
Gospodinjski in podobni električni aparati - Varnost - 2-89. del: Posebne zahteve za komercialne hladilne naprave z vgrajeno ali zunanjo hladilno kondenzatorsko enoto ali kompresorjem - Dopnilo A11

Household and similar electrical appliances - Safety - Part 2-89: Particular requirements for commercial refrigerating appliances with an incorporated or remote refrigerant condensing unit or compressor

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Teil 2-89: Besondere Anforderungen für gewerbliche Kühl-/Gefriergeräte mit eingebautem oder getrenntem Verflüssigersatz oder Motorverdichter

<https://standards.itech.ai/catalog/standards/sist/25acb9ec-0421-40e2-b25f-ebe7a6c0ec11/sist-en-iec-60335-2-89-2022-a11-2022>

Appareils électrodomestiques et analogues - Sécurité - Partie 2-89: Règles particulières pour les appareils de réfrigération à usage commercial avec une unité de condensation du fluide frigorigène ou un compresseur incorporés ou à distance

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97.130.20 Hladilne naprave za trgovine Commercial refrigerating appliances

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English Version

Household and similar electrical appliances - Safety - Part 2-89:
Particular requirements for commercial refrigerating appliances
and ice-makers with an incorporated or remote refrigerant unit or
motor-compressor

Appareils électrodomestiques et analogues - Sécurité -
Partie 2-89: Exigences particulières pour les appareils de
réfrigération et fabriques de glace à usage commercial avec
une unité de fluide frigorigène ou un motocompresseur
incorporés ou à distance

Sicherheit elektrischer Geräte für den Hausgebrauch und
ähnliche Zwecke - Teil 2-89: Besondere Anforderungen für
gewerbliche Kühl-/Gefriergeräte mit eingebautem oder
getrenntem Verflüssigersatz oder Motorverdichter

This amendment A11 modifies the European Standard EN IEC 60335-2-89:2022; it was approved by CENELEC on 2022-05-04. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



European Committee for Electrotechnical Standardization
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EN IEC 60335-2-89:2022/A11:2022 (E)**European foreword**

This document (EN IEC 60335-2-89:2022/A11:2022) 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) 2023-05-04
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2025-05-04

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 is read in conjunction with EN IEC 60335-2-89:2022.

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".

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

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

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.

1 Modification to the Introduction

Addition:

Products within the scope of this document can incorporate pressurized components for which the Pressure Equipment Directive, 2014/68/EU, applies:

Refrigerating systems having a pressure greater than 0,05 MPa are considered to be assemblies falling within the scope of the Pressure Equipment Directive, 2014/68/EU. However, according to Article 1, item 2 (f) of the Directive, equipment classified no higher than category I under Article 13 of the PED and covered by the Low Voltage Directive or Machinery Directive are excluded from its scope.

Compliance with this document does not give a means of conformity with the essential requirements of the Pressure Equipment Directive for those appliances that fall within its scope.

This amendment supplements or modifies the corresponding clauses of the standards below:

- EN 60335-1:2012+A11:2014+ A13:2017+A1:2019+A14:2019+A2:2019 (Part 1)
- EN IEC 60335-2-89:2022 (Part 2)

2 Modification to Clause 1, “Scope”

Add the following NOTE after NOTE 101:

“NOTE Z101 **Commercial use** of these refrigerating appliances is for example their use in restaurants, canteens, hospitals and commercial enterprises such as bakeries, butcheries, supermarkets etc.”

Add the following paragraph before NOTE 102:

“In many countries additional requirements on the safe use of the equipment covered may be specified by the national health authorities, the national authorities responsible for the protection of labour, the national water supply authorities and similar authorities.”

NOTE 102:

Delete the second dashed item:

Add the following dashed item:

“

- for scrapping of appliances, additional requirements can be necessary.”

Add the following new paragraph:

“Products covered by this document do not create a noise hazard; therefore no specific provisions concerning noise are given.”

3 Modification to Clause 2, “Normative references”

Add the following standards:

EN 614-1:2006+A1:2009, *Safety of machinery - Ergonomic design principles - Part 1: Terminology and general principles*

EN 614-2:2000+A1:2008, *Safety of machinery - Ergonomic design principles - Part 2: Interactions between the design of machinery and work tasks*

EN ISO 14159:2008, *Safety of machinery - Hygiene requirements for the design of machinery (ISO 14159:2002)*

EN IEC 60335-2-89:2022/A11:2022 (E)**4 Modification to Clause 3, “Terms and Definitions”**

Add the following definitions:

“

3.Z101 guard

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

3.Z102 operator

person installing, operating, adjusting, maintaining, cleaning or moving the appliance

3.Z103 commercial use

intended use of appliances covered by this document in a professional way

Note 1 to entry: For the purpose of this document **commercial use** may be read as not intended for domestic use.”

5 Modification to Clause 4, “General requirement”

Replace the first paragraph of Part 1 by the following:

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.

6 Modification to Clause 7, “Marking and instructions”

7.1 Replace the fourth and fifth dashed items in Part 1 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 Z101 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 Z102 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 Add the following to the addition:

The instructions shall contain the following:

- 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;
- designation of the appliance together with its explanation in case it is given by a combination of letters and/or numbers;
- a 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.

Add the new following subclauses:

7.12.1.Z101 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**;
- that the A-weighted emission sound pressure level is below 70 dB(A);

7.12.1.Z102 Instructions shall be given, when necessary, concerning safe handling and transportation on the packed appliance or shall be delivered together with the package.

7.12.1.Z103 If the installation instructions state that appliance can be placed on top of a other appliance, they shall state which appliances are suitable. Instructions shall be given for the assembly of the appliances. The instructions shall state how to obtain any fixing attachments required, unless they are supplied with the appliance.

7.12.1.Z104 The instructions shall include a warning that the appliance shall be disconnected from its power source during cleaning or maintenance and when replacing parts. If the removal of the plug is foreseen, it shall be clearly indicated that the removal of the plug has to be such that an operator can check from any of the points to which he has access that the plug remains removed.

If this is not possible, due to the construction of the appliance or its installation, a disconnection with a locking system in the isolated position shall be provided.

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7 Modification to Clause 20, “Stability and mechanical hazards”**20.1. Addition:**

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 instructions and by the relevant tests, if necessary.

20.2 Add after the second paragraph:

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

NOTE Z101 Parts of the enclosure can fulfil the guarding function.

8 Modification to Clause 21, “Mechanical strength”**21.1 Add before the “Addition”:**

Replace the first paragraph of Part 1 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.

9 Modification to Clause 22, “Construction”**22.103 Add at the end of the first paragraph the following text:**

In refrigerators with swing glass door(s) constructed from a two-pane or three-pane glass, the inside pane (the one at the side of the refrigerated space) is considered as an **accessible glass panel**. In refrigerators with sliding glass doors that are superposed on each other when opened, the inside pane (the one at the side of the refrigerated space) is not considered as an **accessible glass panel**. In refrigerators with glass door(s) made from a three pane glass, the middle pane is not considered as an **accessible glass panel**.

Add the following new subclauses:

22.Z101 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.Z102 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.Z103 Where the weight, size or shape prevents empty 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 and by functional test, if necessary.

22.Z104 The fixing systems of fixed guards which prevent access to dangerous moving parts shall only be removable with the use of tools.

If such **guards** have to be removed by the user for routine cleaning or maintenance their fixing systems shall remain attached to the fixed guards or to the appliance after removal. Where possible, guards shall be incapable of remaining in place without their fixings.

The requirement in the above paragraph does not apply if after removal of the screws, or if the component is incorrectly repositioned, the appliance becomes inoperative.

Compliance is checked by inspection.

22.Z105 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.

22. Z106 Appliances shall be fitted with means to isolate them from all energy sources (e.g. hot water, steam, compressed air). Such isolators shall be clearly identified. They shall be capable of being locked if reconnection could endanger persons.

Such means may be part of the fixed installation external to the appliance.

After the energy source is disconnected, it shall be possible to dissipate any energy remaining or stored in the circuits of the appliance without risk to persons.

Compliance is checked by inspection.

22.Z107 If the instructions state that an appliance can be placed on top of a other appliance, this shall be possible without tilting or falling of the above appliance.

Compliance is checked by inspection and by the following test.

The appliances are assembled together in accordance with the instructions. The empty or loaded combination, whichever is unfavourable, is placed in the most unfavourable orientation on a surface that is inclined at 5° to the horizontal with doors, lids and similar parts placed in the most unfavourable position.

The appliances shall not tilt and the appliance above shall not fall off.

22.Z108 Appliances shall comply with the hygiene requirements of EN ISO 14159.

Compliance is checked by inspection and tests, if necessary.

22.Z109 Appliances shall comply with the ergonomic principles of EN 614-1 and EN 614-2.

Compliance is checked by documentation and inspection.

10 Modification to Clause 32, “Radiation, toxicity and similar hazards”

Replace the paragraph with the following:

“This clause of Part 1 is applicable.”

11 Modification to the annexes

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Annex ZC (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

The Annex ZC of Part 1 is applicable with following additions:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60079-7 + A1	2015 2017	Electrical apparatus for explosive gas atmospheres	EN 60079-7 + A1	2015 2018
IEC 60079-15	2017	Electrical apparatus for explosive gas atmospheres - Part 15: Type of protection "n"	EN IEC 60079-15	2019
IEC 60079-29-1	2016	Explosive atmospheres - Part 29-1: Gas detectors - Performance requirements of detectors for flammable gases	EN 60079-29-1	2016
IEC 60730-2-6	-	Automatic electrical controls - Part 2-6: Particular requirements for automatic electrical pressure sensing controls including mechanical requirements	EN 60730-2-6 + A1	2016 2020
IEC 60335-2-34 + A1 + A2	2012 2015 2016	Household and similar electrical appliances - Safety - Part 2-34: Particular requirements for motor-compressors	EN 60335-2-34	2013
IEC 60335-2-34	2021	Household and similar electrical appliances - Safety - Part 2-34: Particular requirements for motor-compressors	EN IEC 60335-2-34 + A11	2022 2022
ISO 817 + A1	2014 2017	Organic refrigerants - Number designation	-	-
ISO 4126-2	2018	Safety devices for protection against excessive pressure - Bursting disc safety devices	EN ISO 4126-2	2019
ISO 5149-1 + A1	2014 2015	Mechanical refrigerating systems used for cooling and heating - Safety requirements	-	-
ISO 7010	-	Graphical symbols - Safety colours and safety signs - Registered safety signs	EN ISO 7010	2020