

Safety of household and similar electrical appliances —

Part 2-82: Particular requirements for service machines and amusement machines

The European Standard EN 60335-2-82:2000 has the status of a British Standard

ICS 97.200.99

National foreword

This British Standard is the official English language version of EN 60335-2-82:2000. It is identical with IEC 60335-2-82:1999.

The UK participation in its preparation was entrusted by Technical Committee CPL/61, Safety of household electrical appliances, to Subcommittee CPL/61/25, Food and drink dispensing machines, 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.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 18, an inside back cover and a back cover.

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This British Standard, having been prepared under the direction of the Electrotechnical Sector Committee, was published under the authority of the Standards Committee and comes into effect on 15 August 2000

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Amendments issued since publication

Amd. No.	Date	Comments

ISBN 0 580 36165 9

English version

Safety of household and similar electrical appliances
Part 2-82: Particular requirements for service machines and
amusement machines
(IEC 60335-2-82:1999)

Sécurité des appareils
électrodomestiques et analogues
Partie 2-82: Règles particulières pour
les machines de service et les machines
de divertissement
(CEI 60335-2-82:1999)

Sicherheit elektrischer Geräte für den
Hausgebrauch und ähnliche Zwecke
Teil 2-82: Besondere Anforderungen
für Dienstleistungs- und
Unterhaltungsautomaten
(IEC 60335-2-82:1999)

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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.

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CENELEC

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

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Ref. No. EN 60335-2-82:2000 E

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Foreword

The text of document 61/1652/FDIS, future first edition of IEC 60335-2-82, prepared by the IEC Technical Committee 61, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60335-2-82 on 2000-01-01.

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) 2000-11-01
- date on which national standards
conflicting with the EN have to be withdrawn (dow) 2003-01-01

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 electric service machines and amusement machines.

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 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.

There are no national deviations from this European Standard, other than those listed in annex ZB to 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 60335-2-82:1999 was approved by CENELEC as a European Standard without any modification.

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SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – Part 2-82: Particular requirements for service machines and amusement machines

1 Scope

This clause of part 1 is replaced by:

This standard deals with the safety of electric personal service machines and amusement machines for commercial use, their **rated voltage** being not more than 250 V for single-phase appliances and 480 V for other appliances.

NOTE 1 – Examples of appliances which are within the scope of this standard

a) are personal service machines:

- shoe shining appliances;
- personal weighing machines;
- luggage lockers;
- currency dispensers;
- card re-value machines;

b) amusement machines:

- gaming machines;
- pinball machines;
- laser shooting appliances;
- dartboards;
- bowling machines;
- billiard tables;
- video games;
- kiddie rides;
- driving simulators.

NOTE 2 – If an appliance incorporates a part which is within the scope of IEC 60065 or IEC 60950, the part has to comply with the relevant standard.

So far as is practicable, this standard deals with the common hazards presented by appliances which are encountered by users and **maintenance persons**.

NOTE 3 – 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 authorities responsible for health, for the protection of labour and similar authorities.

NOTE 4 – This standard does not apply to

- appliances intended exclusively for household use,
- appliances intended 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),
- appliances for washing cars,
- dispensing appliances and vending machines (IEC 60335-2-75),
- appliances within the scope of IEC 60065, such as jukeboxes and household video games,
- appliances within the scope of IEC 60950, such as copying machines, ticket machines and automatic teller machines,
- appliances intended to be used when a trained attendant is present, such as a virtual reality system,
- equipment intended exclusively for fairgrounds, such as carousels.

2 Definitions

This clause of part 1 is applicable except as follows.

2.2.9 Replacement:

normal operation

operation of the appliance under the following conditions:

The appliance is operated in the **standby mode** until steady conditions are established and then operated under the most unfavourable conditions of normal use.

The appliance is refilled when necessary in accordance with the instructions for use or the **instructions for maintenance** and the next operating period started as soon as possible.

Appliances which support persons in normal use are loaded as follows:

- **kiddie rides**, 50 kg for each riding position;
- other appliances, 100 kg for the first riding position and 75 kg for each additional riding position.

NOTE – The riding position may be for a sitting or standing person.

If the instructions state that higher loads are allowed, the appliance is loaded accordingly.

Audio amplifiers are operated in accordance with the normal operating conditions specified in IEC 60065.

2.7.2 Replacement:

detachable part

part which can be removed without the aid of a **tool**, a part which is removed in accordance with the instructions for use or **instructions for maintenance** even if a **tool** or **access key** is needed for removal, or a part which does not fulfill the test of 22.11

2.8.3 Replacement:

thermal cut-out

device which during abnormal operation limits the temperature of the controlled part by automatically opening the circuit or reducing the current and constructed so that its setting cannot be altered by the user or the **maintenance person**

2.9.9 Replacement:

maintenance operation

operation stated in the instructions for use, the **instructions for maintenance** or marked on the appliance which the user or **maintenance person** is intended to perform

NOTE 1 – The **instructions for maintenance** marked on the appliance or supplied with the appliance are applicable only to the **user area** and the **maintenance area**.

NOTE 2 – **Maintenance operation** includes preparing the appliance for new operating methods.

NOTE 3 – **Maintenance operation** does not include operations that are to be performed in the **service area**.