IEC 60335-2-64

Edition 3.0 2017-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 2
AMENDEMENT 2

Household and similar electrical appliances – Safety –
Part 2-64: Particular requirements for commercial electric kitchen machines

Appareils électrodomestiques et analogues – Sécurité –
Partie 2-64: Règles particulières pour les machines de cuisine électriques à usage commercial

IEC 60335-2-64:2002-11/AMD2:2017-06(en-fr)

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FOREWORD

This amendment has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

The text of this amendment is based on the following documents:

FDIS	Report on voting
61/5365/FDIS	61/5393/RVD

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

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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- withdrawn,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

NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 12 months or later than 36 months from the date of publication.

———————

1 Scope

Add in the second paragraph, the words, "and similar", *after the words*, "…..not intended for household", to read:

"…not intended for household and similar use,…".

Replace Note 101 by the following:

NOTE 101 These appliances are used for the commercial processing of food, for example in kitchens of restaurants, canteens, hospitals and in commercial enterprises such as bakeries, butcheries, etc.

Replace the third dashed item of Note 104 by the following dashed item:

– appliances for continuous mass production of food;

2 Normative references

Replace the existing text by the following:

This clause of Part 1 is applicable except as follows.

Addition:

ISO 898-1, *Mechanical properties of fasteners made of carbon steel and alloy steel – Part 1: Bolts, screws and studs with specified property classes – Coarse thread and fine pitch thread*

ISO 3506-1, *Mechanical properties of corrosion-resistant stainless steel fasteners – Part 1: Bolts, screws and studs*

ISO 3506-2, *Mechanical properties of corrosion-resistant stainless steel fasteners – Part 2: Nuts*

ISO 3506-3, *Mechanical properties of corrosion-resistant stainless steel fasteners – Part 3: Set screws and similar fasteners not under tensile stress*

ISO 3506-4, *Mechanical properties of corrosion-resistant stainless steel fasteners – Part 4: Tapping screws*

3 Definitions

Replace the title of Clause 3 but not the clause number by the following:

Terms and definitions

3.1.9 *Replace the first sentence of the second paragraph by the following:*

The appliance is operated without load.

5 General conditions for the tests

5.6 *Delete the addition.*

7 Marking and instructions

7.1 *Delete the second paragraph of the addition.*

7.6 *Delete this subclause.*

7.12 *Replace the last paragraph of the addition by the following:*

If symbol IEC 60417-5021 (2002-10) is marked on the appliance, its meaning shall be explained.

The instructions shall include the substance of the following:

These appliances are intended to be used for commercial applications, for example in kitchens of restaurants, canteens, hospitals and in commercial enterprises such as bakeries, butcheries, etc., but not for continuous mass production of food.

If the manufacturer wants to limit the use of the appliance to less than the above, this has to be clearly stated in the instructions.

Modification:

The instructions concerning persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge and children playing with the appliance are not applicable.

7.12.1 *Add to the last sentence of the first paragraph "or a steam cleaner".*

Add the following before the test specification:

If a **stationary appliance** is intended to be moved for cleaning, this shall be stated.

For **stationary appliances** equipped with rollers or castors or intended to be moved for cleaning, the instructions shall state the substance of the following.

> This appliance is to be connected with flexible connections for equipotential bonding and connection to services such as electricity supply, water supply, gas supply and steam supply such that the appliance can be moved in the direction required for cleaning a distance not less than the dimension of the appliance in the direction of movement plus 500 mm without the flexible connections becoming taut or being subject to strain.

Add the following new subclause:

7.12.9 Not applicable.

13 Leakage current and electric strength at operating temperature

13.2 *Replace the text of the modification by the following:*

*Instead of the permissible leakage current for **stationary class I appliances**, the following applies:*

– *for cord and plug connected appliances*	*0,75 mA or 1 mA per kW **rated power input** of the appliance with a maximum of 10 mA, whichever is higher.*
– *for other appliances*	*0,75 mA or 1 mA per kW **rated power input** of the appliance with no maximum, whichever is higher.*

*For **portable class I appliances**, instead of the permissible leakage current, the following applies:*

– *for cord and plug connected appliances*	*0,75 mA or 1 mA per kW **rated power input** of the appliance with a maximum of 10 mA, whichever is higher.*

15 Moisture resistance

15.2 *In the first paragraph of the test specification of the replacement, add "using a spillage solution comprising water containing approximately 1 % NaCl and 0,6 % rinsing agent".*

Add the following as a new second paragraph of the test specification of the replacement:

Any commercially available non-ionic rinsing agent may be used, but if there is any doubt with regards to the test results, the rinsing agent shall have the following properties:

– *viscosity*	*17 mPa·s*
– *pH*	*2,2 (1 % in water)*

and its composition shall be:

Substance	***Parts by mass %***
Plurafac ® LF 221[1]	*15,0*
Cumene sulfonate (40 % solution)	*11,5*
Citric acid (anhydrous)	*3,0*
Deionized water	*70,5*

In the existing fifth paragraph of the test specification of the replacement, replace "water containing approximately 1 % NaCl" by "the solution".

16 Leakage current and electric strength

16.2 *Replace the text of the modification by the following:*

*Instead of the permissible leakage current for **stationary class I appliances**, the following applies:*

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[1] Plurafac ® LF 221 is the trade name of a product supplied by BASF. This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of this product.

– *for cord and plug connected appliances* — *0,75 mA or 1 mA per kW **rated power input** of the appliance with a maximum of 10 mA, whichever is higher;*

– *for other appliances* — *0,75 mA or 1 mA per kW **rated power input** of the appliance with no maximum, whichever is higher.*

*For **portable class I appliances**, instead of the permissible leakage current, the following applies:*

– *for cord and plug connected appliances* — *0,75 mA or 1 mA per kW **rated power input** of the appliance with a maximum of 10 mA, whichever is higher.*

19 Abnormal operation

19.4 *Delete this subclause.*

20 Stability and mechanical hazards

20.119 *Replace this subclause by the following:*

20.119 Void

22 Construction

22.112 *Replace the existing text by the following:*

22.112 *For appliances provided with one device or separate devices for the start and the stop functions, the stop function shall be unambiguously identifiable and shall always override the start function.*

Compliance is checked by inspection and by manual test.

25 Supply connection and external flexible cords

25.3 *Replace the first paragraph of the addition by the following:*

Appliances with a mass greater than 40 kg, intended for permanent connection to fixed wiring and not provided with rollers, castors or similar means shall be constructed so that the connection can be done after the appliance has been installed in accordance with the manufacturer's instructions.

28 Screws and connections

Replace the existing text by the following:

This clause of Part 1 is applicable except as follows.

28.1 *Addition:*

Screws made of carbon steel and alloy steel shall be made in accordance with ISO 898-1.

Screws made of corrosion-resistant stainless-steel shall be made in accordance with ISO 3506-1, or ISO 3506-2, or ISO 3506-3, or ISO 3506-4.

28.4 *Addition:*

Screws that make mechanical connections and electrical connections shall be so designed that the contact pressure does not change appreciably through loosening of the screwed assembly parts during operational stress and contact corrosion.

Screws that make mechanical connections and provide earthing continuity shall be so designed that the contact pressure does not change appreciably through loosening of the screwed assembly parts due to operational stress and contact corrosion. They shall be designed so that a minimum contact pressure remains.

Compliance is checked by inspection and by measuring the assembling torques for screwed connections providing earthing continuity by applying a torque as specified in Table 101 to turn the screw in the fastening direction. The screw shall not turn.

The screw shall not have been unfastened prior to performing this test.

Table 101 – Assembling torques for screwed connections providing earthing continuity

Outer thread diameter of the screw *mm*	*Assembling torque* *Nm*	
	Screwed connections for the mechanical strength of the screws A2-70 according to ISO 3506-1, or ISO 3506-2, or ISO 3506-3, or ISO 3506-4 and 5.8 according to ISO 898-1	*Screwed connections for the mechanical strength of the screws > 8.8 according to ISO 898-1*
>2,8 and ≤3,6	*0,8*	*1,3*
>3,6 and ≤4,2	*1,9*	*3,0*
>4,2 and ≤5,3	*3,7*	*6,0*
>5,3 and ≤6,3	*6,5*	*10,0*
M 8	*15,0*	*25,0*
M 10	*31,0*	*50,0*

30 Resistance to heat and fire

Replace the existing text by the following:

This clause of Part 1 is applicable except as follows.

30.2 *Addition:*

For peelers and machines used for washing and/or drying food, 30.2.3 is applicable.

For other appliances, 30.2.2 is applicable.

30.2.1 *Modification:*

The glow-wire test is carried out at 650 °C. The glow-wire flammability index (GWFI) according to IEC 60695-2-12 shall be at least 650 °C.

Annexes

Add the following new Annex P:

Annex P
(informative)

Guidance for the application of this standard to appliances used in tropical climates

13 Leakage current and electric strength at operating temperature

13.2 *Modification:*

*Instead of the permissible leakage current for **stationary class I appliances**, the following applies:*

– *for cord and plug connected appliances*	*0,5 mA or 0,5 mA per kW **rated power input** of the appliance with a maximum of 5 mA, whichever is higher;*
– *for other appliances*	*0,5 mA or 0,5 mA per kW **rated power input** of the appliance with no maximum, whichever is higher.*

*For **portable class I appliances**, instead of the permissible leakage current, the following applies:*

– *for cord and plug connected appliances*	*0,5 mA or 0,5 mA per kW **rated power input** of the appliance with a maximum of 5 mA, whichever is higher.*

16 Leakage current and electric strength

16.2 *Modification:*

*Instead of the permissible leakage current for **stationary class I appliances**, the following applies:*

– *for cord and plug connected appliances*	*0,5 mA or 0,5 mA per kW **rated power input** of the appliance with a maximum of 5 mA, whichever is higher;*
– *for other appliances*	*0,5 mA or 0,5 mA per kW **rated power input** of the appliance with no maximum, whichever is higher.*

*For **portable class I appliances**, instead of the permissible leakage current, the following applies:*

– *for cord and plug connected appliances*	*0,5 mA or 0,5 mA per kW **rated power input** of the appliance with a maximum of 5 mA, whichever is higher.*

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