

MAJAPIDAMIS- JA MUUD TAOLISED ELEKTRISEADMED.
OHUTUS. OSA 2-95: ERINÕUDED OLMEKASUTUSLIKELE
VERTIKAALSELT LIKUVATELE GARAAŽIUSTELE

Household and similar electrical appliances – Safety -
Part 2-95: Particular requirements for drives for
vertically moving garage doors for residential use

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 60335-2-95:2015 sisaldab Euroopa standardi EN 60335-2-95:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 60335-2-95:2015 consists of the English text of the European standard EN 60335-2-95:2015.
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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)

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

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- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2017-09-29

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.

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 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.

1 Scope

Replacement:

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

Add the following reference:

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

3 Terms and definitions

3.101 Modification:

Replace the text of the note 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 Modification:

entrapment protection system

system that provides protection against crushing

3.104 Replacement:

biased-off switch

control device which initiates and maintains the drive movement only as long as the manual control (actuator) is actuated

Note Z1 to entry: A **biased-off switch** is also called a **hold to run control**.

Add the following new definitions:

3.Z101

rated operating time

duration of continuous operation assigned to the **drive** by the manufacturer

Note 1 to entry: During continuous operation, the **drive** may reverse its direction.

3.Z102

rated number of operating cycles

number of uninterrupted operating cycles assigned to the **drive** by the manufacturer

Note 1 to entry: An operating cycle consists of an opening and closing movement of the door.

3.Z103

mode of operation

way the movement of the **driven part** is initiated

3.Z104

cycle

a complete opening and closing movement of the door

4 General requirement

Replacement:

This clause of Part 1 is applicable except as follows.

Add to the first paragraph:

Drives shall be constructed in such a way that they ensure transportation, installation, adjusting, maintenance are carried out safely.

5 General conditions for the tests

5.3 Addition:

*When a **drive** incorporates a sub-assembly or a part which has already been tested against relevant clause(s) of this standard, those tests need not be repeated, if the incorporation of the sub-assembly or part into the drive does not change the performance of the sub-assembly or part.*

5.5 In the addition, replace the text by the following:

When a test has to be carried out with a door with a wicket door, this is kept in the safe position during the tests.

Safe position of a wicket door is the closed position when it travels together with the door or the open position when it does not travel with the door.

5.7 Addition:

*If **drives** are intended to operate beyond the ambient temperature range of +5 °C to +40 °C, the tests of Clause 20 are carried out at the most unfavourable marked temperature.*

Add one new sub-clause:

5.2101 Drives shall be tested for compliance with this standard for any of the following **modes of operation** as intended by the manufacturer.

Modes of operation are:

- automatic operation (only one activation needed for at least one cycle);
- impulse operation (one activation needed for a movement);
- biased off (hold to run) operation.

Whenever required by the instructions, components shall be added or changed to perform the tests.

6 Classification

6.2 Modification

In the addition add “or part of **drives**” after “**Drives**”.

7 Marking and instructions

7.1 Replacement

7.1 Replace the third, fourth and fifth dashed items in part 1 as follows:

- **rated power input** in Watts;
- trade mark or identification mark. Business name and postal address or code of the manufacturer and, where applicable, his authorized representative;
- model or type reference, serial number, if any, and production year;

NOTE Z101 Production year is the year when the production process is completed. The production year can be part of the serial number.

Add a new dashed item:

- designation of the **drive**. The designation enables the identification of the drive as specified in the instructions and may be the generic denomination and function of the product (e.g. the terms used in the title of this standard – drive for garage door - may be used) or a combination of letters and/or numbers.

Add the following text before the compliance clause in part 1:

Drives shall be marked with the **rated number of operating cycles** or the **cycles** per hour, unless the **drive** is intended for continuous operation.

Drives intended to operate beyond the ambient temperature range of +5 °C to +40 °C shall be marked with the minimum and maximum ambient temperatures in which they are intended to operate.

Devices used in the **entrapment protection system** to be installed separately shall be marked at least with the manufacturer name and type or model identification.

Drives supplied without a door shall be marked with the **rated load** in N or in Nm.

7.6 Addition



Upper limit of temperature (ISO 7000/0533)



Lower limit of temperature (ISO 7000/0534)

7.12 Add the following text after the first paragraph in part 1:

The instructions shall contain at least the following information:

- the business name and full address of the manufacturer, if relevant explanation of the code and, where applicable, his authorized representative;
- model or type reference of the drive as marked on the drive itself, except for the serial number;
- designation of the **drive** together with its explanation if it is composed by a combination of letters and/or numbers.

Add after the warning the following new warning:

WARNING: the drive shall be disconnected from its power source during cleaning, maintenance and when replacing parts.

Replace the first dashed item by:

- do not allow children to play with the appliance or its controls, including remotes;

Replace the fifth dashed item by: