

Specification for

Safety of household and similar electrical appliances

Part 2. Particular requirements

Section 2.49 Commercial catering electric hot cupboards

The European Standard EN 60335-2-49 : 1990 has the status of a
British Standard

Sécurité des appareils électrodomestiques et
analogues Deuxième partie: Règles
particulières pour les armoires chauffantes
électriques destinées à la restauration
collective

Sicherheit elektrischer Geräte für den
Hausgebrauch und ähnliche Zwecke
Teil 2: Besondere Anforderungen für
Wärmeschränke für den gewerblichen
Gebrauch in Großküchen

UDC 64.06-83 : 641.546.22 : 614.8

Cooperating organizations

The European Committee for Electrotechnical Standardization (CENELEC), under whose supervision this European Standard was prepared, comprises the national committees of the following countries:

Austria	Italy
Belgium	Luxembourg
Denmark	Netherlands
Finland	Norway
France	Portugal
Germany	Spain
Greece	Sweden
Iceland	Switzerland
Ireland	United Kingdom

This British Standard, having been prepared under the direction of the Light Electrical Engineering Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 15 December 1992

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The following BSI references relate to the work on this standard:
Committee reference LEL/61
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Amendments issued since publication

Amd. No.	Date	Text affected



Amendment No. 1
published and effective from 15 January 1993
to BS EN 60335-2-49 : 1992

Specification for safety of household and
similar appliances
Part 2. Particular requirements
Section 2.49 Commercial catering electric
hot cupboards

NOTE. The English language version of European Standard
EN 60335-2-49 was implemented in the United Kingdom by the
publication of BS EN 60335-2-49 : 1992. This amendment implements
Amendment A1 to EN 60335-2-49.

This amendment together with the European Standard
EN 60335-2-49 : 1992 has the status of a British Standard.

Revised text

AMD 7516
January 1993

National foreword

In paragraph 1, line 5, after 'cupboards' insert 'including Amendment A1'.

AMD 7516
January 1993

EN amendment title page and foreword

Insert the attached EN amendment title page (foreword on reverse).

AMD 7516
January 1993

Text of EN 60335-2-49

Amend the text of European Standard EN 60335-2-49 in accordance with the details
given on the attached pages.

UDC 64.06-83:641.546.22:614.8

Descriptors: Household electrical appliances, cupboards, appliance for commercial use, safety requirements, protection against electric shock, fire protection, protection against mechanical hazard

Amendment A1 to the English version of EN 60335-2-49

Safety of household and similar electrical appliances Part 2: Particular requirements for commercial catering electric hot cupboards

(Amendment 1 : 1990 to IEC 335-2-49 : 1988, modified)

Sécurité des appareils électrodomestiques
et analogues
Deuxième partie: Règles particulières pour les
armoires chauffantes électriques à usage
collectif
(Amendement 1 : 1990 à la CEI 335-2-49 : 1988,
modifiée)

Sicherheit elektrischer Geräte für den
Hausgebrauch und ähnliche Zwecke
Teil 2: Besondere Anforderungen für
Wärmeschränke für den gewerblichen
Gebrauch
(Änderung 1 : 1990 zu IEC 335-2-49 : 1988,
modifiziert)

This amendment A1 modifies the European Standard EN 60335-2-49 : 1990. It was approved by CENELEC on 24 March 1992. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, 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

Foreword

The proposal to endorse Amendment 1 : 1990 to IEC 335-2-49 : 1988, was discussed during the Helsinki meeting in May 1990 and the Athens meeting in November 1990, when it was decided to submit a draft for an amendment to EN 60335-2-49 to the unique acceptance procedure (UAP).

This draft was circulated as prAA in June 1991 and was ratified by CENELEC as amendment A1 on the 24th of March 1992.

This amendment has been prepared by the secretariat of CENELEC Technical Committee TC 61.

The following dates are applicable:

- latest date of publication
of an identical national standard (dop) 1992-09-01
- date of withdrawal of
conflicting national standards (dow) 1994-09-01

For products which have complied with EN 60335-2-49 : 1990 before 1994-09-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1999-09-01.

This document supplements or modifies the corresponding clauses of Amendment 1 : 1990 to IEC 335-2-49 : 1988, so as to convert it into Amendment A1 to EN 60335-2-49 : 1990.

As a consequence of endorsing Amendment 1 to IEC 335-2-49, the common modifications in EN 60335-2-49 concerning subclauses **1.1**, **4.601**, **11.2**, **19.4** and **22.101** are withdrawn since they are covered by the IEC text.

EN 60335-2-49, including this amendment, has to be used in conjunction with EN 60335-1 : 1988, including its Amendments A2 : 1988, A5 : 1989, A6 : 1989 and A51 : 1991.

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

There are no national deviations from this amendment.

1. Scope

1.1 *Replace the first sentence of the explanatory matter by the following:*

The electrical part of appliances making use of other forms of energy is also within the scope of this standard.

Add the following to the list of exclusions:

- appliances intended to be used in locations where special conditions prevail such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas).

These appliances are intended for use in professional kitchens, such as those in restaurants and hospitals, and in enterprises such as bakeries and butcheries.

4. General notes on tests

Add the following sub-clause:

4.103 *When testing the electrical part of appliances supplied with energy other than electric, the influence of the non-electrical part of the appliance must be taken into account.*

7. Marking

Add the following:

7.1 *Addition:*

The water pressure or range of pressures, in kPa, for appliances intended to be connected to a water supply, unless this is indicated in the instruction sheet.

7.6 *Add the following:*

kPa kilopascals.

11. Heating

11.2 *Replace the wording of the addition by the following:*

Appliances intended to be fixed to the floor are installed in accordance with the manufacturer's instructions. If no instructions are given, Part 1 applies.

11.4 *Add the following paragraph to the replacement:*

If the appliance is provided with a control which limits the total input, the test is made with whichever combination of heating units, as may be selected by the control, imposes the most severe condition.

Add the following:

11.10 *Modification:*

Replace the text of note 1) of the table by:

The factor "p" equals 8 000.

15. Moisture resistance

15.4 *Replace the wording of the addition by the following:*

If it is not possible to place the whole appliance in the humidity cabinet, parts containing electrical components are tested separately, taking into account the conditions which occur in the appliance.

Add the following sub-clause:

15.101 Appliances which are provided with a tap intended for filling or cleaning shall be so designed that the water from the tap cannot come into contact with live parts.

Compliance is checked by the following test:

The means for controlling the incoming water is held fully open for 1 min with the appliance connected to a water supply having the maximum water pressure indicated by the manufacturer. Tilttable and movable parts, including lids, are tilted or placed in the most unfavourable position. Swivelling outlets of water taps are so positioned as to direct water onto those parts which will give the most unfavourable result. Immediately following this treatment the appliance shall withstand the dielectric strength test of Clause 16.

16. Insulation resistance and electric strength

16.2 *Modification*

Replace the first item by the following:

for cord and plug connected appliances 2 mA/kW with a maximum of 10 mA

19. Abnormal operation

19.2 *Replace the second paragraph of the modification by the following:*

Appliances are operated under the conditions specified in Clause 11, the supply voltage, determined prior to the test, being that required to provide an input of 0,85 times the rated input under conditions of adequate heat discharge when steady conditions have been established. This voltage is maintained throughout the test.

19.4 *Replace the last two paragraphs of the replacement by the following:*

Contactors complying with the relevant IEC standard are not open-circuited or short-circuited, provided the appropriate standard covers the conditions which occur in the appliance. However, locking in the "on" position of the main contacts of a contactor intended for switching on and off the heating element(s) in normal use is considered to be a fault condition, unless the appliance is provided with at least two sets of contacts connected in series. This condition is, for example, achieved by providing two contactors operating independently of each other or by providing one contactor having two independent armatures operating two independent sets of main contacts.

Delete the addition.

22. Construction

22.101 *In the requirement paragraph, delete the following words:*

"unless the values applicable to creepage and clearance distances of sub-clause 29.1 are increased by 50 %."

In the compliance paragraph, delete the following words:

"and by measurement".

Delete the addition.

24. Components

Add the following:

24.11 *Replacement:*

Thermal cut-outs shall provide all-pole disconnection from the supply.

Compliance is checked by inspection.

25. Supply connection and external flexible cables and cords

Add the following:

25.1 *Addition:*

The terminals for permanent connection to fixed wiring may also be suitable for the type X attachment of a power supply cord. In this case the instruction sheet shall give full particulars of the power supply cord.

Compliance is checked by inspection.