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AKENDE AJAMITELE

Household and similar electrical appliances - Safety -
Part 2-103: Particular requirements for drives for gates,
doors and windows (IEC 60335-2-103:2006, modified +
A1:2010, modified)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 60335-2-103:2015 sisaldab Euroopa standardi EN 60335-2-103:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 60335-2-103:2015 consists of the English text of the European standard EN 60335-2-103:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 09.01.2015.	Date of Availability of the European standard is 09.01.2015.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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Aru 10, 10317 Tallinn, Eesti; koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

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English Version

Household and similar electrical appliances - Safety - Part 2-103:
Particular requirements for drives for gates, doors and windows
(IEC 60335-2-103:2006 , modified + A1:2010 , modified)

Appareils électrodomestiques et analogues - Sécurité -
Partie 2-103: Règles particulières pour les motorisations de
portails, portes et fenêtres
(CEI 60335-2-103:2006 , modifiée + A1:2010 , modifiée)

Sicherheit elektrischer Geräte für den Hausgebrauch und
ähnliche Zwecke - Teil 2-103: Besondere Anforderungen für
Antriebe für Tore, Türen und Fenster
(IEC 60335-2-103:2006 , modifiziert + A1:2010 , modifiziert)

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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.

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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

This document (EN 60335-2-103:2015) consists of the text of IEC 60335-2-103:2006 + A1:2010 prepared by IEC/TC 61 "Safety of household and similar electrical appliances", together with the common modifications prepared by CLC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2015-09-29
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2017-09-29

This document supersedes EN 60335-2-103:2003 + A11:2009.

The principal changes as compared with EN 60335-2-103:2003 + A11:2009 are as follows. Minor changes are not listed.

- Adds definitions for automatic drive, horizontally moving pedestrian door and reversible drive (3.109, 3.110, 3.111).
- Clarifies the marking requirements for reversible drives and horizontal moving pedestrian doors (7.12 and 7.12.1).
- Clarifies requirements for the use of a biased-off switch (19.11.2, 20.109, 22.107).
- Clarifies the mechanical hazard requirements for drives (20.105, 20.107 to 20.107.2.3).
- Adds requirements for the use of pressure sensitive pads (20.107.1.4, Figure 102).
- Modifies the requirements for batteries supplied with automatic opening doors (22.204.2 in Annex AA).

This Part 2 is to be used in conjunction with EN 60335-1:2012.

NOTE 1 When "Part 1" is mentioned in this standard, it refers to EN 60335-1.

This Part 2 supplements or modifies the corresponding clauses in EN 60335-1, so as to convert that publication into the European Standard: *Safety requirements for drives for gates, doors and windows*.

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" 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 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.;
- subclauses, notes and annexes that are additional to those in the IEC standard are prefixed with the letter Z.

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.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 60335-2-103:2006 + A1:2010 are prefixed "Z".

CENELEC draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning entrapment protection systems defined in 3.107 and the particular function to override an entrapment protection system under fault conditions as described in 19.11.2 and 22.107.

CENELEC takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured CENELEC that he is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with IEC. Information may be obtained from:

The Chamberlain Group Inc.
845 Larch Avenue
Elmhurst, IL 60126
USA

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 60335-2-103:2006 + A1:2010 was approved by CENELEC as a European Standard with agreed common modifications.

COMMON MODIFICATIONS

Introduction

Add:

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 horizontally and vertically moving gates and doors for pedestrian use as well as for vehicles, garage doors and **windows**.

Drives placed 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.

1 Scope

Replacement:

This clause of Part 1 is replaced by the following.

This European Standard deals with the safety of electric **drives** for horizontally and vertically moving gates, doors, garage doors and **windows** for household and similar purposes, their **rated voltage** being not more than 250 V for single-phase **drives** and 480 V for other **drives**. It also covers the hazards associated with the movement of the gates, doors, garage doors and **windows**.

NOTE Z101 Battery-operated appliances and other d.c. supplied appliances are within the scope of this standard.

NOTE Z102 Examples of places where gates, doors, garage doors and **windows** for household environment may also be used by non-expert users:

- shops, offices and other working environments
- farm houses;
- hotels, motels and other residential type environments where they are used by clients;
- bed and breakfast type environments.

NOTE Z103 Household environment includes the dwelling and its associated buildings, the garden, etc.

Drives being part of power operated doors, gates, **windows** and garage doors which are intended to be used by trained users in shops, in light industry and on farms, are also within the scope of this standard.

NOTE Z104 Examples of **drives** within the scope of this standard are **drives** for

- folding doors;
- revolving doors;
- rolling doors;
- roof **windows**;
- sectional overhead doors;
- swinging and sliding gates or doors.

Examples are shown in Figure 101.

NOTE Z105 **Drives** may be supplied with a **driven part**.

NOTE Z106 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 Z107 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.

NOTE Z108 Attention is drawn to the fact that for **drives** for powered pedestrians doors used in emergency routes and exits additional requirements as given in EN 16005 are applicable.

NOTE Z109 This standard does not apply to **drives**

- for vertically moving garage doors for residential use (EN 60335-2-95);
- for rolling shutters, awnings, blinds and similar equipment (EN 60335-2-97);
- for specific purposes, such as fire barrier doors;
- for doors on vehicles;
- for doors on lifts;
- for natural smoke exhaust ventilator not used as **windows** (EN 12101-2)

NOTE Z110 This standard does not apply to movement of a pedestrian door where such movement is based solely on stored mechanical energy.

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

Add the following references:

EN 16005:2012, *Power operated pedestrian doorsets – Safety in use – Requirements and test methods*

EN 12978, *Industrial, commercial and garage doors and gates – Safety devices for power operated doors and gates – Requirements and test methods*

Delete footnote to the text.

3 Definitions

3.101 Replace the text of the note to entry by the following:

Examples of components are gears, controls, brakes, components for power transmission from the drive to the **driven part** (e.g. trolleys, rails, levers, etc.) and **entrapment protection systems**.

3.102 Replace the definition by the following:

part of a gate, door, garage door or **window** that is intended to be moved by the **drive**

3.106 Add the following note:

Note Z101 to entry: For **driven parts**, other than revolving ones, a cycle consists of a complete opening and closing movement. For revolving doors a cycle means the necessary rotation to allow a person to pass through it.

3.107 Modification:

entrapment protection system

system that provides protection against crushing

Addition:

Note Z101 to entry: Trapping is covered by the manual release of 20.ZAA.3, 20.ZBB.3 or 20.ZCC.3 as applicable.