Majapidamis- ja muud taolised elektriseadmed. Ohutus. Osa 2-31: Erinõuded pliitide äratõmbekuplitele ja muudele toiduvalmistussuitsu eemaldamise seadmetele

Household and similar electrical appliances - Safety - Part 2-31: Particular requirements for range hoods and other cooking fume extractors



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 60335-2-31:2003 sisaldab Euroopa standardi EN 60335-2-31:2003 ingliskeelset teksti.

Käesolev dokument on jõustatud 02.10.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 60335-2-31:2003 consists of the English text of the European standard EN 60335-2-31:2003.

This document is endorsed on 02.10.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.

This a preview developed by The standard is available from Estonian standardisation organisation.

ICS 13.120, 97.040.20

Standardite reprodutseerimis- ja levitamisõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega: Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

Right to reproduce and distribute Estonian Standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without permission in writing from Estonian Centre for Standardisation.

If you have any questions about standards copyright, please contact Estonian Centre for Standardisation: Aru str 10 Tallinn 10317 Estonia; www.evs.ee; Phone: +372 605 5050; E-mail: info@evs.ee

EUROPEAN STANDARD

EN 60335-2-31

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2003

ICS 13.120; 97.040.20

Supersedes EN 60335-2-31:1997 + A1:1999

English version

Household and similar electrical appliances - Safety

Rart 2-31: Particular requirements for range hoods (IEC 60335-2-31:2002)

Appareils électrodomestiques et analogues - Sécurité
Partie 2-31: Règles particulières pour les hottes de cuisine (CEI 60335-2-31:2002)

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke Teil 2-31: Besondere Anforderungen für Dunstabzugshauben (IEC 60335-2-31:2002)

This European Standard was approved by CENELEC on 2003-05-01. 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, Hungary, Iceland, Ireland, Italy, Lithuania, 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

Foreword

The text of the International Standard IEC 60335-2-31:2002 (61/2206/FDIS) prepared by the IEC Technical Committee 61, Safety of household and similar electrical appliances, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 60335-2-31 on 2003-05-01.

This European Standard replaces EN 60335-2-31:1997 + corrigendum October 1997 + A1:1999.

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) 2004-05-01

 date on which the national standards conflicting with the EN have to be withdrawn

(dow) 2006-05-01

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 electric range hoods.

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.

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

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

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.

Endorsement notice

The text of the International Standard IEC 60335-2-31:2002 was approved by CENELEC as a European Standard without any modification.

p Add:

Annex ZB (informative)

A-deviations

Addition:

Clause Deviation

7.1 **Germany** (Feuerungsverordnung vom 31-01-1986 und DVGW-TRGI 1986, Amtsblatt G 600)

For range hoods of the exhaust-air type, the following warning shall be placed near the exhaust-air opening:

Achtung! Warnhinweis zum Abluftbetrieb im Anweisungsblatt beachten.

Attention! Observe the warning in the instruction sheet concerning the operation of the appliance when air is discharged from the room.

7.12 **Germany** (Feuerungsverordnung vom 31-01-1986 und DVGW-TRGI 1986, Amtsblatt G 600)

The instruction sheet of range hoods of the exhaust-air type shall include the substance of the following warning:

Bei gleichzeitigem Betrieb der Dunstabzugshaube im Abluftbetrieb und Feuerstätten darf im Aufstellraum der Feuerstätte der Unterdruck nicht größer als 4 Pa (4 x 10⁻⁵ bar) sein.

When the range hood and appliances supplied with energy other than electricity are simultaneously in operation, the negative pressure in the room must not exceed 4 Pa (4 x 10⁻⁵ bar).

22.102 **Sweden** (SFS 1986:1102)

Range hoods shall be constructed so that parts likely to accumulate deposits of grease and the like can be effectively cleaned. It is assumed that even parts located behind a filter, including the fan, are likely to accumulate grease and the like. This means that it shall be possible to gain access to the parts concerned.

INTERNATIONAL STANDARD

IEC 60335-2-31

Fourth edition 2002-10

Household and similar electrical appliances – Safety +

Part 2-31:

Particular requirements for range hoods

Appareils électrodomestiques et analogues – Sécurité –

Partie 2-31:

Règles particulières pour les hottes de cuisine



Reference number IEC 60335-2-31:2002(E)

Publication numbering

As from 1 January 1997 all IEC publications are issued with a designation in the 60000 series. For example, IEC 34-1 is now referred to as IEC 60034-1.

Consolidated editions

The IEC is now publishing consolidated versions of its publications. For example, edition numbers 1.0, 1.1 and 1.2 refer, respectively, to the base publication, the base publication incorporating amendment 1 and the base publication incorporating amendments 1 and 2.

Further information on IEC publications

The technical content of IEC publications is kept under constant review by the IEC, thus ensuring that the content reflects current technology. Information relating to this publication, including its validity, is available in the IEC Catalogue of publications (see below) in addition to new editions, amendments and corrigenda. Information on the subjects under consideration and work in progress undertaken by the technical committee which has prepared this publication, as well as the list of publications issued, is also available from the following:

IEC Web Site (www.iec.ch)

Catalogue of IEC publications

The on-line catalogue on the IEC web site (http://www.iec.ch/searchpub/cur fut.htm) enables you to search by a variety of criteria including text searches, technical committees and date of publication. On-line information is also available on recently issued publications, withdrawn and replaced publications, as well as corrigenda.

IEC Just Published

This summary of recently issued publications (http://www.iec.ch/online_news/justpub/jp_entry.htm) is also available by email. Please contact the Customer Service Centre (see below) for further information.

Customer Service Centre

cation c If you have any questions regarding this publication or need further assistance, please contact the Customer Service Centre:

Email: custserv@iec.ch Tel: +41 22 919 02 11 Fax: +41 22 919 03 00

INTERNATIONAL STANDARD

IEC 60335-2-31

Fourth edition 2002-10

Household and similar electrical appliances – Safety –

Part 2-31:

Particular requirements for range hoods

Appareils électrodomestiques et analogues – Sécurité –

Partie 2-31:

Règles particulières pour les hottes de cuisine

© IEC 2002 — Copyright - all rights reserved

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



PRICE CODE

N/

CONTENTS

FØ	REWORD	3
	TRODUCTION	5
1	Scope	
2	Normative references	6
3	Definitions	6
4	General requirement	7
5	General conditions for the tests	7
6	Classification	7
7	Marking and instructions	7
8	Protection against access to live parts	8
9	Starting of motor-operated appliances	8
10	Power input and current	8
11	Heating	8
12	Heating Void	9
13	Leakage current and electric strength at operating temperature	9
14	Transient overvoltages	9
15	Moisture resistance	9
16	Leakage current and electric strength	9
17	Overload protection of transformers and associated circuits	9
18	Endurance	9
19	Abnormal operation	9
20	Stability and mechanical hazards	10
21	Mechanical strength Construction Internal wiring	10
22	Construction	10
23	Internal wiring	10
24	Components	
25	Supply connection and external flexible cords	11
26	Terminals for external conductors	11
27	Provision for earthing	11
28	Screws and connections	11
29	Clearances, creepage distances and solid insulation	11
30	Resistance to heat and fire	11
31	Resistance to rusting	12
32	Radiation, toxicity and similar hazards	12
		O_{λ}
Anı	nexes	13
Bib	oliography	13

INTERNATIONAL ELECTROTECHNICAL COMMISSION

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-31: Particular requirements for range hoods

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

This part of International Standard IEC 60335 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

This fourth edition cancels and replaces the third edition published in 1995 and its amendment 1 (1998). It constitutes a technical revision.

The text of this part of IEC 60335 is based on the following documents

FDIS	Report on voting	•
61/2206/FDIS	61/2289/RVD	

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

This part 2 is to be used in conjunction with the latest edition of IEC 60335-1 and its amendments. It was established on the basis of the fourth edition (2001) of that standard.

NOTE 1 When "Part 1" is mentioned in this standard, it refers to IEC 60335-1.

This part 2 supplements or modifies the corresponding clauses in IEC 60335-1, so as to convert that publication into the IEC standard: Safety requirements for electric range hoods.

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 in Part 1 is to be adapted accordingly.

NOTE 2 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.

NOTE 3 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.

The committee has decided that the contents of this publication will remain unchanged until 2004. At this date, the publication will be

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

The following differences exist in the countries indicated below.

- 7.12: Warnings are required to be marked on the range hood (USA).
- 7.12.1: Additional requirements are specified for range hoods intended to be placed above gas hobs (Sweden).
- 8.2: The insulation of internal wiring need not be equivalent to IEC 60227 or IEC 60245 (USA).
- 11.2: The test method is different (USA).
- 19.101: The test method is different (USA).
- 20.2: The addition applies only to disposable filters (USA)
- 22.101: Additional fixing means are not required if screws can be tightened in keyhole slots (USA).
- 22.102: Parts located behind a filter are considered to be parts that have to be cleaned (Sweden).
- 30.101: The method of evaluating filters is different (USA).

A bilingual version of this standard may be issued at a later date.

INTRODUCTION

It has been assumed in the drafting of this International Standard that the execution of its provisions is entrusted to appropriately qualified and experienced persons.

This standard recognizes the internationally accepted level of protection against hazards such as electrical, mechanical, thermal, fire and radiation of appliances when operated as in normal use taking into account the manufacturer's instructions. It also covers abnormal situations that can be expected in practice.

This standard takes into account the requirements of IEC 60364 as far as possible so that there is compatibility with the wiring rules when the appliance is connected to the supply mains. However, national wiring rules may differ.

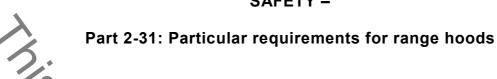
If an appliance within the scope of this standard also incorporates functions that are covered by another part 2 of IEC 60335, the relevant part 2 is applied to each function separately, as far as is reasonable. If applicable, the influence of one function on the other is taken into account.

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.

An appliance that complies with the text of this standard will not necessarily be considered to comply with the safety principles of the standard if, when examined and tested, it is found to have other features that impair the level of safety covered by these requirements.

An appliance employing materials or having forms of construction differing from those detailed in the requirements of this standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be considered to comply with the standard.

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –



1 Scope

This clause of Part 1 is replaced by the following.

This International Standard deals with the safety of electric **range hoods** intended for installing above household cooking ranges, hobs and similar cooking appliances, their **rated voltage** being not more than 250 V.

NOTE 101 The cooking appliance may be supplied by electricity or other fuels, such as gas.

Appliances not intended for normal household use but that nevertheless may be a source of danger to the public, such as appliances intended to be used by laymen in shops, in light industry and on farms, are within the scope of this standard.

As far as is practicable, this standard deals with the common hazards presented by appliances that are encountered by all persons in and around the home. However, in general, it does not take into account

- the use of appliances by young children or infirm persons without supervision;
- playing with the appliance by young children

NOTE 102 Attention is drawn to the fact that

- for appliances incorporating electrostatic air filters, IEC 60335-2-65 also applies;
- 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 the national health authorities, the national authorities responsible for the protection of labour, the national authorities responsible for buildings and similar authorities.

NOTE 103 This standard does not apply to

- appliances intended for commercial purposes (IEC 60335-2-99);
- 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).

2 Normative references

This clause of Part 1 is applicable.

3 Definitions

This clause of Part 1 is applicable except as follows.

3.101

range hood

motor-operated appliance intended to collect contaminated air from above a hob

NOTE The filtered air may be discharged back into the room or ducted away.