

## **Elektriska hushållsapparater och liknande bruksföremål – Säkerhet – Del 2-89: Särskilda fordringar på kyl- och frysaggregat för kommersiellt bruk, med inbyggd eller separat kondensor eller kompressor**

*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*

Som svensk standard gäller europastandarden EN 60335-2-89:2002. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60335-2-89:2002.

### **Nationellt förord**

Europastandarden EN 60335-2-89:2002

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60335-2-89, First edition, 2002 - 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**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden skall användas tillsammans med SS-EN 60335-1, utgåva 4, 2002.

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Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

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Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

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Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

#### **SEK**

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EUROPEAN STANDARD

**EN 60335-2-89**

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2002

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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)**

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)

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)

This European Standard was approved by CENELEC on 2002-09-24. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 European Standard 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and 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**

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## Foreword

The text of document 61C/208/FDIS, future first edition of IEC 60335-2-89, prepared by SC 61C of the IEC Technical Committee 61, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60335-2-89 on 2002-09-24.

The following dates are applicable:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2003-07-01
- date on which national standards conflicting with the EN have to be withdrawn (dow) 2005-10-01

This part 2 has to be used in conjunction with EN 60335-1, Household and similar electrical appliances – Safety – Part 1: General requirements. It was established on the basis of the 2002 edition of that standard. Amendments and revisions of Part 1 have also to be taken into account and the dates when such changes become applicable will be stated in the relevant amendment or revision of Part 1.

This part 2 supplements or modifies the corresponding clauses of EN 60335-1, so as to convert it into the European Standard: Safety requirements for commercial electric refrigerating appliances with an incorporated or remote refrigerant condensing unit or compressor.

When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

NOTE 1 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 a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.;
- subclauses, notes and annexes that are additional to those in the IEC standard are prefixed with the letter Z.

NOTE 2 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

There are no special national conditions causing a deviation from this European Standard, other than those listed in Annex ZA to EN 60335-1.

There are no national deviations from this European Standard, other than those listed in Annex ZB to EN 60335-1.

Annex AA is normative and forms an integral part of this standard.

- p NOTE In this document, p is used in the margin to indicate instructions for preparing the printed version.
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## **Introduction**

p Add:

An investigation by CENELEC TC 61 has shown that all risks from products within the scope of this standard are fully covered by the Low Voltage Directive, 73/23/EEC. For products having mechanical moving parts, a risk assessment in accordance with the Machinery Directive, 98/37/EC, has shown that the risks are mainly of electrical origin and consequently this directive is not applicable. However, the relevant essential safety requirements of the Machinery Directive are covered by this standard together with the principal objectives of the Low Voltage Directive.

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## **Endorsement notice**

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

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p Add:

## Annex ZC (normative)

### Normative references to international publications with their corresponding European publications

*Addition:*

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60079	Series	Electrical apparatus for explosive gas atmospheres	– <sup>1)</sup>	–
IEC 60079-4	– <sup>2)</sup>	Electrical apparatus for explosive gas atmospheres – Part 4: Method of test for ignition temperature	–	–
IEC 60079-4A	– <sup>2)</sup>	Electrical apparatus for explosive gas atmospheres – Part 4: Method of test for ignition temperature – First supplement	–	–
IEC/TR 60079-15	1987	Electrical apparatus for explosive gas atmospheres – Part 15: Type of protection "n"	–	–
IEC/TR3 60079-20	– <sup>2)</sup>	Electrical apparatus for explosive gas atmospheres – Part 20: Data for flammable gases and vapours, relating to the use of electrical apparatus	–	–
IEC 60335-2-5	– <sup>2)</sup>	Household and similar electrical appliances - Safety – Part 2-5: Particular requirements for dishwashers	–	–
IEC 60335-2-34	– <sup>2)</sup>	Household and similar electrical appliances - Safety – Part 2-34: Particular requirements for motor-compressors	–	–
ISO 817	– <sup>2)</sup>	Organic refrigerants – Number designation	–	–
ISO 3864	– <sup>2)</sup>	Safety colours and safety signs	–	–
ISO 5149	– <sup>2)</sup>	Mechanical refrigerating systems used for cooling and heating – Safety requirements	–	–

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<sup>1)</sup> partly harmonized in EN 60079 series; see also EN 50014 and related standards

<sup>2)</sup> undated reference

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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

#### 1 Scope

This clause of Part 1 is replaced by the following.

This part of IEC 60335 specifies safety requirements for electrically operated commercial refrigerating appliances that have an incorporated compressor or that are supplied in two units for assembly as a single appliance in accordance with the manufacturer's instructions (split system).

NOTE 101 Examples of appliances that are within the scope of this standard are

- **refrigerated display and storage cabinets;**
- refrigerated trolley cabinets;
- service counters and self-service counters;
- blast chillers and blast freezers.

As far as is practicable, this standard deals with the common hazards presented by these types of appliances.

It does not cover those features of construction and operation of refrigerating appliances which are dealt with in ISO standards.

NOTE 102 Attention is drawn to the fact that

- for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements may be necessary;
- in many countries additional requirements are specified by national health authorities, the national authorities responsible for the protection of labour, national water authorities, the national authorities responsible for transportation and similar authorities.

NOTE 103 This standard does not apply to

- domestic refrigerating appliances (IEC 60335-2-24)
- industrial refrigerating systems;
- motor-compressors (IEC 60335-2-34);
- commercial dispensing appliances and vending machines (IEC 60335-2-75);
- commercial ice-cream appliances;
- commercial ice makers;
- cold temperature rooms;
- multiple refrigerated chambers with a remote compressor.

## 2 Normative references

*This clause of Part 1 is applicable except as follows:*

*Addition:*

IEC 60079 (all parts), *Electrical apparatus for explosive gas atmospheres*

IEC 60079-4, *Electrical apparatus for explosive gas atmospheres – Part 4: Method of test for ignition temperatures*

IEC 60079-4A, *Electrical apparatus for explosive gas atmospheres – Part 4: Method of test for ignition temperatures – First supplement*

IEC/TR 60079-15:1987<sup>1)</sup>, *Electrical apparatus for explosive gas atmospheres – Part 15: Type of protection " n "*

IEC/TR3 60079-20, *Electrical apparatus for explosive gas atmospheres – Part 20: Data for flammable gases and vapours, relating to the use of electrical apparatus*

IEC 60335-2-5, *Household and similar electrical appliances – Safety – Part 2-5: Particular requirements for dishwashers*

IEC 60335-2-34, *Household and similar electrical appliances – Safety – Part 2-34: Particular requirements for motor-compressors*

ISO 817, *Organic refrigerants – Number designation*

ISO 3864, *Safety colours and safety signs*

ISO 5149, *Mechanical refrigerating systems used for cooling and heating – Safety requirements*

■ [REDACTED]

[REDACTED]

■ [REDACTED]

[REDACTED]

[REDACTED]

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<sup>1</sup> IEC/TR 60079-15, Ed. 1 (1987) has been superseded by a second edition, IEC 60079-15 (2001), which no longer corresponds to the references to the first edition cited here. It is foreseen to adapt the present standard to IEC 60079-15 (2001) in a future revision.