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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

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

Ta slovenski standard je istoveten z: EN 60335-2-89:2002/A2:2007

ICS:

97.130.20 Hladilne naprave za trgovine Commercial refrigerating appliances

SIST EN 60335-2-89:2003/A2:2007 en,fr,de

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SIST EN 60335-2-89:2003/A2:2007

<https://standards.iteh.ai/catalog/standards/sist/811a2e7c-b25f-4634-9f95-8cf003144d28/sist-en-60335-2-89-2003-a2-2007>

EUROPEAN STANDARD

EN 60335-2-89/A2

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2007

ICS 97.130.20

English version

**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
(IEC 60335-2-89:2002/A2:2007)**

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
(CEI 60335-2-89:2002/A2:2007)

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
(IEC 60335-2-89:2002/A2:2007)

<https://standards.iteh.ai/catalog/standards/sist/811a2e7c-b25f-4634-9f95-8c003144d28/sist-en-60335-2-89-2003-a2-2007>

This amendment A2 modifies the European Standard EN 60335-2-89:2002; it was approved by CENELEC on 2007-02-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 61C/384/FDIS, future amendment 2 to IEC 60335-2-89:2002, prepared by SC 61C, Household appliances for refrigeration, of IEC Technical Committee 61, Safety of household and similar electrical appliances, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A2 to EN 60335-2-89:2002 on 2007-02-01.

The following dates are applicable:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2007-11-01
- date on which national standards conflicting with the amendment have to be withdrawn (dow) 2010-02-01

This amendment supplements or modifies the corresponding clauses of EN 60335-2-89:2002.

There are no special national conditions causing a deviation from this amendment.

There are no national deviations from this amendment.

iTeh STANDARD PREVIEW (standard.iTech.ai)

Endorsement notice

The text of amendment 2:2007 to the International Standard IEC 60335-2-89:2002 was approved by CENELEC as an amendment to the European Standard without any modification.

<https://standards.iteh.ai/catalog/standards/sist/811a2c7c-9251-4054-9195-8cf003144d28/sist-en-60335-2-89-2003-a2-2007>

p Add:

Annex ZC (normative)

Normative references to international publications with their corresponding European publications

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
<i>Replace the reference to IEC 60079-15 by:</i>				
IEC 60079-15	2005	Electrical apparatus for explosive gas atmospheres – Part 15: Construction, test and marking of type of protection "n" electrical apparatus	EN 60079-15	2005

Delete the reference to ISO 3864.

NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC

60335-2-89

2002

AMENDEMENT 2
AMENDMENT 2
2007-01

Amendement 2

**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**

[SIST EN 60335-2-89:2003/A2:2007](https://standards.iteh.ai/catalog/standards/sist/811a2e7c-b25f-4634-9f95-8c003144d284/sist-en-60335-2-89-2003-a2-2007)

[https://standards.iteh.ai/catalog/standards/sist/811a2e7c-b25f-4634-9f95-](https://standards.iteh.ai/catalog/standards/sist/811a2e7c-b25f-4634-9f95-8c003144d284/sist-en-60335-2-89-2003-a2-2007)

[8c003144d284/sist-en-60335-2-89-2003-a2-2007](https://standards.iteh.ai/catalog/standards/sist/811a2e7c-b25f-4634-9f95-8c003144d284/sist-en-60335-2-89-2003-a2-2007)

Amendment 2

**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**

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Международная Электротехническая Комиссия

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FOREWORD

This amendment has been prepared by subcommittee 61C: Household appliances for refrigeration, of IEC technical committee 61: Safety of household and similar electrical appliances.

The text of this amendment is based on the following documents:

FDIS	Report on voting
61C/384/FDIS	61C/389/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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(standards.iteh.ai)

INTRODUCTION

[SIST EN 60335-2-89:2003/A2:2007](https://standards.iteh.ai/catalog/standards/sist/811a2e7c-b25f-4634-9f95-9c0b14c1786c/iec-60335-2-89-2003-a2-2007)

[https://standards.iteh.ai/catalog/standards/sist/811a2e7c-b25f-4634-9f95-](https://standards.iteh.ai/catalog/standards/sist/811a2e7c-b25f-4634-9f95-9c0b14c1786c/iec-60335-2-89-2003-a2-2007)

Replace the fifth paragraph by the following: [9c0b14c1786c/iec-60335-2-89-2003-a2-2007](https://standards.iteh.ai/catalog/standards/sist/811a2e7c-b25f-4634-9f95-9c0b14c1786c/iec-60335-2-89-2003-a2-2007)

When a part 2 standard does not include additional requirements to cover hazards dealt with in Part 1, Part 1 applies.

NOTE 1 This means that the technical committees responsible for the part 2 standards have determined that it is not necessary to specify particular requirements for the appliance in question over and above the general requirements.

This standard is a product family standard dealing with the safety of appliances and takes precedence over horizontal and generic standards covering the same subject.

NOTE 2 Horizontal and generic standards covering a hazard are not applicable since they have been taken into consideration when developing the general and particular requirements for the IEC 60335 series of standards. For example, in the case of temperature requirements for surfaces on many appliances, generic standards, such as ISO 13732-1 for hot surfaces, are not applicable in addition to Part 1 or part 2 standards.

1 Scope

Replace the second dashed item of Note 102 by the following:

- in many countries, additional requirements are specified by national authorities.

2 Normative references

Replace the reference to IEC 60079-15, as modified per Amendment 1, by the following:

IEC 60079-15: 2005, *Electrical apparatus for explosive gas atmospheres – Part 15: Construction, test and marking of type of protection "n" electrical apparatus*

Delete the reference to ISO 3864.

5 General conditions for the tests

5.7 Addition:

Replace the text of the first paragraph by the following:

Tests in accordance with Clauses 10, 11 and 13 are performed at an ambient temperature of

32 °C ± 2 °C on appliances of climatic class 0, 1, 2, 3, 4 or 6;

43 °C ± 2 °C on appliances of climatic class 5 or 7.

6 Classification

6.101 Replace the text by the following:

Refrigerated display and storage cabinets shall be at least one of the following climatic classes:

- appliance of class 0;
- appliance of class 1;
- appliance of class 2;
- appliance of class 3;
- appliance of class 4;
- appliance of class 5;
- appliance of class 6;
- appliance of class 7.

Compliance is checked by inspection.

NOTE The climatic classes are specified in ISO 23953-2.

7 Markings and instructions

7.1 Modification:

Replace the third dashed item of the addition by the following:

- one or more of the numerals; 0, 1, 2, 3, 4, 5, 6 or 7, indicating the climatic class of the appliance;

In penultimate paragraph of the addition, replace "warning sign B.3.2 from ISO 3864" by "the symbol Caution: risk of fire".

7.6 Addition:

Replace the text by the following:



Caution: risk of fire

NOTE The rules for warning signs in ISO 3864-1 apply to the colour and shape of the symbol.

7.12 Add the following:**Modification:**

The instructions concerning persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge and children playing with the appliance are not required.

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7.12.1 Addition:

Delete the third paragraph.

[SIST EN 60335-2-89:2003/A2:2007](https://standards.iteh.ai/catalog/standards/sist/811a2e7c-b25f-4634-9f95-8e10031442/sist-en-60335-2-89-2003-a2-2007)

<https://standards.iteh.ai/catalog/standards/sist/811a2e7c-b25f-4634-9f95-8e10031442/sist-en-60335-2-89-2003-a2-2007>

7.14 Replace the text by the following:

The height of the triangle in the symbol "Caution: risk of fire" shall be at least 15 mm.

7.15 Addition:

Replace, in the third paragraph of the addition, as modified per Amendment 1 and Corrigendum 1, "warning sign B.3.2 from ISO 3864" by "symbol, Caution: risk of fire".

11 Heating

11.8 Modification:

Replace the last two paragraphs of the modification by the following:

For appliances of classes 0, 1, 2, 3, 4 or 6, the temperature rises shall not exceed the values given in Table 3.

For appliances of class 5 or 7, the temperature rises shall not exceed the values given in Table 3, reduced by 7 K.

Replace the text of the existing addition by the following:

For motor-compressors not conforming to IEC 60335-2-34 (including its Annex AA), the temperatures of

- housings of motor-compressors and
 - windings of motor-compressors
- shall not exceed the values given in Table 101.

For motor-compressors conforming to IEC 60335-2-34 (including its Annex AA), the temperatures of their

- housings of motor-compressors,
 - windings of motor-compressors and
 - other parts such as its protection system and control system, and all other components that have been tested together with the motor-compressor during the tests of IEC 60335-2-34 and its Annex AA
- are not measured.

The entry in Table 3 relating to the temperature rise of the external enclosure of **motor-operated appliances** is applicable to all appliances covered by this standard. However, it is not applicable to those parts of the external enclosure of the appliance that are,

- for **built-in appliances**, not accessible parts after installation in accordance with the instructions for installation;
- for other appliances, on that part of the appliance that according to the instructions for installation is intended to be placed against a wall with a free distance not exceeding 75 mm.

<https://standards.iteh.ai/catalog/standards/sist/811a2e7c-b25f-4634-9f95-809577422b5a/iec-60335-2-34-2003-a2-2007>
Table 101 – Maximum temperatures for motor-compressors

<i>Part of the motor-compressor</i>	<i>Temperature °C</i>
<i>Windings with</i>	
– <i>synthetic insulation</i>	140
– <i>cellulose insulation or the like</i>	130
<i>Housing</i>	150

The temperature of ballast windings and their associated wiring shall not exceed the values specified in 12.4 of IEC 60598-1, when measured under the conditions stated.

19 Abnormal operation

19.103 In the requirement replace “any fire” by “a”.

At the end of the fourth paragraph of the test specification, insert “until temperature stabilization of the measured parts”.

Replace the fifth paragraph of the test specification by the following:

During and after the test, the appliance shall comply with 19.13.