



SLOVENSKI STANDARD
SIST EN IEC 60335-2-95:2023/A11:2023
01-julij-2023

Gospodinjski in podobni električni aparati - Varnost - 2-95. del: Posebne zahteve za pogonske sklope dvizhnih garažnih vrat za stanovanjsko rabo - Dopolnilo A11

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

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Teil 2-95: Besondere Anforderungen für Antriebe von Garagentoren mit Senkrechtbewegung zur Verwendung im Wohnbereich

Appareils électrodomestiques et analogues - Sécurité - Partie 2-95: Exigences particulières pour les motorisations de portes de garage à ouverture verticale, pour usage résidentiel

Ta slovenski standard je istoveten z: EN IEC 60335-2-95:2023/A11:2023

ICS:

13.120	Varnost na domu	Domestic safety
91.060.50	Vrata in okna	Doors and windows
91.090	Konstrukcije zunaj stavb	External structures

SIST EN IEC 60335-2-95:2023/A11:2023 en

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 60335-2-95:2023/A11

May 2023

ICS 13.120; 29.120.01; 91.090

English Version

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

Appareils électrodomestiques et analogues - Sécurité -
Partie 2-95: Exigences particulières pour les motorisations
de portes de garage à ouverture verticale, pour usage
résidentiel

Sicherheit elektrischer Geräte für den Hausgebrauch und
ähnliche Zwecke - Teil 2-95: Besondere Anforderungen für
Antriebe von Garagentoren mit Senkrechtbewegung zur
Verwendung im Wohnbereich

This amendment A11 modifies the European Standard EN IEC 60335-2-95:2023; it was approved by CENELEC on 2023-03-01. 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 CEN-CENELEC Management Centre 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 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: Rue de la Science 23, B-1040 Brussels

EN IEC 60335-2-95:2023/A11:2023 (E)

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European foreword

This document (EN IEC 60335-2-95:2023/A11:2023) has been 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 at national level by publication of an identical national standard or by endorsement (dop) 2023-11-05
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2026-05-05

This document is read in conjunction with EN IEC 60335-2-95:2023.

The numbering system for European 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 shall not be held responsible for identifying any or all such patent rights.

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.

<https://standards.iteh.ai/catalog/standards/sist/03da89b9-cf63-4aaa-b99b-1d8e7daef85d/sist-en-iec-60335-2-95-2023-a11-2023>

EN IEC 60335-2-95:2023/A11:2023 (E)

1 Modification to the Introduction

Addition:

With European Amendment A11 the EN 60335-2-95:2015+A1:2015+A2:2019 is superseded.

This European Amendment A11, supplements or modifies the corresponding clauses of the standards below:

- EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A14:2019+A2:2019+A15:2021+A16:—¹ (Part 1)
- EN IEC 60335-2-95:2022 (Part 2)

The relevant requirements of Annex ZE of Part 1 have been incorporated in the text of this Part 2. Even though they are not intended for commercial use, garage door drives within the scope of this document are machines within the meaning of the Machinery Directive 2006/42/EC, and this standard has been written considering the essential requirements listed in the Directive.

Drives put on the market as machines may be installed by the final user. The requirements of this document 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 document can, anyhow, be used as guidance.

2 Modification to the Clause 1, “Scope”

Replacement:

This clause of Part 1 is replaced by the following.

This document 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 types of garage doors are shown in Figure 101.

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

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

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

This document 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** can have needs beyond the level addressed in this document.

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.

¹ To be published in 2023. Stage at the time of publication: FprEN 60335-1:2012/A16:2021.

This document also covers **automatic drives**.

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

- for shutters, awnings, blinds and similar equipment (EN IEC 60335-2-97);
- for gates, doors and windows (EN IEC 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 document 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).

3 Modification to Clause 2, “Normative references”

Add the following reference:

EN 12978:2003², *Industrial, commercial and garage doors and gates - Safety devices for power operated doors and gates - Requirements and test methods*

4 Modification to Clause 3, “Terms and definitions”

3.5.101 *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**.

3.7.101 *Addition:*

Note Z101 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

² As impacted by EN 12978:2003/A1:2009.

EN IEC 60335-2-95:2023/A11:2023 (E)**3.Z104****cycle**

complete opening and closing movement of the door

3.Z105**tubular drive**

drive intended to be used in the tube of the rolling driven part

5 Modification to Clause 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 and be carried out safely.

6 Modification to Clause 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.

The tests outside the ambient temperature range can be carried out using an artificial load. In this case, the tests shall be carried out at ambient temperature with the door and additionally at ambient and most unfavourable marked temperature using an artificial load, in order to have comparable results.

Add one new subclause:

5.Z101 Drives shall be tested for compliance with this document 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.

7 Modification to Clause 6, “Classification”

6.2 Modification

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

Addition:

Drive or part of **drive** intended to be exposed to outdoor conditions are subjected to the tests specified for IPX4 appliances.

8 Modification to Clause 7, “Marking and instructions”

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)

EN IEC 60335-2-95:2023/A11:2023 (E)**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;

Delete the fifth dashed item.

Delete the eighth dashed item.

Addition:

The instruction shall include the substance of the following:

Each six months check that the drive reverses or the object can be freed when the door contacts a 50 mm high object placed on the floor (for drives incorporating an entrapment protection system depending on contact with the bottom edge of the door).

The substance of the following shall additionally be included, if adjustment is in the instruction:

if necessary, adjust and recheck since an incorrect adjustment can present a hazard. If re-adjustment does not restore the correct operation, call for authorized service;

The substance of the following shall additionally be included, if adjustment is not in the instruction: if drive does not reverse or the object cannot be freed, call for authorized service.

When adjustment is described in the instructions, the instructions shall contain the substance of the following:

- if necessary, adjust and recheck since an incorrect adjustment can present a hazard. If re-adjustment does not restore the correct operation, call for authorized service.

When adjustment is not described in the instructions, the instructions shall contain the substance of the following:

- if necessary, call for authorized service.

The instructions shall state that the A-weighted emission sound pressure level of the drive is equal or less than 70 dB(A), e.g. by writing $L_p \leq 70 \text{ dB(A)}$.

NOTE Z101 Products covered by this standard and installed according the manufacturer instructions do not create a noise hazard.

7.12.1 *Addition*

Replace the second paragraph after the warning by

For **drives** supplied without a door, the installation instructions shall indicate the type, size and mass of the garage door leaf for which the **drive** is intended to be used and the position(s) where the **drive** can be installed.

NOTE Z101 Examples of types of garage doors are given in Figure 101.