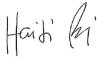



| TEST REPORT IEC 60335-2-14 Household and similar electrical appliances – Safety – Part 2-14: Particular requirements for kitchen machines | |
|--|--|
| Report Number. | 130628039GZU-001 |
| Date of issue | 06 Dec., 2013, Amendment 4: 10 Dec., 2018 |
| Total number of pages | Test report 59 pages |
| Testing Laboratory | Intertek Testing Services Shenzhen Ltd. Guangzhou Branch |
| Address | Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD, Guangzhou, China |
| Applicant's name | Kilon Electrical Co., Ltd. |
| Address | Xiqing Industrial Area, Longjiang Town, Shunde, Foshan, Guangdong, P. R. China |
| Test specification: | |
| Standard | IEC 60335-2-14:2006 (Fifth Edition) + A1:2008 in conjunction with IEC 60335-1:2010 (Fifth Edition) |
| Test procedure | -- |
| Non-standard test method..... | EK1 646-16:2016 Rev2:2018 |
| Test Report Form No. | IEC60335_2_14M |
| Test Report Form(s) Originator | CQC |
| Master TRF | Dated 2012-12 |
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| This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02. | |

| | |
|------------------------------------|--|
| Test item description | Chopper |
| Trade Mark | Kilon |
| Manufacturer | Kilon Electrical Co., Ltd. |
| Model/Type reference | KL-218, KL-219, KL-210, KL-210B, KL-210C, KL-210E, KL-210F, KL-212, KL-TS128, KL-TS128A, KL-TS128B, KL-TS128C, KL-TS228, KL-TS228B, KL-TS136G, KL-TS137G, KL-TS138G, KL-TS136, KL-TS137, KL-TS138, KL-TS326, KL-TS327A, KL-TS328, KL-TS337G, KL-TS338G, KL-TS339G, KL-TS337, KL-TS338, KL-TS339, KL-TS336, KL-TS326A, KL-TS329S, KL-TS327S, KL-TS329, KL-TS327, KL-136, KL-136B |
| Ratings | 220-240 V, 50/60 Hz, Class II, 200-300 W For models: KL-210B, KL-TS128, KL-TS128A, KL-TS128B, KL-TS128C, KL-TS228, KL-TS228B 200-400 W For models: KL-210, KL-210C, KL-210E, KL-210F, KL-212, KL-TS136G, KL-TS137G, KL-TS138G, KL-TS136, KL-TS137, KL-TS138, KL-136, KL-136B; 250-350 W For models: KL-218, KL-TS326, KL-TS327A, KL-TS328, KL-TS337G, KL-TS338G, KL-TS339G, KL-TS337, KL-TS338, KL-TS339, KL-TS336, KL-TS326A, KL-TS329S, KL-TS327S, KL-TS329, KL-TS327; 180-220 W For model: KL-219 |

| | | |
|--|--|--|
| Testing procedure and testing location: | | |
| <input checked="" type="checkbox"/> | Testing Laboratory: | Intertek Testing Services Shenzhen Ltd. Guangzhou Branch |
| Testing location/ address | | Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD, Guangzhou, China |
| <input checked="" type="checkbox"/> | Associated CB Laboratory: | |
| Testing location/ address | | |
| | Tested by (name + signature).....: | Haiti Bi/Project Engineer  |
| | Approved by (name + signature)....: | Red Fan/Assistant Manager  |
| <input type="checkbox"/> | Testing procedure: TMP | N/A |
| Testing location/ address | | |
| | Tested by (name + signature).....: | |
| | Approved by (name + signature)....: | |
| <input type="checkbox"/> | Testing procedure: WMT | N/A |
| Testing location/ address | | |
| | Tested by (name + signature).....: | |
| | Witnessed by (name + signature) ..: | |
| | Approved by (name + signature)....: | |
| <input type="checkbox"/> | Testing procedure: SMT | N/A |
| Testing location/ address | | |
| | Tested by (name + signature).....: | |
| | Approved by (name + signature)....: | |
| | Supervised by (name + signature): | |
| <input type="checkbox"/> | Testing procedure: RMT | N/A |
| Testing location/ address | | |
| | Tested by (name + signature).....: | |
| | Approved by (name + signature)....: | |
| | Supervised by (name + signature): | |

Copy of marking plate

English:

Kilon
Chopper
Model: KL-219
220-240V 50/60 Hz 180-220W
Kilon Electrical Co., Ltd
Xiqing Industrial Area, Longjiang Town,
Shunde, Foshan, Guangdong, P. R. China



German:

Kilon
Küchenmaschine
Modell: KL-219
220-240V 50/60 Hz 180-220W
Kilon Electrical Co., Ltd
Xiqing Industrial Area, Longjiang Town,
Shunde, Foshan, Guangdong, P. R. China



Remark:

1. the marking labels for other models are identical except the model name and power input.
2. The registered trade name or mark of the manufacture/importer, postal address and identified batch or serial number will be indicated on the product.

Summary of testing:

1. The submitted samples were tested and found to compliance with requirements of the standard EN 60335-2-14: 2006 + A1: 2008 +A11:2012+ A12:2016 in conjunction with EN 60335-1: 2012+ AC: 2014+A11: 2014+A13:2017.
2. The product has been evaluated and complied with the decision AfPS GS 2014:01 PAK
3. The product has been tested and complied with the standard EN 62233: 2008 for EMF.
4. The product has been evaluated and complied with the decision EK1 646-16:2016 Rev2:2018.

Tests performed (name of test and test clause):

See page 6.

Testing location:

Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD, Guangzhou, China

Summary of compliance with National Differences:

EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES were considered:
 Germany, United Kingdom

| | |
|---|---|
| Test item particulars | |
| Classification of installation and use..... | Portable appliance and household use only |
| Supply Connection | Non-detachable power cord with plug |
| Possible test case verdicts: | |
| - test case does not apply to the test object..... | N/A |
| - test object does meet the requirement..... | P (Pass) |
| - test object does not meet the requirement..... | F (Fail) |
| Testing | |
| Date of receipt of test item | 23 Oct., 2018 |
| Date (s) of performance of tests | 23 Oct., 2018-30 Nov., 2018 |
| General remarks: | |
| <p>The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.</p> <p>"(see Enclosure #)" refers to additional information appended to the report. “(see appended table)” refers to a table appended to the report.</p> <p>Throughout this report a comma is used as the decimal separator. When determining of test conclusion, measurement uncertainty of test has been considered.</p> <p>This report is for the exclusive use of Intertek’s Client and is provided pursuant to the agreement between Intertek and its Client. Intertek’s responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.</p> <p>The test report only allows to be revised only within the report defined retention period unless standard or regulation was withdrawn or invalid.</p> | |

Amendment 4

This test report was appended to test report 130628039GZU-001, 06 Dec., 2013 and Amendment 1: 11 Nov., 2015 and Amendment 2: 12 July, 2016 and Amendment 3: 29 June, 2017 (GS certificate No. 08GZH2409-05), because of following changes:

1. Standard was updated to EN 60335-1: 2012 + AC:2014+A11:2014+A13:2017.
2. Update EK1 646-16:2016 to EK1 646-16:2016 Rev2:2018.
3. Change the name of applicant, manufacture, factory to the following:
"Kilon Electrical Co., Ltd"

For above changed:

EN 60335-1:2012/A13:2017 and EK1 646-16:2016 Rev2:2018 were evaluated.

Clauses 7, Annex A and construction check were performed.

PAH test according to AfPS GS 2014:01 PAK is considered and passed, please refer to PAH test report 13628039GZU-PAH1 for details.

This test report is valid only when in conjunction with test report 130628039GZU-001, 06 Dec., 2013 and Amendment 1: 11 Nov., 2015 and Amendment 2: 12 July, 2016 and Amendment 3: 29 June, 2017.

| | |
|--|---|
| Manufacturer's Declaration per sub-clause 6.2.5 of IECEE 02: | |
| The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable |
| When differences exist; they shall be identified in the General product information section. | |
| Name and address of factory (ies) | Kilon Electrical Co., Ltd. Xiqing Industrial Area, Longjiang Town, Shunde, Foshan, Guangdong, P. R. China |

General product information:

Portable chopper for household and indoor use only.

KL-218 and KL-219 were different than other models.

KL-210, KL-210B, KL-210C, KL-210E, KL-210F, KL-212, KL-TS128, KL-TS128A, KL-TS128B, KL-TS128C, KL-TS228, KL-TS228B, KL-136, KL-136B are identical except for rated power and appearance and capacity and container and size and blade.


Double-blade for model KL-136B and for model KL-136 as alternative.

| Model | Rated power | Capacity of container | Power switch |
|-----------------|-------------|---|------------------|
| KL-210 | 200-400 W | 1,5l(one Glass+ two Plastic container); | Two speed |
| KL-210B | 200-300 W | | Two speed |
| KL-210C | 200-400 W | 1,2l(one Glass+ one Plastic container); | Two speed |
| KL-210E | 200-400 W | | One high speed |
| KL-210F | 200-400 W | 1,0l(one Glass+ two Plastic container); | One high speed |
| KL-212 | 200-400 W | | Two speed switch |
| KL-136/ KL-136B | 200-400 W | 0,5l(one Plastic container) | One high speed |
| | | 1,0l(one glass container) | |
| KL-TS128 | 200-300 W | 0,6l(one Plastic container) | Two speed switch |
| KL-TS128A | 200-300 W | 0,6l(one Plastic container) | No |
| KL-TS128B | 200-300 W | 0,6l(one Plastic container) | Two speed switch |
| KL-TS128C | 200-300 W | 0,6l(one Plastic container) | No |
| KL-TS228 | 200-300 W | 0,8l(one Plastic container) | Two speed switch |
| KL-TS228B | 200-300 W | 0,8l(one Plastic container) | No |

Model KL-212 is identical with model KL-210 except appearance and additional interlock switch.

Model KL-TS136G, KL-TS137G, KL-TS138G, KL-TS136, KL-TS137, KL-TS138 and KL-210 were identical except the model name.

Model KL-TS326, KL-TS327A, KL-TS328, KL-TS337G, KL-TS338G, KL-TS339G, KL-TS337, KL-TS338, KL-TS339, KL-TS336, KL-TS326A, KL-TS329S, KL-TS327S, KL-TS329, KL-TS327 and KL-218 were identical except the model name.

| IEC 60335-2-14 | | | |
|----------------|--|---|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 7 | MARKING AND INSTRUCTIONS | | -- |
| 7.1 | Rated voltage or voltage range (V) | 220-240 V | P |
| | Symbol for nature of supply, or | | N/A |
| | Rated frequency (Hz) | 50/60 Hz | P |
| | Rated power input is marked. (IEC 60335-2-14) | Refer to page 2 | P |
| | Rated current (A) | | N/A |
| | Manufacturer's or responsible vendor's name, trademark or identification mark..... | Kilon Electrical Co., Ltd. | P |
| | Model or type reference | Refer to page 2 | P |
| | Symbol IEC 60417-5172, for class II appliances |  | P |
| | IP number, other than IPX0..... | IPX0 | N/A |
| | Symbol IEC 60417-5180, for class III appliances, unless | | N/A |
| | the appliance is operated by batteries only | | N/A |
| | Symbol IEC 60417-5036, for the enclosure of electrically-operated water valves in external hose-sets for connection of an appliance to the water mains, if the working voltage exceeds extra-low voltage | | N/A |
| | Stands provided with cordless blenders are marked with: (IEC 60335-2-14) | | N/A |
| | - the name, trademark or identification mark of the manufacturer or responsible vendor | | N/A |
| | - the model or type reference | | N/A |
| 7.2 | Warning for stationary appliances for multiple supply | | N/A |
| | Warning placed in vicinity of terminal cover | | N/A |
| 7.3 | Range of rated values marked with the lower and upper limits separated by a hyphen | 220-240 V | P |
| | Different rated values marked with the values separated by an oblique stroke | | N/A |
| 7.4 | Appliances adjustable for different rated voltages, the voltage setting is clearly discernible | | N/A |
| | Requirement met if frequent changes are not required and the rated voltage to which the appliance is to be adjusted is determined from a wiring diagram | | N/A |

| IEC 60335-2-14 | | | |
|----------------|---|---------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 7.5 | Appliances with more than one rated voltage or one or more rated voltage ranges, marked with rated input or rated current for each rated voltage or range, unless | | N/A |
| | the power input is related to the arithmetic mean value of the rated voltage range | | P |
| | Relation between marking for upper and lower limits of rated power input or rated current and voltage is clear | | N/A |
| 7.6 | Correct symbols used | | P |
| | Symbol for nature of supply placed next to rated voltage | | P |
| | Symbol for class II appliances placed unlikely to be confused with other marking | | P |
| | Units of physical quantities and their symbols according to international standardized system | | P |
| 7.7 | Connection diagram fixed to appliances to be connected to more than two supply conductors and appliances for multiple supply, unless | | N/A |
| | correct mode of connection is obvious | | N/A |
| 7.8 | Except for type Z attachment, terminals for connection to the supply mains indicated as follows: | | -- |
| | - marking of terminals exclusively for the neutral conductor (letter N) | | N/A |
| | - marking of protective earthing terminals (symbol IEC 60417-5019) | | N/A |
| | - marking not placed on removable parts | | N/A |
| 7.9 | Marking or placing of switches which may cause a hazard | | P |
| 7.10 | Indications of switches on stationary appliances and controls on all appliances by use of figures, letters or other visual means | Letters and figures | P |
| | This applies also to switches which are part of a control | | P |
| | If figures are used, the off position indicated by the figure 0 | | P |
| | The figure 0 indicates only OFF position, unless no confusion with the OFF position | | P |
| 7.11 | Indication for direction of adjustment of controls | | P |
| 7.12 | Instructions for safe use provided | | P |

| IEC 60335-2-14 | | | |
|----------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | Details concerning precautions during user maintenance | | P |
| | The instructions state that: | | -- |
| | - the appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction | | N/A |
| | - children being supervised not to play with the appliance | | N/A |
| | For a part of class III construction supplied from a detachable power supply unit, the instructions state that the appliance is only to be used with the unit provided | | N/A |
| | Instructions for class III appliances state that it must only be supplied at SELV, unless | | N/A |
| | it is a battery-operated appliance, the battery being charged outside the appliance | | N/A |
| | Instructions include the operating times and speed settings for accessories (IEC 60335-2-14) | | P |
| | Accessories, other than those supplied with the appliance, include instructions for their safe use. (IEC 60335-2-14) | | N/A |
| | Adequate instruction for use for slicing machines provided with a base having a plain surface underneath the sliding feed table (IEC 60335-2-14) | | N/A |
| | The instructions for food processors and blenders warn against misuse (IEC 60335-2-14) | | P |
| | Instructions for hand-held blenders : (IEC 60335-2-14) | | -- |
| | - always disconnect the blender from the supply if it is left unattended and before assembling, disassembling or cleaning | | N/A |
| | - do not allow children to use the blender without supervision. | | N/A |
| | The instructions for centrifugal juicers shall include the substance of the following: (IEC 60335-2-14) | | -- |
| | - Do not use the appliance if the rotating sieve is damaged. | | N/A |
| | The instructions for cordless blenders state that the blender is only to be used with the stand provided. (IEC 60335-2-14) | | N/A |

| IEC 60335-2-14 | | | |
|----------------|---|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | The blender and stand of the cordless blender can be lifted together by gripping the handle of the blender, the instructions include the substance of the following: (IEC 60335-2-14) | | -- |
| | CAUTION: Ensure that the blender is switched off before removing it from the stand. | | N/A |
| | The instructions include details on how to clean surfaces in contact with food (IEC 60335-2-14) | | P |
| | The instructions for appliances incorporating a switch necessary for compliance with 22.40 include the substance of the following: (IEC 60335-2-14) | | P |
| | Switch off the appliance and disconnect from supply before changing accessories or approaching parts that move in use | | P |
| 7.12.1 | Sufficient details for installation supplied | | P |
| | For an appliance intended to be permanently connected to the water mains and not connected by a hose-set, this is stated | | N/A |
| 7.12.2 | Stationary appliances not fitted with means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III, the instructions state that means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules | | N/A |
| 7.12.3 | Insulation of the fixed wiring in contact with parts exceeding 50 K during clause 11; instructions state that the fixed wiring must be protected | | N/A |
| 7.12.4 | Instructions for built-in appliances: | | -- |
| | - dimensions of space | | N/A |
| | - dimensions and position of supporting and fixing | | N/A |
| | - minimum distances between parts and surrounding structure | | N/A |
| | - minimum dimensions of ventilating openings and arrangement | | N/A |
| | - connection to supply mains and interconnection of separate components | | N/A |
| | - allow disconnection of the appliance after installation, by accessible plug or a switch in the fixed wiring, unless | | N/A |
| | a switch complying with 24.3 | | N/A |

| IEC 60335-2-14 | | | |
|----------------|---|--------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 7.12.5 | Replacement cord instructions, type X attachment with a specially prepared cord | | N/A |
| | Replacement cord instructions, type Y attachment | | P |
| | Replacement cord instructions, type Z attachment | | N/A |
| 7.12.6 | Caution in the instructions for appliances incorporating a non-self-resetting thermal cut-out that is reset by disconnection of the supply mains, if this cut-out is required to comply with the standard | | N/A |
| 7.12.7 | Instructions for fixed appliances stating how the appliance is to be fixed | | N/A |
| 7.12.8 | Instructions for appliances connected to the water mains: | | -- |
| | - max. inlet water pressure (Pa) | | N/A |
| | - min. inlet water pressure, if necessary (Pa) | | N/A |
| | Instructions concerning new and old hose-sets for appliances connected to the water mains by detachable hose-sets | | N/A |
| 7.13 | Instructions and other texts in an official language | English and German | P |
| 7.14 | Marking clearly legible and durable, rubbing test as specified | | P |
| 7.15 | Markings on a main part | On the bottom | P |
| | Marking clearly discernible from the outside, if necessary after removal of a cover | | P |
| | For portable appliances, cover can be removed or opened without a tool | | N/A |
| | For stationary appliances, name, trademark or identification mark and model or type reference visible after installation | | N/A |
| | For fixed appliances, name, trademark or identification mark and model or type reference visible after installation according to the instructions | | N/A |
| | Indications for switches and controls placed on or near the components. Marking not on parts which can be positioned or repositioned in such a way that the marking is misleading | | P |
| 7.16 | Marking of a possible replaceable thermal link or fuse link clearly visible with regard to replacing the link | | N/A |
| 8 | PROTECTION AGAINST ACCESS TO LIVE PARTS | | -- |
| 8.1 | Adequate protection against accidental contact with live parts | | P |

| IEC 60335-2-14 | | | |
|----------------|---|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 8.1.1 | Requirement applies for all positions, detachable parts removed | | P |
| | Lamps behind a detachable cover not removed, if conditions met | | N/A |
| | Insertion or removal of lamps, protection against contact with live parts of the lamp cap | | N/A |
| | Use of test probe B of IEC 61032, with a force not exceeding 1 N: no contact with live parts | | P |
| 8.1.2 | Use of test probe 13 of IEC 61032, with a force not exceeding 1 N, through openings in class 0 appliances and class II appliances/constructions: no contact with live parts | | P |
| | Test probe 13 also applied through openings in earthed metal enclosures having a non-conductive coating: no contact with live parts | | N/A |
| 8.1.3 | For appliances other than class II, use of test probe 41 of IEC 61032, with a force not exceeding 1 N: no contact with live parts of visible glowing heating elements | | N/A |
| 8.1.4 | Accessible part not considered live if: | | -- |
| | - safety extra-low a.c. voltage: peak value not exceeding 42.4 V | | N/A |
| | - safety extra-low d.c. voltage: not exceeding 42.4 V | | N/A |
| | - or separated from live parts by protective impedance | | N/A |
| | If protective impedance: d.c. current not exceeding 2 mA, and | | N/A |
| | a.c. peak value not exceeding 0.7 mA | | N/A |
| | - for peak values over 42.4 V up to and including 450 V, capacitance not exceeding 0,1 µF | | N/A |
| | - for peak values over 450 V up to and including 15 kV, discharge not exceeding 45 µC | | N/A |
| | - for peak values over 15kV, the energy in the discharge not exceeding 350 mJ | | N/A |
| 8.1.5 | Live parts protected at least by basic insulation before installation or assembly: | | -- |
| | - built-in appliances | | N/A |
| | - fixed appliances | | N/A |
| | - appliances delivered in separate units | | N/A |

| IEC 60335-2-14 | | | |
|----------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 8.2 | Class II appliances and constructions constructed so that there is adequate protection against accidental contact with basic insulation and metal parts separated from live parts by basic insulation only | | P |
| | Only possible to touch parts separated from live parts by double or reinforced insulation | | P |
| 20 | STABILITY AND MECHANICAL HAZARDS | | -- |
| 20.1 | Appliances having adequate stability | | P |
| | Tilting test through an angle of 10°, appliance placed on an inclined plane/horizontal support, not connected to the supply mains; appliance does not overturn | | P |
| | Tilting test repeated on appliances with heating elements, angle of inclination increased to 15° | | N/A |
| | Possible heating test in overturned position; temperature rise does not exceed values shown in table 9 | | N/A |
| 20.2 | Moving parts adequately arranged or enclosed as to provide protection against personal injury | | P |
| | Protective enclosures, guards and similar parts are non-detachable, and | | P |
| | have adequate mechanical strength | | P |
| | Enclosures that can be opened by overriding an interlock are considered to be detachable parts | | P |
| | Self-resetting thermal cut-outs and over current protective devices not causing a hazard, by unexpected reclosure | | N/A |
| | Not possible to touch dangerous moving parts with the test probe described | | P |
| | Detachable accessories are removed and covers are opened except that for: (IEC 60335-2-14) | | -- |
| | - centrifugal juicers, the cover and the container for collecting the residue are in position | | N/A |
| | - graters and shredders, this is only applicable to accessories that are removed while the appliance is in operation | | P |
| | Test probe not applied to: (IEC 60335-2-14) | | -- |
| | - appliances specified in the list | | N/A |
| | - the following parts of other appliances: | | N/A |

| IEC 60335-2-14 | | | |
|----------------|--|----------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | smooth shafts having a diameter not exceeding 8 mm, rotating at a speed not exceeding 1 500 rev/min and driven by motors having an input not exceeding 200 W | | N/A |
| | outlet sides of grating and shredding disks rotating at a speed not exceeding 1 500 rev/min | | N/A |
| | projections from the surface of grinding disks, cones and similar parts having a height less than 4 mm | | N/A |
| | Test probe not applied to feed openings having a throat with following dimensions: (IEC 60335-2-14) | | -- |
| | - a height of at least 100 mm, measured from the upper edge of the cutting blade | For KL-218: 119,2 mm | P |
| | - an average of the maximum and minimum cross-sectional dimensions of the feed opening that does not exceed 65.5 mm | For KL-218: 42,7 mm | P |
| | - a maximum cross-sectional dimension of the feed opening that does not exceed 76 mm | For KL-218: 54,7 mm | P |
| | For blenders, detachable parts, except lids, are not removed. Test carried out with a test probe similar to that of test probe B of IEC 61032 but with circular stop face as specified. (IEC 60335-2-14) | | N/A |
| 20.101 | Accessories for cream whippers, egg beaters and hand-held food mixers have no knife edges, unless a suitable guard prevents accidental contact with their rotating parts (IEC 60335-2-14) | | N/A |
| | Hand-held food mixer: not possible to release the working tools while rotating at a speed exceeding 1500rev/min | | N/A |
| 20.102 | Blades of hand-held blenders are completely screened from above and are not able to touch a flat surface while rotating (IEC 60335-2-14) | | N/A |
| | Not possible to touch the blades with the end of the test rod (diameter 8 mm) and checked by inspection | | N/A |
| 20.103 | Biased-off switch of hand-held blenders recessed or otherwise guarded: Test with a cylindrical rod having a diameter of 40 mm and hemispherical end: appliance does not operate. (IEC 60335-2-14) | | N/A |

| IEC 60335-2-14 | | | |
|----------------|---|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 20.104 | Not possible to operate the cutting blades of blenders, other than hand-held blenders, while they are accessible: test with test finger specified for blender. (IEC 60335-2-14) | | N/A |
| | With detachable parts removed, if the cutting blades of the blender can be touched with the test probe specified for blenders in 20.2, it shall not be possible to operate the appliance. | | N/A |
| | Switches, other than biased-off switches, are placed in the on position and two simultaneous or sequential applications of test probe B of IEC 61032 are applied to biased-off switches, including interlock switches, with a force not exceeding 20 N in an attempt to operate the cutting blades. | | N/A |
| | During the test, it shall not be possible to operate the appliance. | | N/A |
| 20.105 | Centrifugal juicers (IEC 60335-2-14) | | -- |
| | - lids and covers do not open due to vibration | | N/A |
| | - rotating parts adequately secured against becoming loose during operation | | N/A |
| | - If speed of rotating parts >5000rev/min: lids and covers can only be closed after removal of tools | | N/A |
| | - teeth of grating disks do not exceed 1,5mm in height | | N/A |
| | - Ejectors on filter drums shall not project by more than 4 mm. | | N/A |
| | - feed pusher provided, of a size that fills the throat of the hopper | | N/A |
| | - lids and covers do not open by force test of 5N | | N/A |
| 20.106 | For appliances having a feed screw: (IEC 60335-2-14) | | N/A |
| | - the maximum cross-sectional dimension of the hopper not exceed 45 mm. | | |
| | - provide a feed pusher and the feed screw of the appliance is not accessible to test probe B of IEC 61032 with the pusher in position (IEC 60335-2-14/A1:2008) | | N/A |
| 20.107 | Slicing machines, other than fixed appliances and those having a biased-off switch, incorporate means to hold the appliance in place and allow it to be released after use: no move on glass plate when subjected to test as specified. (IEC 60335-2-14) | | N/A |
| 20.108 | slicing machines: (IEC 60335-2-14) | | — |

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|----------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | - provided with a guard surrounding the knife and its edge | | N/A |
| | - guard opening as small as permitted by effective use | | N/A |
| | - edge of knife guarded as shown in Fig.101 | | N/A |
| | Knife guards shall be non-detachable unless the motor cannot be switched on after their removal. | | N/A |
| | It shall not be possible to operate interlocks by means of test probe B of IEC 61032. | | N/A |
| | Angle of the upper part of guard opening not exceed 75° | | N/A |
| | The angle may be increased to 90° if the exposed part of the knife exceeding 75° is screened from above. | | N/A |
| | Radial distance not exceed 2 mm, if the guard is flush with the plane of the knife; or | | N/A |
| | 3 mm, if the guard projects at least 0,2 mm beyond the plane of the knife. | | N/A |
| | Distance between the outer circumference of the knife and the plate that sets the thickness of the slices shall not exceed 6 mm. | | N/A |
| | Distance between the plate that sets the thickness of the slices and any other protecting part shall not exceed 5 mm. | | N/A |
| | Additional guard provided if slices thicker than 15mm allowed | | N/A |
| | Slicing machines shall incorporate a sliding feed table with a hand rest, a thumb guard and a piece holder. | | N/A |
| | Sliding feed table adequately designed (f_30mm, d≤ 5mm, thumb guard projects radially by at least 8mm beyond the blades) | | N/A |
| | Piece holder enables small pieces to be sliced | | N/A |
| | Dimensions of spikes or similar as specified | | N/A |
| | Support of sliding table not usable for supplying food without the table in position; verified dash Nos. | | N/A |
| 20.109 | Slicing machines constructed so that accidental operation of the appliance is prevented. (IEC 60335-2-14) | | N/A |
| | Actuating member of push-button, toggle, rocker or slide switch recessed and actuated with force at least 2N. | | N/A |

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|----------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | Actuating member of slide switch located so that unintentional actuation is unlikely and actuated with force at least 5N. | | N/A |
| 20.110 | The cutting blades of bean slicers: (IEC 60335-2-14) | | — |
| | - are at least 30 mm from the plane of the inlet opening. | | N/A |
| | - length of the major and minor axis of the inlet and outlet openings not exceed 30 mm and 15 mm | | N/A |
| | - dimensions of outlet openings not limited if compliance with test specified. | | N/A |
| 20.111 | The rotating parts of blenders, graters and shredders: | | P |
| | - are secured so that they are not liable to become loose during operation. (IEC 60335-2-14) | | |
| | - a feed pusher shall be provided which fills the throat of the hopper | | P |
| 20.112 | The cutting blade of food processors stopped within 1,5 s after the lid has been opened or removed. (IEC 60335-2-14) | <1s | P |
| 20.113 | The lid interlock of food processors shall be constructed so that accidental operation of the appliances is prevented (IEC 60335-2-14) | | P |
| | Lid interlock switches shall be biased-off switches | | P |
| | If there is an interlock between the lid and the main switch, the lid shall be locked when the switch is in the on position | | P |
| | When the lid is not correctly closed , the switch shall be locked in the off position | | P |
| 20.114 | Access to dangerous moving parts of food processors prevented for all combinations of assembly of detachable parts that allow the motor to operate: comply with test as specified (IEC 60335-2-14) | | P |
| 20.115 | Knives shall incorporate a biased-off switch that is recessed or guarded to prevent accidental operation. (IEC 60335-2-14) | | N/A |
| | Appliance don't operate when applying a cylindrical rod with diameter 40mm to the switch | | N/A |

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|----------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 20.116 | Centrifugal juicers for fruit and vegetables shall be constructed so that parts cannot become disengaged when the appliance is operated at high speed. (IEC 60335-2-14) | | N/A |
| | Lid removed, appliance supply at rated voltage and highest speed (10 times): no part of appliance disengaged | | N/A |
| | Lid in position, when the speed reaches its maximum value, attempt is made to remove the lid (10 times): no part of appliance disengaged | | N/A |
| 20.117 | Centrifugal juicers shall withstand the stresses resulting from parts rotating at high speed (IEC 60335-2-14) | | N/A |
| | Compliance is checked by the following test which is carried out on three new appliance) | | N/A |
| | Or by testing the sieve in accordance with Annex AA. | | N/A |
| | The rim of plastic material retaining the rotating sieve is cut | | N/A |
| | If the sieve retains its structure, the rim is cut further and the test repeated until disintegration takes place | | N/A |
| | During the test, parts shall not be ejected from the appliance. | | N/A |
| 20.118 | The operation of cordless appliances incorporating cutting blades that are accessible to test probe B of IEC 61032 shall require two separate movements, unless (IEC 60335-2-14) | | N/A |
| | The control device is not directly accessible to the probe. | | N/A |
| 20.119 | Bowl and cutting blades of food blenders and hand-held blenders shall have adequate mechanical strength. (IEC 60335-2-14) | | N/A |
| | After the test, the bowl and cutting blades shall not be broken. | | N/A |
| 21 | MECHANICAL STRENGTH | | -- |
| 21.1 | Appliance has adequate mechanical strength and is constructed as to withstand rough handling | | P |
| | Checked by applying 3 blows to every point of the enclosure like to be weak, in accordance with test Ehb of IEC 60068-2-75, spring hammer test, with an impact energy of 0,5 J | | P |

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|----------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | The appliance shows no damage impairing compliance with this standard, and | | P |
| | compliance with 8.1, 15.1 and clause 29 not impaired | | P |
| | If doubt, supplementary or reinforced insulation subjected to the electric strength test of 16.3 | | N/A |
| | If necessary, repetition of groups of three blows on a new sample | | N/A |
| | Test also carried out on detachable parts that are necessary for protection against mechanical hazards. (IEC 60335-2-14) | | P |
| 21.2 | Accessible parts of solid insulation having strength to prevent penetration by sharp implements | | P |
| | Test not applicable if the thickness of supplementary insulation is at least 1 mm and reinforced insulation at least 2 mm | | P |
| | The insulation is tested as specified, and does withstand the electric strength test of 16.3 | | N/A |
| 22 | CONSTRUCTION | | -- |
| 22.1 | Appliance marked with the first numeral of the IP system, relevant requirements of IEC 60529 are fulfilled | IPX0 | N/A |
| 22.2 | Stationary appliance: means to ensure all-pole disconnection from the supply being provided: | | -- |
| | - a supply cord fitted with a plug, or | | N/A |
| | - a switch complying with 24.3, or | | N/A |
| | - a statement in the instruction sheet that a disconnection incorporated in the fixed wiring is to be provided, or | | N/A |
| | - an appliance inlet | | N/A |
| | Single-pole switches and single-pole protective devices for the disconnection of heating elements in single-phase, permanently connected class 01 and class I appliances, connected to the phase conductor | | N/A |
| 22.3 | Appliance provided with pins: no undue strain on socket-outlets | | N/A |
| | Applied torque not exceeding 0.25 Nm | | N/A |

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|----------------|---|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | Pull force of 50N to each pin after the appliance has being placed in the heating cabinet; when cooled to room temperature the pins are not displaced by more than 1mm | | N/A |
| | Each pin subjected to a torque of 0.4Nm; the pins are not rotating, unless | | N/A |
| | rotating does not impair compliance with this standard | | N/A |
| 22.4 | Appliance for heating liquids and appliance causing undue vibration not provided with pins for insertion into socket-outlets | | P |
| 22.5 | No risk of electric shock when touching the pins of the plug, for appliances having a capacitor with rated capacitance exceeding 0,1µF, the appliance being disconnected from the supply at the instant of voltage peak | | P |
| | Voltage not exceeding 34 V (V) | 4,5 V | P |
| 22.6 | Electrical insulation not affected by condensing water or leaking liquid | | P |
| | Electrical insulation of Class II appliances not affected if a hose ruptures or seal leaks | | N/A |
| | In case of doubt, test as described | | N/A |
| 22.7 | Adequate safeguards against the risk of excessive pressure in appliances containing liquid or gases or having steam-producing devices | | N/A |
| 22.8 | Electrical connections not subject to pulling during cleaning of compartments to which access can be gained without the aid of a tool, and that are likely to be cleaned in normal use | | N/A |
| 22.9 | Insulation, internal wiring, windings, commutators and slip rings not exposed to oil, grease or similar substances, unless | | P |
| | the substance has adequate insulating properties | | N/A |
| 22.10 | Not possible to reset voltage-maintained non-self-resetting thermal cut-outs by the operation of an automatic switching device incorporated within the appliance, if: | | N/A |
| | - a non-self-resetting thermal cut-out is required by the standard, and | | N/A |
| | - a voltage maintained non-self-resetting thermal cut-out is used to meet it | | N/A |

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|----------------|--|--------------------------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | Non-self-resetting thermal motor protectors have a trip-free action, unless | | N/A |
| | they are voltage maintained | | N/A |
| | Reset buttons of non-self-resetting controls so located or protected that accidental resetting is unlikely | | N/A |
| 22.11 | Reliable fixing of non-detachable parts that provide the necessary degree of protection against electric shock, moisture or contact with moving parts | Enclosure fixed by screw | P |
| | Obvious locked position of snap-in devices used for fixing such parts | | P |
| | No deterioration of the fixing properties of snap-in devices used in parts that are likely to be removed during installation or servicing | | N/A |
| | Tests as described | Push force: 50 N Pull force: 50 N | P |
| 22.12 | Handles, knobs etc. fixed in a reliable manner | | P |
| | Fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible | | P |
| | Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied | Switch knob | P |
| | Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied | Handle | P |
| 22.13 | Unlikely that handles, when gripped as in normal use, make the operator's hand touch parts having a temperature rise exceeding the value specified for handles which are held for short periods only | | P |
| 22.14 | No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance | | P |
| | No exposed pointed ends of self-tapping screws or other fasteners, likely to be touched by the user in normal use or during user maintenance | | P |
| 22.15 | Storage hooks and the like for flexible cords smooth and well rounded | | N/A |
| 22.16 | Automatic cord reels cause no undue abrasion or damage to the sheath of the flexible cord, no breakage of conductors strands and no undue wear of contacts | | N/A |
| | Cord reel tested with 6000 operations, as specified | | N/A |

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|----------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | Electric strength test of 16.3, voltage of 1000 V applied | | N/A |
| 22.17 | Spacers not removable from the outside by hand or by means of a screwdriver or a spanner | | N/A |
| 22.18 | Current-carrying parts and other metal parts resistant to corrosion | | P |
| 22.19 | Driving belts not relied upon to provide the required level of insulation, unless | | N/A |
| | constructed to prevent inappropriate replacement | | N/A |
| 22.20 | Direct contact between live parts and thermal insulation effectively prevented, unless | | N/A |
| | material used is non-corrosive, non-hygroscopic and non-combustible | | N/A |
| 22.21 | Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless | | P |
| | impregnated | | N/A |
| | This requirement does not apply to magnesium oxide and mineral ceramic fibres used for the electrical insulation of heating elements | | N/A |
| 22.22 | Appliances not containing asbestos | | P |
| 22.23 | Oils containing polychlorinated biphenyl (PCB) not used | | P |
| 22.24 | Bare heating elements, except in class III appliances or class III constructions that do not contain live parts, adequately supported | | N/A |
| | In case of rupture, the heating conductor is unlikely to come in contact with accessible metal parts | | N/A |
| 22.25 | Sagging heating conductors, except in class III appliances or class III constructions that do not contain live parts, cannot come into contact with accessible metal parts | | N/A |
| 22.26 | For class III constructions the insulation between parts operating at safety extra-low voltage and other live parts complies with the requirements for double or reinforced insulation | | N/A |
| 22.27 | Parts connected by protective impedance separated by double or reinforced insulation | | N/A |
| 22.28 | Metal parts of Class II appliances conductively connected to gas pipes or in contact with water, separated from live parts by double or reinforced insulation | | N/A |

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|----------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 22.29 | Class II appliances permanently connected to fixed wiring so constructed that the required degree of access to live parts is maintained after installation | | N/A |
| 22.30 | Parts serving as supplementary or reinforced insulation fixed so that they cannot be removed without being seriously damaged, or | | N/A |
| | so constructed that they cannot be replaced in an incorrect position, and so that if they are omitted, the appliance is rendered inoperable or manifestly incomplete | | P |
| 22.31 | Neither clearances nor creepage distances over supplementary and reinforced insulation reduced below values specified in clause 29 as a result of wear | | P |
| | Neither clearances nor creepage distances between live parts and accessible parts reduced below values for supplementary insulation if wires, screws etc. become loose | | P |
| 22.32 | Supplementary and reinforced insulation constructed or protected against pollution so that clearances or creepage distances are not reduced below the values in clause 29 | | P |
| | Supplementary insulation of natural or synthetic rubber resistant to ageing, or arranged and dimensioned so that creepage distances are not reduced below values specified in 29.2 | | N/A |
| | Ceramic material not tightly sintered, similar materials or beads alone not used as supplementary or reinforced insulation | | N/A |
| | Insulating material in which heating conductors are embedded is considered to be basic insulation, not reinforced insulation | | N/A |
| | Oxygen bomb test at 70 °C for 96 h and 16 h at room temperature | | N/A |
| 22.33 | Conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts are not in direct contact with live parts | | P |
| | Electrodes not used for heating liquids | | N/A |
| | For class II constructions, conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts, not in direct contact with basic or reinforced insulation, unless | | P |

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|----------------|---|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | the reinforced insulation consists of at least 3 layers | | N/A |
| | For class II constructions, conductive liquids which are in contact with live parts, not in direct contact with reinforced insulation, unless | | N/A |
| | the reinforced insulation consists of at least 3 layers | | N/A |
| | An air layer not used as basic or supplementary insulation in a double insulation system if likely to be bridged by leaking liquid | | N/A |
| 22.34 | Shafts of operating knobs, handles, levers etc. not live, unless | No live shaft | P |
| | the shaft is not accessible when the part is removed | | N/A |
| 22.35 | For other than class III constructions, handles, levers and knobs, held or actuated in normal use, not becoming live in the event of a failure of basic insulation | | P |
| | Such parts being of metal, and their shafts or fixings are likely to become live in the event of a failure of basic insulation, are either adequately covered by insulation material or their accessible parts are separated from their shafts or fixings by supplementary insulation | | N/A |
| | This requirement does not apply to handles, levers and knobs on stationary appliances, other than those of electrical components, provided they are reliably connected to an earthing terminal or earthing contact, or separated from live parts by earthed metal | | N/A |
| | Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation | | N/A |
| 22.36 | For appliances other than class III, handles continuously held in the hand in normal use so constructed that when gripped as in normal use, the operators hand is not likely to touch metal parts, unless | | P |
| | they are separated from live parts by double or reinforced insulation | | N/A |
| 22.37 | Capacitors in Class II appliances not connected to accessible metal parts and their casings, if of metal, separated from accessible metal parts by supplementary insulation, unless | | P |
| | the capacitors comply with 22.42 | | N/A |

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|----------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 22.38 | Capacitors not connected between the contacts of a thermal cut-out | | P |
| 22.39 | Lamp holders used only for the connection of lamps | | N/A |
| 22.40 | Motor-operated appliances and combined appliances intended to be moved while in operation, or having accessible moving parts, fitted with a switch to control the motor. The actuating member of the switch being easily visible and accessible | | P |
| | If the appliance cannot operate continuously, automatically or remotely without giving rise to a hazard, appliances for remote operation being fitted with a switch for stopping the operation. The actuating member of the switch being easily visible and accessible | | N/A |
| | Any switch controlling the motor also disconnects electronic circuits, the malfunction of which would impair compliance with this standard (checked during the tests of Clause 19). (IEC 60335-2-14) | | N/A |
| 22.41 | No components, other than lamps, containing mercury | | P |
| 22.42 | Protective impedance consisting of at least two separate components | | N/A |
| | Values specified in 8.1.4 not exceeded if any one of the components are short-circuited or open-circuited | | N/A |
| | Resistors checked by the test of 14.1 a) in IEC 60065 | | N/A |
| | Capacitors checked by the tests for class Y capacitors in IEC 60384-14 | | N/A |
| 22.43 | Appliances adjustable for different voltages, accidental changing of the setting of the voltage unlikely to occur | | N/A |
| 22.44 | Appliances not having an enclosure that is shaped or decorated like a toy | | P |
| 22.45 | When air is used as reinforced insulation, clearances not reduced below the values specified in 29.1.3 due to deformation as a result of an external force applied to the enclosure | | P |
| 22.46 | For programmable protective electronic circuits used to ensure compliance with the standard, the software contains measures to control the fault/error conditions in table R.1 | | N/A |

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|----------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | Software that contains measures to control the fault/error conditions specified in table R.2 is to be specified in parts 2 for particular constructions or to address specific hazards | | N/A |
| | These requirements are not applicable to software used for functional purpose or compliance with clause 11 | | N/A |
| 22.47 | Appliances connected to the water mains withstand the water pressure expected in normal use | | N/A |
| | No leakage from any part, including any inlet water hose | | N/A |
| 22.48 | Appliances connected to the water mains constructed to prevent backsiphonage of non-potable water | | N/A |
| 22.49 | For remote operation, the duration of operation is to be set before the appliance can be started, unless | | N/A |
| | the appliance switches off automatically or can operate continuously without hazard | | N/A |
| 22.50 | Controls incorporated in the appliance take priority over controls actuated by remote operation | | N/A |
| 22.51 | There is a control on the appliance manually adjusted to the setting for remote operation before the appliance can be operated in this mode | | N/A |
| | There is a visual indication showing that the appliance is adjusted for remote operation | | N/A |
| | These requirements not necessary on appliances that can operate as follows, without giving rise to a hazard: | | N/A |
| | - continuously, or | | N/A |
| | - automatically, or | | N/A |
| | - remotely | | N/A |
| 22.52 | Socket-outlets on appliances accessible to the user in accordance with the socket-outlet system used in the country in which the appliance is sold | | N/A |
| 22.101 | Appliances constructed so that lubricants are prevented from polluting food compartments (IEC 60335-2-14) | | P |
| 22.102 | Appliances constructed so that food or liquids are prevented from penetrating into places that could cause electrical or mechanical faults. (IEC 60335-2-14) | | P |

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|----------------|--|----------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 22.103 | The appliance coupler of cordless blenders shall be constructed to withstand the stresses occurring during normal use. (IEC 60335-2-14) | | N/A |
| | The two live pins of the blender are connected together and an external resistive load is connected in series with the supply. The external load is such that the current is 1,1 times rated current. | | N/A |
| | The blender is placed on its stand and withdrawn 10 000 times at a rate of approximately 10 times per minute. The test is continued for a further 10 000 times without current flowing. | | N/A |
| | If the connection contacts cannot be energized when making or breaking the connection, instead of the above sequence, the test is carried out 20 000 times without current. | | N/A |
| | After the test, the blender shall be suitable for further use and compliance with 8.1, 16.3, 27.5 and Clause 29 shall not be impaired. | | N/A |
| 24 | COMPONENTS | | -- |
| 24.1 | Components comply with safety requirements in relevant IEC standards | | P |
| | List of components | (see appended table) | P |
| | If components have not been tested and found to comply with relevant IEC standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9 | | P |
| | For components mentioned in 24.1.1 to 24.1.9 no additional tests specified in the relevant component standard are necessary other than those specified in 24.1.1 to 24.1.9 | | P |
| | Components not tested and found to comply with relevant IEC standard and components not marked or not used in accordance with its marking, tested under the conditions occurring in the appliance | | P |
| | Lampholders and starterholders that have not being tested and found to comply with the relevant IEC standard, tested as a part of the appliance and additionally according to the gauging and interchangeability requirements of the relevant IEC standard | | N/A |
| | No additional tests specified for nationally standardized plugs such as those detailed in IEC/TR 60083 or connectors complying with the standard sheets of IEC 60320-1 and IEC 60309 | | P |

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|----------------|---|--------------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 24.1.1 | Capacitors likely to be permanently subjected to the supply voltage and used for radio interference suppression or for voltage dividing, complying with IEC 60384-14 | Certified X/Y-capacitors | P |
| | If the capacitors have to be tested, they are tested according to Annex F | | N/A |
| 24.1.2 | Safety isolating transformers complying with IEC 61558-2-6 | | N/A |
| | If they have to be tested, they are tested according to Annex G | | N/A |
| 24.1.3 | Switches complying with IEC 61058-1, the number of cycles of operation being at least 10 000 | | P |
| | If they have to be tested, they are tested according to Annex H | KL-136, KL-210F | P |
| | If the switch operates a relay or contactor, the complete switching system is subjected to the test | | N/A |
| | If the switch only operates a motor starting relay complying with IEC 60730-2-10 with the number of cycles of a least 10 000 as specified, the complete switching system need not be tested | | N/A |
| | Switches incorporated in the following appliances are tested for 3 000 cycles of operation: (IEC 60335-2-14) | | — |
| | - bean slicers; | | N/A |
| | - liquid blenders; | | N/A |
| | - cheese graters; | | N/A |
| | - graters; | | N/A |
| | - ice-cream machines for use in refrigerators and freezers; | | N/A |
| | - sieving machines; | | N/A |
| | - shredders. | | P |
| 24.1.4 | Automatic controls complying with IEC 60730-1 with the relevant part 2. The number of cycles of operation being at least: | | -- |
| | - thermostats: 10 000 | | N/A |
| | - temperature limiters: 1 000 | | N/A |
| | - self-resetting thermal cut-outs: 300 | | N/A |
| | - voltage maintained non-self-resetting thermal cut-outs: 1 000 | | N/A |
| | - other non-self-resetting thermal cut-outs: 30 | | N/A |

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|----------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | - timers: 3 000 | | N/A |
| | - energy regulators: 10 000 | | N/A |
| | The number of cycles for controls operating during clause 11 need not be declared, if the appliance meets the requirements of this standard when they are short-circuited | | N/A |
| | Thermal motor protectors are tested in combination with their motor under the conditions specified in Annex D | | N/A |
| | For water valves containing live parts and that are incorporated in external hoses for connection of an appliance to the water mains, the degree of protection declared for subclause 6.5.2 of IEC 60730-2-8 is IPX7 | | N/A |
| 24.1.5 | Appliance couplers complying with IEC 60320-1 | | N/A |
| | However, for appliances classified higher than IPX0, the appliance couplers complying with IEC 60320-2-3 | | N/A |
| | Interconnection couplers complying with IEC 60320-2-2 | | N/A |
| 24.1.6 | Small lamp holders similar to E10 lampholders complying with IEC 60238, the requirements for E10 lampholders being applicable | | N/A |
| 24.1.7 | For remote operation of the appliance via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is IEC 62151 | | N/A |
| 24.1.8 | The relevant standard for thermal links is IEC 60691 | | N/A |
| | Thermal links not complying with IEC 60691 are considered to be an intentionally weak part for the purposes of Clause 19 | | N/A |
| 24.1.9 | Contactors and relays, other than motor starting relays, tested as part of the appliance | | N/A |
| | They are also tested in accordance with Clause 17 of IEC 60730-1, the number of cycles of operations in 24.1.4 selected according to the contactor or relay function in the appliance.....: | | N/A |
| 24.2 | Appliances not fitted with: | | -- |
| | - switches or automatic controls in flexible cords | | P |

| IEC 60335-2-14 | | | |
|----------------|---|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | - devices causing the protective device in the fixed wiring to operate in the event of a fault in the appliance | | P |
| | - thermal cut-outs that can be reset by soldering, unless | | N/A |
| | the solder has a melting point of at least 230 °C | | N/A |
| 24.3 | Switches intended for all-pole disconnection of stationary appliances are directly connected to the supply terminals and have a contact separation in all poles, providing full disconnection under overvoltage category III conditions | | N/A |
| 24.4 | Plugs and socket-outlets for extra-low voltage circuits and heating elements, not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1 or with connectors and appliance inlets complying with the standard sheets of IEC 60320-1 | | N/A |
| 24.5 | Capacitors in auxiliary windings of motors marked with their rated voltage and capacitance, and used accordingly | | N/A |
| | Voltage across capacitors in series with a motor winding does not exceed 1,1 times rated voltage, when the appliance is supplied at 1,1 times rated voltage under minimum load | | N/A |
| 24.6 | Working voltage of motors connected to the supply mains and having basic insulation that is inadequate for the rated voltage of the appliance, not exceeding 42 V | | N/A |
| | In addition, the motors comply with the requirements of Annex I | | N/A |
| 24.7 | Detachable hose-sets for connection of appliances to the water mains comply with IEC 61770 | | N/A |
| | They are supplied with the appliance | | N/A |
| | Appliances intended to be permanently connected to the water mains not connected by a detachable hose-set | | N/A |
| 24.8 | Motor running capacitors in appliances for which 30.2.3 is applicable and that are permanently connected in series with a motor winding, not causing a hazard in event of a failure | | N/A |
| | One or more of the following conditions are to be met: | | N/A |
| | - the capacitors are of class P2 according to IEC 60252-1 | | N/A |

| IEC 60335-2-14 | | | |
|----------------|---|----------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | - the capacitors are housed within a metallic or ceramic enclosure | | N/A |
| | - the distance of separation of the outer surface to adjacent non-metallic parts exceeds 50 mm | | N/A |
| | - adjacent non-metallic parts within 50 mm withstand the needle-flame test of Annex E | | N/A |
| | - adjacent non-metallic parts within 50 mm classified as at least V-1 according to IEC 60695-11-10 | | N/A |
| 29 | CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION | | -- |
| | Clearances, creepage distances and solid insulation withstand electrical stress | | P |
| | For coatings used on printed circuits boards to protect the microenvironment (Type 1) or to provide basic insulation (Type 2), Annex J applies.....: | | N/A |
| | The microenvironment is pollution degree 1 under type 1 protection | | N/A |
| | For type 2 protection, the spacing between the conductors before the protection is applied is not less than the values specified in Table 1 of IEC 60664-3 | | N/A |
| | These values apply to functional, basic, supplementary and reinforced insulation | | N/A |
| 29.1 | Clearances not less than the values specified in table 16, taking into account the rated impulse voltage for the overvoltage categories of table 15, unless | (see appended table) | P |
| | for basic insulation and functional insulation they comply with the impulse voltage test of clause 14 | | N/A |
| | However, if the distances are affected by wear, distortion, movement of the parts or during assembly, the clearances for rated impulse voltages of 1500V and above are increased by 0,5 mm and the impulse voltage test is not applicable | | P |
| | Impulse voltage test is not applicable: | | P |
| | - when the microenvironment is pollution degree 3, or | | P |
| | - for basic insulation of class 0 and class 01 appliances | | N/A |
| | Appliances are in overvoltage category II | | P |

| IEC 60335-2-14 | | | |
|----------------|--|----------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | A force of 2 N is applied to bare conductors, other than heating elements | | P |
| | A force of 30 N is applied to accessible surfaces | | P |
| 29.1.1 | Clearances of basic insulation withstand the overvoltages, taking into account the rated impulse voltage | | P |
| | The values of table 16 or the impulse voltage test of clause 14 are applicable.....: | (see appended table) | P |
| | Clearance at the terminals of tubular sheathed heating elements may be reduced to 1,0 mm if the microenvironment is pollution degree 1 | | N/A |
| | Lacquered conductors of windings considered to be bare conductors | | P |
| 29.1.2 | Clearances of supplementary insulation not less than those specified for basic insulation in table 16: | (see appended table) | P |
| 29.1.3 | Clearances of reinforced insulation not less than those specified for basic insulation in table 16, using the next higher step for rated impulse voltage | (see appended table) | P |
| | For double insulation, with no intermediate conductive part between basic and supplementary insulation, clearances are measured between live parts and the accessible surface, and the insulation system is treated as reinforced insulation | | P |
| 29.1.4 | Clearances for functional insulation are the largest values determined from: | | -- |
| | - table 16 based on the rated impulse voltage | (see appended table) | P |
| | - table F.7a in IEC 60664-1, frequency not exceeding 30 kHz | | N/A |
| | - clause 4 of IEC 60664-4, frequency exceeding 30 kHz | | N/A |
| | If values of table 16 are largest, the impulse voltage test of clause 14 may be applied instead, unless | | N/A |
| | the microenvironment is pollution degree 3, or | | P |
| | the distances can be affected by wear, distortion, movement of the parts or during assembly | | P |
| | However, clearances are not specified if the appliance complies with clause 19 with the functional insulation short-circuited | | N/A |
| | Lacquered conductors of windings considered to be bare conductors | | P |

| IEC 60335-2-14 | | | |
|----------------|--|----------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | However, clearances at crossover points are not measured | | P |
| | Clearance between surfaces of PTC heating elements may be reduced to 1mm | | N/A |
| 29.1.5 | Appliances having higher working voltages than rated voltage, clearances for basic insulation are the largest values determined from: | | -- |
| | - table 16 based on the rated impulse voltage | | N/A |
| | - table F.7a in IEC 60664-1, frequency not exceeding 30 kHz | | N/A |
| | - clause 4 of IEC 60664-4, frequency exceeding 30 kHz | | N/A |
| | If clearances for basic insulation are selected from Table F.7a of IEC 60664-1 or Clause 4 of IEC 60664-4, the clearances of supplementary insulation are not less than those specified for basic insulation | | N/A |
| | If clearances for basic insulation are selected from Table F.7a of IEC 60664-1, the clearances of reinforced insulation dimensioned as specified in Table F.7a are to withstand 160% of the withstand voltage required for basic insulation | | N/A |
| | If clearances for basic insulation are selected from Clause 4 of IEC 60664-4, the clearances of reinforced insulation are twice the value required for basic insulation | | N/A |
| | If the secondary winding of a step-down transformer is earthed, or if there is an earthed screen between the primary and secondary windings, clearances of basic insulation on the secondary side not less than those specified in table 16, but using the next lower step for rated impulse voltage | | N/A |
| | Circuits supplied with a voltage lower than rated voltage, clearances of functional insulation are based on the working voltage used as the rated voltage in table 15 | | N/A |
| 29.2 | Creepage distances not less than those appropriate for the working voltage, taking into account the material group and the pollution degree.....: | (see appended table) | P |
| | Pollution degree 2 applies, unless | | N/A |
| | - precautions taken to protect the insulation; pollution degree 1 | | N/A |

| IEC 60335-2-14 | | | |
|----------------|---|----------------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | - insulation subjected to conductive pollution; pollution degree 3 | | P |
| | A force of 2 N is applied to bare conductors, other than heating elements | | P |
| | A force of 30 N is applied to accessible surfaces | | P |
| | In a double insulation system, the working voltage for both the basic and supplementary insulation is taken as the working voltage across the complete double insulation system | | P |
| | Microenvironment is pollution degree 3 (IEC 60335-2-14) | | P |
| | unless insulation enclosed or located so that it is unlikely to be exposed to pollution during normal use of the appliance (IEC 60335-2-14) | | N/A |
| 29.2.1 | Creepage distances of basic insulation not less than specified in table 17.....: | (see appended table) | P |
| | However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from table 2 of IEC 60664-4, these values being used if exceeding the values in table 17 | | N/A |
| | Except for pollution degree 1, corresponding creepage distance not less than the minimum specified for the clearance in table 16, if the clearance has been checked according to the test of clause 14 | | N/A |
| 29.2.2 | Creepage distances of supplementary insulation at least those specified for basic insulation in table 17, or | (see appended table) | P |
| | Table 2 of IEC 60664-4, as applicable | | N/A |
| 29.2.3 | Creepage distances of reinforced insulation at least double those specified for basic insulation in table 17, or | (see appended table) | P |
| | Table 2 of IEC 60664-4, as applicable | | N/A |
| 29.2.4 | Creepage distances of functional insulation not less than specified in table 18.....: | (see appended table) | P |
| | However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from table 2 of IEC 60664-4, these values being used if exceeding the values in table 18 | | N/A |

| IEC 60335-2-14 | | | |
|----------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | Creepage distances may be reduced if the appliance complies with clause 19 with the functional insulation short-circuited | | N/A |
| 29.3 | Supplementary and reinforced insulation have adequate thickness, or a sufficient number of layers, to withstand the electrical stresses | | P |
| | Compliance checked: | | -- |
| | - by measurement, in accordance with 29.3.1, or | | P |
| | - by an electric strength test in accordance with 29.3.2, or | | N/A |
| | - by an assessment of the thermal quality of the material combined with an electric strength test, in accordance with 29.3.3, and | | N/A |
| | for accessible parts of reinforced insulation consisting of a single layer, by measurement in accordance with 29.3.4, or | | N/A |
| | - as specified in subclause 6.3 of IEC 60664-4 for insulation that is subjected to any periodic voltage having a frequency exceeding 30 kHz | | N/A |
| 29.3.1 | Supplementary insulation have a thickness of at least 1 mm | | P |
| | Reinforced insulation have a thickness of at least 2 mm | | P |
| 29.3.2 | Each layer of material withstand the electric strength test of 16.3 for supplementary insulation | | N/A |
| | Supplementary insulation consist of at least 2 layers | | N/A |
| | Reinforced insulation consist of at least 3 layers | | N/A |
| 29.3.3 | The insulation is subjected to the dry heat test Bb of IEC 60068-2-2, followed by | | N/A |
| | the electric strength test of 16.3 | | N/A |
| | If the temperature rise during the tests of clause 19 does not exceed the value specified in table 3, the test of IEC 60068-2-2 is not carried out | | N/A |
| 29.3.4 | Thickness of accessible parts of reinforced insulation consisting of a single layer not less than specified in table 19.....: | | N/A |

| IEC 60335-2-14 | | | |
|-----------------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| A | ANNEX A (INFORMATIVE) ROUTINE TESTS | | -- |
| | Description of routine tests to be carried out by the manufacturer | | P |

Tables:

| 24.1 | TABLE: Components | | | | | P |
|-------------------|---|--------------|---|--|--------------------------|---|
| Object / part No. | Manufacturer/ trademark | Type / model | Technical data | Standard | Mark(s) of conformity | |
| Plug | Chau's Electrical Co., Ltd. | CE-503 | AC 250 V, 2,5 A EN50075, sheet 1 Colour: Black and white | DIN VDE 0620-1 AfPS GS 2014:01 PAK | VDE* | |
| Alternative | Guangzhou Huan Qiu Electrical & Appliance Co. Ltd. | HQ-B201 | AC 250 V, 2,5 A EN50075, sheet 1 Colour: Black and white | DIN VDE 0620-1 AfPS GS 2014:01 PAK | VDE* | |
| Alternative | MAINLAND ELECTRIC WIRE & CABLE CO., LTD. | ML-207 | AC 250 V, 2,5 A EN50075, sheet 1 Colour: Black and white | DIN VDE 0620-1 AfPS GS 2014:01 PAK | VDE* | |
| Alternative | Sheng Yi Electrical Factory | SY-21 | AC 250 V, 2,5 A EN50075, sheet 1 Colour: Black | DIN VDE 0620-1 AfPS GS 2014:01 PAK | VDE* | |
| Alternative | Zhongshan Guzhen Hongli Cable & Appliance Factory | HL-6 | AC 250 V, 2,5 A EN50075, sheet 1 Colour: Black and white | DIN VDE 0620-1 AfPS GS 2014:01 PAK | VDE* | |
| Alternative | Zhongshan Xiaolan Qiangli Electric Factory Co., Ltd. | QL-VA1 | AC 250 V, 2,5 A EN50075, sheet 1 Colour: Black | VDE 0620-1 AfPS GS 2014:01 PAK | VDE* | |
| Alternative | Unirise Electric Wire & Cable Co., Ltd | UE-211 | AC 250 V, 2,5 A EN50075, sheet 1 Colour: Black and white | VDE 0620-1 AfPS GS 2014:01 PAK | VDE* | |
| Alternative | Guangdong KaiHua Electric Appliance Co., Ltd | KH-9903B | AC 250 V, 2,5 A EN50075, sheet 1 Colour: Black and white | VDE 0620-1 AfPS GS 2014:01 PAK | VDE* | |
| Alternative | Shun De Tian Ju Electrical Co., Ltd. | TJ-005 | AC 250 V, 2,5 A EN50075, sheet 1 Colour: Black and white | VDE 0620-1 AfPS GS 2014:01 PAK | VDE* | |

| | | | | | |
|-------------|--|-----------------|---|------------------------------------|-------|
| BS plug | Friendship Enterprises international Ltd. | FE-130P | AC 250 V, 3A or 5A or 13A (with approved 3A or 5A or 13A fuse) | BS 1363 | KEMA* |
| Alternative | Foshan Anden Lndastry Co. Ltd. | DL-203 DL113 | AC 250 V, 3A or 5A or 13A (with approved 3A or 5A or 13A fuse) | BS 1363 | KEMA* |
| Alternative | Joint Gain Plastic Products Factory | JG-663 | AC 250 V, 3A or 5A or 13A (with approved 3A or 5A or 13A fuse) | BS 1363 | KEMA* |
| Alternative | Sheng Yi Electrical Factory | SY-88 | AC 250 V, 3A or 5A or 13A (with approved 3A or 5A or 13A fuse) | BS 1363 | KEMA* |
| Alternative | Hsuan Tai Electronic Co., Ltd | MCY | AC 250 V, 3A or 5A or 13A (with approved 3A or 5A or 13A fuse) | BS 1363 | VDE* |
| Alternative | Guangzhou Huanqiu Electrical & Appliance Co., Ltd | HQ-BS301 | AC 250 V, 3A or 5A or 13A (with approved 3A or 5A or 13A fuse) | BS 1363 | KEMA* |
| Alternative | Zhongshan Guzhen Hongli Cable & Appliance Factory | HL-17 | AC 250 V, 3A or 5A or 13A (with approved 3A or 5A or 13A fuse) | BS 1363 | KEMA* |
| Alternative | Unirise Electric Wire & Cable Co., Ltd | UE-324 | AC 250 V, 3A or 5A or 13A (with approved 3A or 5A or 13A fuse) | BS 1363 | KEMA* |
| Supply Cord | Chau's Electrical Co., Ltd. | H03VVH2-F | 2x0,5 mm ² (length <2m) or 2x0,75 mm ² Colour: Black and white | DIN VDE 0281-5 AfPS GS 2014:01 PAK | VDE* |
| Alternative | Guangzhou Huan Qiu Electrical & Appliance Co. Ltd. | H03VVH2-F | 2x0,5 mm ² (length <2m) or 2x0,75 mm ² Colour: Black and white | DIN VDE 0281-5 AfPS GS 2014:01 PAK | VDE* |
| Alternative | MAINLAND ELECTRIC WIRE & CABLE CO., LTD. | H03VVH2-F | 2x0,5 mm ² (length <2m) or 2x0,75 mm ² Colour: Black and white | DIN VDE 0281-5 AfPS GS 2014:01 PAK | VDE* |
| Alternative | Sheng Yi Electrical Factory | H03VVH2-F | 2x0,5 mm ² (length <2m) or 2x0,75 mm ² Colour: Black | DIN VDE 0281-5 AfPS GS 2014:01 PAK | VDE* |

| | | | | | |
|-------------|---|-----------|---|------------------------------------|------|
| Alternative | Zhongshan Guzhen Hongli Cable & Appliance Factory | H03VVH2-F | 2x0,5 mm ² (length <2m) or 2x0,75 mm ² Colour: Black and white | DIN VDE 0281-5 AfPS GS 2014:01 PAK | VDE* |
| Alternative | Zhongshan Xiaolan Qiangli Electric Factory Co., Ltd. | H03VVH2-F | 2x0,5 mm ² (length <2m) or 2x0,75 mm ² Colour: Black | DIN VDE 0281-5 AfPS GS 2014:01 PAK | VDE* |
| Alternative | Guangdong KaiHua Electric Appliance Co., Ltd | H03VVH2-F | 2x0,5 mm ² (length <2m) or 2x0,75 mm ² Colour: Black and white | DIN VDE 0281-5 AfPS GS 2014:01 PAK | VDE* |
| Alternative | Unirise Electric Wire & Cable Co., Ltd | H03VVH2-F | 2x0,5 mm ² (length <2m) or 2x0,75 mm ² Colour: Black and white | DIN VDE 0281-5 AfPS GS 2014:01 PAK | VDE* |
| Alternative | Shun De Tian Ju Electrical Co., Ltd. | H03VVH2-F | 2x0,5 mm ² (length <2m) or 2x0,75 mm ² Colour: Black and white | DIN VDE 0281-5 AfPS GS 2014:01 PAK | VDE* |
| X-capacitor | Dain Electronics Co., Ltd. | MPX | AC 275 V, X2; 0,1 µF; T110 | EN 60384-14 | VDE* |
| Alternative | Carli Electronic Co., Ltd. | MPX | AC 275 V, X2, 0,1µF, T100 | EN 60384-14 | VDE* |
| Alternative | DONGGUAN CITY JURCC ELECTRONICS CO LTD | MPX/MKP | AC275 V; X2; 0,1 µF; T110 | EN 60384-14 | VDE* |
| Alternative | Hsuan Tai Electronic Co. Ltd. | MCY | AC275 V; X2; 0,1 µF; T85 | EN 60384-14 | VDE* |
| Alternative | Tenta Electric Industrial Co. Ltd. | MEX | AC 275 V, X2, 0,1µF, T100 | EN 60384-14 | VDE* |
| Alternative | Shunde Da Hua Electric Co., Ltd. | HD-Series | AC 275 V, X2, 0,1 µF, T105 | EN 60384-14 | VDE* |
| Alternative | Foshan Shunde Chuang Ge Electronic Industrial Co., Ltd. | MKP-X2 | AC275V; X2; 0,1 µF; T105 | EN 60384-14 | VDE* |
| Alternative | Guangdong Fengming Electronic Tech. Co., Ltd. | MKP-X2 | AC 275 V, X2, 0,1 µF, T105 | EN 60384-14 | VDE* |
| Alternative | Guangdong Fengming Rizi Technology Co., Ltd | MPK-X2 | AC 275 V, X2, 0,1µF, T105 | EN 60384-14 | VDE* |

| | | | | | |
|---------------|---|-----------|----------------------------|-----------------------------|---------------------------------|
| Alternative | Shenzhen Su Rong Capacitors Co., Ltd. | MPX/MKP | AC 280V, 0,1μ F, T100, X2 | EN 60384-14 | VDE* |
| Alternative | Shantou High-new Technology Development Zone Songtian | MPX | AC275 V; X2; 0,1 μF; T85 | EN 60384-14 | TÜV |
| Y-capacitor | JYH CHUNG Electronic Co., Ltd. | JY | AC 300 V; Y2; 4700 pF; T85 | EN 60384-14 | VDE* |
| Alternative | JYA-NAY Co., Ltd. | JY | AC250 V; Y2; 4700 pF; T125 | EN 60384-14 | VDE* |
| Alternative | SHANTOU HIGH-NEW TECHNOLOGY DEV. ZONE SONGTIAN ENTERPRISE CO.,LTD | CE Series | AC 250V; Y2; 4700 pF; T125 | EN 60384-14 | VDE |
| Alternative | JYH HSU(JEC) ELECTRONICS LTD. | JY | AC300V,Y2, 4700pF, T125 | EN 60384-14 | VDE |
| Alternative | JEC Company | JY | AC300V,Y2, 4700pF, T125 | EN 60384-14 | VDE |
| Internal wire | Guangzhou Jin-ying Special Wire Factory | 1015 | 600 V; 105 °C; 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance (E192725) |
| Alternative | Shenzhen Qifurui Electronics Co., Ltd. | 1015 | 600 V; 105 °C; 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance (E211048) |
| Alternative | XIANGSHAN FAHUA ELECTRIC WIRE & CABLE CO LTD | 1015 | 600 V; 105 °C; 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance (E222362) |
| Alternative | FUSHAN SHUNDE SPECIAL TYPA WIRE ROD ELECTRONICS CO LTD | 1015 | 600 V; 105 °C; 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance (E346532) |
| Alternative | GUANGZHOU ZHIHE ELECTRONIC CO LTD | 1015 | 600 V; 105 °C; 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance (E251728) |
| Alternative | ZHONGSHAN DONGFENG KESHIRUIHUA WIRE & CABLE FACTORY | 1015 | 600 V; 105 °C; 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance (E307703) |

| | | | | | |
|----------------------------|---|--------|--------------------------|-----------------------------|-------------------------------------|
| Alternative | GUANGDONG YONG ROI CABLE TECHNOLOGY CO LTD | 1015 | 600 V, 105 °C, 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance E204893 |
| Alternative | JIANGMEN CITY JIANG CI ELECTRICAL APPLIANCES ENTERPRISE CO LTD | 1015 | 600 V, 105 °C, 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance E189669 |
| Alternative | SHENZHEN DONG JU WIRE & CABLE CO LTD | 1015 | 600 V, 105 °C, 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance E189674 |
| Alternative | HESHAN CITY TEHSING HUANCHIU ELECTRIC CABLE CO LTD | 1015 | 600 V, 105 °C, 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance E229340 |
| Alternative | FOSHAN SHUNDE YONGGAOLIAN WIRE & CABLE CO LTD | 1015 | 600 V, 105 °C, 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance E314925 |
| Alternative | FOSHAN CITY ZHENG GUAN FLUORPLASTICS WIRE FACTORY | 1015 | 600 V, 105 °C, 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance E307535 |
| Alternative | DONGGUAN ZHIHE ELECTRICAL CABLE TECH CO LTD | 1015 | 600 V, 105 °C, 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance E258239 |
| Alternative | JIANGMEN YANCHUANG ELECTRIC APPLIANCE PLASTIC CO LTD | 1015 | 600 V, 105 °C, 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance E477952 |
| Alternative | DONGGUAN CHENG XING ELECTRONIC CO LTD | 1015 | 600 V, 105 °C, 22 AWG | EN 60335-1 EN 60335-2-14 | Tested with appliance E249743 |
| Heating shrinkable tube | CHANGYUAN ELECTRONICS (SHENZHEN) CO., LTD. | CB-HFT | 125 °C, 600 V | EN 60335-1 EN 60335-2-14 | Tested with appliance E180908 |
| Alternative | QIFURUI ELECTRONICS CO | QFR-h | 125 °C; 600 V | EN 60335-1 EN 60335-2-14 | Tested with appliance E225897 |

| | | | | | |
|--|--|------------------|--|---|---|
| Alternative | SHENZHEN WOLIDA TRADING CO LTD | RSFR-H | 125 °C; 600 V | EN 60335-1 EN 60335-2-14 | Tested with appliance E329530 |
| Alternative | SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD | RSFR-H | 125 °C; 600 V | EN 60335-1 EN 60335-2-14 | Tested with appliance E203950 |
| Alternative | DONGGUAN SALIPT CO LTD | SALIPT S-901-600 | 125 °C; 600 V | EN 60335-1 EN 60335-2-14 | Tested with appliance E209436 |
| Micro switch | Foshan Shunde Hushun Electric Appliance Co., Ltd. | LXW-5-1-2 | AC 250 V, 5 A, T85, 10E3, Glow wire 850°C | EN 61058-1 | VDE* |
| Alternative | Zhongxun Electronics Industry Company | KW11-3Z | AC 250 V, 5 A, T85, 50E3, Glow wire 850°C | EN 61058-1 | TÜV Rheinland* |
| Alternative | Guangzhou Taiheng Electric Appliance Co., Ltd. | THW-3 | AC 250 V, 5 A, T85, 50E3, Glow wire 850°C | EN 61058-1 | TÜV Rheinland* |
| Alternative | Guangdong Yushun Electric Appliance Ltd. | KW-5 | AC 250 V; 5 A; T125; 30E3 cycles; Glow wire: 850 °C | EN 61058-1 | TÜV Rheinland* |
| Alternative | Jufond Switches Manufacturing Factory | SW312 | AC250 V; 5 A; T125; 5E4 cycles; Glow wire: 850 °C | EN 61058-1 | TÜV Rheinland* |
| Alternative | Foshan Shunde Shuda Electric Appliance Co., Ltd | KW-5 | AC 250 V; 5 A; T125; 3E4 cycles; Glow wire: 850 °C | EN 61058-1 EN 60335-1 EN 60335-2-14 | TÜV Rheinland* Tested with appliance |
| Alternative | Foshan Shunde Yuanfeng Metal Electrical Appliances Co., Ltd. | MS2 | AC250 V; 5(2) A; T125; 5E4 cycles; Glow wire: 850 °C | EN 61058-1 EN 60335-1 EN 60335-2-14 | TÜV Rheinland* Tested with appliance |
| Motor (for model KL-210B, KL-TS128, KL-TS128A, KL-TS128B, KL-TS128C, KL-TS228, KL-TS228B, KL-136, KL-136B) | Kilon Electrical Co., Ltd. | HC55/15 | 220-240V~, 50/60Hz; Class 155 | EN 60335-1 EN 60335-2-14 | Tested with appliance |

| | | | | | |
|---|--|---------|-------------------------------|-----------------------------|-------------------------------------|
| Motor (for model KL-210, KL-210C, KL-210E, KL-212, KL-210F, KL-TS136G, KL-TS137G, KL-TS138G, KL-TS136, KL-TS137, KL-TS138) | Kilon Electrical Co., Ltd. | HC55/25 | 220-240V~, 50/60Hz; Class 155 | EN 60335-1 EN 60335-2-14 | Tested with appliance |
| Motor (for model KL-219) | Kilon Electrical Co., Ltd. | HC55/20 | 220-240V~, 50/60Hz; Class 155 | EN 60335-1 EN 60335-2-14 | Tested with appliance |
| Motor (for model KL-218, KL-TS326, KL-TS327A, KL-TS328, KL-TS337G, KL-TS338G, KL-TS339G, KL-TS337, KL-TS338, KL-TS339, KL-TS336, KL-TS326A, KL-TS329S, KL-TS327S, KL-TS329, KL-TS327) | Kilon Electrical Co., Ltd. | HC55/30 | 220-240V~, 50/60Hz; Class 155 | EN 60335-2-14 EN 60335-1 | Tested with appliance |
| -Winding of stator | HESHAN CITY TEHSING HUANCHIU ELECTRIC CABLE CO LTD | PEW | 155 °C | EN 60335-1 EN 60335-2-14 | Tested with appliance UL E242554 |
| Alternative | ZHEJIANG GUANGTONG COPPER INDUSTRY CO LTD | QZY-X | MW5-C, 155°C | EN 60335-1 EN 60335-2-14 | Tested with appliance UL E313056 |
| Alternative | JIANGMEN XIANGYU ELECTRICIAN CO LTD | QZ-X | MW5, 155°C | EN 60335-1 EN 60335-2-14 | Tested with appliance UL E339033 |

| | | | | | |
|--|--|--------|--------------------------------------|-----------------------------|--|
| -Winding of rotor | HESHAN CITY TEHSING HUANCHIU ELECTRIC CABLE CO LTD | PEW | 155 °C | EN 60335-1 EN 60335-2-14 | Tested with appliance UL E242554 |
| Alternative | ZHEJIANG GUANGTONG COPPER INDUSTRY CO LTD | QZY-X | MW5-C, 155°C | EN 60335-1 EN 60335-2-14 | Tested with appliance UL E313056 |
| Alternative | JIANGMEN XIANGYU ELECTRICIAN CO LTD | QZ-X | MW5, 155°C | EN 60335-1 EN 60335-2-14 | Tested with appliance UL E339033 |
| -Insulating tape | 3M COMPANY ELECTRICAL MARKETS DIV (EMD) | -- | thickness: 0,1 mm | EN 60335-1 EN 60335-2-14 | Tested with appliance UL E17385 |
| Alternative | TORAY INDUSTRIES INC | -- | thickness: 0,1 mm | EN 60335-1 EN 60335-2-14 | Tested with appliance UL E86511 |
| -Motor brush holder | Changchun Plastics Co., Ltd. | T375J | Bakelite; 94V-0; Thickness: 2,0mm | EN 60335-1 EN 60335-2-14 | Tested with appliance |
| Motor support/ micro switch support | Kilon Electrical Co., Ltd. | PA | Thickness: 2,0mm | EN 60335-1 EN 60335-2-14 | Tested with appliance |
| Motor clutch plastic | Kilon Electrical Co., Ltd. | POM,PA | Thickness: 2,0mm | EN 60335-1 EN 60335-2-14 | Tested with appliance |
| Switch of model KL-210, KL-210B, KL-210C, KL-TS136G, KL-TS137G, KL-TS138G, KL-TS136, KL-TS137, KL-TS138, KL-136, KL-210E, KL-210F) | Kilon Electrical Co., Ltd. | -- | AC240 V; 1,3 A; 10000 cycles | EN 60335-1 EN 60335-2-14 | Tested with appliance |
| -Switch plastic | Kilon Electrical Co., Ltd. | PA | Thickness: 1,5 mm | EN 60335-1 EN 60335-2-14 | Tested with appliance |

| | | | | | |
|--|--|-----------|--|---|--------------------------|
| Main switch (for model KL-219, KL-212) | Kilon Electrical Co., Ltd. | -- | AC250V, 5A, 10E3 cycles | EN 60335-1 EN 60335-2-14 | Tested with appliance |
| -Plastic of main switch | Kilon Electrical Co., Ltd. | PA | Thickness: 1,5 mm | EN 60335-1 EN 60335-2-14 | Tested with appliance |
| Switch of model KL-TS128, KL-TS128B, KL-TS228 | Shenzhen Baokezhen Electronics Co., Ltd. | SC777 | AC250 V; 12(4)A; 10E3 cycles, T90, Glow wire 850°C | EN 61058-1 | VDE* |
| Alternative | Zhejiang LECI Electronics Co., Ltd | RS601 | AC250V, 6(4)A, 10E3 cycles, T85, Glow wire 850°C | EN 61058-1 | VDE* |
| Alternative | Tongde Electronics Electric Appliances Co., Ltd. | KDC-A05-B | AC250V, 6A, 1E4 cycles, T85, Glow wire 850°C | EN 61058-1 | TÜV Rheinland* |
| Alternative | Dongguan Ningrui Switch Co., Ltd. | SB | AC250V, 10(8)A, 10000 cycles, T105 Glow wire 850°C | EN 61058-1 | DEKRA |
| Alternative | Zhe Jiang Bei Er Jia Electronic Co., Ltd. | PS8A | AC250V, 6(4)A, 10E3 cycles, T105, Glow wire 850°C | EN 61058-1 | VDE* |
| Alternative | Yueqing Jinghan Electronic Co., Ltd. | KCD1-2 | 250V, 6A, 5E4 cycles, T85, Glow wire 850°C | EN 61058-1 | TÜV SUD |
| Switch bracket (for model KL-219) | Kilon Electrical Co., Ltd. | PP | Thickness: 1,5 mm | EN 60335-1 EN 60335-2-14 | Tested with appliance |
| Motor support (for model KL-219) | Kilon Electrical Co., Ltd. | PA | Thickness: 1,5 mm | EN 60335-1 EN 60335-2-14 | Tested with appliance |
| Button | Kilon Electrical Co., Ltd. | ABS, PC | Thickness: 1,5 mm | EN 60335-1 EN 60335-2-14 AfPS GS 2014:01 PAK | Tested with appliance |
| Body enclosure | Kilon Electrical Co., Ltd. | PP, ABS | Thickness: 1,5 mm | EN 60335-1 EN 60335-2-14 AfPS GS 2014:01 PAK | Tested with appliance |

| | | | | | |
|--------------|----------------------------|---------|-------------------|---|-----------------------|
| Bottom cover | Kilon Electrical Co., Ltd. | PP, ABS | Thickness: 1,5 mm | EN 60335-1 EN 60335-2-14 AfPS GS 2014:01 PAK | Tested with appliance |
|--------------|----------------------------|---------|-------------------|---|-----------------------|

1) An asterisk indicates a mark which assures the agreed level of surveillance

| 29.1 | TABLE: Clearances | | | | | | P |
|--|-----------------------------------|---------------------|--------------------|-----------------|-----------------|------------------|---|
| | Overtoltage category..... : | | | | | II | — |
| | | Type of insulation: | | | | | |
| Rated impulse voltage (V): | Min. cl (mm) | Basic (mm) | Supplementary (mm) | Reinforced (mm) | Functional (mm) | Verdict / Remark | |
| 330 | 0,2* / 0,5 / 0,8** | -- | -- | -- | -- | N/A | |
| 500 | 0,2* / 0,5 / 0,8** | -- | -- | -- | -- | N/A | |
| 800 | 0,2* / 0,5 / 0,8** | -- | -- | -- | -- | N/A | |
| 1 500 | 0,5 / 0,8** / 1,0*** | -- | -- | -- | -- | N/A | |
| 2 500 | 1,5 / 2,0*** | 4,5 | 4,4 | -- | 4,4 | P | |
| 4 000 | 3,0 / 3,5*** | -- | -- | 8,0 | -- | P | |
| 6 000 | 5,5 / 6,0*** | -- | -- | -- | -- | N/A | |
| 8 000 | 8,0 / 8,5*** | -- | -- | -- | -- | N/A | |
| 10 000 | 11,0 / 11,5*** | -- | -- | -- | -- | N/A | |
| Supplementary information: | | | | | | | |
| *) For tracks on printed circuit boards if pollution degree 1 and 2 | | | | | | | |
| **) For pollution degree 3 | | | | | | | |
| ***) If the construction is affected by wear, distortion, movement of the parts or during assembly | | | | | | | |
| B = Basic insulation, S = Supplementary insulation, R = Reinforced insulation | | | | | | | |

| 29.2 | TABLE: Creepage distances, basic, supplementary and reinforced insulation | | | | | | | | | | P |
|---------------------|---|----------------|------|-----------|----------------|-----|-------------|--------------------|------|------|---------|
| Working voltage (V) | Creepage distance (mm) | | | | | | | | | | |
| | Pollution degree | | | | | | | | | | |
| | 1 | 2 | | | 3 | | | Type of insulation | | | |
| | | Material group | | | Material group | | | | | | |
| | | I | II | IIIa/IIIb | I | II | IIIa/IIIb*) | B**) | S**) | R**) | Verdict |
| ≤50 | 0,18 | 0,6 | 0,85 | 1,2 | 1,5 | 1,7 | 1,9 | - | — | — | N/A |
| ≤50 | 0,18 | 0,6 | 0,85 | 1,2 | 1,5 | 1,7 | 1,9 | — | - | — | N/A |
| ≤50 | 0,36 | 1,2 | 1,7 | 2,4 | 3,0 | 3,4 | 3,8 | — | — | - | N/A |
| 125 | 0,28 | 0,75 | 1,05 | 1,5 | 1,9 | 2,1 | 2,4 | - | — | — | N/A |

| | | | | | | | | | | | |
|-----------------|------|------|------|------|------|------|------------|------------|------------|------------|----------|
| 125 | 0,28 | 0,75 | 1,05 | 1,5 | 1,9 | 2,1 | 2,4 | — | - | — | N/A |
| 125 | 0,56 | 1,5 | 2,1 | 3,0 | 3,8 | 4,2 | 4,8 | — | — | - | N/A |
| 250 | 0,56 | 1,25 | 1,8 | 2,5 | 3,2 | 3,6 | 4,0 | 4,8 | — | — | P |
| 250 | 0,56 | 1,25 | 1,8 | 2,5 | 3,2 | 3,6 | 4,0 | — | 5,2 | — | P |
| 250 | 1,12 | 2,5 | 3,6 | 5,0 | 6,4 | 7,2 | 8,0 | — | — | 8,9 | P |
| 400 | 1,0 | 2,0 | 2,8 | 4,0 | 5,0 | 5,6 | 6,3 | - | — | — | N/A |
| 400 | 1,0 | 2,0 | 2,8 | 4,0 | 5,0 | 5,6 | 6,3 | — | - | — | N/A |
| 400 | 2,0 | 4,0 | 5,6 | 8,0 | 10,0 | 11,2 | 12,6 | — | — | - | N/A |
| 500 | 1,3 | 2,5 | 3,6 | 5,0 | 6,3 | 7,1 | 8,0 | - | — | — | N/A |
| 500 | 1,3 | 2,5 | 3,6 | 5,0 | 6,3 | 7,1 | 8,0 | — | - | — | N/A |
| 500 | 2,6 | 5,0 | 7,2 | 10,0 | 12,6 | 14,2 | 16,0 | — | — | - | N/A |
| >630 and ≤800 | 1,8 | 3,2 | 4,5 | 6,3 | 8,0 | 9,0 | 10,0 | - | — | — | N/A |
| >630 and ≤800 | 1,8 | 3,2 | 4,5 | 6,3 | 8,0 | 9,0 | 10,0 | — | - | — | N/A |
| >630 and ≤800 | 3,6 | 6,4 | 9,0 | 12,6 | 16,0 | 18,0 | 20,0 | — | — | - | N/A |
| >800 and ≤1000 | 2,4 | 4,0 | 5,6 | 8,0 | 10,0 | 11,0 | 12,5 | - | — | — | N/A |
| >800 and ≤1000 | 2,4 | 4,0 | 5,6 | 8,0 | 10,0 | 11,0 | 12,5 | — | - | — | N/A |
| >800 and ≤1000 | 4,8 | 8,0 | 11,2 | 16,0 | 20,0 | 22,0 | 25,0 | — | — | - | N/A |
| >1000 and ≤1250 | 3,2 | 5,0 | 7,1 | 10,0 | 12,5 | 14,0 | 16,0 | - | — | — | N/A |
| >1000 and ≤1250 | 3,2 | 5,0 | 7,1 | 10,0 | 12,5 | 14,0 | 16,0 | — | - | — | N/A |
| >1000 and ≤1250 | 6,4 | 10,0 | 14,2 | 20,0 | 25,0 | 28,0 | 32,0 | — | — | - | N/A |
| >1250 and ≤1600 | 4,2 | 6,3 | 9,0 | 12,5 | 16,0 | 18,0 | 20,0 | - | — | — | N/A |
| >1250 and ≤1600 | 4,2 | 6,3 | 9,0 | 12,5 | 16,0 | 18,0 | 20,0 | — | - | — | N/A |
| >1250 and ≤1600 | 8,4 | 12,6 | 18,0 | 25,0 | 32,0 | 36,0 | 40,0 | — | — | - | N/A |
| >1600 and ≤2000 | 5,6 | 8,0 | 11,0 | 16,0 | 20,0 | 22,0 | 25,0 | - | — | — | N/A |
| >1600 and ≤2000 | 5,6 | 8,0 | 11,0 | 16,0 | 20,0 | 22,0 | 25,0 | — | - | — | N/A |
| >1600 and ≤2000 | 11,2 | 16,0 | 22,0 | 32,0 | 40,0 | 44,0 | 50,0 | — | — | - | N/A |
| >2000 and ≤2500 | 7,5 | 10,0 | 14,0 | 20,0 | 25,0 | 28,0 | 32,0 | - | — | — | N/A |
| >2000 and ≤2500 | 7,5 | 10,0 | 14,0 | 20,0 | 25,0 | 28,0 | 32,0 | — | - | — | N/A |
| >2000 and ≤2500 | 15,0 | 20,0 | 28,0 | 40,0 | 50,0 | 56,0 | 64,0 | — | — | | N/A |
| >2500 and ≤3200 | 10,0 | 12,5 | 18,0 | 25,0 | 32,0 | 36,0 | 40,0 | - | — | — | N/A |
| >2500 and ≤3200 | 10,0 | 12,5 | 18,0 | 25,0 | 32,0 | 36,0 | 40,0 | — | - | — | N/A |
| >2500 and ≤3200 | 20,0 | 25,0 | 36,0 | 50,0 | 64,0 | 72,0 | 80,0 | — | — | - | N/A |
| >3200 and ≤4000 | 12,5 | 16,0 | 22,0 | 32,0 | 40,0 | 45,0 | 50,0 | - | — | — | N/A |
| >3200 and ≤4000 | 12,5 | 16,0 | 22,0 | 32,0 | 40,0 | 45,0 | 50,0 | — | - | — | N/A |

| | | | | | | | | | | | |
|-------------------|------|-------|-------|-------|-------|-------|-------|---|---|---|-----|
| >3200 and ≤4000 | 25,0 | 32,0 | 44,0 | 64,0 | 80,0 | 90,0 | 100,0 | — | — | - | N/A |
| >4000 and ≤5000 | 16,0 | 20,0 | 28,0 | 40,0 | 50,0 | 56,0 | 63,0 | - | — | — | N/A |
| >4000 and ≤5000 | 16,0 | 20,0 | 28,0 | 40,0 | 50,0 | 56,0 | 63,0 | — | - | — | N/A |
| >4000 and ≤5000 | 32,0 | 40,0 | 56,0 | 80,0 | 100,0 | 112,0 | 126,0 | — | — | - | N/A |
| >5000 and ≤6300 | 20,0 | 25,0 | 36,0 | 50,0 | 63,0 | 71,0 | 80,0 | - | — | — | N/A |
| >5000 and ≤6300 | 20,0 | 25,0 | 36,0 | 50,0 | 63,0 | 71,0 | 80,0 | — | - | — | N/A |
| >5000 and ≤6300 | 40,0 | 50,0 | 72,0 | 100,0 | 126,0 | 142,0 | 160,0 | — | — | - | N/A |
| >6300 and ≤8000 | 25,0 | 32,0 | 45,0 | 63,0 | 80,0 | 90,0 | 100,0 | - | — | — | N/A |
| >6300 and ≤8000 | 25,0 | 32,0 | 45,0 | 63,0 | 80,0 | 90,0 | 100,0 | — | - | — | N/A |
| >6300 and ≤8000 | 50,0 | 64,0 | 90,0 | 126,0 | 160,0 | 180,0 | 200,0 | — | — | - | N/A |
| >8000 and ≤10000 | 32,0 | 40,0 | 56,0 | 80,0 | 100,0 | 110,0 | 125,0 | - | — | — | N/A |
| >8000 and ≤10000 | 32,0 | 40,0 | 56,0 | 80,0 | 100,0 | 110,0 | 125,0 | — | - | — | N/A |
| >8000 and ≤10000 | 64,0 | 80,0 | 112,0 | 160,0 | 200,0 | 220,0 | 250,0 | — | — | - | N/A |
| >10000 and ≤12500 | 40,0 | 50,0 | 71,0 | 100,0 | 125,0 | 140,0 | 160,0 | - | — | — | N/A |
| >10000 and ≤12500 | 40,0 | 50,0 | 71,0 | 100,0 | 125,0 | 140,0 | 160,0 | — | - | — | N/A |
| >10000 and ≤12500 | 80,0 | 100,0 | 142,0 | 200,0 | 250,0 | 280,0 | 320,0 | — | — | - | N/A |

Supplementary information:

*) Material group IIIb is allowed if the working voltage does not exceed 50 V

**) B = Basic insulation, S = Supplementary insulation, R = Reinforced insulation

Basic insulation: Live parts of brush holder to motor body;

Supplementary insulation: Internal wire to accessible plastic enclosure;

Reinforced insulation: Live parts to accessible plastic enclosure.

| 29.2 | TABLE: Creepage distances, functional insulation | | | | | | | P |
|---------------------|--|----------------|-----|-----------|----------------|-----|------------------|--|
| Working voltage (V) | Creepage distance (mm) | | | | | | | Verdict / Remark |
| | Pollution degree | | | | | | | |
| | 1 | 2 | | | 3 | | | |
| | | Material group | | | Material group | | | |
| | | I | II | IIIa/IIIb | I | II | IIIa/IIIb*) | |
| ≤10 | 0,08 | 0,4 | 0,4 | 0,4 | 1,0 | 1,0 | 1,0 | N/A |
| 50 | 0,16 | 0,56 | 0,8 | 1,0 | 1,4 | 1,6 | 1,8 | N/A |
| 125 | 0,25 | 0,71 | 1,0 | 1,4 | 1,8 | 2,0 | 2,2 | N/A |
| 250 | 0,42 | 1,0 | 1,4 | 2,0 | 2,5 | 2,8 | 3,2 (4,4) | P/(Between Land N of supply cord) |
| 400 | 0,75 | 1,6 | 2,2 | 3,2 | 4,0 | 4,5 | 5,0 | N/A |

| | | | | | | | | |
|---|------|------|------|-------|-------|-------|-------|-----|
| 500 | 1,0 | 2,0 | 2,8 | 4,0 | 5,0 | 5,6 | 6,3 | N/A |
| >630 and ≤800 | 1,8 | 3,2 | 4,5 | 6,3 | 8,0 | 9,0 | 10,0 | N/A |
| >800 and ≤1000 | 2,4 | 4,0 | 5,6 | 8,0 | 10,0 | 11,0 | 12,5 | N/A |
| >1000 and ≤1250 | 3,2 | 5,0 | 7,1 | 10,0 | 12,5 | 14,0 | 16,0 | N/A |
| >1250 and ≤1600 | 4,2 | 6,3 | 9,0 | 12,5 | 16,0 | 18,0 | 20,0 | N/A |
| >1600 and ≤2000 | 5,6 | 8,0 | 11,0 | 16,0 | 20,0 | 22,0 | 25,0 | N/A |
| >2000 and ≤2500 | 7,5 | 10,0 | 14,0 | 20,0 | 25,0 | 28,0 | 32,0 | N/A |
| >2500 and ≤3200 | 10,0 | 12,5 | 18,0 | 25,0 | 32,0 | 36,0 | 40,0 | N/A |
| >3200 and ≤4000 | 12,5 | 16,0 | 22,0 | 32,0 | 40,0 | 45,0 | 50,0 | N/A |
| >4000 and ≤5000 | 16,0 | 20,0 | 28,0 | 40,0 | 50,0 | 56,0 | 63,0 | N/A |
| >5000 and ≤6300 | 20,0 | 25,0 | 36,0 | 50,0 | 63,0 | 71,0 | 80,0 | N/A |
| >6300 and ≤8000 | 25,0 | 32,0 | 45,0 | 63,0 | 80,0 | 90,0 | 100,0 | N/A |
| >8000 and ≤10000 | 32,0 | 40,0 | 56,0 | 80,0 | 100,0 | 110,0 | 125,0 | N/A |
| >10000 and ≤12500 | 40,0 | 50,0 | 71,0 | 100,0 | 125,0 | 140,0 | 160,0 | N/A |
| Supplementary information: | | | | | | | | |
| *) Material group IIIb is allowed if the working voltage does not exceed 50 V | | | | | | | | |

| IEC 60335-2-14- ATTACHMENT | | | |
|----------------------------|--------------------|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |

| | |
|--|---|
| <p>ATTACHMENT TO TEST REPORT IEC 60335-2-14 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Household and similar electrical appliances – Safety – Part 2: Particular requirements for kitchen machines</p> | |
| Differences according to: | EN 60335-2-14:2006 + A1:2008 + A11:2012 used in conjunction with EN 60335-1:2012 EN 62233:2008 |
| Attachment Form No.: | EU_GD_IEC60335_2_14M |
| Attachment Originator: | IMQ |
| Master Attachment: | 2013-05 |
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| IEC 60335-2-14- ATTACHMENT | | | |
|----------------------------|--------------------|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |

| CENELEC COMMON MODIFICATIONS | | | |
|------------------------------|---|--|-----|
| 7.1 | Single-phase appliances to be connected to the supply mains: 230 V covered | | P |
| | Multi-phase appliances to be connected to the supply mains: 400 V covered | | N/A |
| 7.10 | The accessible switch required by 22.40 distinguished from other manual devices by means of shape, or size, or surface texture, or position, etc. (EN 60335-2-14, A11:2012) | | P |
| | An indication that the device has been operated is given by: (EN 60335-2-14, A11:2012) | | -- |
| | <ul style="list-style-type: none"> • a tactile feedback, or | | P |
| | <ul style="list-style-type: none"> • an audible and visual feedback | | P |
| | A selector switch with an off-position clearly identifiable is allowed (EN 60335-2-14, A11:2012) | | N/A |
| | An ON/OFF switch, if any, is considered a suitable device to stop operational functions (EN 60335-2-14, A11:2012) | | P |
| | A plug is not considered a suitable device to stop operational functions, as it can be difficult to be reached by vulnerable persons (EN 60335-2-14, A11:2012) | | P |
| 7.12 | The instructions include the substance of the following: | | -- |
| | - this appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved | | N/A |
| | - children shall not play with the appliance | | N/A |
| | - cleaning and user maintenance shall not be made by children without supervision | | N/A |
| | The instructions for appliances warn against misuse (EN 60335-2-14, A11:2012) | | P |
| | The instructions include the substance of the following: (EN 60335-2-14, A11:2012) | | -- |
| | Always disconnect the appliance from the supply if it is left unattended and before assembling, disassembling or cleaning (EN 60335-2-14, A11:2012) | | P |

| IEC 60335-2-14- ATTACHMENT | | | |
|----------------------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | The instructions for bean slicers, berry-juice extractors, blenders and hand-held blenders churns, centrifugal juicers, coffee mills, food mixers, food processors, grain grinders, knife sharpeners, knives, mincers, noodle makers, potato peelers, shredders, sieving machines and slicing machines include the substance of the following: (EN 60335-2-14, A11:2012) | | -- |
| | This appliance shall not be used by children. Keep the appliance and its cord out of reach of children (EN 60335-2-14, A11:2012) | food processors | P |
| | The instructions for can openers, citrus-fruit squeezers, cream whippers, egg beaters, graters and ice-cream machines include the substance of the following: (EN 60335-2-14, A11:2012) | | -- |
| | This appliance can be used by children aged from 8 years and above if they have been given supervision or instruction concerning use of the appliance in a safe way and if they understand the hazards involved (EN 60335-2-14, A11:2012) | | N/A |
| | Cleaning and user maintenance shall not be made by children unless they are aged from 8 years and above and supervised (EN 60335-2-14, A11:2012) | | N/A |
| | Keep the appliance and its cord out of reach of children aged less than 8 years (EN 60335-2-14, A11:2012) | | N/A |
| | The instructions also include the substance of the following: (EN 60335-2-14, A11:2012) | | -- |
| | Appliances can be used by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and if they understand the hazards involved (EN 60335-2-14, A11:2012) | | P |
| | Children shall not play with the appliance (EN 60335-2-14, A11:2012) | | P |
| 7.12.Z1 | The specific instructions related to the safe operation of this appliance is collated together in the front section of the user instructions | | P |
| | The height of the characters, measured on the capital letters, is at least 3 mm | | P |
| | These instructions are also available in an alternative format, e.g. on a website | | P |
| 8.1.1 | Also test probe 18 of EN 61032 is applied | | P |
| | The appliance being in every possible position during the test | | P |

| IEC 60335-2-14- ATTACHMENT | | | |
|----------------------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | The force on the probe in the straight position is increased to 10 N when probe 18 is used | | P |
| | When using test probe 18 the appliance is fully assembled as in normal use without any parts removed, and | | P |
| | parts intended to be removed for user maintenance are also not removed | | P |
| 8.2 | Compliance is checked by applying the test probes of EN 61032 | | P |
| | For built-in appliances and fixed appliances, the test probe B and probe 18 of EN 61032 are applied only after installation | | N/A |
| 20.2 | When using the test probe similar to test probe B with a circular stop face, the accessories and detachable covers are removed | | P |
| | Test probe 18 applied with a force of 2,5N on the appliance fully assembled | | P |
| | Test probe B not applied to: (EN 60335-2-14, A11:2012) | | -- |
| | - appliances specified in the list | | N/A |
| | - the following parts of other appliances: | | N/A |
| | smooth shafts having a diameter not exceeding 8 mm, rotating at a speed not exceeding 1 500 r/min and driven by motors having an input not exceeding 200 W | | N/A |
| | outlet sides of grating and shredding disks rotating at a speed not exceeding 1 500 r/min | | N/A |
| | projections from the surface of grinding disks, cones and similar parts having a height less than 4 mm | | N/A |
| | Test probe 18 not applied to: (EN 60335-2-14, A11:2012) | | -- |
| | - appliances specified in the list | | P |
| | - the following parts of other appliances: | | N/A |
| | smooth shafts having a diameter not exceeding 8 mm, rotating at a speed not exceeding 1 500 r/min and driven by motors having an input not exceeding 200 W | | N/A |
| | outlet sides of grating and shredding disks rotating at a speed not exceeding 1 500 r/min | | N/A |

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|----------------------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | projections from the surface of grinding disks, cones and similar parts having a height less than 4 mm | | N/A |
| 21.Z101 | Drop test for hand-held appliances (EN 60335-2-14, A11:2012) | | N/A |
| | The appliance not damaged to such an extent that compliance with this standard, in particular with Clauses 8 and 29, is impaired (EN 60335-2-14, A11:2012) | | N/A |
| 24.1 | Components comply with the safety requirements specified in the relevant standards as far as they reasonably apply | | P |
| | The requirements of Clause 29 of this standard apply between live parts of components and accessible parts of the appliance. | | P |
| | The requirements of 30.2 of this standard apply to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections inside components | | P |
| | Components that have not been previously tested or do not comply with the standard for the relevant component are tested according to the requirements of 30.2 | | P |
| | Components that have been previously tested and shown to comply with the resistance to fire requirements in the standard for the relevant component need not be retested provided that: | | -- |
| | - the severity specified in the component standard is not less than the severity specified in 30.2, and | | N/A |
| | - the test report for the component states whether it complied with the standard for the relevant component with or without flame, flames not exceeding 2 s during the test are ignored | | N/A |
| | Unless components have been previously tested and found to comply with the relevant standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9 | | P |
| | For components mentioned in 24.1.1 to 24.1.9, no additional tests specified in the relevant standard for the component are necessary other than those specified in 24.1.1 to 24.1.9 | | P |
| | Components that have not been separately tested and found to comply with the relevant standard, and | | P |

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|----------------------------|--|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| | components that are not marked or not used in accordance with their marking, | | P |
| | are tested in accordance with the conditions occurring in the appliance, the number of samples being that required by the relevant standard | | P |
| | Lamp holders and starter holders that have not been previously tested and found to comply with the relevant standard are tested as a part of the appliance and additionally comply with the gauging and interchangeability requirements of the relevant standard under the conditions occurring in the appliance | | N/A |
| | Where the relevant standard specifies these gauging and interchangeability requirements at elevated temperatures, the temperatures measured during the tests of Clause 11 are used | | P |
| | Plugs and socket-outlets and other connecting devices of interconnection cords are not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1, or | | N/A |
| | with connectors and appliance inlets complying with the standard sheets of IEC 60320-1, | | N/A |
| | if direct supply to these parts from the supply mains gives rise to a hazard | | N/A |
| 24.1.7 | If the remote operation of the appliance is via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is EN 41003 | | N/A |
| | Compliance with Clause 8 of this standard is not impaired by connecting the appliance to a device covered by EN 41003 | | N/A |
| 24.Z1 | For motor running capacitors (IEC 60252-1 type P2) with a metallic enclosure having an overpressure fuse the flame testing of internal plastic parts supporting current carrying connections as required in 30.2.2 and 30.2.3.1 is not necessary | | N/A |
| 29.3.Z1 | Appliance constructed so that if there is a possibility of damaging the insulation during installation, the insulation withstands the scratch and penetration test of 21.2 | | N/A |

| EN 60335-2-14:2006/A12:2016 | | |
|-----------------------------|--------------------------|---|
| 7 | MARKING AND INSTRUCTIONS | - |

| IEC 60335-2-14- ATTACHMENT | | | |
|----------------------------|---|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| 7.10 | The accessible switch required by 22.40 shall be distinguished from other manual devices by means of shape, or size, or surface texture, or position, etc. | | P |
| 7.12 | The instructions for appliances shall warn of potential injury from misuse.(EN 60335-2-14/A12) | | P |
| 11 | HEATING | | - |
| 11.8 | During the test, the temperature rises are monitored continuously and shall not exceed the values shown in Table 3 and Table Z101. | | P |
| 20 | STABILITY AND MECHANICAL HAZARDS | | - |
| 20.2 | The test probe, similar to test probe B but having a circular stop face with a diameter of 50 mm, is not applied to: | | P |
| | - appliances specified in the list | | N/A |
| | Accessible drive shafts that may not be in use when the appliance is in operation may be protected by means of a collar or by being positioned in a recess. | | N/A |
| | The test probe 18 is not applied to: | | -- |
| | - appliances specified in the list | | P |
| | The test probes are not applied to feed openings having a throat with the following dimensions: | | N/A |
| | For blenders, detachable parts, except lids, are not removed. Test probe 18 is not applied to the blenders. | | N/A |

| Variations to EN 60335-1:2012/A13:2017 | | | |
|--|--|--|----|
| ZZA | ANNEX ZZA (INFORMATIVE) RELATIONSHIP BETWEEN THIS EUROPEAN STANDARD AND THE SAFETY OBJECTIVES OF DIRECTIVE 2014/35/EU [2014 OJ L96] AIMED TO BE COVERED | | -- |
| | Description relating to harmonized standards in the field of the Low Voltage Directive, M/511, to provide one voluntary means of conforming to safety objectives of Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits [2014 OJ L96] | | P |
| | A table ZZA.1 with correspondence between this European standard and Annex I of Directive 2014/35/EU [2014 OJ L96] | | P |

| IEC 60335-2-14- ATTACHMENT | | | |
|----------------------------|---|-----------------|---------|
| Clause | Requirement - Test | Result - Remark | Verdict |
| ZZB | ANNEX ZZB (INFORMATIVE) REALATIONSHIP BETWEEN THIS EUROPEAN STANDARD AND THE ESSENTIAL REQUIREMENTS OF DIRECTIVE 2006/42/EC AIMED TO BE COVERED | | -- |
| | Description relating to Mandate for standardisation in the field of machinery "M/396" to provide one voluntary means of conforming to essential requirements of EU Directive 2006/42/EC | | N/A |
| | A table ZZB.1 with correspondence between this European standard and Annex I of Directive 2006/42/E [OJ No L 157] | | N/A |

| Annex EN 62233:2008 | | | |
|------------------------------|---|-----------------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| EMF- ELECTROMAGNETICS FIELDS | | | |
| | The tested product also complies with the requirements of EN 62233:2008 | | |
| | Limit100% | Measured max.: 0,738% | P |

Photo Document

Overall view of KL-136B with double-blade



Power switch



Marking label position
(End of report)