
Gospodinjski in podobni električni aparati - Varnost - 2-40. del: Posebne zahteve za električne toplotne črpalke, klimatske naprave in sušilnike zraka - Dopolnilo A11

Household and similar electrical appliances - Safety - Part 2-40: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Teil 2-40: Besondere Anforderungen für elektrisch betriebene Wärmepumpen, Klimageräte und Raumluft-Entfeuchter

Appareils électrodomestiques et analogues - Sécurité - Partie 2-40: Exigences particulières pour les pompes à chaleur électriques, les climatiseurs et les déshumidificateurs

Ta slovenski standard je istoveten z: EN IEC 60335-2-40:2023/A11:2023

ICS:

23.120	Zračniki. Vetrniki. Klimatske naprave	Ventilators. Fans. Air-conditioners
27.080	Toplotne črpalke	Heat pumps

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ICS 23.120

English Version

**Household and similar electrical appliances - Safety - Part 2-40:
Particular requirements for electrical heat pumps, air-
conditioners and dehumidifiers**

Appareils électrodomestiques et analogues - Sécurité -
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Sicherheit elektrischer Geräte für den Hausgebrauch und
ähnliche Zwecke - Teil 2-40: Besondere Anforderungen für
elektrisch betriebene Wärmepumpen, Klimageräte und
Raumluft-Entfeuchter

This amendment A11 modifies the European Standard EN IEC 60335-2-40:2023; 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

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EN IEC 60335-2-40:2023/A11:2023 (E)**European foreword**

This document (EN IEC 60335-2-40:2023/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) 2024-03-01
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2026-03-01

This document is read in conjunction with EN IEC 60335-2-40:2023.

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.

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1 Modification to the Introduction

Addition:

With this European amendment A11, EN 60335-2-40:2003+A11:2004+A12:2005+A1:2006+AC:2006+A2:2009+AC:2010+A13:2012+AC:2013 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 (Part 1)
- EN IEC 60335-2-40:2023 (Part 2)

2 Modification to Clause 1 “Scope”

Replace the third paragraph, beginning with “Appliances not intended...”, by the following:

These appliances are used for the household environment and commercial purposes.

NOTE Z101 Examples of appliance for household environment are appliances for typical housekeeping functions used in the household environment that can also be used by non-expert users for typical housekeeping functions:

- in shops, offices and other similar working environments;
- in farmhouses;
- by clients in hotels, motels and other residential type environments;
- in bed and breakfast type environments.

NOTE Z102 Household environment includes the dwelling and its associated buildings, the garden, etc.

Add the following after the fourth paragraph: EN 60335-2-40:2023/A11:2023

Appliances and machines intended to be used by expert or trained users in shops, in light industry and on farms, and appliances and machines which are declared to be for commercial use by lay persons are within the scope of this document.

NOTE Z103 Additional requirements for such appliances are given in Annex ZE.

NOTE Z104 Guidance for appliances in the scope of Pressure Equipment Directive are given in Annex ZAA

This document deals with the reasonably foreseeable hazards presented by appliances and machines that are encountered by all persons.

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.

EN IEC 60335-2-40:2023/A11:2023 (E)

3 Modification to Clause 7 “Marking and instructions”**7.12.1 Addition:**

Add a new bullet point in the first paragraph of the addition:

- For **appliances not accessible to the general public** the restrictions for the installation location shall be described.

Add the following paragraph at the end of the clause:

The installation instructions for appliances that are intended to be permanently connected to fixed wiring, and have a leakage current not exceeding 10 mA, shall state that the installation of a residual current device (RCD) having a rated residual operating current not exceeding 30 mA is advisable.

For **appliances not accessible to the public** and which are intended to be permanently connected to fixed wiring and which may have a leakage current exceeding 10 mA, the installation instructions shall specify the rating of the residual current device (RCD) to be installed.

4 Modification to Clause 8 “Protection against access to live parts”**8.1.1 Addition**

Add, at the end of the paragraph starting with “Test probe B and probe 18...”, the following:

Test probe 18 of IEC 61032 is not applied to **appliances not accessible to the general public**.

5 Modification to Clause 13 “Leakage current and electric strength at operating temperature”

13.2 Replace the modification as follows:

For **stationary class I appliances** the leakage current shall not exceed 3,5 mA, or 2 mA per kilowatt **rated power input**, whatever is higher. The maximum value shall not exceed 10 mA for **appliances accessible to the public** and shall not exceed 30 mA for **appliances not accessible to the public**.

6 Modification to Clause 16 “Leakage current and electric strength”

16.2 Replace the modification as follows:

For **stationary class I appliances** the leakage current shall not exceed 3,5 mA, or 2 mA per kilowatt **rated power input**, whatever is higher. The maximum value shall not exceed 10 mA for **appliances accessible to the public** and shall not exceed 30 mA for **appliances not accessible to the public**.

7 Modification to Clause 20 “Stability and mechanical hazards”

Modify the sentence as follows:

This clause of Part 1 is applicable except as follows:

20.2 Addition:

Add, after the second dashed item in the compliance criteria, the following sentence:

Test probe 18 of IEC 61032 is not applied to **appliances not accessible to the general public**.

8 Modification to Clause 21 “Mechanical strength”

21.1 Addition

Replace the first paragraph by “Strength-pressure requirements specified in ISO 5149-2:2014, subclauses 4.1 and 4.4 shall apply.”

9 Modification to Clause 22 “Construction”

22.112 Modification:

Replace the reference to ISO 5149-2 with the following:

ISO 5149-2:2014 Subclauses 4.1, 4.2, 4.3, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.5, 5.2.15, 5.2.6.1, 5.2.6.3, 5.2.7, 5.2.8, 5.2.9.1, 5.2.9.2, 5.2.9.3, 5.2.9.4

22.125 Modification

Delete in indent i), last paragraph “CAN/CSA-C22.2 No. 0.17 and”

10 Modification to the annexes

The annexes of Part 1 are applicable with following modifications:

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Annex ZE (normative)

Specific additional requirements for appliances and machines intended for commercial use

This annex of Part 1 is applicable with the following modifications:

1 Introduction

Add at the beginning:

For the verification of compliance of appliances or machines intended for commercial use with the Essential Health and Safety Requirements (EHSR) of the Directive 2006/42/EC, the requirements in this Annex ZE shall apply.

Delete the last paragraph beginning with “An appliance employing materials”

2 Normative references

Add the following standards:

EN ISO 3744:2010, *Acoustics – Determination of sound power levels and sound energy levels of noise sources using sound pressure – Engineering methods for an essentially free field over a reflecting plane* (ISO 3744:2010)

EN ISO 4871:2009, *Acoustics – Declaration and verification of noise emission values of machinery and equipment* (ISO 4871:1996)

EN ISO 11203:2009, *Acoustics – Noise emitted by machinery and equipment – Determination of emission sound pressure levels at a work station and at other specified positions from the sound power level* (ISO 11203:1995)

EN ISO 11688-1:2009, *Acoustics – Recommended practice for the design of low-noise machinery and equipment – Part 1: Planning* (ISO/TR 11688-1:1995)

EN 12102:2013, *Air conditioners, liquid chilling packages, heat pumps and dehumidifiers with electrically driven compressors for space heating and cooling – Measurement of airborne noise – Determination of the sound power level*

5 General conditions for the tests

5.7 *Replace the replacement of Part 2 by the following:*

The tests are carried out in a draught-free location at an ambient temperature of 20 °C ± 5 °C.

The tests and test conditions of Clauses 10 and 11 are carried out under the most severe operating conditions within the operating temperature range specified by the manufacturer. Annex AA provides examples of such temperature conditions.

7 Marking and instructions

This clause of Annex ZE of Part 1 is applicable except as follows:

7.12.ZE1 *Replace in the sixth bullet item starting with “on airborne noise emissions...”:*

the words “the relevant Part 2” by “Annex ZAB”

Replace the first sub dashed item starting with “the A-weighted emission sound pressure level ...” by:

the A-weighted emission sound pressure level at workstations, where this exceeds 70 dB(A). If the A-weighted emission sound pressure level is below 70 dB, no value needs to be given, but the instructions shall state that the A-weighted emission sound pressure level is below 70 dB.

Delete the second sub-dashed item starting with “the peak C-weighted....”

11 Heating

11.9 replace in the 2nd Paragraph “may” by “shall” and delete “provided this is agreed with the manufacturer” at the end of the 2nd paragraph.

15 Moisture resistance

15.1 Delete Note 101.

19 Abnormal operation

19.11.4 Modification:

Delete the 5th paragraph beginning with “Components”.

Note 102, replace the text with “void”.

22 Construction

This clause of Annex ZE of Part 1 is applicable except as follows:

22.ZE.6 Replace the third paragraph by:

The guard is opened to the extent needed to cause the interlocking to operate and is then closed. This operation is carried out for 5 000 cycles at a rate of 5 cycles per min.

22.6 Modification

Delete the Note 101

22.46 Modification

Delete the last sentence of the addition.

22.ZE.101 Addition:

Noise reduction is an integral part of the design process and shall be achieved by particularly applying measures at source to control noise, see for example EN ISO 11688-1:2009. The success of the applied noise reduction measures is assessed based on the actual noise emission values, determined according to Annex ZAB, in relation to other machines of the same type with comparable non-acoustical technical data.

Main sources of noise for appliances covered by this document are:

- Airborne noise of Fans and compressors
- Noise caused by vibrations of fans, compressors, associated piping and sheet metal parts.

EN IEC 60335-2-40:2023/A11:2023 (E)

Annex FF
(normative)

Leak simulation tests

FF.1 Modification

Replace in the 3rd sentence: “or other point judged to be a weak point” with “or other potentially weak points”.

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Annex JJ
(normative)

**Allowable opening of relays and similar components to prevent ignition of
A2L refrigerants**

JJ.3 Modification

Delete "(in mm)" in Eq. JJ.2.

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