

**BS EN 60335-2-95:2015**

*Incorporating corrigendum June 2015*



**BSI Standards Publication**

# **Household and similar electrical appliances — Safety**

Part 2-95: Particular requirements for  
drives for vertically moving garage doors  
for residential use

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### National foreword

This British Standard is the UK implementation of EN 60335-2-95:2015. It is derived from IEC 60335-2-95:2011. It supersedes BS EN 60335-2-95:2004, which will be withdrawn on 29 September 2017.

The CENELEC common modifications have been implemented at the appropriate places in the text. The start and finish of each common modification is indicated in the text by tags **Ⓒ** **Ⓒ**.

The UK participation in its preparation was entrusted by Technical Committee CPL/61, Safety of household and similar electrical appliances, to Subcommittee CPL/61/1, Motorised appliance group.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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### Amendments/corrigenda issued since publication

Date	Text affected
30 June 2015	Common modifications implemented

English Version

Household and similar electrical appliances - Safety - Part 2-95:  
Particular requirements for drives for vertically moving garage  
doors for residential use  
(IEC 60335-2-95:2011 , modified)

Appareils électrodomestiques et analogues - Sécurité -  
Partie 2-95: Règles particulières pour les motorisations de  
portes de garage à ouverture verticale, pour usage  
résidentiel  
(CEI 60335-2-95:2011 , modifiée)

Sicherheit elektrischer Geräte für den Hausgebrauch und  
ähnliche Zwecke - Teil 2-95: Besondere Anforderungen für  
Antriebe von Garagentoren mit Senkrechtbewegung zur  
Verwendung im Wohnbereich  
(IEC 60335-2-95:2011 , modifiziert)

This European Standard was approved by CENELEC on 2014-09-29. 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

## Foreword

The text of document 61/4103/CDV, future edition 3 of IEC 60335-2-95, 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 60335-2-95:2015.

A draft amendment, which covers common modifications to IEC 60335-2-95, 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 this document has (dop) 2015-09-29  
to be implemented at national level  
by publication of an identical  
national standard or by endorsement
- latest date by which the national (dow) 2017-09-29  
standards conflicting with this document  
have to be withdrawn

This document is to be used in conjunction with EN 60335-1:2012 including its amendments.

When this standard states "addition", "modification" or "replacement" it is to be understood as addition or modification or replacement to the published IEC Part 2, unless the introductory sentence mentions Part 1.

NOTE 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 are placed clause or subclause;
- additional annexes are lettered AA, BB, etc.;

Clauses, subclauses, notes, tables, figures and annexes that are additional to those in the IEC standard are prefixed with the letter Z.

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

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

## Endorsement notice

The text of the International Standard IEC 60335-2-95:2011 was approved by CENELEC as a European Standard with agreed common modifications.



## Annex ZC (normative)

### Normative references to international publications with their corresponding European publications

*Addition:*

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-52	-	Environmental testing - Part 2-52: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution)	EN 60068-2-52	-
		Industrial, commercial and garage doors and gates - Safety devices for power operated doors and gates - Requirements and test methods	EN 12978	-





**Annex ZZ**  
(informative)

**Coverage of Essential Requirements of Directive 2006/42/EC**

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 EU Directive 2006/42/EC.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive concerned.

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



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## 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.

Ⓒ This European Standard has been prepared to provide a means of conforming to essential safety requirements of the Machinery Directive 2006/42/EC. Other requirements and other EU Directives may be applicable to the drives falling within the scope of this standard.

The relevant requirements of Annex ZE of Part 1 have been incorporated in the text of this part 2.

Therefore, compliance with the requirements of EN 60335-1 and of this Part 2 gives presumption of conformity of the product with the Essential Health and Safety Requirements (EHSR) of Directive 2006/42/EC as stated in Annex ZZ.

Drives put on the market as machines may be installed by the final user. The requirements of this standard also cover the foreseeable misuse of the power operated garage door.

Drives put on the market as partly completed machines should not be installed by the final user. In case of partly completed machines, reference should be made to the specific procedures of the Machinery Directive 2006/42/EC; this standard can, anyhow, be used as guidance. Ⓒ



# HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

## Part 2-95: Particular requirements for drives for vertically moving garage doors for residential use

### 1 Scope

Ⓒ This clause of part 1 is replaced by the following.

This European Standard deals with the safety of electric **drives** for garage doors for residential use that open and close in a vertical direction, the **rated voltage** of the **drives** being not more than 250 V for single-phase appliances and 480 V for other appliances. It also covers the hazards associated with the movement of these electrically driven garage doors.

NOTE Z101 Examples of garage doors are shown in Figure 101.

NOTE Z102 The **drive** may be supplied with a garage door.

NOTE Z103 This standard also applies to **entrapment protection devices** for use with **drives**.

NOTE Z104 Within the standard the terms **drive** and appliance are interchangeable.

This standard deals with the reasonably foreseeable hazards presented by drives that are encountered by all persons in and around the installation place. However, in general, it does not take into account:

- **children** playing with the appliance;
- the use of the appliance by **very young children**;
- the use of the appliance by **young children** without supervision.

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

NOTE Z105 Attention is drawn to the fact that in many countries additional requirements are specified by the national authorities responsible for the protection of labour and similar authorities.

This standard also covers **automatic drives**.

NOTE Z106 This standard does not apply to **drives**

- for rolling shutters, awnings, blinds and similar equipment (EN 60335-2-97);
- for garage doors for use by more than one household (EN 60335-2-103);
- for commercial and industrial purposes;
- intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas).

This European Standard does not deal with any specific requirements on noise emitted from these drives as the generated noise is not considered to be a relevant hazard. Thus the emission sound pressure level  $L_{pA}$  is considered to be  $L_{pA} \leq 70$  dB(A). Ⓒ

### 2 Normative references

This clause of Part 1 is applicable except as follows.

*Addition:*

IEC 60068-2-52, *Environmental testing – Part 2: Tests – Test Kb: Salt mist, cyclic (sodium chloride solution)*