BRITISH STANDARD

BS EN 60335-2-50:2000
IEC 60335-2-50:2000

Safety of household and similar electrical appliances —

Part 2-50: Particular requirements for commercial electric bains-marie

The European Standard EN 60335-2-50:2000 has the status of a British Standard

ICS 97.040.20

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National foreword

This British Standard is the official English language version of EN 60335-2-50:2000. It is identical with IEC 60335-2-50:2000. It supersedes BS EN 60335-2-50:1997 which will be withdrawn on 01/10/2002.

The UK participation in its preparation was entrusted by Technical Committee CPL/61, Safety of household and similar electrical appliances, to Subcommittee CPL/61/5, Commercial catering equipment, which has the responsibility to:

— aid enquirers to understand the text;

— present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;

— monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

From 1 January 1997, all IEC publications have the number 60000 added to the old number. For instance, IEC 27-1 has been renumbered as IEC 60027-1. For a period of time during the change over from one numbering system to the other, publications may contain identifiers from both systems.

Cross-references

Attention is drawn to the fact that CEN and CENELEC Standards normally include an annex which lists normative references to international publications with their corresponding European publications. The British Standards which implement these international or European publications may be found in the BSI Standards Catalogue under the section entitled "International Standards Correspondence Index", or by using the "Find" facility of the BSI Standards Electronic Catalogue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 20, an inside back cover and a back cover.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60335-2-50

May 2000

ICS 97.040.50

Supersedes EN 60335-2-50:1997 + A1:1998 + A2:1999

English version

Safety of household and similar electrical appliances
Part 2-50: Particular requirements for commercial electric bains-marie
(IEC 60335-2-50:2000)

Sécurité des appareils électrodomestiques et analogues
Partie 2-50: Règles particulières pour les bains-marie électriques à usage collectif
(CEI 60335-2-50:2000)

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke
Teil 2-50: Besondere Anforderungen für elektrische Warmhaltegeräte für den gewerblichen Gebrauch
(IEC 60335-2-50:2000)

This European Standard was approved by CENELEC on 2000-04-01. 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, 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

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Foreword

The text of document 61E/351/FDIS, future third edition of IEC 60335-2-50, prepared by SC 61E of the IEC Technical Committee 61, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60335-2-50 on 2000-04-01.

This European Standard replaces EN 60335-2-50:1997 and its amendments A1:1998 and A2:1999.

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)	2001-01-01
- date on which national standards conflicting with the EN have to be withdrawn	(dow)	2003-04-01

This standard has to be used in conjunction with EN 60335-1, Safety of household and similar electrical appliances, Part 1: General requirements. It was established on the basis of the 1994 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 bains-marie.

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.

Subclauses, figures and notes which are additional to those in part 1 are numbered starting with 101.

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

National deviations from this European Standard are listed in annex ZB and are in addition to those in EN 60335-1.

NOTE 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 2. When a definition of part 1 concerns an adjective, the adjective and the associated noun are also in bold.

Introduction

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. If the product has mechanical moving parts, a risk assessment in accordance with the Machinery Directive, 89/392/EEC, 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.

Endorsement notice

The text of the International Standard IEC 60335-2-50:2000 was approved by CENELEC as a European Standard without any modification.

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SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –

Part 2-50: Particular requirements for commercial electric bains-marie

1 Scope

This clause of part 1 is replaced by:

This standard deals with the safety of electrically operated **bains-marie** not intended for household use, their **rated voltage** being not more than 250 V for single-phase appliances connected between one phase and neutral, and 480 V for other appliances.

NOTE 1 These appliances are used, for example, in restaurants, canteens, hospitals and similar commercial enterprises.

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

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

NOTE 2 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;
- for appliances intended to be used in tropical countries, special requirements may be necessary;
- in many countries additional requirements are specified by the national health authorities, the national authorities responsible for the protection of labour, the national water supply authorities and similar authorities;
- for appliances intended to be used outdoors, additional requirements may be necessary.

This standard does not apply to

- appliances designed exclusively for industrial purposes;
- 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);
- continuous process appliances for the mass production of food.

2 Definitions

This clause of part 1 is applicable except as follows.

2.2.4 *Addition:*

NOTE The **rated power input** is the sum of the power inputs of all the individual elements in the appliance which can be on at one time; where there are several such combinations possible, that giving the highest power input is used in determining the **rated power input**.

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2.2.9 *Replacement:*

normal operation: Operation of the appliance under the following conditions:

Open-well and **wet-heat-type bains-marie** are filled with water to the **indicated level** and topped up during the test in accordance with the manufacturer's instructions. The appliance is operated with any control intended to be operated by the user set at maximum. If the water boils, the control is then adjusted to the lowest setting that maintains simmering. No covers or containers are fitted.

Dry-heat-type bains-marie are operated with any controls set at the maximum. Empty food containers are placed in the well but with the container covers removed.

Combined-type appliances are operated under the most unfavourable conditions.

Motors incorporated in the appliance are operated in the intended manner under the most severe conditions which can be expected in normal use taking into account the manufacturer's instructions.

2.2.101
bain-marie
an appliance with a well which is used for the storage of hot food in containers prior to serving. The containers are indirectly heated by hot air, steam or water in the well

2.2.102
open-well-type bain-marie
an appliance where the food containers rest in water in a heated well

2.2.103
wet-heat-type bain-marie
an appliance where the fitted food containers are heated by steam generated within the appliance. The pressure in the well or steam generator does not differ significantly from atmospheric pressure

2.2.104
dry-heat-type bain-marie
an appliance where the fitted food containers are heated by warm air generated within the appliance

2.2.105
indicated level
a mark on the appliance to indicate the maximum liquid level for correct operation

2.2.106
installation wall
a special fixed construction containing supply facilities for appliances installed in conjunction with it

3 General requirement

This clause of part 1 is applicable except as follows.

Addition:

NOTE 101 The d.c. component in the appliance neutral is limited (Australia).

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4 General conditions for the tests

This clause of part 1 is applicable except as follows.

4.10 *Addition:*

Appliances intended for installation in a bank of other appliances and appliances intended to be fixed to an ***installation wall*** *are enclosed to obtain protection against electric shock and harmful ingress of water equivalent to that obtained when installed in accordance with the instructions provided with the appliance.*

NOTE Appropriate enclosures or additional appliances may be needed for test purposes.

4.101 *Appliances are tested as* ***heating appliances****, even if they incorporate a motor.*

4.102 *Appliances, when assembled in combination with, or incorporating, other appliances, are tested in accordance with the requirements of this standard. The other appliances are operated simultaneously in accordance with the requirements of the relevant standards.*

If a part of the appliance or the whole appliance is intended to be used for different functions covered by different standards, the relevant standard is applied to each function separately, so far as is reasonable.

5 Void

6 Classification

This clause of part 1 is applicable except as follows.

6.1 *Replacement:*

Appliances shall be of **class I** with respect to protection against electric shock.

Compliance is checked by inspection and by the relevant tests.

NOTE **Class 0I appliances** are allowed (Japan).

6.2 *Addition:*

NOTE 101 For appliances intended to be installed in a kitchen, an appropriate degree of protection against harmful ingress of water is required according to their height of installation (France).

7 Marking and instructions

This clause of part 1 is applicable except as follows.

7.1 *Addition:*

In addition, appliances shall be marked with

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

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