ZE will be modified by specific provisions in the relevant Parts 2.

When a specific Part 2 does not mention Annex ZE then Annex ZE of this EN 60335-1 is not applicable.

1 Scope

Addition:

This annex deals with additional requirements concerning appliances and machines intended for commercial use by persons that have been trained on the use of such appliances and concerning appliances and machines which are declared to be for commercial use by lay persons.

3 Definitions

3.ZE1

guard

part of the appliance specifically designed to provide protection by means of a physical barrier

3.ZE2

operator

person or persons installing, operating, adjusting, maintaining, cleaning, repairing or moving appliances

3.ZE3

workstation

the place, as defined in the technical documentation of the relevant appliance, where the operator has to be in attendance to operate, or to adjust, or to control the appliance

NOTE Examples are the driving place of commercial cleaning machines or the location where the operator loads the conveyor of commercial conveyor dishwashing machines.

4 General requirement

Replace the first paragraph by:

Appliances shall be constructed so that they function safely so as to cause no danger to persons or surroundings during normal use, even in the event of carelessness, and during installation, adjusting, maintenance, cleaning, repairing or transportation.

7 Marking and instructions

7.1 Modification

Replace the fourth and fifth dashed items by:

- business name and full address of the manufacturer and, where applicable, his authorized representative;
- model or type reference, serial number, if any, and production year;

NOTE Z1 Production year is the year when the production process is completed. The production year can be a part of the serial number.

Add a new dashed item:

- designation of the appliance.

NOTE Z2 The designation may be a combination of letters and/or numbers and shall enable to identify the machine as specified in the instructions.

7.12 Modification

Replace the first sentence in the requirement by:

Instructions shall be provided with the appliance so that the appliance can be used safely.

Add:

The instructions shall contain at least the following information:

- the business name and full address of the manufacturer and, where applicable, his authorized representative;
- model or type reference of the appliance as marked on the appliance itself, except for the serial number;
- the designation of the appliance together with its explanation in case it is given by a combination of letters and/or numbers.
- the general description of the appliance, when needed due to the complexity of the appliance;
- specific precautions if required during installation, operation, adjusting, user maintenance, cleaning, repairing or moving;
- when needed drawings, diagrams, descriptions and explanations necessary for the safe use and user maintenance of the appliance;
- the possible reasonably foreseeable misuse and, whenever relevant, a warning against the effects it may have on the safe use of the appliance;

The words "Original instructions" shall appear on the language version(s) verified by the manufacturer or by the authorized representative.

When a translation of the original instructions has been provided by a person introducing the appliance on the market; the meaning of the sentence “Translation of the original instructions” has to appear in the relevant instructions delivered with the appliance.

The instructions for maintenance/service to be done by specialized personnel, mandated by the manufacturer or the authorized representative may be supplied in only one Community language which the specialized personnel understand.

The instructions shall indicate the type and frequency of inspections and maintenance required for safe operation including the preventive maintenance measures.

Additional subclause:

7.12.Z1 Wherever needed for specific appliances, information shall be given:

- on use, transportation, assembly, dismantling when out of service, testing or foreseeable breakdowns, if these operations have consequences on stability of the appliance in order to avoid overturning, falling or uncontrolled movements of the appliance or of its component parts;
- on how to maintain adequate mechanical stability when in use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance;
- on the protective measures to be taken by the user, including, where appropriate, the personal protective equipment to be provided;
- on the operating method to be followed in the event of accident or breakdown; if a blockage is likely to occur the operating method to safely unblock the appliance;
- on the specifications on the spare parts to be used, when these affect the health and safety of the operator;
- on airborne noise emissions, determined and declared in accordance with the relevant Part 2.

This includes:

- the A-weighted emission sound pressure level at workstations, where this exceeds 70 dB(A); where this level does not exceed 70 dB(A), this fact shall be indicated,
- the peak C-weighted instantaneous sound pressure value at workstations, where this exceeds 63 Pa (130 dB in relation to 20 µPa),
- the A-weighted sound power level emitted by the machinery, where the A-weighted emission sound pressure level at workstations exceeds 80 dB(A).

19 Abnormal operation

19.11.4.8 *Replace the second paragraph by:*

The appliance shall continue to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage fluctuation occurred, or a manual operation shall be required to restart it.

20 Stability and mechanical hazards

20.1 *Add at the end:*

Appliances and their components and fittings shall have adequate mechanical stability during transportation, assembly, dismantling and any other action involving the appliance.

Compliance is checked by verifying the instruction and by the relevant tests, if necessary, as specified in the relevant Part 2.

20.2 *Replace the requirements and notes by:*

Dangerous moving transmission parts shall be safeguarded either by design or **guards**. When **guards** are used, they shall be fixed **guards**, interlocking movable **guards** or protective devices.

NOTE Z1 Parts of the enclosure can fulfil the guarding function.

Moving parts directly involved in the function of the appliance which cannot be made completely inaccessible shall be fitted with:

- fixed **guards** or interlocking movable **guards** preventing access to those sections of the parts that are not used in the work; and
- adjustable **guards** restricting access to those sections of the moving parts where access is necessary.

Interlocking movable **guards** (e.g. the door of a washing machine) shall be used where frequent access is required.

21 Mechanical strength

21.1 *Replace the first paragraph by:*

Appliances and their components and fittings shall have adequate mechanical strength and be constructed to withstand such rough handling that may be expected in normal use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance.

22 Construction

22.ZE.1 For appliances provided with a seat, the seat has to give adequate stability. The distance between the seat and the control devices shall be capable of being adapted to the operator.

Compliance is checked by inspection.

22.ZE.2 For appliances provided with separate devices for the start and the stop functions, the stop function shall be unambiguously identifiable and shall always override the start function.

For appliances provided with one device performing the start and the stop function, the stop function shall be unambiguously identifiable and shall always override the start function.

Compliance is checked by inspection and by manual test.

22.ZE.3 Appliances shall be designed in such a way that incorrect mounting is avoided, if this can lead to an unsafe situation. If this is not possible, information on the correct mounting shall be given directly on the part and/or the enclosure.

Compliance is checked by inspection.

22.ZE.4 Where the weight, size or shape prevents appliances from being moved manually, they shall be fitted with attachments for lifting gear or be designed so they can be fitted with such attachments, or be shaped in such a way that standard lifting gear can easily be used.

Appliances to be moved manually shall be constructed or shall be equipped so that they can be moved easily and safely.

Compliance is checked by inspection.

22.ZE.5 The fixing systems of fixed **guards** which prevent access to dangerous moving transmission parts shall only be removable with the use of tools.

If such **guards** have to be removed frequently their fixing systems shall remain attached to the fixed **guards** or to the machine after removal. Where possible, **guards** shall be incapable of remaining in place without their fixings.

This does not apply if, after removal of the screws, or if the component is incorrectly repositioned, the appliance becomes inoperative.

If movable **guards** are interlocked, the interlocking devices shall prevent the start of hazardous appliance functions until the **guards** are fixed in their position, and give a stop command whenever they are no longer closed.

Where it is possible for an operator to reach the danger zone before the risk due to hazardous appliance functions has ceased, movable **guards** shall be associated with a **guard** locking device in addition to an interlocking device that

- prevents the start of hazardous appliance functions until the **guard** is closed and locked, and
- keeps the **guard** closed and locked until the risk of injury from the hazardous appliance functions has ceased.

Interlocking movable **guards** shall remain attached to the appliance when open and they shall be designed and constructed in such a way that they can be adjusted only by means of an intentional action.

Compliance is checked by inspection.

Interlocking movable **guards** shall be designed in such a way that the absence or failure of one of their components prevents starting or stops the hazardous appliance functions.

Compliance is checked by inspection and by the following tests.

*The **guard** is opened to the extent needed to cause the interlocking to operate and is then closed. This operation is carried out for the number of cycles as defined, if relevant, in the specific Part 2.*

After this test any defect that may be expected in normal use is applied to the interlock system, including interruption of the supply, only one defect being simulated at a time.

NOTE 1 Examples of defects are the breakage of a spring or a gravity-operated part failing to drop into position.

NOTE 2 Fault conditions applied during the tests of Clause 19 are not repeated.

After these tests the interlock system shall be fit for further use.

Adjustable **guards** restricting access to those areas of the moving parts strictly necessary for the work shall be

- adjustable manually or automatically, depending on the type of work involved, and
- readily adjustable without the use of tools.

Compliance is checked by inspection.

22.ZE.6 In case of interruption, re-establishment after an interruption or fluctuation in whatever manner of the power supply, the appliance shall not restart, however automatic restarting of the operation is allowed if the appliance may continue to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage interruption or fluctuation occurred.

Compliance is checked by inspection

Annex ZF (informative)

Criteria applied for the allocation of products covered by standards in the EN 60335 series under LVD or MD

This guide has been prepared by CENELEC/TC 61 based on the discussions with the group of experts set up by the EU Commission to manage the application of the Machinery Directive (2006/42/EC).

The following assumptions have been agreed:

1. the new MD is product related and not risk related;
2. both LVD and MD are total safety directives covering all types of risks; as consequence CENELEC standards deal with total safety of electrotechnical products (and not with “electrotechnical safety” of products only);
3. household appliances intended for domestic use, in the sense of first dashed item in Art 1 (k) of 2006/42/EC are:
 - appliances to be used in the home environment and appliances intended to be used by laymen in similar applications, such as: shops, offices and other working environments; in farm houses and by clients in hotels, motels and other residential type environment, in bed and breakfast type environments;
4. appliances without moving parts are NOT considered as machines (according to first dashed item of Article 2 (a) of 2006/42/EC);

NOTE Moving parts are those powered by a drive system using one or more sources of energy such as thermal, electric, pneumatic, hydraulic or mechanical energy, independently of the size of the drive system or of the moving part or on the protection to the accessibility to the moving part. Moving parts are also those for which manual effort is not applied directly but stored, for example, in springs or in hydraulic or pneumatic accumulators.

5. it was acknowledged that it is possible to publish a given standard under both directives (LVD and MD) provided that the standard clearly states in its body, a reference to the Directives that were considered in its drafting and there is a clear indication of the applicable Directive through what is stated in Annex ZZ and in a specific Annex ZE with specific requirements applicable to a given Directive;
6. while there is absolutely no reason for safety issues, in conclusion and far from simplification, a wrong interpretation of the borderline would trigger a lot of confusion in the relationship between legislation and standards and also in their application;
7. there is a need to ensure consistent and coordinated answers to the needs of Standards users and to have clear and coordinated positions at Commission and Market Surveillance Authorities level;
8. efforts have to be made to be as much as possible in line with the work already done at international level within IEC, in order to avoid contradiction and undue deviations from world-wide recognized safety standards and worldwide recognition of certificates issued under the IECEE CB Scheme (the so called “one stop shopping”);
9. the “Guidelines on the application of Directive 2006/95/EC” and the “Guide to application of Directive 2006/42/EC on machinery” have been considered when drafting this list.

The following table shows the list of standards under CENELEC/TC 61 with the consequent allocation of standards under LVD or MD. **Some standards support both LVD and MD because they cover a range of products of which some come under the LVD and others under the MD.**

Table ZF1 - List of standards under CENELEC/TC 61 with their allocation under LVD or MD

Standard reference	To be listed under LVD (2006/95/EC)	To be listed under MD (2006/42/EC)
EN 50410, Decorative robots	<input type="checkbox"/>	<input checked="" type="checkbox"/>
EN 50416, Commercial electric conveyor dishwashing machines	<input type="checkbox"/>	<input checked="" type="checkbox"/>
prEN 50xxx, Commercial spin extractors	<input type="checkbox"/>	<input checked="" type="checkbox"/>
prEN 50xxx, Commercial washing machines	<input type="checkbox"/>	<input checked="" type="checkbox"/>
prEN 50xxx, Commercial tumble dryers	<input type="checkbox"/>	<input checked="" type="checkbox"/>
prEN 50xxx, Commercial ironers	<input type="checkbox"/>	<input checked="" type="checkbox"/>
EN 60335-1, General requirements	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
EN 60335-2-2, Vacuum cleaners and water-suction cleaning appliances	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-3, Electric irons	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-4, Spin extractors	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-5, Dishwashers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-6, Stationary cooking ranges, hobs, ovens and similar appliances	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-7, Washing machines	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-8, Shavers, hair clippers and similar appliances	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> For commercial use
EN 60335-2-9, Grills, toasters and similar portable cooking appliance	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-10, Floor treatment machines and wet scrubbing machines	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-11, Tumble dryers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-12, Warming plates and similar appliances	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-13, Deep fat fryers, fryers, frying pans and similar appliances	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-14, Kitchen machines	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-15, Appliances for heating liquids	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-16, Food waste disposers	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Standard reference	To be listed under LVD (2006/95/EC)	To be listed under MD (2006/42/EC)
EN 60335-2-17, Blankets, pads, clothing and similar flexible heating appliances	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-21, Storage water heaters	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-23, Appliances for skin or hair care	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> For commercial use
EN 60335-2-24, Refrigerating appliances, ice-cream appliances and ice-makers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-25, Microwave ovens, including combination microwave ovens	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-26, Clocks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-27, Appliances for skin exposure to ultraviolet and infrared radiation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> With moving parts
EN 60335-2-28, Sewing machines	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-29, Battery chargers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-30, Room heaters	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-31, Range hoods and other cooking fume extractors	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-32, Massage appliance	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-34, Motor-compressors	<input checked="" type="checkbox"/> LVD equipment for incorporation in machinery	<input type="checkbox"/>
EN 60335-2-35, Instantaneous water heaters	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-36, Commercial electric cooking ranges, ovens, hobs and hob elements	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> With moving parts
EN 60335-2-37, Commercial electric deep fat fryers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> With moving parts
EN 60335-2-38, Commercial electric griddles and griddle grills	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-39, Commercial electric multi-purpose cooking pans	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> With moving parts
EN 60335-2-40, Electrical heat pumps, air-conditioners and dehumidifiers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> For commercial use
EN 60335-2-41, Pumps	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> For commercial use
EN 60335-2-42, Commercial electric forced convection ovens, steam cookers and steam convection ovens	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> With moving parts
EN 60335-2-43, Clothes dryers and towel rails	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Standard reference	To be listed under LVD (2006/95/EC)	To be listed under MD (2006/42/EC)
EN 60335-2-44, Ironers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-45, Portable heating tools and similar appliances	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> For commercial use
EN 60335-2-47, Commercial electric boiling pans	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> With moving parts
EN 60335-2-48, Commercial electric grillers and toasters	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> With moving parts
EN 60335-2-49, Commercial electric appliances for keeping food and crockery warm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> With moving parts
EN 60335-2-50, Commercial electric bains-marie	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-51, Stationary circulation pumps for heating and service water installations	<input checked="" type="checkbox"/> LVD equipment for incorporation in machinery	<input type="checkbox"/>
EN 60335-2-52, Oral hygiene appliances	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-53, Sauna heating appliances	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-54, Surface-cleaning appliances for household use employing liquids or steam	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-55, Electrical appliances for use with aquariums and garden ponds	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-56, Projectors and similar appliances	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-58, Commercial electric dishwashing machines	<input type="checkbox"/>	<input checked="" type="checkbox"/>
EN 60335-2-59, Insect killers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-60, Whirlpool baths and whirlpool spas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> For commercial use
EN 60335-2-61, Thermal-storage room heaters	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-62, Commercial electric rinsing sinks	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> With moving parts
EN 60335-2-64, Commercial electric kitchen machines	<input type="checkbox"/>	<input checked="" type="checkbox"/>
EN 60335-2-65, Air-cleaning appliances	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> For commercial use
EN 60335-2-66, Water-bed heaters	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-67, Floor treatment and floor cleaning machines for commercial use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
EN 60335-2-68, Spray extraction appliances, for commercial use	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Standard reference	To be listed under LVD (2006/95/EC)	To be listed under MD (2006/42/EC)
EN 60335-2-69, Wet and dry vacuum cleaners, including power brush, for commercial use	<input type="checkbox"/>	<input checked="" type="checkbox"/> to include centralised vacuum cleaners installed in commercial environment
EN 60335-2-70, Milking machines	<input type="checkbox"/>	<input checked="" type="checkbox"/>
EN 60335-2-71, Electrical heating appliances for breeding and rearing animals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> With moving parts
EN 60335-2-72, Automatic machines for floor treatment for commercial use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
EN 60335-2-73, Fixed immersion heaters	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-74, Portable immersion heaters	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-75, Commercial dispensing appliances and vending machines	<input checked="" type="checkbox"/> For appliances with only heating parts	<input checked="" type="checkbox"/> With moving parts
EN 60335-2-76, Electric fence energizers	<input type="checkbox"/> excluded from LVD	<input type="checkbox"/>
EN 60335-2-78, Outdoor barbecue	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-79, High pressure cleaners and steam cleaners	<input type="checkbox"/>	<input checked="" type="checkbox"/>
EN 60335-2-80, Fans	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> For commercial use
EN 60335-2-81, Foot warmers and heating mats	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-82, Amusement machines and personal service machines	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> For some appliances with moving parts (e.g. kiddie rides and shoes shining appl.)
EN 60335-2-83, Heated gullies for roof drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-84, Toilets	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-85, Fabric steamers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-86, Electric fishing machines	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> With combustion motor generators
EN 60335-2-87, Electrical animal-stunning equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-88, Humidifiers intended for use with heating, ventilation, or air-conditioning systems	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> For commercial use

Standard reference	To be listed under LVD (2006/95/EC)	To be listed under MD (2006/42/EC)
EN 60335-2-89, Commercial refrigerating appliances with an incorporated or remote refrigerant condensing unit or compressor	<input type="checkbox"/>	<input checked="" type="checkbox"/>
EN 60335-2-90, Commercial microwave ovens	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> With moving parts
EN 60335-2-95, Drives for vertically moving garage doors for residential use	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-96, Flexible sheet heating elements for room heating	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-97, Drives for rolling shutters, awnings, blinds and similar equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-98, Humidifiers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-99, Commercial electric hoods	<input type="checkbox"/>	<input checked="" type="checkbox"/>
EN 60335-2-101, Vaporizers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-102, Gas, oil and solid-fuel burning appliances having electrical connections	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> For commercial use
EN 60335-2-103, Drives for gates, doors and windows	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-105, Multifunctional shower cabinets	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EN 60335-2-106, Heated carpets and heating units for room heating installed under removable floor coverings	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>NOTE 1 This table covers CENELEC standards intended for household and commercial appliances. Where it was mentioned that the standard covered also industrial appliances (e.g. EN 60335-2-69:2003) the reference to (light) industrial appliances has been removed from the title and the text of the relevant standard (e.g. EN 60335-2-69:2009).</p> <p>NOTE 2 When nothing is mentioned in the title of the standard the appliance is considered to be for household use in the home environment.</p> <p>NOTE 3 The eventual additional allocation of EN 60335-2-95, EN 60335-2-97 and EN 60335-2-103 under MD is still under consideration.</p>		

Annex ZZ (informative)

Coverage of Essential Requirements of EC Directives

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant essential requirements as given in Annex I of the EC Directive 2006/42/EC.

Compliance with this Part 1 when used together with the relevant Part 2 provides one means of conformity with the specified essential requirements of the Directive concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.