Test Report issued under the responsibility of:

TEST REPORT
IEC 60335-2-15
Household and similar electrical appliances – Safety –
Part 2: Particular requirements for appliances for heating liquids

Report Number.....:	AOC250829029S
Date of issue.....:	2025-09-02
Total number of pages.....:	169 pages
Name of Testing Laboratory preparing the Report.....:	Shenzhen AOCE Electronic Technology Service Co., Ltd
Applicant's name.....:	Foshan Shunde Beishibang Electrical Appliance Co., LTD
Address.....:	Huakou Residential Community Shunde Gaoxin Area(Rong Gui) Xinde Road #5 , Shunde District , Foshan City, Guangdong , PRC
Test specification:	
Standard.....:	IEC 60335-2-15:2024 for use in conjunction with IEC 60335-1:2020
Test procedure.....:	Type testing
Non-standard test method.....:	N/A
TRF template used.....:	IECEE OD-2020-F1:2024, Ed.1.7
Test Report Form No.....:	IEC60335_2_15Q
Test Report Form(s) Originator.....:	IMQ S.p.A.
Master TRF.....:	Dated 2025-03-06

This report is not valid as a CB Test Report unless signed by an approved IECEE Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.
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Test item description.....:	KETTLE
Trademark(s).....:	Bennett Read
Manufacturer.....:	Foshan Shunde Beishibang Electrical Appliance Co., LTD Huakou Residential Community Shunde Gaoxin Area(Rong Gui) Xinde Road #5 , Shunde District , Foshan City, Guangdong , PRC
Model/Type reference.....:	BRMN19
Ratings.....:	220~240 V~, 50 Hz, 1.6 l, 1850-2200 W

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
☒	**Testing Laboratory:**	Shenzhen AOCE Electronic Technology Service Co., Ltd	
Testing location/ address.....:		Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China	
Tested by (name, function, signature).....:		ZhiCong Xian Technical Engineer	ZhiCong
Approved by (name, function, signature)... :		Robin Liu Technical Manager	Robin
☐	**Testing procedure: CTF Stage 1:**	**N/A**	
Testing location/ address.....:			
Tested by (name, function, signature).....:			
Approved by (name, function, signature)... :			
☐	**Testing procedure: CTF Stage 2:**	**N/A**	
Testing location/ address.....:			
Tested by (name + signature).....:			
Witnessed by (name, function, signature)..:			
Approved by (name, function, signature)... :			
☐	**Testing procedure: CTF Stage 3:**	**N/A**	
☐	**Testing procedure: CTF Stage 4:**	**N/A**	
Testing location/ address.....:			
Tested by (name, function, signature).....:			
Witnessed by (name, function, signature)..:			
Approved by (name, function, signature)... :			
Supervised by (name, function, signature) :			

List of Attachments (including a total number of pages in each attachment): **Attachment No.1:** Photo document.	
Summary of testing:	
Tests performed **(name of test, test clause and date test performed):** Below tests performed on BRMN19 Cl.7: Marking and instructions Cl.8: Protection against access to live parts Cl.10: Power input and current Cl.11: Heating Cl.13: Leakage current and electric strength at operating temperature Cl.15: Moisture resistance Cl.16: Leakage current and electric strength Cl.19: Abnormal operation Cl.21: Mechanical strength Cl.22: Construction Cl.23: Internal wiring Cl.24: Components Cl.25: Supply connection and external flexible cords Cl.26: Terminals for external conductors Cl.28: Screws and connections Cl.29: Clearances, creepage distances and solid insulation Cl.30: Resistance to heat and fire	**Testing location:** **(CBTL, SPTL, CTF, Subcontractor)** Provide information on testing location (CBTL, SPTL, Client's laboratory, Subcontractor's laboratory and split testing when allowed and used) Shenzhen AOCE Electronic Technology Service Co., Ltd Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China

Summary of compliance with National Differences (List of countries addressed):

Include only National Differences evaluated and declared by member countries of IECEE CB Scheme. Non-member countries or national or regional standards can be included for information in the General Product Information section of the Test Report but will not to be listed on CB Test Certificate. (See OD 2037, item 7.1)

- IECEE Member countries that are also CENELEC members

  Compliance with Group Differences evaluated ☐ **yes** ☐ **No** ☒ N/A

  No countries to be listed here. Select N/A if no GD TRF published.

  Select No if the client did not request to evaluate Group Differences

- IECEE Member countries with published National Differences which were evaluated: *European Group Differences And National Differences.*

  Insert countries (ISO codes) or N/A. CENELEC members evaluated in first bullet and with National Differences in addition to Group Differences shall also be listed here

- IECEE Member countries that did not publish any National Differences: *Insert countries (ISO codes) or N/A*

To support compliance with published National Differences, attach a compilation of relevant ND and/or GD TRFs to the Test Report

Use of uncertainty of measurement for decisions on conformity (decision rule):

☒ No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

☐ Other: … (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

Information on uncertainty of measurement:

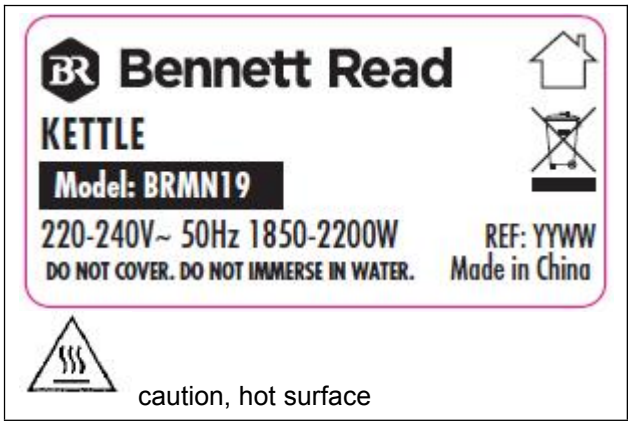
The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE.

IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Test item particulars:	
Classification of installation and use..... :	Stationary appliance
Supply connection..... :	Supply cord fitted with a 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…… :	2025-08-02
Date (s) of performance of tests…….. :	2025-08-02 to 2025-09-02

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Manufacturer's Declaration per Subclause 4.2.5 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……:	☐ **Yes** ☒ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies)…….. :	Foshan Shunde Beishibang Electrical Appliance Co., LTD Huakou Residential Community Shunde Gaoxin Area(Rong Gui) Xinde Road #5 , Shunde District , Foshan City, Guangdong , PRC

General product information and other remarks:

- Liquid heater, only for heating water.

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
5	**GENERAL CONDITIONS FOR THE TESTS**		P
	Tests performed according to Clause 5, e.g. nature of supply, sequence of testing, etc.		P
5.2	If the test of 15.101 has to be carried out, three additional samples are required (IEC 60335-2-15)		N/A
	The tests of 21.101 and 21.102 may be carried out on separate appliances (IEC 60335-2-15)		N/A
5.3	The test of 19.101 is carried out after the other tests (IEC 60335-2-15)		N/A
	The tests of 22.102, 22.110 and 22.111 are carried out during the test of Clause 11 (IEC 60335-2-15)		N/A
5.8.2	Appliances having more than one rated voltage...:	Upper value:.220 V Lower value: 240 V	P
5.8.3	Heating Appliances and combined appliances marked with a rated power input range……..:		N/A
5.8.4	Appliances with a rated voltage range and with a rated power input corresponding to the mean value of the rated voltage range	1850-2200 W	P
5.101	Induction rice cookers are tested as motor-operated appliances (IEC 60335-2-15)		N/A
6	CLASSIFICATION		P
6.1	Protection against electric shock: Class 0, 0I, I, II, III.....:	Class I	P
6.2	Protection against harmful ingress of water		P
	Wash boilers and livestock feed boilers shall be at least IPX3 (IEC 60335-2-15)		N/A
7	**MARKING AND INSTRUCTIONS**		P
7.1	Appliances marked with:		P
	Rated voltage or voltage range (V).....:	220-240	P
	Symbol for nature of supply, or..... :	~	P
	Rated frequency (Hz).....:	50	P
	Rated power input (W), or.....:	1850-2200 W	P
	Rated current (A)..... :		N/A
	Manufacturer's or responsible vendor's name, trademark or identification mark.....:	See Copy of marking plate	P
	Model or type reference.....:	See Copy of marking plate	P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Symbol IEC 60417-5172, for class II appliances		N/A
	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, or		N/A
	the appliance is powered by rechargeable batteries recharged in the appliance		N/A
	Appliance outlets accessible to the user and socket-outlets accessible to the user:		N/A
	- that are incorporated in appliances connected to the supply mains, and		N/A
	- that operate at rated voltage		N/A
	marked with their outlet load (W or A).....:		N/A
	Appliances intended to be supplied from a detachable power supply part to recharge the battery marked with:		N/A
	- symbol ISO 7000-0790		N/A
	- symbol IEC 60417-6181		N/A
	- model or type reference of the detachable power supply part, or.....:		N/A
	- the substance of the following: “Use only with <model or type reference> supply unit”		N/A
	Symbol IEC 60417-5018, for class II and class III appliances incorporating a functional earth		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
	Appliances intended to be partially immersed in water for cleaning shall be marked with the maximum level of immersion and with the substance of the following: Do not immerse beyond this level (IEC 60335-2-15)		N/A
	Kettles shall have a level mark or other means to indicate when they are filled to rated capacity, unless (IEC 60335-2-15)		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	they cannot be filled beyond the rated capacity (IEC 60335-2-15)		N/A
	This indication shall be visible when the kettle is in the filling position. If the level mark is not self-evident, there shall be a reference to this mark on the outside of the kettle which shall be visible when the kettle is in its normal position of use (IEC 60335-2-15)		P
	This indication shall be visible when the kettle is in the filling position. If the level mark is not self-evident, there shall be a reference to this mark on the outside of the kettle which shall be visible when the kettle is in its normal position of use (IEC 60335-2-15)		P
	If the closed position of the lid of a pressure cooker is not obvious, this position shall be marked on the appliance (IEC 60335-2-15)		N/A
	Stands provided with cordless appliances shall be marked with: (IEC 60335-2-15)		P
	– the name, trademark or identification mark of the manufacturer or responsible vendor		P
	– the model or type reference		P
	Soy milk makers shall have a level mark or other means to indicate when they are filled to rated capacity, unless (IEC 60335-2-15)		N/A
	they cannot be filled beyond the rated capacity (IEC 60335-2-15)		N/A
	If appliances have external accessible surfaces, for which temperature rise limits are specified in Table 101 and for which the provisions of footnote b to Table 101 apply, then the appliance shall be marked with symbol IEC 60417-5041(2002-10), or (IEC 60335-2-15)		P
	with the substance of the following: CAUTION: Hot surface (IEC 60335-2-15)		N/A
7.2	stationary appliances for multiple supply:		N/A
	Warning to disconnect all supply circuits		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		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Different rated values marked with the values separated by an oblique stroke		P
	Requirement also applied to appliances for connection to both single phase and multiphase supplies		N/A
7.4	Appliances adjustable for different rated voltages or rated frequencies, the voltage or the frequency setting is clearly discernible		N/A
	frequent changes in voltage or frequency setting not required, adjustment of rated voltage or rated frequency determined from wiring diagram		N/A
	Wiring diagram may be on the inside of a cover that has to be removed to connect the supply conductors		N/A
	Wiring diagram not on a label loosely attached to the appliance		N/A
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 or current are 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		N/A
	Units of physical quantities and their symbols according to international standardized system		P
	Additional symbols give no rise to misunderstanding		P
	Symbols specified in IEC60417 and ISO7000 are used		P
	Add the following [symbol IEC 60417-5041 (2002-10)] caution, hot surface (IEC 60335-2-15)		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

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	correct mode of connection is obvious		N/A
	For multi-phase appliances, correct mode of connection considered to be obvious if:		N/A
	- indicated by arrows pointing towards the terminals, or		N/A
	- marked in words		N/A
	Connection diagram is the wiring diagram		N/A
7.8	Except for type Z attachment, terminals for connection to the supply mains indicated as follows:		N/A
	- marking of terminals exclusively for the neutral conductor (letter N)		N/A
	- marking of protective earthing terminals (symbol IEC 60417-5019)		N/A
	- marking of functional earthing terminals (symbol IEC 60417-5018)		N/A
	- marking not placed on removable parts		N/A
7.9	Marking or placing of switches which may cause a hazard		N/A
7.10	Indications of switches on stationary appliances and controls on all appliances by use of figures, letters or other visual means..... :	letters	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		N/A
	The figure 0 indicates only off position, unless no confusion with the off position		N/A
	The figure 0 is used on a digital programming keyboard		N/A
7.11	Indication for direction of adjustment of controls		P
7.12	Instructions for safe use provided in hard copy form		P
	Instructions marked on the appliance are visible in normal use		P
	Details concerning precautions during user maintenance		P
	The instructions the substance of the following:		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- this appliance is not intended for use 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 concerning use of the appliance by a person responsible for their safety		P
	- children should be supervised not to play with the appliance		P
	For a part of class III construction supplied from a detachable power supply part, 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
	For appliances for altitudes exceeding 2 000 m, the maximum altitude is stated.....:		N/A
	The instructions for appliances incorporating a functional earth state that the appliance incorporates an earth connection for functional purposes		N/A
	The instructions for appliances intended to be connected to a supply for battery recharging state a warning to only use an external supply with the described specifications		N/A
	The instructions for appliances intended to be supplied from a detachable power supply part for battery recharging state the type reference of the supply part along with a warning to only use the unit provided with this appliance		N/A
	The instructions for appliances intended for use with batteries using metal-ion chemistries state the normal temperature range for battery charging		N/A
	Meaning of symbol for detachable power supply part explained, unless not used		N/A
	The instructions for appliances include the substance of the following: (IEC 60335-2-15)		P
	This appliance is intended to be used in household and similar applications such as: (IEC 60335-2-15)		P
	• staff kitchen areas in shops, offices and other working environments		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	• farm houses		P
	• by clients in hotels, motels and other residential type environments		P
	• bed and breakfast type environments		P
	If the manufacturer wants to limit the use of the appliance to less than the above, this shall be clearly stated in the instructions (IEC 60335-2-15)		N/A
	For appliances incorporating an appliance inlet and intended to be partially or fully immersed in water for cleaning, the instructions shall include the following: (IEC 60335-2-15)		N/A
	- the connector must be removed before the appliance is cleaned, and		N/A
	- the appliance inlet must be dried before the appliance is used again		N/A
	The instructions for appliances normally cleaned after use, and not intended to be immersed in water for cleaning, shall state that the appliance must not be immersed. This requirement normally applies to coffee-makers, cooking pans, milk heaters, pressure cookers, steam cookers, slow cookers, soy milk makers and yoghurt makers (IEC 60335-2-15)		N/A
	The instructions for appliances intended to be used with a connector incorporating a thermostat shall state that only the appropriate connector must be used (IEC 60335-2-15)		P
	Unless kettles are constructed so that a hazard cannot arise from boiling water being ejected, the instructions shall state that if the kettle is overfilled, boiling water can be ejected (IEC 60335-2-15)		N/A
	The instructions for kettles filled through a lid aperture situated below the handle shall include the substance of the following: (IEC 60335-2-15)		P
	– WARNING: Do not remove the lid while the water is boiling		P
	– CAUTION: Position the lid so that steam is directed away from the handle		P
	The caution statement is not required if the lid can only be closed so that steam is directed away from the handle (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The instructions for cordless appliances shall state that the appliance is only to be used with the stand provided (IEC 60335-2-15)		P
	If the appliance and stand of cordless appliances can be lifted together by gripping the handle of the appliance, the instructions shall include the substance of the following: (IEC 60335-2-15)		N/A
	– CAUTION: Ensure that the appliance is switched off before removing it from its stand		N/A
	The instructions for feeding-bottle heaters shall state: (IEC 60335-2-15)		N/A
	– that the food should not be heated for too long		N/A
	– how to check that the correct food temperature has not been exceeded		N/A
	The instructions for feeding-bottle heaters that do not switch off automatically shall additionally include an instruction to switch off the feeding-bottle heater after use (IEC 60335-2-15)		N/A
	The instructions for pressure cookers, other than dynamic pressure cookers, shall state that the ducts in the pressure regulator allowing the escape of steam should be checked regularly to ensure that they are not blocked (IEC 60335-2-15)		N/A
	The instructions for pressure cookers shall also give details of how to open the container safely and state that the container must not be opened until the pressure has decreased sufficiently (IEC 60335-2-15)		N/A
	The instructions for egg boilers provided with a pricking device shall contain the substance of the following: (IEC 60335-2-15)		N/A
	CAUTION: Avoid injuries from the egg pricking device		N/A
	For espresso coffee-makers incorporating a pressurized reservoir filled by the user, the instructions shall contain information for the safe refilling of the water reservoir and the substance of the following: (IEC 60335-2-15)		N/A
	WARNING: The filling aperture must not be opened during use		N/A
	The instructions for all appliances shall include: (IEC 60335-2-15)		P
	– a warning to avoid spillage on the connector		P
	– details on how to clean the surfaces in contact with food		P
	– a warning of potential injury from misuse		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	– a statement that the heating element surface is subject to residual heat after use		P
	The instructions for soy milk makers shall also include a statement that care shall be taken when handling the sharp cutting blades, emptying the container and during cleaning (IEC 60335-2-15)		N/A
	The instruction for soy milk makers incorporating a switch necessary for compliance with 22.40 shall include the substance of the following: (IEC 60335-2-15)		N/A
	Switch off the appliance and disconnect from supply before changing accessories or approaching parts that move in use		P
	The instructions for coffee-makers other than built-in coffee-makers or those tested in a cabinet, shall state that the coffee-maker shall not be placed in a cabinet when in use (IEC 60335-2-15)		N/A
	For coffee-makers having an additional decorative door, and for coffee-makers intended to be used in a cabinet, the instructions shall state that the coffee-maker must be operated with the decorative door open or the cabinet door open (IEC 60335-2-15)		N/A
	The instructions for coffee-makers having surfaces of glass, ceramic or similar material that forms part of the enclosure of live parts shall include the substance of the following: (IEC 60335-2-15)		N/A
	WARNING: Do not use the appliance if the surface is cracked		N/A
	The instructions for coffee-makers shall state that cleaning and user maintenance shall not be made by children without supervision (IEC 60335-2-15)		N/A
	If symbol IEC 60417-5041(2002-10) is marked on the appliance, its meaning shall be explained (IEC 60335-2-15)		N/A
	The instructions for appliances with liquid containers made from polycarbonate material that are accessible to the user shall state the substance of the following: (IEC 60335-2-15)		N/A
	CAUTION: To prevent damage to the appliance, do not use aggressive cleaning agents when cleaning. Use a soft cloth and a mild detergent		N/A
	CAUTION: Do not use the appliance if the enclosure is damaged or has visible cracks		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The instructions for kettles shall state the substance of the following: (IEC 60335-2-15)		P
	CAUTION: Do not operate the kettle on an inclined plane. Do not switch on the kettle if there is no water in the kettle. Do not move the kettle while it is switched on		P
7.12.1	Sufficient details for installation supplied		N/A
	For an appliance intended to be permanently connected to the water mains and not connected by a hose-set, this is stated		N/A
	If different rated voltages or different rated frequencies are marked, the instructions state what action to be taken to adjust the appliance		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:		N/A
	- 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
	For coffee-makers suitable for operation when placed in a cabinet, the minimum dimensions of the cabinet shall be given (IEC 60335-2-15)		N/A

IEC 60335-2-15			
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
	Replacement cord set instructions, if required according to 22.58		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:		N/A
	- 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
7.12.9	Instructions specified in 7.12 and from 7.12.1 to 7.12.8 are in hard copy form and appear together before any other instructions supplied with the appliance		P
	Alternatively, these instructions may be supplied with the appliance separately from any functional use booklet		P
	They may follow the description of the appliance that identifies parts, or follow the drawings/sketches common to the languages of the instructions		P
	They may follow the description of the appliance that identifies parts, or follow the drawings/sketches		P
	In addition, instructions are also available in an alternative format such as on a website or on request in a format such as a DVD..... :		P
7.13	Instructions and other texts in an official language		P
7.14	Markings clearly legible:		P
	Signal words WARNING, CAUTION, DANGER in uppercase having a height as specified..... :		P
	Uppercase letter of the text explaining the signal word not smaller than 1,6 mm..... :		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Moulded in, engraved, or stamped markings either raised above or have a depth below the surface of at least 0,25 mm, unless		N/A
	contrasting colours are used		N/A
	Markings checked by inspection, measurement and rubbing test as specified		N/A
	Markings clearly durable, and on containers that are likely to be cleaned frequently they are not by means of paint or enamel, other than vitreous enamel		P
	The height of the triangle in symbol IEC 60417-5041 (2002-10) shall be at least 8 mm (IEC 60335-2-15)		N/A
7.15	Markings specified in 7.1 to 7.5 on a main part		P
	Marking clearly discernible from the outside, if necessary, after removal of a cover		N/A
	For portable appliances, cover can be removed or opened without a tool		P
	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
	The symbol IEC 60417-5018 placed next to the symbol IEC 60417-5172 or IEC 60417-5180		N/A
	Type reference of detachable power supply part placed next to symbol IEC 60417-6181		N/A
	Marking of outlet load close to appliance outlet or socket-outlet		N/A
	The marking specified for external accessible surfaces shall be visible when the appliance is operated as in normal use, including when actuating any switch, adjusting any control or opening a lid or door. It shall not be placed on a functional surface (IEC 60335-2-15)		P
8	**PROTECTION AGAINST ACCESS TO LIVE PARTS**		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
8.1	Adequate protection against accidental contact with live parts		P
8.1.1	Requirement applies for all positions, detachable parts removed unless otherwise specified		P
	Use of test probe B of IEC 61032:		P
	- force not exceeding 1 N: no contact with live parts		P
	- force of 20 N: no contact with live parts		P
	- lamps behind a detachable cover not removed, if conditions met		N/A
	- protection against contact with live parts of the lamp cap during lamp insertion or removal		N/A
	Use of test probe 18 of IEC 61032 for non-commercial appliances and commercial appliances intended for public access:		P
	- force not exceeding 1 N: no contact with live parts		P
	- force of 10 N: no contact with live parts		P
	- appliance fully assembled as in normal use, no parts removed		P
	No contact with live parts protected by materials as specified		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		N/A
	Test probe 13 also applied through openings in earthed metal enclosures having a non-conductive coating: no contact with live parts		N/A
	Connecting devices in stands of cordless appliances are not considered to be socket-outlets (IEC 60335-2-15)		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 or supporting parts		N/A
	For a single switching action obtained by a switching device, requirements as specified		N/A
	For appliances with a supply cord and without a switching device, the single switching action may be obtained by the withdrawal of the plug		N/A
8.1.4	Appliance supplied at rated voltage (V)..... :	240	N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Accessible part not considered live if:		N/A
	- safety extra-low AC voltage: peak value not exceeding 42,4 V		N/A
	- safety extra-low DC voltage: not exceeding 42,4 V		N/A
	- or separated from live parts by protective impedance		N/A
	If protective impedance: DC current not exceeding 2 mA, and		N/A
	AC 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 mF		N/A
	- for peak values over 450 V up to and including 15 kV, discharge not exceeding 45 mC		N/A
	- for peak values over 15 kV, 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:		N/A
	- built-in appliances		N/A
	- fixed appliances		N/A
	- appliances delivered in separate units		N/A
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		N/A
	Only possible to touch parts separated from live parts by double or reinforced insulation		N/A
8.3	For battery-operated appliances with a functional earth or supply connection, parts within a battery compartment only accessible if:		N/A
	- class I, 0I and II appliances: separated from live parts by double and reinforced insulation		N/A
	- class 0 appliances: separated from live parts by basic insulation		N/A
	- battery compartment of class III construction, and basic insulation in addition to supply at SELV, if limits in 8.1.4 exceeded		N/A
9	**STARTING OF MOTOR-OPERATED APPLIANCES**		N/A
	Requirements and tests are specified in part 2 when necessary		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
10	**POWER INPUT AND CURRENT**		P
10.1	Appliance supplied at rated voltage (V)……:	Test voltage = 220-240 V (see appended table) Frequency = 50 Hz (maybe relevant for MOA, CA, SMPS type)	P
	Power input at normal operating temperature and normal operation not deviating from rated power input by more than shown in Table 1	(see appended table)	P
	If the power input varies throughout the operating cycle and its maximum value exceeds twice its arithmetic mean value occurring during a representative period, the power input is the maximum value that is exceeded for more than 10 % of the representative period if this value is greater than the arithmetic mean value,		N/A
	otherwise the power input is the arithmetic mean value		P
	In case of doubt, the power input of the motors may be measured separately	(see appended table)	N/A
	In case of measurement during a representative period, duration of the representative period……:		N/A
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated power input is related to the arithmetic mean value of the relevant range		P
	Appliance outlets accessible to the user and socket-outlets accessible to the user incorporated in appliances connected to the supply mains and operating at rated voltage are not loaded during test,		N/A
	however, their contribution to the power input is considered to be the marked outlet load per appliance outlet or socket-outlet		N/A
	The power input of automatic coffee-makers is measured during one operating cycle that is selectable by the user, such as cleaning, descaling, or selecting a beverage. The measurement starts with the appliance at room temperature (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The operating cycle starts with the activation by the user and ends when the appliance stops the cycle automatically and the next operating cycle can be started by the user (IEC 60335-2-15)		N/A
10.2	Appliance supplied at rated voltage (V)..... :	Test voltage = (see appended table) Frequency = (maybe relevant for MOA, CA, SMPS type	N/A
	Current at normal operating temperature and normal operation not deviating from rated current by more than shown in Table 2	(see appended table)	N/A
	If the current varies throughout the operating cycle and its maximum value exceeds twice its arithmetic mean value occurring during a representative period, the current is the maximum value that is exceeded for more than 10 % of the representative period if this value is greater than the arithmetic mean value,		N/A
	otherwise the current is the arithmetic mean value		N/A
	In case of doubt, the current of the motors may be measured separately	(see appended table)	N/A
	In case of measurement during a representative period, duration of the representative period……:		N/A
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated current is related to the arithmetic mean value of the relevant range		N/A
	Appliance outlets and socket-outlets accessible to the user incorporated in appliances connected to the supply mains and operating at rated voltage are not loaded during test,		N/A
	however, their contribution to the current is considered to be the marked outlet load per appliance outlet or socket-outlet		N/A
	The input current of automatic coffee-makers is measured during one operating cycle that is selectable by the user, such as cleaning, descaling, or selecting a beverage. The measurement starts with the appliance at room temperature (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The operating cycle starts with the activation by the user and ends when the appliance stops the cycle automatically and the next operating cycle can be started by the user (IEC 60335-2-15)		N/A
11	**HEATING**		P
11.1	No excessive temperatures in normal use		P
	Compliance is also checked by the test of 11.101 (IEC 60335-2-15)		N/A
11.2	The appliance is held, placed or fixed in position as described.....:	on the table	P
	Portable appliances are tested away from the walls of the test corner (IEC 60335-2-15)		N/A
	Coffee-makers with a decorative door or intended to be used in a cabinet shall be tested with the door open (IEC 60335-2-15)		N/A
11.3	Temperature rises, other than of windings, determined by thermocouples		P
	Temperature rises of windings determined by resistance method, unless		N/A
	the windings are non-uniform or it is difficult to make the necessary connections		N/A
	During the test of 11.101, where the external accessible surfaces are suitably flat and access permits, then the test probe of Figure 101 is used to measure the temperature rises of external accessible surfaces specified in Table 101 (IEC 60335-2-15)		N/A
	The probe is applied with a force of 4 N ± 1 N to the surface in such a way that the best possible contact between the probe and the surface is ensured (IEC 60335-2-15)		P
	The measurement is performed after a contact period of 30 s (IEC 60335-2-15)		P
	The probe may be held in place using a laboratory stand clamp or similar device. Any measuring instrument giving the same results as the probe may be used (IEC 60335-2-15)		P
11.4	Heating appliances operated under normal operation at 1,15 times rated power input (W)..... :	2200 W×1.15	P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The temperature rise limits are exceeded in appliances incorporating motors, transformers or electronic circuits, and if the power input is lower than the rated power input, the test is repeated with the appliance supplied at 1,06 times the rated voltage. Appliances with electronic power controls are operated as combined appliances (IEC 60335-2-15)		N/A
11.5	Motor operated appliances operated under normal operation at most unfavourable voltage between 0,94 times and 1,06 times rated voltage (V)..... :		N/A
11.6	Combined appliances operated under normal operation at most unfavourable voltage between 0,94 times and 1,06 times rated voltage (V)..... :		N/A
	The temperature rise limits are exceeded in appliances incorporating motors, transformers or electronic circuits, and if the power input is lower than the rated power input, the test is repeated with the appliance supplied at 1,06 times the rated voltage. Appliances with electronic power controls are operated as combined appliances (IEC 60335-2-15)		N/A
11.7	Appliances are operated for the duration specified in 11.7.101 to 11.7.106 (IEC 60335-2-15)		P
	For appliances incorporating integral batteries or separable batteries not disconnected from the appliance for charging purposes, the battery that has been fully discharged is charged while the appliance is operated as specified for 1 h or the time specified in 11.7.101 to 11.7.106, whichever comes first, if allowed by the construction of the appliance (IEC 60335-2-15)		N/A
	Appliance outlets and socket-outlets accessible to the user loaded with a resistive load that gives the marked outlet load		N/A
	For appliances incorporating integral batteries or separable batteries not disconnected from the appliance for charging purposes: (IEC 60335-2-15)		N/A
	- the battery that has been fully discharged is charged while the appliance is operated as specified for 1 h or the time specified 11.7.101 to 11.7.106, whichever comes first, if allowed by the construction of the appliance		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- the fully discharged battery is charged for 24 h or until it is fully charged, without the appliance performing its intended function		N/A
11.7.101	For kettles incorporating a temperature limiter, the temperature limiter is reset 1 min after it has operated or as soon as possible afterwards. The test is terminated after the temperature limiter has operated for the second time (IEC 60335-2-15)		P
	For kettles incorporating a thermostat, the test is terminated 15 min after the water has attained a temperature of 95 °C (IEC 60335-2-15)		N/A
	For other kettles, the test is terminated 5 min after the water has attained a temperature of 95 °C (IEC 60335-2-15)		N/A
11.7.102	For cooking pans, egg boilers, feeding-bottle heaters, glue pots, livestock feed boilers, milk heaters, sterilizers, wash boilers and for appliances that boil water other than kettles, the test is terminated, as follows: (IEC 60335-2-15)		N/A
	– for appliances without a thermal control, 15 min after the water in the container has attained a temperature of 95 °C or the maximum temperature it can attain if this is lower		N/A
	– for portable appliances provided with a thermal control, 15 min after the thermal control has operated for the first time		N/A
	– for fixed appliances provided with a thermal control, 30 min after the thermal control has operated for the first time		N/A
	– 1 min after a continuous or repetitive acoustic signal having intervals of less than 5 s has sounded		N/A
	– when steady conditions are established, for egg boilers having provision for keeping eggs warm, and appliances having a heated surface intended to keep liquid warm		P
11.7.103	Slow cookers, rice cookers, steam cookers and yoghurt makers are operated until steady conditions are established. Slow cookers are prewarmed in the dry state if this instruction is given (IEC 60335-2-15)		N/A
11.7.104	For espresso coffee-makers, the brewing period is followed by a rest period of 1 min or the period stated in the instructions, if this is longer. The water container is refilled during the rest periods (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	For automatic espresso coffee-makers and espresso coffee-makers provided with a coffee pot, the brewing period is the time necessary to produce the maximum quantity of coffee allowed by the timer or by the capacity of the coffee pot (IEC 60335-2-15)		N/A
	For manual espresso coffee-makers, if the maximum quantity of coffee to be produced is not specified in the instructions, the brewing period is the time necessary to produce 100 ml of coffee for each cycle (IEC 60335-2-15)		N/A
	For espresso coffee-makers having an outlet for supplying steam or hot water, the brewing period is immediately followed by a period during which the steam or water is supplied for the time stated in the instructions or for the following periods, whichever is more unfavourable: (IEC 60335-2-15)		N/A
	– for espresso coffee-makers having an outlet for supplying steam, 1 min		N/A
	– for espresso coffee-makers having an outlet for supplying hot water, the time necessary to produce 100 ml of water		N/A
	– for espresso coffee-makers having an outlet for supplying steam and an outlet for supplying hot water, 1 min period supplying steam is followed by time necessary to produce 100 ml of water		N/A
	The steam is blown into a vessel containing cold water (IEC 60335-2-15)		N/A
	Espresso coffee-makers are operated until steady conditions are established (IEC 60335-2-15)		N/A
	Other coffee-makers are operated for the time necessary to make the maximum quantity of coffee stated in the instructions. The container is then refilled as quickly as possible and the coffee-maker operated again (IEC 60335-2-15)		N/A
	The procedure is repeated until steady conditions are established (IEC 60335-2-15)		N/A
11.7.105	Pressure cookers are operated for 15 min after attaining the maximum cooking pressure (IEC 60335-2-15)		N/A
11.7.106	Soy milk makers are operated for a complete operating cycle (IEC 60335-2-15)		N/A
11.8	Temperature rises monitored continuously and not exceeding the values in Table 3.....:	(see appended table)	P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	If the temperature rise of a motor winding exceeds the value of Table 3, or		N/A
	if there is doubt with regard to classification of insulation		N/A
	tests of Annex C are carried out		N/A
	Sealing compound does not flow out		N/A
	Protective devices do not operate, except		N/A
	components in protective electronic circuits tested for the number of cycles specified in 24.1.4		N/A
	When an appliance connector incorporates a thermostat, the temperature rise limit for the pins of the inlet does not apply (IEC 60335-2-15)		N/A
	The temperature rise limits of motors, transformers and components of electronic circuits, including parts directly influenced by them, may be exceeded when the appliance is operated at 1,15 times rated power input (IEC 60335-2-15)		N/A
11.101	Appliances are placed as specified in 11.2 and are operated at rated power input under normal operation for the duration specified in 11.7 (IEC 60335-2-15)		N/A
	During the test, the temperature rise of surfaces shall not exceed the values specified in Table 101 (IEC 60335-2-15)	(see appended table)	N/A
12	**CHARGING OF METAL-ION BATTERIES**		N/A
	Charging a battery that uses metal-ion chemistry does not cause any cell to exceed its operating region for charging		N/A
	Fully discharged battery is charged with the charging system indicated in the instructions at an ambient temperature of 20 °C ± 5 °C		N/A
	Test repeated at:		N/A
	- minimum ambient temperature, if specified to be less than 10 °C by the manufacturer (°C).....:		N/A
	- at maximum ambient temperature, if specified to be greater than 40 °C by the manufacturer (°C)..... :		N/A
	For all individual cells, the voltage, temperature and charging current are monitored..... :	(see appended table)	N/A
	For parallel configuration, analysis used to avoid measuring the individual branch currents,		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	the test result not exceeding the specified operating region for charging		N/A
	Location of thermocouples for each cell temperature measurement on the outer surface, halfway along the longest dimension of the cell		N/A
	For each cell, the specified operating region for charging specified by the cell manufacturer is not exceeded at the temperature of the cell		N/A
	For batteries where cells are configured in series, the test is repeated with the charge in one battery deliberately imbalanced, the imbalance being introduced into a fully discharged battery by charging one cell to:		N/A
	- approximately 50 % of its full charge, or		N/A
	- less than 50 % of its full charge, if it is demonstrated as specified that this would occur in normal operation		N/A
13	**LEAKAGE CURRENT AND ELECTRIC STRENGTH AT OPERATING TEMPERATURE**		P
13.1	Leakage current not excessive and electric strength adequate		P
	Heating appliances operated at 1,15 times the rated power input (W).....:	2200 W×1.15	P
	Motor- operated appliances and combined appliances supplied at 1,06 times the rated voltage (V)..... :		N/A
	Protective impedance and radio interference filters disconnected before carrying out the tests		N/A
13.2	The leakage current is measured by means of the circuit described in Figure 4 of IEC 60990:2016		P
	For class 0I appliances and class I appliances, except parts of class II construction, C replaced by a low impedance ammeter		P
	Leakage current measurements..... :	(see appended table)	P
13.3	The appliance is disconnected from the supply		P
	Electric strength tests according to Table 4..... :	(see appended table)	P
	No breakdown during the tests		P
14	**TRANSIENT OVERVOLTAGES**		N/A
	Appliances withstand the transient over-voltages to which they may be subjected		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Clearances having a value less than specified in Table 16 subjected to an impulse voltage test, the test voltage specified in Table 6.....:	(see appended table)	N/A
	No flashover during the test, unless		N/A
	of functional insulation if the appliance complies with Clause 19 with the clearance short-circuited		N/A
15	**MOISTURE RESISTANCE**		P
15.1	Enclosure provides the degree of moisture protection according to classification of the appliance		P
	Compliance checked as specified in 15.1.1, taking into account 15.1.2, followed by the electric strength test of 16.3		N/A
	No trace of water on insulation which can result in a reduction of clearances or creepage distances below values specified in Clause 29		N/A
	No water in the enclosure of appliances and parts of appliances with pins for insertion into socket-outlets		N/A
15.1.1	Appliances, other than IPX0, subjected to tests as specified in IEC 60529:1989 including IEC 60529:1989/AMD1:1999 and IEC 60529:1989/AMD2:2013.....:		P
	Water valves containing live parts in external hoses for connection of an appliance to the water mains tested as specified for IPX7 appliances		N/A
15.1.2	Hand-held appliances turned continuously through the most unfavourable positions during the test		N/A
	Appliances with an automatic cord reel are tested according to 15.1.1 with the supply cord unreeled, coiled and reeled again as specified, and		N/A
	for fixed appliances mounted on the wall or ceiling, the cord is dropped from the minimum height as specified in the instructions before being coiled		N/A
	Built-in appliances installed according to the instructions		N/A
	Appliances placed or used on the floor or table placed on a horizontal unperforated support		N/A
	Appliances normally fixed to a wall are mounted on a wooden board		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliances and parts of appliances with integral pins for insertion into socket-outlets are held by the pins in the most unfavourable position without being mounted in a socket-outlet		N/A
	For IPX3 appliances, the base of wall mounted appliances is placed at the same level as the pivot axis of the oscillating tube		N/A
	For IPX4 appliances, the horizontal centre line of the appliance is aligned with the pivot axis of the oscillating tube, and		N/A
	for appliances normally used on the floor or table, the movement is limited to two times 90° for a period of 5 min, the support being placed at the level of the pivot axis of the oscillating tube		N/A
	Wall-mounted appliances with the distance to the floor stated in the instructions are tested with a board placed accordingly under the appliance		N/A
	Appliances normally fixed to a ceiling are mounted underneath a horizontal unperforated support, the pivot axis of the oscillating tube located at the level of the underside of the support, and		N/A
	for IPX4 appliances, the movement of the tube is limited to two times 90° from the vertical for a period of 5 min		N/A
	Appliances with type X attachment fitted with a flexible cord as described, unless		N/A
	having a specially prepared cord		N/A
	Detachable parts removed and subjected to the relevant treatment with the main part, however not removed if the instructions state that the part must be removed for user maintenance and a tool is needed		N/A
15.2	Spillage of liquid does not affect the electrical insulation		P
	Spillage solution comprising water containing approximately 1 % NaCl and 0,6 % rinsing agent		P
	Appliances with type X attachment fitted with a flexible cord as described, unless		N/A
	having a specially prepared cord		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliances incorporating an appliance inlet tested with or without a connector, whichever is most unfavourable		N/A
	Detachable parts are removed		N/A
	Overfilling test with additional amount of the solution, over a period of 1 min (l).....:		P
	Non-ionic rinsing agent complies with the specified properties		N/A
	The appliance withstands the electric strength test of 16.3		P
	No trace of water on insulation that can result in a reduction of clearances or creepage distances below values specified in Clause 29		P
	For kettles, replace the first paragraph of the test specification by the following: (IEC 60335-2-15)		P
	For kettles, compliance is checked by the following test using a solution comprising water containing approximately 1 % NaCl		P
	For steam sterilizers, replace the fifth paragraph of the test specification by the following: (IEC 60335-2-15)		N/A
	Steam sterilizers are placed on a horizontal surface and 30 ml of the spillage solution is poured onto the top rim in the most unfavourable place. The spillage solution is poured steadily through a tube having an inner diameter of 8 mm over a period of 2 s, the lower end of the tube being 200 mm above the appliance		N/A
	The test is only carried out with the appliance connector in position (IEC 60335-2-15)		N/A
	For rice cookers, the test specified in Part 1 shall be conducted with the rice container in place (IEC 60335-2-15)		N/A
	In case of doubt, the spillage test is carried out with the appliance deviating from the normal position of use by an angle not exceeding 5° (IEC 60335-2-15)		N/A
	Kettles are filled to rated capacity with water (IEC 60335-2-15)		P
	Compliance is checked by the tests as specified (IEC 60335-2-15)		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Kettles that can be filled through the spout: additional overfilling test in conditions as specified (IEC 60335-2-15)		P
	For cordless appliances, the test is carried out in conditions as specified (IEC 60335-2-15)		N/A
	Kettles that can be filled through the spout: additional test in conditions as specified (IEC 60335-2-15)		P
	For coffee-makers provided with a removable coffee pot, the test is carried out in conditions as specified (IEC 60335-2-15)		N/A
	Coffee-makers dispensing liquid into a serving container, such as a cup or jug, the test is carried out in conditions as specified (IEC 60335-2-15)		N/A
	Coffee-makers having external surfaces on which it is possible to place a vessel, such as a cup or jug, the test is carried out in conditions as specified (IEC 60335-2-15)		N/A
	For coffee-makers, after each overfilling test or application of liquid, all residues are then removed and the appliance is dried (IEC 60335-2-15)		N/A
15.3	Appliances proof against humid conditions		P
	Checked by test Cab: Damp heat steady state in IEC 60068-2-78		P
	Cable entries, if any, left open		P
	If knock-outs provided, one of them opened		N/A
	Detachable parts removed and subjected, if necessary, to the humidity test with the main part		P
	Humidity test for 48 h in a humidity cabinet		P
	Reassembly of those parts that may have been removed		N/A
	The appliance withstands the tests of Clause 16		
15.101	Appliances intended to be partially or completely immersed in water for cleaning shall have adequate protection against the effects of immersion (IEC 60335-2-15)		N/A
	Compliance is checked by the tests as specified, which are carried out on three additional appliances (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Inspection shall show that there is no trace of liquid on insulation that could result in a reduction of clearances and creepage distances below the values specified in Clause 29 (IEC 60335-2-15)		N/A
15.102	The connecting devices of stands for cordless appliances shall not be affected by water (IEC 60335-2-15)		N/A
	Compliance is checked by the tests as specified (IEC 60335-2-15)		N/A
	The stand shall then withstand the electric strength test of 16.3, the test voltage for reinforced insulation being 2 500 V (IEC 60335-2-15)		N/A
15.103	The interior of rice cookers shall not be affected by water (IEC 60335-2-15)		N/A
	Compliance is checked by the tests as specified (IEC 60335-2-15)		N/A
	The rice cooker shall then withstand the electric strength test of 16.3 (IEC 60335-2-15)		N/A
15.104	Built-in appliances intended to be installed in a cabinet and therefore subject to spillage of liquid onto work surfaces located above the appliance after installation shall be constructed so that such spillage does not affect their electrical insulation (IEC 60335-2-15)		N/A
	Compliance is checked by the tests as specified (IEC 60335-2-15)		N/A
	Immediately after the test, the appliance shall withstand the electric strength test of 16.3 and inspection shall show that there is no trace of water on insulation that could result in a reduction of clearances or creepage distances below the values specified in Clause 29 (IEC 60335-2-15)		N/A
15.105	Built-in appliances intended to be installed in cabinets below other built-in appliances and therefore subject to spillage of liquid during use of these other appliances shall be constructed so that such spillage does not affect their electrical insulation (IEC 60335-2-15)		N/A
	Compliance is checked by the tests as specified (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Immediately after the test, the appliance shall withstand the electric strength test of 16.3 and inspection shall show that there is no trace of water on insulation that could result in a reduction of clearances or creepage distances below the values specified in Clause 29 (IEC 60335-2-15)		N/A
16	**LEAKAGE CURRENT AND ELECTRIC STRENGTH**		P
16.1	Leakage current not excessive and electric strength adequate		P
	Protective impedance disconnected from live parts before carrying out the tests		N/A
	Tests carried out at room temperature and not connected to the supply		P
16.2	Single-phase appliances: test voltage 1,06 times rated voltage (V)..... :	254.4	P
	Three-phase appliances: test voltage 1,06 times rated voltage divided by √3 (V).....:		N/A
	Leakage current measurements..... :	(see appended table)	P
	Limit values doubled if:		N/A
	- all controls have an off position in all poles, or		N/A
	- the appliance has no control other than a thermal cut-out, or		N/A
	all thermostats, temperature limiters and energy regulators do not have an off position, or		N/A
	- the appliance has radio interference filters		N/A
	With the radio interference filters disconnected, the leakage current does not exceed limits specified..:	(see appended table)	N/A
16.3	Electric strength tests according to Table 7..... :	(see appended table)	P
	No breakdown during the tests		P
17	**OVERLOAD PROTECTION OF TRANSFORMERS AND ASSOCIATED CIRCUITS**		N/A
	No excessive temperatures in transformer or associated circuits in event of short- circuits likely to occur in normal use.....:	(see appended table)	N/A
	Appliance supplied with 1,06 times or 0,94 times rated voltage under the most unfavourable short-circuit or overload likely to occur in normal use (V).....:		N/A
	Basic insulation is not short-circuited		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Temperature rise of insulation of the conductors of safety extra-low voltage circuits not exceeding the relevant value specified in Table 3 by more than 15 K		N/A
	Temperature of the winding not exceeding the value specified in Table 8		N/A
	However, limits do not apply to fail-safe transformers complying with Subclause 15.5 of IEC 61558-1:2017		N/A
18	**ENDURANCE**		N/A
	Requirements and tests can be specified in part 2		N/A
19	**ABNORMAL OPERATION**		P
19.1	The risk of fire, mechanical damage or electric shock under abnormal or careless operation obviated		P
	Electronic circuits so designed and applied that a fault will not render the appliance unsafe…….. :	(see appended table)	P
	Appliances incorporating heating elements subjected to the tests of 19.2 and 19.3, and		P
	if the appliance also has a control that limits the temperature during Clause 11 it is subjected to the test of 19.4, and		P
	if applicable, to the test of 19.5		P
	Appliances incorporating PTC heating elements are also subjected to the test of 19.6		N/A
	Appliances incorporating motors subjected to the tests of 19.7 to 19.10, as applicable		N/A
	Appliances incorporating electronic circuits subjected to the tests of 19.11 and 19.12, as applicable		P
	Appliances incorporating contactors or relays subjected to the test of 19.14, being carried out before the tests of 19.11		N/A
	Appliances incorporating voltage selector switches subjected to the test of 19.15		N/A
	Appliances having a mains connection and replaceable batteries subjected to the test of 19.16		N/A
	Appliances incorporating rechargeable batteries that use metal-ion chemistries subjected to the test of 19.17		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Unless otherwise specified, the tests are continued until a non-self-resetting thermal cut-out operates, or		N/A
	until steady conditions are established		P
	If a heating element or an intentionally weak part becomes open-circuited, the relevant test is repeated on a second sample, and		N/A
	that same part on the second sample does also become permanently open-circuited in the second test		N/A
	unless a non-self-resetting thermal cut-out operates or steady conditions are established		N/A
	Kettles are not subjected to the test of 19.2 (IEC 60335-2-15)		P
	Kettles are also subjected to the test of 19.101, unless the appliance incorporates a non-self-resetting thermal cut-out that is not resettable by the user, in order to comply with 19.4 (IEC 60335-2-15)		P
	Kettles for which compliance with 19.101 relies on the operation of a self-resetting thermal cut-out are also subjected to the test of 19.102 (IEC 60335-2-15)		P
	For appliances with an external surface providing a keep warm function, the test of 19.106 applies (IEC 60335-2-15)		N/A
	For coffee-makers having a decorative door, the test of 19.107 applies (IEC 60335-2-15)		N/A
	For automatic coffee-makers of the coffee bean type, the tests of 19.108 applies (IEC 60335-2-15)		N/A
19.2	Test of appliances with heating elements with restricted heat dissipation; test voltage (V), power input of 0,85 times rated power input or if marked with a voltage range 0,85 times the calculated power input at the lower limit of the range (W) ..... : See Subclause 5.8.4 Power input = $0,85 \times (V_L/V_m)^2$ See Clause 10		N/A
	Appliances are placed as near as possible to the walls of the test corner. They are tested empty with lids open or closed whichever is more unfavourable (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Induction rice cookers are operated under the conditions of Clause 11 with the rice container empty (IEC 60335-2-15)		N/A
19.3	Test of 19.2 repeated; test voltage (V), power input of 1,24 times rated power input or if marked with a voltage range 1,24 times the calculated power input at the upper limit of the range (W)..... : See Subclause 5.8.4 Power input = $1,24\times(V_u/V_m)^2$ See Clause 10	$(230/240)^2$ ×1.24×Prate	P
	Kettles are operated empty at 1,15 times rated power input (IEC 60335-2-15)		P
	The test is also carried out with the kettle filled with sufficient water to cover the heating element, or to a depth of 10 mm if the heating element is not positioned inside the container, the lid being open or closed, whichever is more unfavourable (IEC 60335-2-15)		P
19.4	Test conditions as in Clause 11, any control limiting the temperature during tests of Clause 11 short circuited		P
	For pressure cookers, (IEC 60335-2-15)		N/A
	– all pressure regulating devices are rendered inoperative; and		N/A
	– in other than dynamic pressure cookers, all protective devices that vent steam and intentionally weak parts that vent steam are rendered inoperative; and		N/A
	– in dynamic pressure cookers, all protective devices, other than intentionally weak parts, that vent steam are rendered inoperative		N/A
19.5	Test of 19.4 repeated on class 0I and I appliances with tubular sheathed or embedded heating elements. No short-circuiting, but one end of the element connected to the sheath		P
	The test repeated with reversed polarity and the other end of the heating element connected to the sheath		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The test is not carried out on appliances intended to be permanently connected to fixed wiring, on appliances where an all-pole disconnection occurs during the test of 19.4, or on appliances used in a system with polarized plugs intended for connection to polarized socket-outlets		N/A
19.6	Appliances with PTC heating elements tested at rated voltage, establishing steady conditions		N/A
	The working voltage of the PTC heating element is increased by 5 % and the appliance is operated until steady conditions are re-established. The voltage is then increased in similar steps until 1,5 times working voltage or until the PTC heating element ruptures (V)..... :		N/A
19.7	Stalling test by locking the rotor if the locked rotor torque is smaller than the full load torque, or Note: See DSH 543AA (also applicable to iron cored transformers)		N/A
	locking moving parts of other appliances		N/A
	Locked rotor, capacitors open-circuited one at a time		N/A
	Test repeated with capacitors short-circuited one at a time, unless		N/A
	the capacitor is of class S2 or S3 of IEC 60252-1:2010 including IEC 60252-1:2010/AMD1:2013		N/A
	Appliances with timer or programmer supplied with rated voltage for each of the tests, for a period equal to the maximum period allowed.....:		N/A
	An electronic timer or programmer that operates to ensure compliance with the test before the maximum period under the conditions of Clause 11 is reached, is a protective electronic circuit		N/A
	Other appliances supplied with rated voltage for a period as specified.....:		N/A
	Winding temperatures not exceeding values specified in Table 8..... :	(see appended table)	N/A
	Espresso coffee-makers incorporating a pump are operated for a period of 5 min (IEC 60335-2-15)		N/A
	Soy milk makers are operated for one cycle of operation (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
19.8	Multi-phase motors operated at rated voltage with one phase disconnected (V)..... :		N/A
19.9	Running overload test on appliances incorporating motors intended to be remotely or automatically controlled or liable to be operated continuously		N/A
	Motor-operated and combined appliances for which 30.2.3 is applicable and that use overload protective devices relying on electronic circuits to protect the motor windings, are also subjected to the test		N/A
	Winding temperatures not exceeding values as specified..... :	(see appended table)	N/A
19.10	Series motor operated at 1,3 times rated voltage for 1 min (V).....		N/A
	During the test, parts not being ejected from the appliance		N/A
19.11	Electronic circuits, compliance checked by evaluation of the fault conditions specified in 19.11.2 for all circuits or parts of circuits, unless		P
	they comply with the conditions specified in 19.11.1		N/A
	Appliances incorporating an electronic circuit that relies upon a programmable component to function correctly, subjected to the test of 19.11.4.8, unless		N/A
	restarting does not result in a hazard		N/A
	Appliances having a device with an off position obtained by electronic disconnection, or a device placing the appliance in a stand-by mode, subjected to the tests of 19.11.4		N/A
	If the safety of the appliance under any of the fault conditions depends on the operation of a miniature fuse-link complying with IEC 60127, the test of 19.12 is carried out		N/A
	During and after each test the following is checked:		N/A
	- the temperature of the windings does not exceed the values specified in Table 8		N/A
	the appliance complies with the conditions specified in 19.13		N/A
	- any current flowing through protective impedance not exceeding the limits specified in 8.1.4		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	If a conductor of a printed board becomes open-circuited, the appliance is considered to have withstood the particular test, provided both of the following conditions are met:		N/A
	- the base material of the printed circuit board withstands the test of normative Annex E		N/A
	- any loosened conductor does not reduce clearance or creepage distances between live parts and accessible metal parts below the values specified in Clause 29		N/A
19.11.1	Fault conditions a) to g) in 19.11.2 are not applied to circuits or parts of circuits meeting both of the following conditions:		N/A
	- the electronic circuit is a low-power circuit, that is, the maximum power at low-power points does not exceed 15 W according to the tests specified with the appliance supplied at rated voltage (V)…….. :		N/A
	- the protection against electric shock, fire hazard, mechanical hazard or dangerous malfunction of other parts of the appliance does not rely on the correct functioning of the electronic circuit		N/A
19.11.2	Fault conditions applied one at a time, the appliance operating under conditions specified in Clause 11, but supplied at rated voltage duration of the tests as specified:		N/A
	Appliance supplied at rated voltage (V)..... :		N/A
	a) short circuit of functional insulation if clearances or creepage distances are less than the values specified in Clause 29		N/A
	b) open circuit at the terminals of any component		N/A
	c) short circuit of capacitors, unless		N/A
	they comply with IEC 60384-14:2013 including IEC 60384-14:2013/AMD:2016		N/A
	d) short circuit of any two terminals of an electronic component, other than integrated circuits		N/A
	This fault condition is not applied between the two circuits of an optocoupler		N/A
	f) failure of microprocessors and integrated circuits		N/A
	g) failure of an electronic power switching device		N/A
	Each low power circuit is short-circuited by connecting the low-power point to the pole of the supply source from which the measurements were made		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Any cord between a battery-operated appliance consuming more than 15 W and the detachable power supply part short-circuited as specified		N/A
19.11.3	If the appliance incorporates a protective electronic circuit that operates to ensure compliance with Clause 19, the appliance is tested as specified		N/A
19.11.4	Appliances having a device with an off position obtained by electronic disconnection, or	not possible unsafe operation	N/A
	a device that can be placed in the stand-by mode,		N/A
	subjected to the tests of 19.11.4.1 to 19.11.4.7, the device being set in the off position or in the stand-by mode with the appliance supplied at rated voltage (V)..... : Note: In general, the result is not affected by the test frequency if a frequency range is marked		N/A
	Appliances incorporating a protective electronic circuit subjected to the tests of 19.11.4.1 to 19.11.4.7, the tests being carried out after the protective electronic circuit has operated as specified, however		N/A
	tests of electromagnetic phenomena not applied to protective electronic circuits operating during 19.7 in appliances that are used while attended		N/A
	Surge protective devices disconnected, unless		N/A
	they incorporate spark gaps		N/A
19.11.4.1	The appliance is subjected to electrostatic discharges in accordance with IEC 61000-4-2, test level 4		N/A
19.11.4.2	The appliance is subjected to radiated fields in accordance with IEC 61000-4-3, at frequency ranges as specified		N/A
19.11.4.3	The appliance is subjected to fast transient bursts in accordance with IEC 61000-4-4, test level 3 or 4 as specified		N/A
19.11.4.4	The power supply terminals of the appliance subjected to voltage surges in accordance with IEC 61000-4-5 as specified		N/A
	An open circuit test voltage of 2 kV is applicable for the line-to-line coupling mode		N/A
	An open circuit test voltage of 4 kV is applicable for the line-to-earth coupling mode		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Earthed heating elements in class I appliances disconnected		N/A
	For appliances having surge arresters incorporating spark gaps, tests repeated at 95 % of the flashover voltage		N/A
19.11.4.5	The appliance is subjected to injected currents in accordance with IEC 61000-4-6, test level 3		N/A
19.11.4.6	Appliances having a rated current not exceeding 16 A are subjected to the class 3 voltage dips and interruptions in accordance with IEC 61000-4-11:2020		N/A
19.11.4.7	The appliance is subjected to mains signals in accordance with IEC 61000-4-13:2002 including IEC 61000-4-13:2002/AMD1:2009 and IEC 61000-4-13:2002/AMD2:2015, test level class 2		N/A
19.11.4.8	The appliance is operated under normal operation and supplied at rated voltage (V).....	Test voltage =	N/A
	After 60 s the power supply is reduced to a level such that the appliance ceases to respond or parts controlled by the programmable component cease to operate		N/A
	The appliance continues to operate normally, or		N/A
	requires a manual operation to restart		N/A
19.12	If the safety of the appliance for any of the fault conditions specified in 19.11.2 depends on the operation of a miniature fuse-link complying with IEC 60127, the test is repeated, measuring the current flowing through the fuse-link; measured current (A); current rating of the fuse-link (A).....:		N/A
19.13	During the tests the appliance does not emit flames, molten metal, poisonous or ignitable gas in hazardous amounts		N/A
	Temperature rises not exceeding the values shown in Table 9..... :	(see appended table)	N/A
	Compliance with Clause 8 not impaired		N/A
	If the appliance can still be operated, it complies with 20.2		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Insulation, other than of class III appliances or class III constructions that do not contain live parts, withstands the electric strength test of 16.3, the test voltage as specified in Table 4:		P
	- basic insulation (V).....:	1000	P
	- supplementary insulation (V).....:	1750	N/A
	- reinforced insulation (V)..... :	3000	N/A
	After operation or interruption of a control, clearances and creepage distances across the functional insulation withstand the electric strength test of 16.3, the test voltage being twice the working voltage		N/A
	The appliance does not undergo a dangerous malfunction, and		P
	no failure of protective electronic circuits, if the appliance is still operable		N/A
	For accessible safety extra-low voltage outlets, connectors, or USB outlets, no increase of the no-load output voltage by more than 3 V or 10 % of the voltage in normal use, whichever higher, with a maximum/peak of 42,4 VDC/VAC		N/A
	Appliances tested with an electronic switch in the off position, or in the stand-by mode:		N/A
	- do not become operational, or		N/A
	- if they become operational, do not result in a dangerous malfunction during or after the tests of 19.11.4		N/A
	If the appliance contains lids or doors that are controlled by one or more interlocks, one of the interlocks may be released provided that both:		N/A
	- the lid or door does not move automatically to an open position when the interlock is released, and		N/A
	- the appliance does not start after the cycle in which the interlock was released		N/A
	During the test of 19.4, protective devices of pressure cookers other than dynamic pressure cookers shall operate before the pressure has reached 350 kPa (IEC 60335-2-15)		N/A
	During the test of 19.4, protective devices or intentionally weak parts of dynamic pressure cookers shall operate before the pressure has reached 250 kPa (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The temperature rise of the windings of induction rice cookers shall not exceed the values specified in 19.7 (IEC 60335-2-15)		N/A
	The electric strength test of induction rice cookers is carried out immediately after switching off the appliance (IEC 60335-2-15)		N/A
19.14	Appliances operated under the conditions of Clause 11, any contactor or relay contact operating under the conditions of Clause 11 being short-circuited		N/A
	For a relay or contactor with more than one contact, all contacts are short-circuited at the same time		N/A
	A relay or contactor operating only to ensure the appliance is energized for normal use is not short-circuited		N/A
	If more than one relay or contactor operates in Clause 11, they are short-circuited in turn		N/A
	If the appliance has several modes of operation, the tests are carried out with the appliance operating in each mode, if necessary		N/A
19.15	For appliances with a mains voltage selector switch, the switch is set to the lowest rated voltage position and the highest value of rated voltage is applied		N/A
19.16	Appliances having mains connection and replaceable batteries supplied at rated voltage and operated under normal operation but with batteries removed or in any position allowed by construction		N/A
19.17	For battery-operated appliances incorporating a battery using metal-ion chemistry, the battery system is operated according to the instructions and tested under the following conditions, duration as specified		N/A
	a) series configured battery:		N/A
	- imbalance introduced into fully discharged battery by charging one cell to the percentage of being fully charged applied during the test of Clause 12		N/A
	- single cell or parallel only configured battery: fully discharged		N/A
	b) series configured battery: imbalance introduced as specified and fully charged, if the test of Clause 12 was conducted with an imbalance of less than 50 % and if a single fault in the circuitry results in the loss of maintaining balance		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	c) series configured battery: cells at 50 % of full charge, except one which is shortened, battery then fully charged		N/A
	d) fully charged battery connected to the charging system: short circuit introduced to the charging system as specified to produce the most unfavourable results, and for a charging system with a cord connecting to the battery, short circuit introduced at a point producing the most adverse effects; resistance of short circuit not exceeding 10 mW		N/A
	No explosion or ignition of the battery during or after the test		N/A
	Voltage on any cell not exceeding upper limit charging voltage by more than 150 mV, unless		N/A
	charging system permanently disabled from recharging battery, checked as specified		N/A
	Recharging considered to be permanently disabled, if:		N/A
	- battery discharged to approximately 50 % of full charge, by using the battery-operated appliance tested (in case of an integral battery), or		N/A
	by using a new sample of the battery-operated appliance (in case of a detachable and separable battery)		N/A
	- attempt made to recharge battery normally		N/A
	- no charging current after 10 min or after 25 % of the nominal capacity has been delivered, whichever occurs first		N/A
19.101	Kettles are placed on a plywood board having a thickness of approximately 20 mm. The thermal cut-out that operates during the test of 19.4 and all thermal controls that operate during the test of Clause 11 are short circuited simultaneously and the kettle is operated empty at 0,85 times rated power input or 1,15 times rated power input, whichever is more unfavourable. If the kettle incorporates more than one thermal cut-out that could operate during the test of 19.4, they are short circuited in turn (IEC 60335-2-15)		P
	During the test, any flames shall be kept within the enclosure of the kettle and the supporting surface shall not ignite (IEC 60335-2-15)		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	After the test, and when the insulation has cooled down to approximately room temperature, live parts shall not be accessible, and the kettle shall pass the dielectric strength test in 16.3 with the test voltage specified in Table 4 (IEC 60335-2-15)		P
	The humidity treatment of 15.3 is not applied before the electric strength test is carried out (IEC 60335-2-15)		P
	The kettle is filled to its rated capacity with water for 24 h before the electric strength test is carried out. Other requirements of 19.13 are not applicable (IEC 60335-2-15)		P
19.102	Kettles are placed on a plywood board having a thickness of approximately 20 mm (IEC 60335-2-15)		P
	Kettles incorporating two self-resetting thermal cut-outs are operated with one of the thermal cut-outs short circuited. The kettle is operated empty at 0,85 times rated power input or 1,15 times rated power input, whichever is more unfavourable (IEC 60335-2-15)		P
	Within 2 s of the other thermal cut-out operating, the kettle is filled with water having a temperature of 15 °C ± 5 °C. After 1 min, the kettle is emptied (IEC 60335-2-15)		P
	The test is carried out 100 times (IEC 60335-2-15)		P
19.103	For appliances with detachable liquid containers, the automatic transfer of liquid from one container to another shall not give rise to an electrical hazard if they are incorrectly positioned (IEC 60335-2-15)		N/A
	Compliance is checked by the test as specified (IEC 60335-2-15)		N/A
	The appliance shall then withstand the electric strength test of 16.3 and inspection shall show that there is no trace of water on insulation that could result in the reduction of clearances and creepage distances below the values specified in Clause 29 (IEC 60335-2-15)		N/A
19.104	The overloading of a soy milk maker shall not result in a hazard (IEC 60335-2-15)		N/A
	Compliance is checked by the test as specified (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	During the test, any flames shall be kept within the enclosure and the supporting surface shall not ignite (IEC 60335-2-15)		N/A
	After the test, live parts shall not be accessible (IEC 60335-2-15)		N/A
19.105	When a soy milk maker is disconnected from the supply accidently during normal use, it shall not result in a hazard (IEC 60335-2-15)		N/A
	Compliance is checked by the test as specified (IEC 60335-2-15)		N/A
	During the test, any flames shall be kept within the enclosure and the supporting surface shall not ignite (IEC 60335-2-15)		N/A
	After the test, live parts shall not be accessible (IEC 60335-2-15)		N/A
19.106	The appliance is operated at rated power input with the heated surface completely covered with two layers of textile material of pre-washed double-hemmed cotton sheets until steady conditions are established (IEC 60335-2-15)		P
	If a thermostat operates, the test is repeated with the one-third of the heated surface furthest from the temperature-sensing element covered (IEC 60335-2-15)		N/A
	The textile material shall not ignite (IEC 60335-2-15)		P
19.107	Coffee-makers with a decorative door or intended to be used in a cabinet are operated under the conditions specified in Clause 11 but with the decorative door or cabinet door closed (IEC 60335-2-15)		N/A
19.108	Automatic coffee-makers of the coffee bean type, other than automatic espresso coffee-makers of the coffee bean type, are supplied at rated voltage and operated under normal operation five times with rest periods (IEC 60335-2-15)		N/A
	Automatic espresso coffee-makers of the coffee bean type are supplied at rated voltage and are set to maximum quantity of coffee powder, with the smallest amount of coffee in the cup according to the instructions without rest periods (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The duration of the operating period is: (IEC 60335-2-15)		N/A
	– for appliances incorporating a timer, the longest period allowed by the timer		N/A
	– for other appliances, as follows:		N/A
	• for automatic coffee-makers incorporating coffee mills of the grinding type, 30 s longer than the time needed to fill the collecting container or the time required to empty the hopper, whichever is shorter		N/A
	• for automatic coffee-makers incorporating other coffee mills, 1 min		N/A
	The duration of the rest period is: (IEC 60335-2-15)		N/A
	– 10 s, for appliances provided with a collecting container		N/A
	– 60 s, for other appliances		N/A
	The temperature of the windings shall not exceed the values shown in Table 8 (IEC 60335-2-15)		N/A
20	**STABILITY AND MECHANICAL HAZARDS**		P
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°		P
	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		N/A
	Protective enclosures, guards and similar parts are non-detachable, and		N/A
	have adequate mechanical strength		N/A
	Enclosures that can be opened by overriding an interlock are considered to be detachable parts		N/A
	Self-resetting thermal cut outs and overcurrent protective devices not causing a hazard by unexpected closure		N/A
	Not possible to touch dangerous moving parts with the test probes, checked by		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- inspection		N/A
	- test of 21.1		N/A
	- applying a force not exceeding 5 N by means of a test probe similar to test probe B of IEC 61032 but having a circular stop face with a diameter of 50 mm, instead of the noncircular face		N/A
	- applying test probe 18 of IEC 61032 with a force not exceeding 2,5 N, if appliance intended for non-commercial use or to be installed in an open to the public		N/A
	For appliances provided with movable devices such as those intended for varying the tension of belts, the test with the test probe is carried out with these devices adjusted to the most unfavourable position within their range of adjustment. If necessary, belts are removed		N/A
	It is not possible to touch dangerous moving parts with the test probes		N/A
	For soy milk makers, test probe 18 is not applied to the cutting blades (IEC 60335-2-15)		N/A
20.101	The container and cutting blades of soy milk makers shall have adequate mechanical strength (IEC 60335-2-15)		N/A
	Compliance is checked by the test as specified (IEC 60335-2-15)		N/A
	After the test, the container and cutting blades shall not be broken; however, distorted and blunt edges are ignored (IEC 60335-2-15)		N/A
20.102	The rotating parts of soy milk makers shall be secured so that they do not become loose during operation (IEC 60335-2-15)		N/A
	Compliance is checked by inspection and manual test (IEC 60335-2-15)		N/A
	Fastening of screws and nuts in a direction opposite to the direction of rotation of the rotating parts is considered to be a suitable means of securing the rotating parts (IEC 60335-2-15)		N/A
20.103	The lid interlock, if any, of soy milk makers shall be constructed so that accidental operation of the appliance is prevented (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Lid interlock switches shall be biased-off switches (IEC 60335-2-15)		N/A
	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. When the lid is not correctly closed, the switch shall be locked in the off position (IEC 60335-2-15)		N/A
	Compliance is checked by inspection and by the test as specified (IEC 60335-2-15)		N/A
	If compliance relies on the operation of an electronic circuit for the interlock function the moving parts shall not operate with the lid removed under the following conditions applied separately: (IEC 60335-2-15)		N/A
	a) The fault conditions in a) to g) of 19.11.2 are applied one at a time to the electronic circuit		N/A
	b) The electromagnetic phenomena tests of 19.11.4.2 and 19.11.4.5 are applied. The tests are carried out with surge protective devices disconnected, unless they incorporate spark gaps		N/A
	If the electronic circuit is programmable, the software shall contain measures to control the fault/error conditions specified in Table R.1 and is evaluated in accordance with the relevant requirements of normative Annex R (IEC 60335-2-15)		N/A
21	**MECHANICAL STRENGTH**		**P**
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 likely to be weak, in accordance with test Ehb of IEC 60068-2-75, spring hammer test, with an impact energy of 0,5 J	(see appended table)	P
	Appliances and parts of appliances having pins for insertion into mains socket-outlets subjected to the test, Free fall repeated, procedure 2, of IEC 60068-2-31, under the specified conditions		N/A
	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

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	If necessary, repetition of groups of three blows on a new sample		N/A
	Breakage of glass parts, other than glass water containers of kettles and glass coffee or tea containers of coffee-makers and tea makers, is neglected provided that compliance with 8.1, 15.1 and 15.101 is not impaired (IEC 60335-2-15)		N/A
	The glass of the water container of a kettle and the glass of the coffee or tea container of a coffee-maker or tea maker shall not break (IEC 60335-2-15)		N/A
21.2	Accessible parts of solid insulation having strength to prevent penetration by sharp implements		N/A
	Test not applicable if the thickness of supplementary insulation is at least 1 mm and reinforced insulation at least 2 mm		N/A
	The insulation is tested as specified, and does withstand the electric strength test of 16.3		N/A
21.3	Appliances with pins for insertion into socket-outlets with a rotating plug part are provided with a mechanical stop to prevent rotation having adequate mechanical strength and constructed to withstand rough handling		N/A
	Application of a torque of 2 Nm for 1 min does not result in rotation of the plug part after rotating it until the mechanical stop prevents further rotation, both directions checked		N/A
21.101	The handle of kettles and its securement means shall be constructed to withstand the stresses occurring during normal use (IEC 60335-2-15)		N/A
	Compliance is checked by inspection and by the test as specified (IEC 60335-2-15)		N/A
	The kettle, the handle and its securement means shall not break, crack or loosen (IEC 60335-2-15)		P
21.102	Kettles shall be constructed so that there are no sudden breaks of the handle or its securement means likely to expose the user to a hazard when the appliance is used as in normal use (IEC 60335-2-15)		P
	Compliance is checked by the test as specified (IEC 60335-2-15)		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The kettle, the handle and its securement mean shall not break, crack or loosen (IEC 60335-2-15)		P
22	**CONSTRUCTION**		P
22.1	Appliance marked with the first numeral or any of the additional letters of the IP system		N/A
22.2	Stationary appliance: means to ensure disconnection from the supply being provided:		P
	- a supply cord fitted with a plug, or		P
	- a switch providing all-pole disconnection complying with 24.3, 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 0I and class I appliances, connected to the line conductor		N/A
22.3	Appliance provided with pins: no undue strain on socket-outlets		N/A
	Means for retaining pins withstand the forces to which the pins are like to be subjected in normal use		N/A
	Applied torque not exceeding 0,25 Nm, torque to keep the socket-outlet itself in the vertical plane not included in this value		N/A
	Pull force of 50 N for 1 min 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 1 mm		N/A
	Each pin subjected to a torque of 0,4 Nm; 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		N/A
22.5	No risk of electric shock from charged capacitors resulting in a capacitance equal or greater than 0,1 μF when touching pins, the appliance being disconnected from the supply at the instant of voltage peak		P
	Appliance supplied at rated voltage (V)..... :	240	P
	Voltage not exceeding 34 V (V)..... :	0 V	P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	If compliance relies on the operation of an electronic circuit, the electromagnetic phenomena tests of 19.11.4.3 and 19.11.4.4 are applied		N/A
	The test for measuring the voltage between the pins of the plug is then repeated three times, voltage not exceeding 34 V (V)....:		N/A
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
	A drain hole that is necessary to comply with the standard shall be at least 5 mm in diameter or 20 mm^2 in area with a width of at least 3 mm. Holes that do not meet these dimensions are considered to be blocked when determining compliance. Compliance is also checked by measurement (IEC 60335-2-15)		P
22.7	Adequate safeguards against the risk of excessive pressure in appliances containing liquid or gases or having steam-producing devices		N/A
	Espresso coffee-makers are filled with water to their rated capacity and operated at rated power input with the coffee filter blocked and outlet closed. The maximum pressure attained is measured. The appliance is then subjected to twice the measured pressure for 5 min (IEC 60335-2-15)		N/A
	If the valve for steam supply is linked to the switch used for starting the production of steam, this link is not to be disturbed while measuring the maximum pressure (IEC 60335-2-15)		N/A
	The appliance shall not rupture and there shall be no leakage other than through a self-resetting pressure-relief device or intentionally weak part. If a self-resetting pressure-relief device operates, the appliance shall be suitable for further use (IEC 60335-2-15)		N/A
	Controls that limit the pressure are rendered inoperative and the appliance is operated again as described for determining the maximum pressure (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The appliance shall not explode or emit hazardous jets of steam. If an intentionally weak part ruptures, the test is repeated on a second appliance and shall be terminated in the same mode (IEC 60335-2-15)		N/A
	All pressure regulating devices and all protective devices and intentionally weak parts are rendered inoperative and the lid is closed (IEC 60335-2-15)		N/A
	For pressure cookers, other than dynamic pressure cookers, the pressure is gradually increased hydraulically to two times the operating pressure of the protective device during the test of 19.4 (IEC 60335-2-15)		N/A
	For dynamic pressure cookers, the pressure is gradually increased hydraulically to 50 kPa in excess of the operating pressure of the protective device or intentionally weak part during the test of 19.4 (IEC 60335-2-15)		N/A
	The container shall not rupture (IEC 60335-2-15)		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
	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		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Obvious locked position of snap-in devices used for fixing such parts		N/A
	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		P
22.12	Handles, knobs, etc. fixed in a reliable manner, if loosening could result in a hazard, including a choking hazard		P
	Requirement concerning the choking hazard does not apply to commercial appliances		N/A
	Removing or fixing in wrong position of handles, knobs, etc. indicating position of switches or similar components not possible, if resulting in a hazard		N/A
	No use of sealing compound and similar materials, other than self-hardening resins, to prevent loosening		N/A
	Axial force of 15 N applied for 1 min to parts unlikely to be subjected to axial pull in normal use		N/A
	Axial force of 30 N applied for 1 min to parts likely to be subjected to axial pull in normal use		P
	Loosening of removed parts not resulting in a choking hazard, checked with small parts cylinder		N/A
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 conductor strands and no undue wear of contacts		N/A
	Cord reel tested with 6 000 operations, as specified		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Electric strength test of 16.3, voltage of 1 000 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, unless		P
	made from stainless steel, plated steel or similar corrosion-resistant alloys		N/A
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		P
	material used is non-corrosive, non-hygroscopic and non-combustible, or thermal insulation is glass-wool		N/A
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless		P
	impregnated		N/A
	Requirement not applicable to magnesium oxide and mineral ceramic fibres electrically insulating heating elements and insulating material where fibre interstices are filled with a suitable insulant		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 into contact with accessible metal parts		N/A
22.25	Sagging heating conductors cannot come into contact with accessible metal parts		N/A
	Requirement not applicable to class III appliances or class III constructions without live parts, appliances where a core effectively prevents sagging, or where supplementary insulation prevents contact		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		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
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
22.29	Class II appliances permanently connected to fixed wiring constructed so 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
	constructed so that they cannot be replaced in an incorrect position and if omitted, the appliance is rendered inoperable or manifestly incomplete		N/A
22.31	Neither clearances nor creepage distances over supplementary and reinforced insulation reduced below values in Clause 29 as a result of wear		N/A
	Neither clearances nor creepage distances between live parts and accessible parts reduced below values for supplementary insulation if wires, screws, etc. become loose		N/A
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		N/A
	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
	Ceramic and similar porous material in which heating conductors are embedded is considered to be basic insulation, not reinforced insulation		N/A
	No visible cracks after 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, or		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	unearthed metal parts separated from live parts by basic insulation only		N/A
	Electrodes not used for heating liquids		P
	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 are not in direct contact with basic or reinforced insulation, unless		N/A
	the reinforced insulation consists of at least 3 layers		N/A
	For class II constructions, conductive liquids which are in contact with live parts are 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		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 and cordless 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 withstands the electric strength test of 16.3 for supplementary insulation		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
22.36	For appliances other than class III appliances, handles continuously held in the hand in normal use so constructed that when gripped as in normal use, the operator's hand is not likely to touch metal parts, unless		N/A
	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		N/A
	the capacitors comply with 22.42		N/A
22.38	Capacitors not connected between the contacts of a thermal cut-out		N/A
22.39	Lampholders 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		N/A
	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
	For soy milk makers, any switch controlling the motor shall also disconnect electronic circuits, if their malfunction would impair compliance with this standard. Compliance is checked by the tests of Clause 19 (IEC 60335-2-15)		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 14.2 a) in IEC 60065:2014		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Capacitors checked by the tests for class Y capacitors in IEC 60384-14:2013 including IEC 60384-14:2013/AMD1:2016 for rated voltage of the appliance (V).....:		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, unless		P
	a toy is shaped like the appliance		N/A
22.45	When air is used as reinforced insulation, clearances not reduced below the values in 29.1.3 due to deformation of the enclosure, applying a force of 30 N to accessible surfaces		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
	These requirements are not applicable to software used for functional purpose or compliance with Clause 11		N/A
	Compliance checked by evaluating the software in accordance with the relevant requirements of normative Annex R		N/A
	If the software is modified, the evaluation and relevant tests are repeated if the modification influences the results of the test involving protective electronic circuits		N/A
22.47	Appliances connected to the water mains withstand the water pressure expected in normal use		P
	No leakage from any part, including any inlet water hose		P
22.48	Appliances connected to the water mains constructed to prevent back-siphonage of non-potable water		P
22.49	For remote operation, the duration of operation of the function that is going to be remotely operated shall be set before the function is started, unless: (IEC 60335-2-15)		N/A
	– the function switches off automatically at the end of a cycle, or		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	– the function can operate continuously without giving rise to a hazard		N/A
	Slow cookers, rice cookers, steam cookers and yoghurt makers, and appliances that automatically change to a keep warm function after the cooking or brewing cycle is completed are considered to be functions that can operate continuously without giving rise to a hazard (IEC 60335-2-15)		N/A
	Compliance is checked by inspection (IEC 60335-2-15)		N/A
22.50	Controls incorporated in the appliance take priority over controls actuated by remote operation		N/A
22.51	A control on the appliance shall be manually adjusted to the setting for remote operation before the appliance can be operated in this mode. There shall be a visual indication on the appliance showing that the appliance is adjusted for remote operation (IEC 60335-2-15)		N/A
	Compliance is checked by inspection (IEC 60335-2-15)		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
22.53	Class II appliances and class III appliances that incorporate functionally earthed parts have at least double insulation or reinforced insulation between live parts and the functionally earthed parts		N/A
22.54	Button cells and batteries designated R1 not accessible without the aid of a tool, unless		N/A
	the cover of their compartment can only be opened after at least two independent movements have been applied simultaneously		N/A
22.55	Devices operated to stop the intended function of the appliance, if any, are being distinguished from other manual devices by means of shape, size, surface texture, or position.....:		P
	The requirement concerning position does not preclude use of a push on push off switch		P
	An indication when the device has been operated is given by:		P
	- tactile feedback from the actuator or from the appliance, or		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- reduction in heat output, or		N/A
	- audible and visible feedback		P
22.56	Detachable power supply part provided with the part of class III construction		N/A
22.57	The properties of non-metallic materials do not degrade from exposure to UV-C radiation, as specified in normative Annex T		N/A
	This requirement does not apply to glass, ceramics or similar materials		N/A
22.58	Appliances connected to the supply mains by an appliance inlet are provided with a cord set or a connector for attachment to a suitable flexible cord, except from:		N/A
	- appliances complying with IEC 60320-3, or		N/A
	- single phase appliances having a rated current exceeding 16 A, connected to mains by an appliance inlet complying with IEC 60309-2, or		N/A
	- multi-phase appliances connected to mains by an appliance inlet complying with IEC 60309-2		N/A
22.59	Protective extra-low voltage circuits separated by at least supplementary insulation from circuits operating at safety extra-low voltage		N/A
22.60	Functional earthing terminals and functional earthing contacts not connected to the neutral terminal		N/A
22.61	Appliance outlets complying with the standard sheets in IEC 60320-3 accessible to the user and socket outlets accessible to the user are single phase, if:		N/A
	- they are incorporated in appliances connected to the supply mains, and		N/A
	- they operate at rated voltage		N/A
	Current rating not exceeding 16 A (A).....:		N/A
	Appliance outlets accessible to the user, other than those supplying accessories, and socket-outlets accessible to the user are protected by one of the following:		N/A
	- a circuit breaker for equipment complying with IEC 60934, or		N/A
	- a non-user replaceable fuse-link		N/A
	Current rating of protective device not exceeding current rating of the appliance outlet or socket-outlet (A).....:		N/A
	Protective device placed behind a non-detachable cover		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Current rating of appliance outlets and socket-outlets marked with the outlet load in watts, obtained from the market outlet load divided by the rated voltage (A)..... :		N/A
22.62	Remote communication through public networks does not impair compliance with this standard		N/A
	The requirement does only apply to remote communication where the download of software or the transmission of data:		N/A
	a) includes measures according to normative Annex R necessary for compliance with 22.46, or		N/A
	Includes means necessary for compliance with Clauses 8 to 32		N/A
	b) only affects the software part that is not covered by a), but where compliance might be impaired due to improper separation of partitioning from the software or data in a)		N/A
	The requirement does not apply to appliances:		N/A
	- where all measures to comply with this standard are independent of software		N/A
	- using remote communication through public networks for the send-only transmission of data, or		N/A
	- that only provide event driven messages or push remote monitoring		N/A
	Compliance checked by inspection of the product and the technical documentation, and by the requirements and tests in normative Annex U		N/A
22.101	Kettles shall be constructed so that the lid does not fall off when water is poured out (IEC 60335-2-15)		P
	Compliance is checked by the test as specified (IEC 60335-2-15)		P
	The lid shall not fall off and water shall only be emitted from the spout (IEC 60335-2-15)		P
22.102	Kettles shall be constructed so that there are no sudden jets of steam or hot water likely to expose the user to a hazard when the appliance is used as in normal use (IEC 60335-2-15)		P
	Compliance is checked by inspection during the test of Clause 11 (IEC 60335-2-15)		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
22.103	The appliance coupler of cordless appliances shall be constructed to withstand the stresses occurring during normal use (IEC 60335-2-15)		P
	Compliance is checked by the test as specified (IEC 60335-2-15)		P
	The appliance is placed on its stand and withdrawn for: (IEC 60335-2-15)		P
	– cordless kettles 10 000 times		P
	– cordless coffee-makers 10 000 times		N/A
	– other cordless appliances 6 000 times		N/A
	After the test, the appliance shall be suitable for further use and compliance with 8.1, 16.3, 27.5 and Clause 29 shall not be impaired (IEC 60335-2-15)		N/A
	The test is carried out without current flowing if the connection contacts cannot make or break on load (IEC 60335-2-15)		N/A
22.104	Portable appliances for boiling water that have a rated capacity exceeding 3 l, and which are liable to overturn, shall be constructed so that the rate of discharge is limited (IEC 60335-2-15)		N/A
	Compliance is checked by the test as specified (IEC 60335-2-15)		N/A
	The rate of discharge of water shall not exceed 16 l/min (IEC 60335-2-15)		N/A
22.105	Fixed appliances for boiling water shall be constructed so that the container is always open to the atmosphere through an aperture of at least 5 mm in diameter, or 20 mm^2 in area with a width of at least 3 mm (IEC 60335-2-15)		N/A
	The aperture shall be located so that it is unlikely to be obstructed in normal use (IEC 60335-2-15)		N/A
	If the appliance has provision for discharging steam or for water overflow, the discharge aperture shall be at the base of the appliance and shall discharge vertically downwards (IEC 60335-2-15)		N/A
	Compliance is checked by inspection and by measurement (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
22.106	Espresso coffee-makers shall be constructed so that it is not possible to remove the coffee filter by a simple operation while there is a hazardous pressure within the container (IEC 60335-2-15)		N/A
	Compliance is checked by inspection and by manual test. This requirement is considered to be met if the coffee filter can only be removed after it has been rotated through an angle of at least 30° (IEC 60335-2-15)		N/A
22.107	Pressure cookers shall incorporate a non-self-resetting pressure or temperature responsive pressure-relief device (IEC 60335-2-15)		N/A
	Compliance is checked by inspection (IEC 60335-2-15)		N/A
22.108	Pressure cookers shall be constructed so that: (IEC 60335-2-15)		N/A
	– the lid cannot be removed while the pressure within the container is excessive		N/A
	– there is no build-up of pressure within the container unless the lid is locked		N/A
	They shall incorporate a means to release the pressure to a value such that the lid can be removed without risk (IEC 60335-2-15)		N/A
	Compliance is checked by inspection and the tests of 22.108.1 and 22.108.2 (IEC 60335-2-15)		N/A
22.108.1	The pressure cooker is operated as specified in Clause 11 until the pressure regulator operates for the first time (IEC 60335-2-15)		N/A
	The pressure cooker is then disconnected from the supply and a force of 150 N is immediately applied to the most unfavourable point where the lid or its handle or knob can be gripped or a torque of 15 N m is applied to the handle or knob about the axis of rotation for opening the lid, applying the most unfavourable condition (IEC 60335-2-15)		N/A
	It shall not be possible to remove the lid (IEC 60335-2-15)		N/A
	If the lid, handle or knob breaks, there shall be no ejection of the pressure cooker contents (IEC 60335-2-15)		N/A
	The test shall then be continued if the construction permits (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The internal pressure is then gradually reduced, the force of 150 N or the torque of 15 N m being applied, taking care to ensure that the force or torque is applied in a manner that does not prevent a lid locking mechanism from operating to release the lid before a safe internal pressure is obtained. The internal pressure is allowed to decrease until the internal pressure does not exceed 4 kPa when the test is stopped. There shall be no hazardous displacement of the lid or of the pressure cooker contents when the lid is released (IEC 60335-2-15)		N/A
	This test is not carried out on pressure cookers when the lid is secured by screw clamps or other devices that ensure that the pressure is automatically reduced in a controlled manner before the lid can be removed (IEC 60335-2-15)		N/A
22.108.2	Immediately after the test of 22.108.1, the pressure cooker is then tested by placing the lid on the appliance in the most unfavourable position without allowing the lid safety locking mechanism to lock. Attempts are made to gradually pressurise the container hydraulically. The internal pressure of the container shall not exceed 4 kPa (IEC 60335-2-15)		N/A
22.109	Pressure cookers shall be constructed so that the pressure in the container is not excessive when the lid is not closed or is incorrectly fitted (IEC 60335-2-15)		N/A
	Compliance is checked by the test as specified (IEC 60335-2-15)		N/A
	The pressure in the container shall not exceed 4,0 kPa (IEC 60335-2-15)		N/A
22.110	Feeding-bottle heaters with a control to set a pre-determined temperature or time shall emit a visible or audible signal to indicate that the pre-determined temperature or time has been reached (IEC 60335-2-15)		N/A
	Compliance is checked by inspection during the test of Clause 11 (IEC 60335-2-15)		N/A
22.111	Espresso coffee-makers, incorporating a pressurized reservoir filled by the user, shall be constructed so that there is no spillage of water or sudden jets of steam or hot water likely to expose the user to a hazard when the appliance is used in accordance with the instructions (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	When removing the filling cap of the pressurized reservoir, before the cap is removed completely, the pressure shall be relieved in a controlled manner in order to avoid the emission of jets of steam or hot water that are likely to expose the user to a hazard (IEC 60335-2-15)		N/A
	Compliance is checked by inspection during the test of Clause 11 and by removing the filling cap at the end of the test (IEC 60335-2-15)		N/A
22.112	Soy milk makers shall be constructed so that steam or hot water are not ejected which can expose the user to a hazard (IEC 60335-2-15)		N/A
	Compliance is checked by inspection (IEC 60335-2-15)		N/A
22.113	Appliances with moving mechanical parts shall be constructed so that lubricants are prevented from polluting food compartments (IEC 60335-2-15)		N/A
	Compliance is checked by inspection (IEC 60335-2-15)		N/A
22.114	Appliances shall be constructed so that food or liquids are prevented from penetrating into places that could cause electrical or mechanical faults (IEC 60335-2-15)		P
	Compliance is checked by inspection (IEC 60335-2-15)		P
22.115	Coffee-makers shall be constructed so that it is not possible to rotate the frothing nozzle or hot water nozzle through an angle of more than 45° upwards from the downwards facing vertical position, unless one or more of the following conditions are fulfilled: (IEC 60335-2-15)		N/A
	– the rotation is in the lateral direction and oriented towards the centre of the machine. In this case the rotation can be up to 75°; or		N/A
	– there is no release of steam or hot water possible when frothing nozzles or hot water nozzles rotate to more than 45° upwards from the downwards facing vertical position. In this case there is no limit to the rotation angle in any direction		N/A
	Compliance is checked by inspection and by manual test (IEC 60335-2-15)		N/A
	If compliance relies on the operation of an electronic circuit, the test is repeated under the following conditions applied separately: (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	– the fault conditions in a) to g) of 19.11.2 are applied one at a time to the electronic circuit		N/A
	– the electromagnetic phenomena tests of 19.11.4.2 and 19.11.4.5 are applied to the appliance. The tests are carried out with surge protective devices disconnected, unless they incorporate spark gaps		N/A
	If the electronic circuit is programmable, the software shall contain measures to control the fault/error conditions specified in Table R.1 and is evaluated in accordance with the relevant requirements of normative Annex R (IEC 60335-2-15)		N/A
22.116	For appliances that are controlled by programmable electronic circuits that limit the number of heating elements and motors from being energized at the same time, simultaneous activation of any combination of heating elements and motors shall not render the appliance unsafe (IEC 60335-2-15)		N/A
	Compliance is checked as specified (IEC 60335-2-15)		N/A
23	**INTERNAL WIRING**		P
23.1	Wireways smooth and free from sharp edges		P
	Wires protected against contact with burrs, cooling fins, etc.		P
	Wire holes in metal well-rounded or provided with bushings		N/A
	Wiring effectively prevented from coming into contact with moving parts		N/A
23.2	Beads etc. on live wires cannot change their position, and are not resting on sharp edges		N/A
	Beads inside flexible metal conduits contained within an insulating sleeve		N/A
23.3	Electrical connections and internal conductors movable relatively to each other not exposed to undue stress		N/A
	Flexible metallic tubes not causing damage to insulation of conductors		N/A
	Open-coil springs not used		N/A
	Adequate insulating lining provided inside a coiled spring, the turns of which touch one another		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliance supplied at rated voltage.....:		N/A
	No damage after 10 000 flexings for conductors flexed during normal use, or		N/A
	100 flexings for conductors flexed during user maintenance		N/A
	Electric strength test of 16.3, 1 000 V between live parts and accessible metal parts		N/A
	Not more than 10 % of the strands of any conductor broken, and		N/A
	not more than 30 % for wiring supplying circuits that consume no more than 15 W		N/A
23.4	Bare internal wiring sufficiently rigid and fixed		N/A
23.5	No use of a single layer of internal wiring insulation to provide reinforced insulation		P
	For class II construction, the sheath of a cord complying with IEC 60227 or IEC 60245 or IEC 62821 may provide supplementary insulation		N/A
	Insulation of single layer internal wiring subjected to the supply mains voltage withstands the electrical stress likely to occur in normal use, if:		P
	- insulation of single layer internal wiring electrically equivalent to the basic insulation of cords complying with IEC 60227 or IEC 60245 or IEC 62821, or		N/A
	- no breakdown when a voltage of 2 000 V is applied for 15 min between the conductor and metal foil wrapped around the insulation		P
23.6	Sleeving used as supplementary insulation on internal wiring retained in position by clamping at both ends, or		N/A
	be such that it can only be removed by breaking or cutting		N/A
23.7	The colour combination green/yellow only used for earthing conductors		P
23.8	Aluminium wires not used for internal wiring		P
	The requirement does not apply to windings		N/A
23.9	Stranded conductors not consolidated by soldering where they are subjected to contact pressure, unless		P
	the contact pressure is provided by spring terminals		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The requirement does not apply to the soldered tip of a stranded conductor		N/A
23.10	The insulation and sheath of internal wiring, incorporated in external hoses for the connection of an appliance to the water mains, at least equivalent to that of light polyvinyl chloride sheathed flexible cord (60227 IEC 52), checked as specified		N/A
24	**COMPONENTS**		P
24.1	Components comply with safety requirements in relevant IEC standards		P
	List of components..... :	(see appended table)	P
	Motors not required to comply with IEC 60034-1, they are tested as part of the appliance		N/A
	Relays tested as part of the appliance, or		N/A
	alternatively, according to IEC 60730-1:2013 including IEC 60730-1:2013/AMD1:2015, and meeting the additional requirements in IEC 60335-1		P
	The requirements of Clause 29 apply between live parts of components and accessible parts of the appliance		P
	Components can comply with the requirements for clearances and creepage distances for functional insulation in the relevant component standard		P
	30.2 of this standard applies to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections		P
	Components that have not been previously tested to comply with the IEC standard for the relevant component are tested according to the requirements of 30.2		P
	Components that have been previously tested to comply with the resistance to fire requirements in the IEC standard for the relevant component need not be retested provided that the specified conditions are met		N/A
	If these conditions are not satisfied, the component is tested as part of the appliance		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Power electronic converter circuits not required to comply with IEC 62477-1, they are tested as part of the appliance		N/A
	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		N/A
	Components not tested and found to comply with relevant IEC standard and components not marked or not used according to their marking, tested under the conditions occurring in the appliance		N/A
	Lampholders and starterholders not being previously tested and found to comply with the relevant IEC standard, tested as a part of the appliance and additionally complying with the gauging and interchangeability requirements of the relevant IEC standard under the conditions occurring in the appliance		N/A
	No additional tests specified for nationally standardized plugs such as those detailed in IEC TR 60083 or connectors or plug connectors complying with the standard sheets of IEC 60320-3 or connectors complying with the standard sheets of IEC 60309-2		N/A
24.1.1	Capacitors likely to be permanently subjected to the supply voltage and used for radio interference suppression or for voltage dividing comply with IEC 60384-14:2013 including IEC 60384-14:2013/AMD1:2016		N/A
	If the capacitors have to be tested, they are tested according to normative Annex F		N/A
24.1.2	Transformers in associated switch mode power supplies comply with Annex BB of IEC 61558-2-16:2009 including IEC 61558-2-16:2009/AMD1:2013		N/A
	Safety isolating transformers comply with IEC 61558-2-6:2009		N/A
	If they have to be tested, they are tested according to normative Annex G		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
24.1.3	Switches comply with IEC 61058-1:2016, number of cycles of operation being at least 10 000, unless		P
	the appliance meets the requirements of this standard when they are rendered inoperative, then the number of cycles need not to be declared for 7.4 of IEC 61058-1:2016		N/A
	If they have to be tested, they are tested according to normative Annex H		N/A
	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 espresso coffee-makers for initiating brewing or steaming are subjected to 10 000 cycles of operation (IEC 60335-2-15)		N/A
	Switches incorporated in dynamic pressure cookers for controlling heaters are subjected to 50 000 cycles of operation and are tested under the conditions of Clause 11 with the appliance supplied at rated voltage (IEC 60335-2-15)		N/A
24.1.4	Automatic controls comply with IEC 60730-1:2013 including IEC 60730-1:2013/AMD1:2015 together with the relevant part 2. The number of cycles of operation being at least:		N/A
	- 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
	- 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 or rendered inoperative		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	If automatic controls have to be tested, additionally tested in accordance with 11.3.5 to 11.3.8 and Clause 17 of IEC 60730-1:2013 including IEC 60730-1:2013/AMD1:2015 as type 1 controls, tests of Clauses 12, 13 and 14 not carried out before the test of Clause 17		N/A
	Thermal motor protectors are tested in combination with their motor under the conditions specified in normative 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, degree of protection declared for 6.5.2 of IEC 60730-2-8:2018 is IPX7		N/A
	Thermal cut-outs of the capillary type comply with the requirements for type 2.K controls in IEC 60730-2-9:2015 including IEC 60730-2-9:2015/AMD1:2018		N/A
	Self-resetting thermal cut-outs required for compliance with the test of 19.101 are subjected to 3 000 cycles of operation (IEC 60335-2-15)		N/A
24.1.5	Appliance couplers comply with IEC 60320-1		N/A
	However, for appliances classified higher than IPX0, the appliance couplers comply with IEC 60320-2-3		N/A
	For appliance couplers incorporating thermostats, thermal cut-outs or fuses in the connectors, IEC 60320-1 is applicable except that: (IEC 60335-2-15)		N/A
	– the earthing contact of the connector is allowed to be accessible, provided that this contact is not likely to be gripped during insertion or withdrawal of the connector		N/A
	– the temperature required for the test of Clause 18 is that measured on the pins of the appliance inlet during the test of Clause 11 of this standard		N/A
	– the breaking-capacity test of Clause 19 is carried out using the inlet of the appliance		N/A
	– the temperature rise of current-carrying parts specified in Clause 21 is not determined		N/A
	Thermal controls are not allowed in connectors complying with the standard sheets of IEC 60320-1 (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
24.1.6	Small lampholders similar to E10 lampholders comply 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	Thermal links comply with IEC 60691		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 60730-1:2013 including IEC 60730-1:2013/AMD:2015, the number of cycles of operations in 24.1.4 selected according to the contactor or relay function in the appliance.....:		P
24.1.10	Lamps and lamp systems that have not been previously tested and found to comply with the exempt group classification of IEC 62471:2006 GLS regarding E_S and E_{UVA}:		P
	- tested as part of the appliance		N/A
	- comply with the requirements of Clause 32 under the conditions occurring in the appliance		N/A
	Unless otherwise specified, the following components are considered to comply with the specified GLS classification:		N/A
	- visible light indicators		N/A
	- infrared sources used for signalling or communication		N/A
	- seven-segment indicators		P
	- liquid crystal displays		N/A
	- organic LED displays (OLED)		N/A
	- plasma displays		N/A
24.1.11	Cord sets required to be provided with the appliance comply with IEC 60799		N/A
	Cord sets with cords complying to IEC 62821-3 allowed		N/A
24.2	Appliances not fitted with:		P
	- switches, automatic controls, power supplies and the like in flexible cords		P

IEC 60335-2-15			
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		N/A
	- 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, appliance inlets, plug connectors and appliance outlets complying with the standard sheets of IEC 60320-3		N/A
	This requirement is not applicable to the connection between the appliance and the stand of cordless appliances (IEC 60335-2-15)		N/A
24.5	Capacitors in auxiliary windings of motors marked with their voltage rating and their rated capacitance, and used accordingly		N/A
	Voltage across capacitors in series with a motor winding does not exceed 1,1 times its voltage rating, when the appliance is supplied at 1,1 times rated voltage under minimum load (V)..... :		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 (V)..... :		N/A
	In addition, the motors comply with the requirements of normative 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

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
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 met:		N/A
	- the capacitors are of class S2 or S3 according to IEC 60252-1:2010 including IEC 60252-1:2010/AMD1:2013		N/A
	- 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 normative 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
	For capacitors complying with IEC 60252-1:2010 including IEC 60252-1:2010/AMD1:2013, damp heat test for 5.14 of that standard with severity parameters as specified		N/A
24.101	Devices incorporated in appliances, other than kettles, for compliance with 19.4, shall be non-self-resetting. However, self-resetting thermal cut-outs are allowed for fixed water boilers if they have been subjected to 10 000 cycles of operation (IEC 60335-2-15)		N/A
	Compliance is checked by inspection and during the test of 19.4 (IEC 60335-2-15)		N/A
	If appliances, other than: (IEC 60335-2-15)		N/A
	– fixed water boilers incorporating self-resetting thermal cut-outs that have been subjected to 10 000 cycles of operation, and		N/A
	– kettles,		N/A
	incorporate self-resetting thermal cut-outs, these shall be short-circuited or rendered inoperative for the test of 19.4 (IEC 60335-2-15)		N/A
25	**SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS**		P
25.1	Appliance not intended for permanent connection to fixed wiring, means for connection to the supply:		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- supply cord fitted with a plug, the current rating and voltage rating of the plug being not less than the corresponding ratings of its associated appliance		P
	- an appliance inlet having at least the same degree of protection against moisture as required for the appliance, or		N/A
	- pins for insertion into socket-outlets		N/A
25.2	Appliance not provided with more than one means of connection to the supply mains		P
	Stationary appliance for multiple supply may be provided with more than one means of connection, provided electric strength test of 1 250 V for 1 min between each means of connection causes no breakdown		N/A
25.3	Appliance intended to be permanently connected to fixed wiring provided with one of the following means for connection to the supply mains		N/A
	- cord anchorage and a set of terminals allowing the connection of a flexible cord		N/A
	- a fitted supply cord		N/A
	a set of supply leads accommodated in a suitable compartment		N/A
	- a set of terminals for the connection of cables of fixed wiring, cross-sectional areas specified in 26.6, and the appliance allows the connection of the supply conductors after the appliance has been fixed to its support		N/A
	- a set of terminals and cable entries, conduit entries, knock-outs or glands, allowing connection of appropriate types of cable or conduit, and the appliance allows the connection of the supply conductors after the appliance has been fixed to its support		N/A
25.4	Cable and conduit entries, rated current of appliance not exceeding 16 A, dimension according to Table 10 (mm)..... :		N/A
	Introduction of conduit or cable does not reduce clearances or creepage distances below values specified in Clause 29		N/A
25.5	Method for assembling the supply cord to the appliance:		P
	- type X attachment		N/A
	- type Y attachment		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- type Z attachment, if allowed in relevant part 2		N/A
	Type X attachment, other than those with a specially prepared cord, not used for flat twin tinsel cords		N/A
	For multi-phase appliances supplied with a supply cord and that are intended to be permanently connected to fixed wiring, the supply cord is assembled to the appliance by type Y attachment		N/A
	Type Z attachment is allowed for egg boilers, feeding-bottle heaters, steam sterilizers, yoghurt makers and stands of cordless appliances (IEC 60335-2-15)		N/A
25.6	Plugs fitted with only one flexible cord		P
25.7	Supply cords, other than for class III appliances, being one of the following types:		P
	- Rubber sheathed (at least 60245 IEC 53), unless		N/A
	The appliance is intended to be used outdoors or is liable to being exposed to ultraviolet radiation		N/A
	- Polychloroprene sheathed (at least 60245 IEC 57)		P
	supply cords being allowed to be connected to appliances intended for use in low temperature		N/A
	- Polyvinyl chloride sheathed. Not used if they are likely to touch metal parts having a temperature rise exceeding 75 K during the test of Clause 11		N/A
	• light polyvinyl chloride sheathed cord (60227 IEC 52), for appliances not exceeding 3 kg		N/A
	• ordinary polyvinyl chloride sheathed cord (60227 IEC 53), for other appliances		N/A
	- Heat resistant polyvinyl chloride sheathed. Not used for type X attachment other than specially prepared cords		N/A
	• heat-resistant light polyvinyl chloride sheathed cord (60227 IEC 56), for appliances not exceeding 3 kg cord (60227 IEC 56), for appliances not exceeding 3 kg		N/A
	• heat-resistant polyvinyl chloride sheathed cord (60227 IEC 57), for other appliances		N/A
	- Halogen-free, low smoke, thermoplastic insulated and sheathed		N/A
	• light duty halogen-free low smoke flexible cable (62821 IEC 101) for circular cable and (62821 IEC 101f) for flat cable		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	• ordinary duty halogen-free low smoke flexible cable (62821 IEC 102) for circular cable and (62821 IEC 102f) for flat cable		N/A
	Supply cords for class III appliances adequately insulated		N/A
	Test with 500 V for 2 min for supply cords of class III appliances that contain live parts		N/A
	The supply cord of livestock feed boilers shall be polychloroprene sheathed (IEC 60335-2-15)		N/A
25.8	Nominal cross-sectional area of supply cords not less than Table 11; rated current (A); cross-sectional area (mm^2)..... :	Rated current: 10 A Cross-sectional area: 3×1.5 mm^2	P
	Portable appliances having a rated current up to 10 A may incorporate a supply cord having a nominal cross-sectional area of 0,75 mm^2, if the length is less than 2 m (IEC 60335-2-15)		N/A
25.9	Supply cords for class III appliances adequately insulated		N/A
25.10	Supply cord of class I appliances have a green/yellow core for earthing		P
	In multi-phase appliances, the colour of the neutral conductor of the supply cord is blue		N/A
	Where additional neutral conductors are provided in the supply cord:		N/A
	- other colours may be used for these additional neutral conductors		N/A
	- all of the neutral conductors and line conductors are identified by marking using the alphanumeric notation specified in IEC 60445		N/A
	- the supply cord is fitted to the appliance		N/A
25.11	Conductors of supply cords not consolidated by soldering where they are subject to contact pressure, unless		P
	the contact pressure is provided by spring terminals		N/A
	The requirement does not apply to the soldered tip of a stranded conductor		N/A
25.12	Insulation of the supply cord not damaged when moulding the cord to part of the enclosure		P
25.13	Inlet openings so constructed as to prevent damage to the supply cord		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	If it is not evident that the supply cord can be introduced without risk of damage, a non-detachable lining or bushing complying with 29.3 for supplementary insulation provided		N/A
	If unsheathed supply cord, a similar additional bushing or lining is required, unless the appliance is:		N/A
	- a class 0 appliance, or		N/A
	- a class III appliance not containing live parts		N/A
25.14	Supply cords moved while in operation adequately protected against excessive flexing, unless		N/A
	appliance is fitted with automatic cord reels complying with the requirement and test of 22.16		N/A
	Flexing test, as described:		N/A
	Conductors supplied at rated voltage (V)..... :		N/A
	Conductors loaded with rated current (A)..... :		N/A
	- applied force (N)..... :		N/A
	- number of flexings…….. :		N/A
	The test does not result in		N/A
	- short-circuit between the conductors, such that the current exceeds a value of twice the rated current		N/A
	- breakage of more than 10 % of the strands of any conductor		N/A
	- separation of the conductor from its terminal		N/A
	- loosening of any cord guard		N/A
	- broken strands piercing the insulation and becoming accessible		N/A
25.15	For appliances with supply cord and appliances to be permanently connected to fixed wiring by a flexible cord, conductors of the supply cord relieved from strain, twisting and abrasion by use of cord anchorage		N/A
	The cord cannot be pushed into the appliance to such an extent that the cord or internal parts of the appliance can be damaged		N/A
	Pull and torque test of supply cord:		N/A
	- fixed appliances: pull 100 N; torque (not on automatic cord reel) (Nm)..... :		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- other appliances: values shown in Table 12: mass (kg); pull (N); torque (not on automatic cord reel) (Nm).:		N/A
	Cord not damaged and max. 2 mm displacement of the cord		N/A
25.16	Cord anchorages for type X attachments constructed and located so that:		N/A
	- replacement of the cord is easily possible		N/A
	- it is clear how the relief from strain and the prevention of twisting are obtained		N/A
	- they are suitable for different types of supply cord		N/A
	- cord cannot touch the clamping screws of cord anchorage if these screws are accessible, unless		N/A
	they are separated from accessible metal parts by supplementary insulation		N/A
	- the cord is not clamped by a metal screw which bears directly on the cord		N/A
	- at least one part of the cord anchorage securely fixed to the appliance, unless		N/A
	it is part of a specially prepared cord		N/A
	Not applicable if the cord anchorage comprises one or more clamping members subjected to pressure by means of nuts engaging with securely attached studs, even if removal possible, or if		N/A
	one clamping member is fixed to the appliance or obviously shaped insulating material is used as the surface of the appliance		N/A
	- screws which have to be operated when replacing the cord do not fix any other component, unless		N/A
	the appliance becomes inoperative or incomplete or the parts cannot be removed without a tool		N/A
	- if labyrinths can be bypassed, the test of 25.15 is nevertheless withstood		N/A
	- for class 0, 0I and I appliances, they are of insulating material or are provided with an insulating lining, unless		N/A
	failure of the insulation of the cord does not make accessible metal parts live		N/A
	- for class II appliances, they are of insulating material, or		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	if of metal, they are insulated from accessible metal parts by supplementary insulation		N/A
	Compliance checked by inspection and by the test of 25.15 under the following conditions:		N/A
	- carried out with lightest permissible type of cord of the smallest cross-sectional area specified in Table 13, then with next heavier type cord having the largest cross-sectional area specified, however	(see appended table)	N/A
	if the appliance is fitted with a specially prepared cord, test carried out with this cord		N/A
	- conductors placed in the terminals and any terminal screws tightened to prevent the conductors from easily changing their position		N/A
	- clamping screws of the cord anchorage tightened with two-thirds of the torque specified in 28.1		N/A
	- screws of insulating material bearing directly on the cord fastened with two-thirds of the torque specified in column I of Table 14, the length of the slot in the screw head being taken as the nominal diameter of the screw		N/A
	After the test, the conductors have not moved by more than 1 mm in the terminals		N/A
25.17	Adequate cord anchorages for type Y and Z attachment, test with the cord supplied with the appliance	Type Y	P
	For type Z attachment compliance checked by the test of 25.15 with the cord supplied with the appliance		N/A
	For type Y attachment compliance checked by the test of 25.15 with the cord supplied with the appliance and designated alternative types (if any	(see appended table)	P
25.18	Cord anchorages only accessible with the aid of a tool, or		P
	constructed so that the cord can only be fitted with the aid of a tool		N/A
25.19	Type X attachment, glands not used as cord anchorage in portable appliances		N/A
	Tying the cord into a knot or tying the cord with string not used		N/A
	The conductors of the supply cord for type Y and Z attachment insulated from accessible metal parts		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
25.21	Space for supply cord for type X attachment or for connection of fixed wiring constructed:		N/A
	- to permit checking of conductors with respect to correct positioning and connection before fitting any cover		N/A
	- so there is no risk of damage to the conductors or their insulation when fitting the cover		N/A
	- for portable appliances, so that the uninsulated end of a conductor, if it becomes free from the terminal, prevented from contact with accessible metal parts		N/A
	2 N test to the conductor for portable appliances; no contact with accessible metal parts		N/A
25.22	Appliance inlets:		N/A
	- live parts not accessible during insertion or removal		N/A
	Requirement not applicable to appliance inlets complying with IEC 60320-1		N/A
	- connector can be inserted without difficulty		N/A
	- the appliance is not supported by the connector		N/A
	- not for cold conditions if temperature rise of external metal parts exceeds 75 K during Clause 11, unless		N/A
	the flexible cord of the cord set is unlikely to touch such metal parts		N/A
	Soy milk maker inlets shall be located so that pollution by soy milk is unlikely to occur during normal use (IEC 60335-2-15)		N/A
	Compliance is checked by inspection (IEC 60335-2-15)		N/A
25.23	Interconnection cords comply with the requirements for the supply cord, except that:		N/A
	- the cross-sectional area of the conductors is determined based on the maximum current during Clause 10, and		N/A
	- the thickness of the insulation may be reduced		N/A
	for class I or class II appliance with class III construction, the cross-sectional areas of the conductors need not comply with 25.8 if specified conditions are met		N/A
	If necessary, electric strength test of 16.3		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
25.24	Interconnection cords not detachable without the aid of a tool if compliance with this standard is impaired when they are disconnected		N/A
25.25	Dimensions of pins that are inserted into socket-outlets compatible with the dimensions of the relevant socket-outlet		N/A
	Dimensions of pins and engagement face in accordance with the dimensions of the relevant plug in IEC TR 60083		N/A
25.101	Supply cords of kettles shall not be longer than 75 cm, unless (IEC 60335-2-15)		N/A
	they are helically coiled (IEC 60335-2-15)		N/A
	Compliance is checked by measurement (IEC 60335-2-15)		N/A
	If a cordless kettle has a cord storage facility, the length of the cord is measured after storing as much of the cord as possible (IEC 60335-2-15)		N/A
	The length of the cord is measured between the plug and the point where the cord or cord guard enters the appliance (IEC 60335-2-15)		N/A
26	**TERMINALS FOR EXTERNAL CONDUCTORS**		P
26.1	Appliances provided with terminals or equally effective devices, such as male tabs of flat quick-connect terminations (IEC 61210), screw type terminals (IEC 60998-2-1), screwless terminals (IEC 60998-2-2) and clamping units (IEC 60999-1:1999), for connection of external conductors		P
	Terminals only accessible after removal of a non-detachable cover, except		P
	for class III appliances that do not contain live parts		N/A
	Earthing terminals and functional earthing terminals may be accessible if a tool is required to make the connections and means are provided to clamp the wire independently from its connection		N/A
26.2	Appliances with type X attachment and appliances for the connection of cables of fixed wiring provided with terminals in which connections are made by means of screws, nuts or similar devices, unless		N/A
	the connections are soldered		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Screws and nuts not used to fix any other component, except		N/A
	internal conductors, if so arranged that they are unlikely to be displaced when fitting the supply conductors		N/A
	If soldered connections used, the conductor so positioned or fixed that reliance is not placed on soldering alone, unless		N/A
	barriers provided so that neither clearances nor creepage distances between live parts and other metal parts reduced below the values for supplementary insulation if the conductor becomes free at the soldered joint		N/A
26.3	Terminals for type X attachment and for connection of cables of fixed wiring constructed so that the conductor is clamped between metal surfaces with sufficient contact pressure but without damaging the conductor		N/A
	Terminals fixed so that when the clamping means is tightened or loosened:		N/A
	- the terminal does not become loose		N/A
	- internal wiring is not subjected to stress		N/A
	- neither clearances nor creepage distances are reduced below the values in Clause 29		N/A
	Compliance checked by inspection and by the test of Subclause 9.6 of IEC 60999-1:1999, the torque applied being equal to two-thirds of the torque specified (Nm)..... :		N/A
	No deep or sharp indentations of the conductors		N/A
26.4	Terminals for type X attachment, except those having a specially prepared cord and those for the connection of cables of fixed wiring, no special preparation of conductors such as by soldering, use of cable lugs, eyelets or similar		N/A
	Reshaping of the conductor before its introduction into the terminal or twisting a stranded conductor to consolidate the end is not considered special preparation		N/A
	Terminals constructed or placed so that conductors prevented from slipping out when clamping screws or nuts are tightened		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
26.5	Terminals for type X attachment so located or shielded that if a wire of a stranded conductor escapes, no risk of accidental connection to other parts that result in a hazard		N/A
	Stranded conductor test, 8 mm insulation removed		N/A
	No contact between live parts and accessible metal parts and,		N/A
	for class II constructions, between live parts and metal parts separated from accessible metal parts by supplementary insulation only		N/A
26.6	Terminals for type X attachment and for connection of cables of fixed wiring suitable for connection of conductors with cross-sectional area according to Table 13; rated current (A); nominal cross-sectional area (mm²)..... :		N/A
	If a specially prepared cord is used, terminals need only be suitable for that cord		N/A
26.7	Terminals for type X attachment, except in class III appliances not containing live parts, accessible after removal of a cover or part of the enclosure		N/A
26.8	Terminals for the connection of fixed wiring, including the earthing terminal, located close to each other		N/A
26.9	Terminals of the pillar type constructed and located as specified		N/A
26.10	Terminals with screw clamping and screwless terminals not used for flat twin tinsel cords, unless		N/A
	ends of conductors fitted with means suitable for screw terminals		N/A
	Pull test of 5 N to the connection		N/A
26.11	For type Y and Z attachment, soldered, welded, crimped or similar connections may be used		P
	For class II appliances, the conductor so positioned or fixed that reliance is not placed on soldering, welding or crimping alone		N/A
	If soldering, welding or crimping alone used, barriers provided so that clearances and creepage distances between live parts and other metal parts are not reduced below the values for supplementary insulation if the conductor becomes free		N/A
27	**PROVISION FOR EARTHING**		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
27.1	Accessible metal parts, including metal parts behind a decorative cover that does not withstand the test of 21.1, of class 0I and I appliances permanently and reliably connected to an earthing terminal or earthing contact of the appliance inlet		P
	Earthing terminals and earthing contacts not connected to the neutral terminal		P
	Class 0, II and III appliances have no provision for protective earthing		N/A
	Safety extra-low voltage circuits not earthed, unless		N/A
	protective extra-low voltage circuits		N/A
27.2	Clamping means of earthing terminals adequately secured against accidental loosening		P
	Terminals for the connection of external equipotential bonding conductors allow connection of conductors of 2,5 mm^2 to 6 mm2, and		N/A
	- do not provide earthing continuity between different parts of the appliance, and		N/A
	- conductors cannot be loosened without the aid of a tool		N/A
27.3	For a detachable part having an earth connection and being plugged into another part of the appliance, the earth connection is made before and separated after current-carrying connections when removing the part		N/A
	For appliances with supply cords, current-carrying conductors become taut before earthing conductor, if the cord slips out of the cord anchorage		N/A
27.4	No risk of corrosion resulting from contact between parts of the earthing terminal and the copper of the earthing conductor or other metal		P
	Parts providing earthing continuity, other than parts of a metal frame or enclosure, have adequate resistance to corrosion		N/A
	If of steel, these parts provided with an electroplated coating, thickness of at least 5 mm		N/A
	Adequate protection against rusting of parts of coated or uncoated steel, only intended to provide or transmit contact pressure		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	In the body of the earthing terminal is a part of a frame or enclosure of aluminium or aluminium alloys, precautions taken to avoid risk of corrosion		N/A
	In case of doubt, thickness of coating measured as described in ISO 2178 or in ISO 1463		N/A
27.5	Low resistance of connection between earthing terminal and earthed metal parts		P
	This requirement does not apply to connections providing earthing continuity in the protective extra-low voltage circuit, provided the clearances of basic insulation are based on the rated voltage of the appliance (V)..... :		N/A
	Resistance not exceeding 0,1 Ω at the specified low-resistance test (Ω)..... :	0.033 Ω	P
	The printed conductors of printed circuit boards not used to provide earthing continuity in hand-held appliances		N/A
	They may be used to provide earthing continuity in other appliances if at least two tracks are used with independent soldering points and the appliance complies with 27.5 for each circuit		N/A
28	**SCREWS AND CONNECTIONS**		P
28.1	Fixings, electrical connections and connections providing earthing continuity withstand mechanical stresses		P
	Screws not of soft metal liable to creep, such as zinc or aluminium		P
	Diameter of screws of insulating material min. 3 mm		N/A
	Screws of insulating material not used for any electrical connections or connections providing earthing continuity		N/A
	Screws used for electrical connections or connections providing earthing continuity screwed into metal		P
	Screws not of insulating material if their replacement by a metal screw can impair supplementary or reinforced insulation		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	For type X attachment, screws to be removed for replacement of supply cord or for user maintenance, not of insulating material if their replacement by a metal screw impairs basic insulation		N/A
	For screws and nuts; torque-test as specified in Table 14..... :	(see appended table)	P
28.2	Electrical connections and connections providing earthing continuity constructed so that contact pressure is not transmitted through non-ceramic insulating material liable to shrink or distort, unless		P
	there is resiliency in the metallic parts to compensate for shrinkage or distortion of the insulating material		N/A
	This requirement does not apply to electrical connections in circuits of appliances for which:		N/A
	- 30.2.2 is applicable and that carry a current not exceeding 0,5 A		N/A
	- 30.2.3 is applicable and that carry a current not exceeding 0,2 A		N/A
28.3	Space-threaded (sheet metal) screws only used for electrical connections if they clamp the parts together		N/A
	Thread-cutting (self-tapping) screws and thread rolling screws only used for electrical connections if they generate a full form standard machine screw thread		N/A
	Thread-cutting (self-tapping) screws not used if they are likely to be operated by the user or installer		N/A
	Thread-cutting, thread rolling and space threaded screws may be used in connections providing earthing continuity provided it is not necessary to disturb the connection:		N/A
	- in normal use		N/A
	- during user maintenance		N/A
	- when replacing a supply cord having a type X attachment, or		N/A
	- during installation		N/A
	At least two screws being used for each connection providing earthing continuity, unless		N/A
	the screw forms a thread having a length of at least half the diameter of the screw		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
28.4	Screws and nuts that make mechanical connection secured against loosening by means such as spring washer, lock washers and crown type locks, if they also make electrical connections or connections providing earthing continuity		P
	For screw connections not subjected to torsion, sealing compound that softens on heating allowed to be used to provide security against loosening		P
	This requirement does not apply to screws in the earthing circuit if at least two screws are used, or		N/A
	if an alternative earthing circuit is provided		N/A
	Rivets for electrical connections or connections providing earthing continuity secured against loosening if the connections are subjected to torsion		N/A
	If connections subjected to torsion, a rivet having a non-circular shank or an appropriate notch allowed to be used to secure against loosening		N/A
29	**CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION**		P
	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), normative 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 60664-3:2016		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

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	For appliances intended for use at altitudes exceeding 2 000 m, the clearances in Table 16 are increased according to the altitude correction factor in Table A.2 of IEC 60664-1:2007		N/A
	However, the impulse voltage test is not applicable if the construction is such that the distances could be affected by any of the following:		N/A
	- distortion		N/A
	- movement of parts		N/A
	- assembly of parts		N/A
	- wear of basic insulation		N/A
	- wear of functional insulation		N/A
	In this case, the clearances for rated impulse voltages of 1 500 V and above specified in Table 16 are increased by 0,5 mm		N/A
	Impulse voltage test is not applicable:		P
	- when the microenvironment is pollution degree 3, or		P
	- for basic insulation of class 0 and class 0I appliances, or		N/A
	- to appliances intended for use at altitudes exceeding 2 000 m		N/A
	Appliances are in overvoltage category II		P
	A force of 2 N is applied to bare conductors, other than heating elements		N/A
	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 spec. for basic insulation in Table 16.. :	(see appended table)	P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
29.1.3	Clearances of reinforced insulation not less than those specified 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		N/A
29.1.4	Clearances for functional insulation are the largest values determined from:		P
	- Table 16 based on the rated impulse voltage..... :	(see appended table)	P
	- Table F.7a in IEC 60664-1:2007, frequency not exceeding 30 kHz		N/A
	- Clause 4 of IEC 60664-4:2005, 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		N/A
	However, clearances are not specified if the appliance complies with Clause 19 with the functional insulation short-circuited		P
	Lacquered conductors of windings considered to be bare conductors		P
	However, clearances at crossover points are not measured		P
	Clearance between surfaces of PTC heating elements may be reduced to 1 mm		N/A
29.1.5	Appliances having higher working voltages than rated voltage, clearances for basic insulation are the largest values determined from: Working voltage >…….V		N/A
	- Table 16 based on the rated impulse voltage..... :		N/A
	- Table F.7a in IEC 60664-1:2007, frequency not exceeding 30 kHz		N/A
	- Clause 4 of IEC 60664-4:2005, frequency exceeding 30 kHz		N/A
	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1:2007 or Clause 4 of IEC 60664-4:2005, the clearances of supplementary insulation are not less than those specified for basic insulation		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1:2007, 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 60664-4:2005, 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	Rated voltage = Upper voltage limit = Working voltage =	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
	- insulation subjected to conductive pollution; pollution degree 3		P
	A force of 2 N is applied to bare conductors, other than heating elements		N/A
	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		N/A
	The microenvironment is pollution degree 3 if the insulation can be polluted by condensation from steam produced during normal use of the appliance (IEC 60335-2-15)		P
29.2.1	Creepage distances of basic insulation not less than specified in Table 17..... :	(see appended table)	P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	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 60664-4:2005, 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, excluding NOTE 1 and NOTE 2, or..... :	(see appended table)	P
	Table 2 of IEC 60664-4:2005, as applicable…….:		N/A
29.2.3	Creepage distances of reinforced insulation at least double those specified for basic insulation in Table 17, excluding NOTE 1 and NOTE 2, or.....:	(see appended table)	P
	Table 2 of IEC 60664-4:2005, 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 60664-4:2005, these values being used if exceeding the values in Table 18..... :		N/A
	Creepage distances may be reduced if the appliance complies with Clause 19 with the functional insulation short-circuited		P
29.3	Supplementary and reinforced insulation have adequate thickness, or a sufficient number of layers, to withstand the electrical stresses		P
	Compliance checked:		P
	- by measurement, in accordance with 29.3.1, or		P
	for insulation, other than single layer internal wiring insulation, by an assessment of the thermal quality of the material combined with an electric strength test, in accordance with 29.3.3, and		P
	for accessible parts of reinforced insulation consisting of a single layer, by measurement in accordance with 29.3.4, or		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- by an assessment of the thermal quality of the material according to 29.3.3 combined with an electric strength test in accordance with 23.5, for each single layer internal wiring insulation touching each other, or		N/A
	- as specified in Subclause 6.3 of IEC 60664-4:2005 for insulation that is subjected to any periodic voltage having a frequency exceeding 30 kHz		N/A
29.3.1	Supplementary insulation; thickness at least 1 mm		N/A
	Reinforced insulation; thickness of at least 2 mm		P
29.3.2	Each layer of material withstands the electric strength test of 16.3 for supplementary insulation		P
	Supplementary insulation consists of at least 2 layers		N/A
	Reinforced insulation consists of at least 3 layers		P
29.3.3	The insulation is subjected to the dry heat test Bb of IEC 60068-2-2, followed by		P
	the electric strength test of 16.3		P
	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
30	**RESISTANCE TO HEAT AND FIRE**		P
30.1	External parts of non-metallic material,		
	parts supporting live parts, and		P
	parts of thermoplastic material providing supplementary or reinforced insulation		P
	sufficiently resistant to heat		P
	This requirement does not apply to:		N/A
	- the insulation or sheath of flexible cords or internal wiring		N/A
	- those parts of coil formers that do not support or retain terminals in position		N/A
	- parts of ceramic material		N/A
	Ball-pressure test according to IEC 60695-10-2		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	External parts tested at 40 °C plus the maximum temperature rise determined during the test of Clause 11, or at 75 °C, whichever is the higher; temperature (°C)..... :	(see appended Table 30.1)	N/A
	Parts of thermoplastic material providing supplementary or reinforced insulation tested at 25 °C plus the maximum temperature rise determined during Clause 19, if higher; temperature (°C)..... :	(see appended Table 30.1)	P
	For coffee-makers, egg boilers, kettles and steam cookers, the temperature rises occurring during the tests of 19.4, 19.5 and 19.101 are not taken into account (IEC 60335-2-15)		N/A
30.2	Parts of non-metallic material resistant to ignition and spread of fire		P
	This requirement does not apply to:		P
	- parts of a mass not exceeding 0,5 g, provided the cumulative effect is unlikely to propagate flames that originate inside the appliance by propagating flames from one part to another, or		N/A
	- decorative trims, knobs and other parts unlikely to be ignited or to propagate flames that originate inside the appliance		N/A
	Compliance checked by the test of 30.2.1, and in addition:		P
	- for attended appliances, 30.2.2 applies		N/A
	- for unattended appliances, 30.2.3 applies		P
	For appliances for remote operation, 30.2.3 applies		N/A
	For parts of appliances connected to the supply mains during charging, 30.2.3 applies		N/A
	For base material of printed circuit boards, 30.2.4 applies		N/A
	For water distillers, appliances incorporating a delayed start timer and appliances intended to maintain liquid or food at a particular temperature, 30.2.3 is applicable. For other appliances, 30.2.2 is applicable (IEC 60335-2-15)		P
30.2.1	Parts of non-metallic material subjected to the glow-wire test of IEC 60695-2-11:2014 at 550 °C	(see appended Table 30.2)	P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	However, test not carried out if the material is classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 550 °C, or		N/A
	the material is classified at least HB40 according to IEC 60695-11-10		N/A
	Parts for which the glow-wire test cannot be carried out need to meet the requirements in ISO 9772 for material classified HBF		P
30.2.2	Appliances operated while attended, parts of non-metallic material supporting current-carrying connections, such as switch contacts and the like in other components, and		N/A
	parts of non-metallic material within a distance of 3 mm of such connections,		N/A
	subjected to the glow-wire test of IEC 60695-2-11:2014 with appropriate severity level:	(see appended Table 30.2)	N/A
	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation Note: Appliance supplied at rated voltage (V)..... :	Test voltage = Frequency = (maybe relevant for MOA, CA and SMPS)	N/A
	- 650 °C, for other connections		N/A
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	The glow-wire test is not carried out on parts of material classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least:		N/A
	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation Note: Appliance supplied at rated voltage (V)..... :	Test voltage = Frequency = (maybe relevant for MOA, CA and SMPS)	N/A
	- 650 °C, for other connections		N/A
	The glow-wire test is also not carried out on small parts. These parts		N/A
	- comprise material having a glow-wire flammability index of at least 750 °C, or 650 °C as appropriate, or		N/A
	- comply with the needle-flame test of normative Annex E, or	(see appended Table 30.2/30.2.4)	N/A
	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10.....:		N/A
	Glow-wire test not applicable to conditions as specified..... :		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
30.2.3	Appliances operated while unattended, tested as specified in 30.2.3.1 and 30.2.3.2		P
	The tests are not applicable to conditions as specified..... :		N/A
30.2.3.1	Parts of non-metallic material supporting connections, such as switch contacts and the like in other components, carrying a current exceeding 0,2 A during normal operation, and Note: Appliance supplied at rated voltage (V)..... :	Test voltage = Frequency = (maybe relevant for MOA, CA and SMPS)	P
	parts of non-metallic material, other than small parts, within a distance of 3 mm,		P
	subjected to the glow-wire test of IEC 60695-2-11:2014 with a test severity of 850 °C	(see appended Table 30.2)	P
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	The glow-wire test is not carried out on parts of material classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 850 °C		N/A
30.2.3.2	Parts of non-metallic material supporting connections, such as switch contacts and the like in other components, and		P
	parts of non-metallic material within a distance of 3 mm,		P
	subjected to the glow-wire test of IEC 60695-2-11:2014 with appropriate severity level:	(see appended Table 30.2)	P
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation Note: Appliance supplied at rated voltage (V)..... :	Test voltage = Frequency = (maybe relevant for MOA, CA and SMPS)	P
	- 650 °C, for other connections		N/A
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	However, the glow-wire test of 750 °C or 650 °C as appropriate, is not carried out on parts of material fulfilling both or either of the following classifications:		N/A
	- a glow-wire ignition temperature according to IEC 60695-2-13 of at least:		N/A
	775 °C, for connections carrying a current exceeding 0,2 A during normal operation Note: Appliance supplied at rated voltage (V)..... :	Test voltage = Frequency = (maybe relevant for MOA, CA and SMPS)	N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	675 °C, for other connections		N/A
	- a glow-wire flammability index according to IEC 60695-2-12 of at least:		N/A
	750 °C, for connections carrying a current exceeding 0,2 A during normal operation Note: Appliance supplied at rated voltage (V)..... :	Test voltage = Frequency = (maybe relevant for MOA, CA and SMPS)	N/A
	650 °C, for other connections		N/A
	The glow-wire test is also not carried out on small parts. These parts are to:		N/A
	- comprise material having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A
	- comprise material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- comply with the needle-flame test of normative Annex E, or		N/A
	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10		P
	The consequential needle-flame test of Annex E applied to non-metallic parts that encroach within the vertical cylinder placed above the centre of the connection zone and on top of the non-metallic parts supporting current-carrying connections, and parts of non-metallic material within a distance of 3 mm of such connections if these parts are those:		N/A
	- parts that withstood the glow-wire test of IEC 60695-2-11:2014 of 750 °C or 650 °C as appropriate, but produce a flame that persist longer than 2 s, or		N/A
	- parts that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- small parts, that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- small parts for which the needle-flame test of normative Annex E was applied, or		N/A
	- small parts for which a material classification of V-0 or V-1 was applied		N/A
	However, the consequential needle-flame test is not carried out on non-metallic parts, including small parts, within the cylinder that are:		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- parts having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A
	parts comprising material classified as V-0 or V-1 according to IEC 60695-11-10, or		N/A
	- parts shielded by a flame barrier that meets the needle-flame test of normative Annex E or that comprises material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
	No battery in the area of the vertical cylinder used for the consequential needle flame test, unless		N/A
	battery shielded by a barrier that meets the needle-flame test of normative Annex E or that comprises material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
30.2.4	Base material of printed circuit boards subjected to the needle-flame test of normative Annex E	(see appended Table 30.2/30.2.4)	P
	Test not applicable to conditions as specified..... :	V-0	P
31	**RESISTANCE TO RUSTING**		P
	Relevant ferrous parts adequately protected against rusting		P
	Tests specified in part 2 when necessary		N/A
32	**RADIATION, TOXICITY AND SIMILAR HAZARDS**		N/A
32.1	Appliance does not emit harmful radiation or present a toxic or similar hazard due to their operation in normal use		N/A
	Compliance is checked by the limits or tests specified in part 2, if relevant		N/A
32.2	Appliance do not present an optical radiation hazard due to their operation in normal use		N/A
	Requirement does not apply to lamps and lamp systems that comply with 24.1.10		N/A
	Compliance checked as follows:		N/A
	Appliance supplied at rated voltage (V)..... : Note: Generally 50 Hz is the most unfavourable frequency	Test voltage = Frequency =	N/A
	- Radiation assessment at or recalculated to 200 mm distance or at fixed use distance, measurement as described in IEC 62471:2006		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- For lamps or lamp systems intended to illuminate objects, tested at the GLS assessment distance producing 500 lux as described in IEC 62471:2006		N/A
	- Appliance complies with exempt group classification requirements of IEC 62471:2006 regarding actinic ultraviolet hazard (E_S) and near-UV hazard (E_{UVA})		N/A
A	**ANNEX A (INFORMATIVE) ROUTINE TESTS**		N/A
	Description of routine tests to be carried out by the manufacturer		N/A
B	**ANNEX B (NORMATIVE) BATTERY-OPERATED APPLIANCES, SEPARABLE BATTERIES AND DETACHABLE BATTERIES FOR BATTERY-OPERATED APPLIANCES**		N/A
	The following modifications to this standard are applicable to:		N/A
	- battery-operated appliances and remote controls employing non-rechargeable batteries (primary batteries)		N/A
	- battery-operated appliances and remote controls employing rechargeable batteries (secondary batteries)		N/A
	- detachable and separable batteries for battery-operated appliances		N/A
B.3.1.1	Battery-operated appliance operated under the following conditions:		N/A
	- for appliances operated with detachable or separable batteries disconnected from the appliance for charging, appliance operated to perform its intended function with a fully charged battery, the battery being the model or type reference of the battery provided or indicated in the instructions		N/A
	- for appliances operated with integral or separable batteries not disconnected from the appliance for charging, and that cannot perform their intended function while batteries are being charged, appliance operated to perform its intended function with a fully charged battery		N/A
	- for appliances operated with replaceable batteries, including integral replaceable batteries, or non-rechargeable batteries, appliance operated to perform its intended function with the artificial source described in B5.3, upper limit short circuit current capacity specified in Table B.1		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
B.3.6.1	Non-rechargeable battery: battery is supplied in a fully charged state and cannot be recharged after		N/A
5.2	Tests of B.19.1 to B.19.6 carried out on separate samples		N/A
5.8.1	This subclause is not applicable		N/A
5.8.2	This subclause is not applicable		N/A
5.8.3	This subclause is not applicable		N/A
5.8.4	This subclause is not applicable		N/A
B.5.1	Before starting a test requiring a fully charged battery, battery fully charged, disconnected from source and allowed to rest between 2 h and 6 h		N/A
B.5.2	Specification of a rated voltage implies the use of a fully charged battery		N/A
	For battery-operated appliances, where the supply terminal connecting the battery have no indication of polarity, the more unfavourably polarity applied, unless		N/A
	such a connection unlikely to occur due to the construction of the appliance		N/A
B.5.3	When specified that a battery provided with or intended for the appliance may be replaced by an artificial source, that source consists of a DC power supply or a specially constructed battery, output of each as described in Table B.1 for the relevant battery type		N/A
6.1	Battery-operated appliances without a supply connection or a functional earth connection not classified with respect to protection against electric shock		N/A
7.1	Battery-operated appliances and remote controls containing batteries marked with the:		N/A
	- name, trademark or identification mark of the manufacturer or responsible vendor		N/A
	- model or type reference		N/A
	- IP number according to degree of protection against ingress of water, other than IPX0.....:		N/A
	- type reference of the battery, if battery either not recharged in the appliance or non-rechargeable		N/A
	Appliances incorporating replaceable batteries marked with:		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- battery type reference		N/A
	- battery voltage (V).....:		N/A
	- polarity of the terminals, unless		N/A
	incorrect insertion of battery by the user unlikely to occur due to the construction of the appliance		N/A
	If more than one battery type can be used with the appliance, appliance marked with the type reference of at least one of the battery types that can be used, together with:		N/A
	- symbol ISO 7000-0790 (2004-01), or		N/A
	- the substance of the following:		N/A
	See instruction manual for additional battery types		N/A
	If appliances use more than one battery, appliance marked to indicate correct polarity connection of the batteries		N/A
	If relevant, positive terminal indicated by symbol IEC 60417-5005 (2002-10), and		N/A
	negative terminal indicated by symbol IEC 60417-5006 (2002-10)		N/A
	Detachable and separable batteries marked with:		N/A
	- name, trade mark or identification mark of the manufacturer or responsible vendor		N/A
	- model or type reference		N/A
	- IP number according to degree of protection against ingress of water, other than IPX0.....:		N/A
	Detachable and separable batteries disconnected from the appliance for charging the battery marked with:		N/A
	- symbol ISO 7000-0790 (2004-01)		N/A
	- symbol IEC 60417-6413 (2019-05)		N/A
	- model or type reference of the battery charger, or the substance of the following:		N/A
	Use only with <model or type reference> battery charger..... :		N/A
	If more than one battery charger can be used to charge a detachable and separable battery disconnected from the appliance for charging, battery marked with the type reference of at least one of the battery charges that can be used, together with		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	either symbol ISO 7000-0790 (2004-01), or the substance of the following:		N/A
	See instruction manual for additional battery chargers		N/A
	Batteries that are user replaceable, other than general purpose batteries, marked with the:		N/A
	- name, trademark or identification mark of the manufacturer or responsible vendor		N/A
	- model or type reference		N/A
	- nominal voltage (V).....:		N/A
7.6	Additional symbols		N/A
7.12	Instructions provided with the appliance		N/A
	For appliances intended for use at altitudes exceeding 2 000 m, maximum altitude stated		N/A
	If necessary, appropriate details on precautions during user maintenance stated		N/A
	The instructions state the substance of the following:		N/A
	This appliance is not intended for use 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 concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.		N/A
	For appliances incorporating batteries intended to be removed for charging or intended to be replaced by the user and that can be contained in the small parts cylinder, the instructions state the substance of the following:		N/A
	WARNING: Keep out of reach of children. Swallowing can lead to chemical burns, perforation of soft tissue, and death. Severe burns can occur within 2 h of ingestion. Seek medical attention immediately		N/A
	For appliances intended for use with batteries that use metal-ion chemistries, the instructions state the normal temperature range for charging		N/A
	For battery-operated appliances, the instructions contain the following information, as applicable:		N/A
	- battery type		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- details regarding safe disposal of used batteries		N/A
	- how to deal with leaking batteries		N/A
	For battery-operated appliances, the instructions contain the substance of the following:		N/A
	- do not expose the appliance or battery to excessive temperatures		N/A
	- be aware of the risk of terminals of the battery-operated appliance or battery being short-circuited by metal objects		N/A
	For battery-operated appliances containing non-rechargeable batteries, the instructions state the substance of the following:		N/A
	This appliance contains non-rechargeable batteries, these batteries are not to be recharged		N/A
	For battery-operated appliances containing non-user-replaceable batteries, the instructions state the substance of the following:		N/A
	This appliance contains batteries that are only replaceable by skilled persons		N/A
	For battery-operated appliances containing non-replaceable batteries, the instructions state the substance of the following:		N/A
	This appliance contains batteries that are non-replaceable. When the battery is at end of life, the appliance shall be properly disposed of		N/A
	For battery-operated appliances incorporating batteries intended to be removed for charging or replaced by the user, the instructions include, as applicable, the substance of the following:		N/A
	- rechargeable batteries are to be removed from the appliance before being charged		N/A
	- different types of batteries or new and used batteries are not to be mixed		N/A
	- exhausted batteries are to be removed from the appliance and safely disposed of		N/A
	- if the appliance is to be stored unused for a long period, the batteries should be removed		N/A
	- do not use non-rechargeable batteries in place of rechargeable batteries		N/A
	- do not use modified or damaged batteries		N/A
	For battery-operated appliances incorporating batteries intended to be removed for charging or replaced by the user, the instructions include, as applicable, the following information:		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	battery type reference		N/A
	- orientation of the battery with regard to polarity		N/A
	- method of replacing batteries including maintaining correct polarity		N/A
	For battery-operated appliances incorporating batteries intended to be removed prior to disposal of the appliance, the instructions include details regarding their safe removal and disposal		N/A
	For battery-operated appliances that use detachable and separable batteries disconnected from the appliance for charging, the instructions include the model or type reference of the battery charger to be used, along with the substance of the following:		N/A
	WARNING: Use only with <model or type reference> battery charger		N/A
	If the symbol for battery charger is used, its meaning is explained		N/A
7.15	Markings specified for batteries intended to be replaced by the user are in or adjacent to the battery compartment		N/A
	Marking to indicate correct polarity connection of the batteries specified for appliances using more than one general purpose battery is in or adjacent to the battery compartment		N/A
	Type reference of battery charger placed next to symbol IEC 60417-6413 (2019-05)		N/A
8	This clause is not applicable to the appliance functional part of a battery-operated appliance and its batteries, providing the battery circuits do not have an earth or mains connection		N/A
10.1	This subclause is not applicable		N/A
10.2	This subclause is not applicable		N/A
11.1	Battery operated appliances, their surroundings, and batteries not attaining excessive temperatures in normal use		N/A
	Compliance tested under the conditions specified in B.11.1, 11.2, 11.3, 11.7 and 11.8		N/A
11.4	This subclause is not applicable		N/A
11.5	This subclause is not applicable		N/A
11.6	This subclause is not applicable		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
B.11.1	Battery-operated appliances are tested under the conditions of normal operation with the appliance operated as specified in 11.7 or until it cannot perform its intended function due to the depletion of battery (IEC 60335-2-15)		N/A
	For appliances incorporating integral batteries or separable batteries not disconnected from the appliance for charging purposes, and that cannot perform their intended function while the batteries are being charged, the appliance is operated as specified until it cannot perform its intended function due to the depletion of the batteries (IEC 60335-2-15)		N/A
	For appliances operated with replaceable or non-rechargeable batteries, appliance operated until the minimum capacity of the battery as specified in Table B.1 has been delivered or until steady conditions are established, whichever occurs first		N/A
19.1	For battery-operated appliances, instead of the tests specified, tests of 19.2, 19.4, 19.7, 19.9, 19.11, 19.12, 19.14, 19.15, B.19.1 to B.19.5		N/A
	Detachable and separable batteries also subjected to the test of B.19.6		N/A
	For battery-operated appliances, tests carried out under normal operation		N/A
19.2	Appliances with heating elements tested under the conditions specified in Clause 11 but with restricted heat dissipation		N/A
19.7	Battery-operated appliance switched on and operated under stalled conditions by:		N/A
	- locking the rotor of appliances for which the locked rotor torque is smaller than the full load torque		N/A
	- locking moving parts of other appliances		N/A
	If an appliance has more than one motor, test carried out for each motor separately		N/A
	Test conducted at both I_{sc} (high) and I_{sc} (low), if testing with the artificial source described in B.5.3		N/A
	Test conducted:		N/A
	- until the test sample achieves a steady condition, including returning to room temperature, or		N/A
	- until at a time period of at least 3 h has elapsed		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
19.11	Electronic circuits checked by evaluation of the fault conditions specified in 19.11.2 for all circuits or parts of circuits, unless they comply with the conditions specified in 19.11.1		N/A
	Appliances having a device with an off position obtained by electronic disconnection, or a device that can place the appliance in a stand-by mode, subjected to the tests of 19.11.4		N/A
	If the safety of the appliance under any of the fault conditions depends on the operation of a miniature fuse-link complying with IEC 60127, test of 19.12 carried out, and		N/A
	the appliance complies with the conditions specified in 19.13		N/A
	If a conductor of a printed circuit board becomes open-circuited, the appliance is considered to have withstood the particular test, provided that the base material of the printed circuit board withstands the test of normative Annex E		N/A
19.11.2	When any of the fault conditions simulated, duration of test until steady conditions		N/A
19.11.4	Appliances having a device with an off position obtained by electronic disconnection, or a device that can be placed in the stand-by mode, subjected to the tests of 19.11.4.1 and 19.11.4.2		N/A
	Tests carried out with the appliance supplied by a fully charged battery, the device being set in the off position or in the stand-by mode		N/A
	Appliances incorporating a protective electronic circuit subjected to the tests of 19.11.4.1 and 19.11.4.2		N/A
	Tests carried out after the protective electronic circuit has operated during the relevant tests of Clause 19 except 19.2 and 19.11.3		N/A
19.11.4.8	Battery operated appliances are supplied with a fully charged battery, operated under normal operation for 60 s, and then subjected to a 60 s interruption of the battery current		N/A
	When battery current restored, the appliance:		N/A
	- continues to operate normally from the same operation cycle point reached before the battery supply was interrupted, or		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- does not continue operating without requiring manual intervention to restart from the same operating cycle point reached before the battery supply was interrupted, or		N/A
	- does not continue operating without requiring manual intervention to restart from the part of the cycle selected by the user		N/A
19.13	During tests, no flames, molten metal or poisonous or ignitable gas in hazardous amounts and temperature rises not exceeding the values shown in Table 9.....:		N/A
	No explosion or ignition of the battery during or after the test		N/A
	Venting of cells permitted through their vents		N/A
	After the tests, and when the appliance has cooled to room temperature, compliance with B.22.3 and B.22.5 not impaired and the appliance complies with 20.2 and Clause 29, if still operable		N/A
	For appliances immersed in or filled with conducting liquid in normal use, appliance immersed in or filled with water for 24 h before the test of B.22.5		N/A
	No dangerous malfunction and no failure of protective electronic circuits, if still operable		N/A
	Appliances tested with an electronic switch in the off position:		N/A
	- do not become operational, or		N/A
	- do not result in a dangerous malfunction during or after the tests of 19.11.4, if they become operational		N/A
	In an appliance containing lids or doors controlled by one or more interlocks, one of the interlocks may be released if both of the following conditions are fulfilled:		N/A
	- no movement to an open position when released		N/A
	- no restart after the cycle in which it was released		N/A
19.15	For battery-operated appliances incorporating a manual voltage selector switch intended to select battery voltage, switch set to lowest voltage position and highest voltage applied		N/A
B.19.1	Supply terminals of a battery-operated appliance having an indication of polarity connected to the battery terminals of opposite polarity, unless		N/A
	connection by the user unlikely to occur		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
B.19.2	For battery-operated appliances with provision for multiple batteries, one or more of the batteries reversed and appliance operated, if reversal by the user of battery polarity allowed by the construction		N/A
B.19.3	For battery-operated appliances with motor(s), terminals of each motor short circuited one at a time, where the resistance of the short-circuit does not exceed 10 mW and while operated under the conditions of Clause 11		N/A
	Test conducted until steady conditions are achieved, including returning to room temperature or until a time period of at least 3 h		N/A
B.19.4	Test conducted with all the cells of the battery fully charged and, for batteries consisting of more than one cell, one cell fully discharged on a detachable or separable battery connected to the appliance or on an appliance containing an integral battery		N/A
	Main discharge connections of the battery shorted with a resistance not to exceed 10 mW, conducted until a non-self-resetting protection device operates or an intentionally weak part becomes permanently open-circuited or until the test sample returns to room temperature		N/A
B.19.5	Battery-operated appliance and any cords except supply cords, as appropriate, tested with the battery connected, under the following fault conditions applied one at a time:		N/A
	- any cord provided between the battery-operated appliance and a separable battery is short-circuited at the point along its length likely to produce the most adverse effects		N/A
	- for appliances having replaceable batteries that are replaceable and that can be removed without the aid of a tool, and having terminals that can be short-circuited by a thin straight bar, the terminals of the battery are short-circuited		N/A
	- charging terminals of the battery-operated appliance that are simultaneously accessible with the test probe 13 of IEC 61032 are short circuited so as to produce the most unfavourable result		N/A
	Battery-operated appliance switched on and no additional mechanical load applied		N/A
	Tests conducted until the test sample achieves a steady condition, including returning to room temperature or, until a time period of at least 3 h		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Resistance of short circuit not exceeding 10 mW		N/A
B.19.6	For detachable and separable batteries, combinations of terminals simultaneously accessible by applying the test probe 13 of IEC 61032 short circuited so as to produce the most unfavourable result		N/A
B.20.1	The enclosure of a battery-operated appliance incorporating an integral battery that uses metal-ion chemistry withstands the pressure generated when a cell vents during failure		N/A
	Compliance checked by inspection after the tests of Clause 19 for batteries with a capacity less than 0,2 Ah, and measurement or test as specified		N/A
B.20.2	The enclosure of detachable and separable batteries that use metal-ion chemistries withstands the pressure generated when a cell vents during failure; tests as specified		N/A
	Compliance checked by inspection after the tests of Clause 19 for batteries with a capacity less than 0,2 Ah, and measurement or test as specified		N/A
21.1	Battery-operated appliances have adequate mechanical strength and are constructed to withstand rough handling expected in normal use		N/A
	Appliance fitted with fully charged batteries and rigidly supported subjected to test Ehb of IEC 60068-2-75, three blows of 0,5 J applied to every point of the appliance enclosure likely to be weak		N/A
	If necessary, blows also applied to handles, levers, knobs and similar parts and to signal lamps and their covers, but only if the lamps or covers protrude from the enclosure by more than 10 mm or if their surface area exceeds 4 cm^2		N/A
	Lamps within the appliance and their covers only tested if likely to be damaged in normal use		N/A
	When applying the release cone to the guard of a visibly glowing heating element, the hammer head passing through the guard does not strike the heating element		N/A
	In case of doubt, defect neglected and the group of three blows applied to the same place on a new sample which then withstands the test		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Hand-held battery-operated appliances also subjected to test free-fall - procedure 1, of IEC 60068-2-31, under the specified conditions		N/A
	Free-fall test does not cause the appliance to catch fire, leak fluid visible from the outside or explode and meets the requirements of Clause 20, Clause 29, B.22.3 and B.22.5 where short circuit of functional insulation will impair compliance with this standard		N/A
B.21.1	Separable and detachable batteries, when not connected to the appliance, have adequate mechanical strength and are constructed to withstand rough handling expected in normal use		N/A
	Fully charged battery, rigidly supported, subject to test Ehb of IEC 60068-2-75, three blows of 0,5 J applied to every point of the battery enclosure likely to be weak		N/A
	In case of doubt, defect neglected and the group of three blows applied to the same place on a new sample which then withstands the test		N/A
	Detachable and separable batteries subjected to the test free-fall - procedure 1, of IEC 60068-2-31, under the conditions as specified		N/A
	Free-fall test does not damage the battery or cause it to catch fire, leak fluid visible from the outside or explode and meets the requirements of Clause 20, Clause 29, B.22.4 and B.22.5 where short circuit of functional insulation will impair compliance with this standard		N/A
	For batteries using metal-ion chemistry:		N/A
	- open circuit voltage of the battery 24 h after the tests not less than 90 % of the voltage measured immediately prior to the tests		N/A
	- cells only vented through their vents		N/A
22.11	Non-detachable parts that protect against electric shock, moisture or contact with moving parts reliably are fixed and withstand the mechanical stress occurring during normal use		N/A
	Snap-in devices used for fixing such parts have an obvious locked position		N/A
	Fixing properties of snap-in devices used in parts that are likely to be removed during installation or servicing reliable		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
22.20	Direct contact between current carrying parts and thermal insulation that would impair compliance with this standard effectively prevented, unless		N/A
	such material is noncorrosive, non-hygroscopic and non-combustible		N/A
	Not applicable to glass-wool thermal insulation		N/A
22.24	Not applicable to battery-operated appliances that do not contain parts requiring protection against simultaneous contact according to B.22.3		N/A
22.25	Not applicable to battery-operated appliances that do not contain parts requiring protection against simultaneous contact according to B.22.3		N/A
22.26	This subclause is not applicable		N/A
22.27	This subclause is not applicable		N/A
22.28	This subclause is not applicable		N/A
22.29	This subclause is not applicable		N/A
22.30	This subclause is not applicable		N/A
22.31	This subclause is not applicable		N/A
22.32	This subclause is not applicable		N/A
22.33	Conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with accessible metal parts are not in direct contact with current carrying parts or unearthed metal parts that are separated from current carrying parts by basic insulation only or with other current carrying parts such that compliance with B.22.3 and B.22.4 would be impaired		N/A
22.34	This subclause is not applicable		N/A
22.35	This subclause is not applicable		N/A
22.36	This subclause is not applicable		N/A
22.37	This subclause is not applicable		N/A
B.22.1	User accessible interfaces between elements of a battery system (not mains connections) do not employ appliance couplers according to IEC 60320 (all parts) or IEC 60309-2		N/A
	User accessible interfaces between elements of a battery system (not mains connections) do not employ connectors of the following types unless the battery system is adequately protected against the use of an incorrect supply:		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- barrel connectors with outside diameters of 6,5 mm or less		N/A
	- concentric connectors with a diameter of 3,5 mm or less according to IEC 60603-11		N/A
	Compliance checked by inspection, measurement and for determining adequacy of protection against use of an incorrect supply, by the test as specified		N/A
	Source selected such that its current capability does not limit the charging of the battery		N/A
	During the application of incremental voltages, the appliance is either operating normally or, if not, does not emit flames, molten metal, or poisonous or ignitable gas in hazardous amounts and temperature rises do not exceed the values shown in Table 9		N/A
	No explosion or ignition of the battery during or after the test		N/A
	Venting of cells permitted through their vents		N/A
B.22.2	External surfaces of detachable and separable batteries protected against excessive heat from heat sources (directly or via heated discharge air) present during operation of the appliance		N/A
B.22.3	Battery-operated appliances so constructed and enclosed that there is adequate protection against simultaneous contact with two or more conductive parts where the:		N/A
	- voltage between them exceeds 42,4 V		N/A
	- current between the conductive parts exceeds 2 mA for DC or 0,7 mA peak for when ripple exceeds 10 %		N/A
	Compliance checked with test probe B and test probe 18 of IEC 61032 as described		N/A
	Detachable parts except lamps behind a detachable cover removed during the tests with test probe B, however		N/A
	during insertion or removal of lamps located behind a detachable cover, protection against simultaneous contact with parts having a voltage between them exceeding 42,4 V ensured		N/A
	During the tests with test probe 18, appliance fully assembled as in normal use, no parts removed		N/A
	However, test probe 18 not applied to appliances for commercial use, unless		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	intended to be installed in an area open to the public		N/A
	Not possible to touch two or more conductive parts of opposite polarity with the probes if the voltage between them exceeds 42,4 V and the current between them exceeds 2 mA for DC or 0,7 mA peak for when ripple exceeds 10 %		N/A
	Current measured using the circuit in Figure 4 of IEC 60990:2016		N/A
B.22.4	Separable and detachable batteries so constructed and enclosed that there is adequate protection against simultaneous contact with two or more conductive parts where the:		N/A
	- voltage between them exceeds 42,4 V		N/A
	- current between the conductive parts exceeds 2 mA		N/A
	Compliance checked with test probe B and test probe 18 of IEC 61032 as described		N/A
	During the tests with:		N/A
	- test probe B, all detachable parts removed		N/A
	- test probe 18, no parts removed		N/A
	However, test probe 18 not applied to appliances for commercial use, unless		N/A
	intended to be installed in an area open to the public		N/A
	Not possible to touch two or more conductive parts of opposite polarity with the probes if the voltage between them exceeds 42,4 V and the current between them exceeds 2 mA		N/A
	Current measured using the circuit in Figure 4 of IEC 60990:2016		N/A
B.22.5	Insulating materials providing protection against simultaneous contact with two or more conductive parts are adequate when:		N/A
	- they are within 1,0 mm of the conductive parts		N/A
	- the voltage between the conductive parts exceeds 42,4 V peak		N/A
	- the current between the conductive parts exceeds 2 mA for DC or 0,7 mA peak for when ripple exceeds 10 %		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Insulating material subjected to voltage test as specified at 750 V or 1,2 times the working voltage plus 700 V, whichever greater, in accordance with IEC 61180 (V).....:		N/A
	No breakdown during the test		N/A
	Current measured using the circuit in Figure 4 of IEC 60990:2016		N/A
B.22.6	Vents of cells did not obstructed such that their operation is defeated if venting is relied upon compliance with this standard		N/A
23.3	Instead of the electric strength test of 16.3, battery-operated appliances comply with B.22.3		N/A
23.5	For battery-operated appliances compliance is checked by the test of B.22.5		N/A
24.1	Batteries are not required to comply with IEC 62133-1:2017 or IEC 62133-2:2017, they are tested as part of the appliance according to this standard		N/A
24.1.1	This subclause is not applicable		N/A
24.1.3	Switches in battery-operated appliances have adequate breaking capacity and withstand, without excessive wear or other harmful effect, the mechanical, electrical, and thermal stresses occurring in the battery-operated appliance		N/A
	Tests as described and according to the relevant standard for switches, IEC 61058-1-1:2016 for mechanical switches and IEC 61058-1-2:2016 for electronic switches		N/A
	Required cycles of operation completed, no electrical or mechanical failure		N/A
	At the end of the tests:		N/A
	- switch contacts operating properly in the "on" and "off" positions		N/A
	- temperature rise of the switch terminals not increased by more than 30 K above the temperature rise measured in Clause 11		N/A
B.24.1	The relevant standards for non-acid based electrolyte cells employed in batteries are IEC 62133-1:2017 for nickel systems and IEC 62133-2:2017 for lithium systems		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	A battery that uses metal-ion chemistry is additionally subjected to the tests of subclauses 7.3.8.1 (vibration) and 7.3.8.2 (mechanical shock) of IEC 62133-2:2017		N/A
25.9	The requirement also applies to interconnection cords of battery-operated appliances		N/A
25.14	The requirement also applies to interconnection cords of battery-operated appliances		N/A
25.15	The requirement also applies to interconnection cords of battery-operated appliances		N/A
B.25.1	Insulated conductors of interconnection cords of battery-operated appliances comply with the requirements for internal wiring and are provided with at least 0,5 mm thick outer sheath made of insulating material equivalent to that of supply cords described in 25.7		N/A
B.26.1	Terminal devices in an appliance for the connection of the flexible leads or flexible cord connecting a separable battery so located or shielded that there is no risk of incorrect connection		N/A
27.1	The battery-operated appliance does not have a provision for a protective earth but may incorporate a functional earth.		N/A
29.1	Clearances not less than the values specified in Table 16, taking into account the rated impulse voltage		N/A
	For battery-operated appliances, the rated impulse voltage is 500 V for working voltages less than 50 V and 1 500 V for all other working voltages		N/A
	However, if the construction, including between parts of opposite polarity for connecting the battery, is such that the distances could be affected by wear, by distortion, by movement of the parts or during assembly, the clearances for rated impulse voltages of 1 500 V are increased by 0,5 mm and the impulse voltage test is not applicable		N/A
B.29.1.1	For parts requiring protection against simultaneous contact according to B.22.3 and B.22.4, the sum total of the clearances between each of these parts and their nearest accessible surface is not less than two times the Table 16 clearance taking into account the rated impulse voltage		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	For the purpose of this determination, at least one of the clearances is not less than 1,0 mm		N/A
B.29.2.1	For parts requiring protection against simultaneous contact according to B.22.3 and B.22.4, the sum total of the creepage distances between each of these parts and their nearest accessible surface is not less than two times the Table 17 creepage distances		N/A
	For the purpose of this determination, at least one of the creepage distances is not less than 1,0 mm		N/A
30.1	External parts of non-metallic material, the deterioration of which might cause the battery-operated appliance, separable battery or detachable battery to fail to comply with this annex, are sufficiently resistant to heat		N/A
C	**ANNEX C (NORMATIVE) AGEING TEST ON MOTORS**		N/A
	Tests, as described, carried out when doubt with regard to the temperature classification of the insulation of a motor winding		N/A
	Test conditions as specified		N/A
	The value of *p* in Table C.1 is 2 000 (IEC 60335-2-15)		N/A
D	**ANNEX D (NORMATIVE) THERMAL MOTOR PROTECTORS**		N/A
	Applicable to appliances having motors that incorporate thermal motor protectors necessary for compliance with the standard		N/A
	Test conditions as specified with appliance supplied at rated voltage (V).....: Induction motors See DSH 543AA	Test voltage = Frequency =	N/A
E	**ANNEX E (NORMATIVE) NEEDLE-FLAME TEST**		N/A
	Needle-flame test carried out in accordance with IEC 60695- 11-5:2016, with the following modifications:		N/A
7	Flame application times		N/A
	The duration of application of the test flame is 30 s ± 1 s		N/A
9	Test procedure		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
9.2	The specimen so arranged that the flame can be applied to a vertical or horizontal edge as shown in the examples of Figure 2		N/A
9.3	The first paragraph does not apply		N/A
	If possible, the flame is applied at least 10 mm from a corner		N/A
9.4	The test is carried out on one specimen		N/A
	If the specimen does not withstand the test, the test may be repeated on two additional specimens, both withstanding the test		N/A
11	Evaluation of test results		N/A
	The duration of burning not exceeding 30 s		N/A
	However, for printed circuit boards, the duration of burning not exceeding 15 s		N/A
F	**ANNEX F (NORMATIVE) CAPACITORS**		N/A
	Capacitors likely to be permanently subjected to the supply voltage, and used for radio interference suppression or voltage dividing, comply with the following clauses of IEC 60384-14:2013 including IEC 60384-14:2013/AMD1:2016, with the following modifications:		N/A
1.5	Terms and definitions		N/A
1.5.3	Class X capacitors tested according to subclass X2		N/A
1.5.4	Class Y capacitors tested according to subclass Y2		N/A
1.6	Marking		N/A
	Items a) and b) are applicable		N/A
3.4	Approval testing		N/A
3.4.3.2	Table 3 is applicable as described		N/A
4.1	Visual examination and check of dimensions		N/A
	This subclause is applicable		N/A
4.2	Electrical tests		N/A
4.2.1	This subclause is applicable		N/A
4.2.5	This subclause is applicable		N/A
4.2.5.2	Only Table 11 is applicable		N/A
	Values for test A apply		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	However, for capacitors in heating appliances the values for test B or C apply		N/A
4.12	Damp heat, steady state		N/A
	This subclause is applicable		N/A
	Only insulation resistance and voltage proof are checked		N/A
4.13	Impulse voltage		N/A
	This subclause is applicable		N/A
4.14	Endurance		N/A
	Subclauses 4.14.1, 4.14.3, 4.14.4 and 4.14.7 are applicable		N/A
4.14.7	Only insulation resistance and voltage proof are checked		N/A
	No visible damage		N/A
4.17	Passive flammability test		N/A
	This subclause is applicable		N/A
4.18	Active flammability test		N/A
	This subclause is applicable		N/A
G	**ANNEX G (NORMATIVE) SAFETY ISOLATING TRANSFORMERS**		N/A
	The following modifications to this standard are applicable for safety isolating transformers:		N/A
7	Marking and instructions		N/A
7.1	Transformers for specific use marked with the:		N/A
	- name, trademark or identification mark of the manufacturer or responsible vendor.....:		N/A
	- model or type reference..... :		N/A
17	Overload protection of transformers and associated circuits		N/A
	Fail-safe transformers comply with Subclause 15.5 of IEC 61558-1:2017		N/A
22	Construction		N/A
	Subclauses 19.1 and 19.1.2 of IEC 61558-2-6:2009 are applicable		N/A
29	Clearances, creepage distances and solid insulation		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
29.1, 29.2, 29.3	The distances specified in Table 20, Table 21 and Table 22 of IEC 61558-1:2017 apply		N/A
	For insulated winding wires complying with Subclause 19.12.3 of IEC 61558-1:2017 there are no requirements for clearances or creepage distances		N/A
	For windings providing reinforced insulation, the distances specified in Table 20 and Table 21 of IEC 61558-1:2017 are not assessed		N/A
	For safety isolating transformers subjected to periodic voltages with a frequency exceeding 30 kHz, the clearances, creepage distances and solid insulation values specified in IEC 60664-4:2005 are applicable, if greater than the values specified in Table 20, Table 21 and Table 22 of IEC 61558-1:2017		N/A
H	**ANNEX H (NORMATIVE) SWITCHES**		N/A
	Switches comply with the following clauses of IEC 61058-1:2016 and IEC 61058-1-1:2016, as modified below:		N/A
	The tests carried out under the conditions occurring in the appliance		N/A
	Before being tested, switches are operated 20 times without load		N/A
8	Marking and documentation		N/A
	Switches are not required to be marked		N/A
	However, a switch that can be tested separately from the appliance marked with the manufacturer's name or trademark and the type reference		N/A
13	Mechanism		N/A
	The tests can be carried out on a separate sample		N/A
15	Insulation resistance and dielectric strength		N/A
15.1	Not applicable		N/A
15.2	Not applicable		N/A
15.3	Applicable for full disconnection and micro-disconnection, test carried out immediately after the humidity test of Subclause 15.3 of IEC 60335-1		N/A
17	Endurance		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Compliance is checked on three separate appliances or switches		N/A
	For 17.5.4 of IEC 61058-1-1:2016, the number of cycles of actuation declared according to 7.4 is 10 000, unless		N/A
	otherwise specified in 24.1.3 of IEC 60335-1..... :		N/A
	Switches for operation under no load and which can be operated only by a tool, and		N/A
	switches operated by hand that are interlocked so that they cannot be operated under load,		N/A
	are not subjected to the tests		N/A
	However, switches without this interlock are subjected to the test of 17.5.4 of IEC 61058-1-1:2016 for 100 cycles of operation		N/A
	Subclauses 17.3 and 17.6.2 of IEC 61058-1-1:2016 not applicable		N/A
	The ambient temperature during the test is that occurring in the appliance during the test of Clause 11 in IEC 60335-1		N/A
	The temperature rise of the terminals not more than 30 K above the temperature rise measured in Clause 11 of IEC 60335-1 (K)..... :		N/A
20	Clearances, creepage distances, solid insulation and coatings of rigid printed board assemblies		N/A
	Clause 20 of IEC 61058-1:2016 is applicable to clearances across full disconnection and micro-disconnection		N/A
	It is also applicable to creepage distances for functional insulation, across full disconnection and micro-disconnection, as stated in Table 14		N/A
I	**ANNEX I (NORMATIVE) MOTORS HAVING BASIC INSULATION THAT IS INADEQUATE FOR THE RATED VOLTAGE OF THE APPLIANCE**		N/A
	The following modifications to this standard are applicable for motors having basic insulation that is inadequate for the rated voltage of the appliance:		N/A
8	Protection against access to live parts		N/A
8.1	Metal parts of the motor are considered to be bare live parts		N/A
11	Heating		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
11.3	The temperature rise of the body of the motor is determined instead of the temperature rise of the windings		N/A
11.8	The temperature rise of the body of the motor, where in contact with insulating material, not exceeding values in Table 3 for the relevant insulating material		N/A
16	Leakage current and electric strength		N/A
16.3	Insulation between live parts of the motor and its other metal parts is not subjected to the test		N/A
19	Abnormal operation		N/A
19.1	The tests of 19.7 to 19.9 are not carried out		N/A
I.19.1	Appliance operated at rated voltage with each of the following fault conditions:		N/A
	Rated voltage (V).....:	Test voltage =	N/A
	- short circuit of the terminals of the motor, including any capacitor incorporated in the motor circuit		N/A
	- short circuit of each diode of the rectifier		N/A
	- open circuit of the supply to the motor		N/A
	- open circuit of any parallel resistor, the motor being in operation		N/A
	Only one fault simulated at a time, the tests carried out consecutively		N/A
22	Construction		N/A
I.22.1	For class I appliances incorporating a motor supplied by a rectifier circuit, the DC circuit being insulated from accessible parts of the appliance by double or reinforced insulation		N/A
	Compliance checked by the tests specified for double and reinforced insulation		N/A
J	**ANNEX J (NORMATIVE) COATED PRINTED CIRCUIT BOARDS**		N/A
	Protective coatings of printed circuit boards comply with IEC 60664-3:2016 with the following modifications:		N/A
5.1	General		N/A
	When production samples are used, three samples of the printed circuit board are tested		N/A
5.7.2	Cold conditioning		N/A
	The test is carried out at - 25 °C		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.4	Rapid change of temperature		N/A
	Severity 1 is specified, the number of cycles is 5		N/A
5.7.5.2	Additional conditioning with respect to electromigration		N/A
	The test duration is 10 days		N/A
5.9	Additional tests		N/A
	This subclause is not applicable		N/A
K	**ANNEX K (INFORMATIVE) OVERVOLTAGE CATEGORIES**		P
	The information on overvoltage categories is extracted from IEC 60664-1:2007		P
	Overvoltage category is a numeral defining a transient overvoltage condition		P
	Equipment of overvoltage category IV is for use at the origin of the installation		N/A
	Equipment of overvoltage category III is equipment in fixed installations and for cases where the reliability and the availability of the equipment is subject to special requirements		N/A
	Equipment of overvoltage category II is energy consuming equipment to be supplied from the fixed installation		P
	If such equipment is subjected to special requirements with regard to reliability and availability, overvoltage category III applies		N/A
	Equipment of overvoltage category I is equipment for connection to circuits in which measures are taken to limit transient overvoltages to an appropriately low level		N/A
L	**ANNEX L (INFORMATIVE) GUIDANCE FOR THE MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES**		P
	Information for the determination of clearances and creepage distances		P
M	**ANNEX M (INFORMATIVE) POLLUTION DEGREE**		P
	The information on pollution degrees is extracted from IEC 60664-1:2007		P
	Pollution		P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The microenvironment determines the effect of pollution on the insulation, taking into account the macroenvironment		
	Means may be provided to reduce pollution at the insulation by effective enclosures or similar		P
	Minimum clearances specified where pollution may be present in the microenvironment		P
	Degrees of pollution in the microenvironment		P
	For evaluating creepage distances, the following degrees of pollution in the microenvironment are established:		P
	- pollution degree 1: no pollution or only dry, non-conductive pollution occurs. The pollution has no influence		N/A
	- pollution degree 2: only non-conductive pollution occurs, except that occasionally a temporary conductivity caused by condensation is to be expected		N/A
	- pollution degree 3: conductive pollution occurs or dry non-conductive pollution occurs that becomes conductive due to condensation that is to be expected		P
	- pollution degree 4: the pollution generates persistent conductivity caused by conductive dust or by rain or snow		N/A
N	**ANNEX N (NORMATIVE) PROOF TRACKING TEST**		P
7	Test apparatus		P
7.3	Test solutions		P
	Test solution A is used		P
10	Determination of proof tracking index (PTI)		P
10.1	Procedure		P
	Proof voltage of 100 V, 175 V, 400 V or 600 V.....:	175	P
	The test is carried out on five specimens		P
	In case of doubt, additional test with proof voltage reduced by 25 V, the number of drops increased to 100		N/A
10.2	Report		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The report states if the PTI value was based on a test using 100 drops with a test voltage of (PTI-25) V		N/A
O	**ANNEX O (INFORMATIVE)** **SELECTION AND SEQUENCE OF THE TESTS OF CLAUSE 30**		P
	Description of tests for determination of resistance to heat and fire		P
P	**ANNEX P (INFORMATIVE)** **GUIDANCE FOR THE APPLICATION OF THIS STANDARD TO APPLIANCES USED IN TROPICAL CLIMATES**		N/A
	Modifications applicable for class 0 and 0I appliances having a rated voltage exceeding 150 V, intended to be used in countries having a tropical climate and that are marked with symbol IEC 60417-6332 (2015-06)		N/A
	Modifications may also be applied to class I appliances having a rated voltage exceeding 150 V, intended to be used in countries having a tropical climate and that are marked with symbol IEC 60417-6332 (2015-06), if liable to be connected to a supply mains that excludes the protective earthing conductor		N/A
5.7	The ambient temperature for the tests of Clauses 11 and 13 is 40 $^{+3}_{0}$ °C		N/A
7.1	The appliance marked with symbol IEC 60417-6332 (2015-06)		N/A
7.6	Symbol IEC 60417-6332 (2015-06)		N/A
7.12	The instructions state that the appliance is to be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA		N/A
	The instructions state that the appliance is considered to be suitable for use in countries having a tropical climate, but may also be used in other countries		N/A
	If symbol IEC 60417-6332 (2015-06) is used, its meaning is explained		N/A
11.8	The values of Table 3 are reduced by 15 K		N/A
13.2	The leakage current for class I appliances not exceeding 0,5 mA (mA)..... :		N/A
15.3	The value of t is 37 °C		N/A
16.2	The leakage current for class I appliances not exceeding 0,5 mA (mA)..... :		N/A
19.13	The leakage current test of 16.2 is applied in addition to the electric strength test of 16.3		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
Q	**ANNEX Q (INFORMATIVE)** **SEQUENCE OF TESTS FOR THE EVALUATION OF ELECTRONIC CIRCUITS**		N/A
	Description of tests for appliances incorporating electronic circuits		N/A
R	**ANNEX R (NORMATIVE)** **SOFTWARE EVALUATION**		N/A
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in Table R.1 or R.2 validated in accordance with the requirements of this annex		N/A
R.1	Programmable electronic circuits using software		N/A
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in Table R.1 or R.2 constructed so that the software does not impair compliance with the requirements of this standard		N/A
R.2	Requirements for the architecture		N/A
R.2.1	General		N/A
R.2.1.1	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in Table R.1 or R.2 use measures to control and avoid software-related faults/errors in safety-related data and safety-related segments of the software		N/A
R.2.1.2	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in Table R.2 have one of the following structures:		N/A
	- single channel with periodic self-test and monitoring		N/A
	- dual channel (homogenous) with comparison		N/A
	- dual channel (diverse) with comparison		N/A
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in Table R.1 have one of the following structures:		N/A
	- single channel with functional test		N/A
	- single channel with periodic self-test		N/A
	- dual channel without comparison		N/A
R.2.2	Measures to control faults/errors		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
R.2.2.1	When redundant memory with comparison is provided on two areas of the same component, the data in one area is stored in a different format from that in the other area		N/A
R.2.2.2	Programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in Table R.2 and that use dual channel structures with comparison, have additional fault/error detection means for any fault/errors not detected by the comparison		N/A
R.2.2.3	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in Table R.1 or R.2, means are provided for the recognition and control of errors in transmissions to external safety-related data paths		N/A
R.2.2.4	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in Table R.1 or R.2, the programmable electronic circuits incorporate measures to address the fault/errors in safety-related segments and data indicated in Table R.1 and R.2 as appropriate		N/A
R.2.2.5	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in Table R.1, detection or a fault/error shall occur before compliance with Clause 19, 20.103, 22.115 or 22.116 is impaired (IEC 60335-2-15)		N/A
	For appliances intended for remote communication through public networks, where normative Annex U is applicable as determined by 22.62, detection of a fault/error occurs before compliance with normative Annex U is impaired		N/A
R.2.2.6	The software is referenced to relevant parts of the operating sequence and the associated hardware functions		N/A
R.2.2.7	Labels used for memory locations are unique		N/A
R.2.2.8	The software is protected from user alteration of safety-related segments and data		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
R.2.2.9	The software and safety-related hardware under its control shall be initialized and shall terminate before compliance with Clause 19, 20.103, 22.115 or 22.116 is impaired (IEC 60335-2-15)		N/A
	For appliances intended for remote communication through public networks where normative Annex U is applicable as determined by 22.62, the software and safety-related hardware under its control is initialized and terminates before compliance with normative Annex U is impaired		N/A
R.3	Measures to avoid errors		N/A
R.3.1	General		N/A
	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in Table R.1 or R.2, the following measures to avoid systematic faults in the software are applied		N/A
	Software that incorporates measures used to control the fault/error conditions specified in Table R.2 is inherently acceptable for software required to control the fault/error conditions specified in Table R.1		N/A
R.3.2	Specification		N/A
R.3.2.1	Software safety requirements:	Software Id:	N/A
	The specification of the software safety requirements includes the descriptions listed		N/A
R.3.2.2	Software architecture		N/A
R.3.2.2.1	The specification of the software architecture includes the aspects listed - techniques and measures to control software faults/errors (refer to R.2.2); - interactions between hardware and software; - partitioning into modules and their allocation to the specified safety functions; - hierarchy and call structure of the modules (control flow); - interrupt handling; - data flow and restrictions on data access; - architecture and storage of data; - time-based dependencies of sequences and data		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
R.3.2.2.2	The architecture specification is validated against the specification of the software safety requirements by static analysis		N/A
R.3.2.3	Module design and coding		N/A
R.3.2.3.1	Based on the architecture design, software is suitably refined into modules		N/A
	Software module design and coding is implemented in a way that is traceable to the software architecture and requirements		N/A
	The module design specifies:		N/A
	- function(s)		N/A
	- interfaces to other modules		N/A
	- data		N/A
R.3.2.3.2	Software code is structured		N/A
R.3.2.3.3	Coded software is validated against the module specification by static analysis		N/A
	The module specification is validated against the architecture specification by static analysis		N/A
R.3.3	Software validation		N/A
	The software is validated with reference to the requirements of the software safety requirements specification		N/A
	Compliance is checked by simulation of:		N/A
	- input signals present during normal operation		N/A
	- anticipated occurrences		N/A
	- undesired conditions requiring system action		N/A
R.3.4	Management items		N/A
R.3.4.1	Management of software versions		N/A
	A software version management system at the module level is put in place		N/A
R.3.4.2	Software modification		N/A
R.3.4.2.1	Software modifications are based on a modification request which details the following:		N/A
	- the hazards which may be affected		N/A
	- the proposed change		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- the reasons for change		N/A
R.3.4.2.2	An analysis is carried out to determine the impact of the proposed modification on functional safety		N/A
R.3.4.2.3	A detailed specification for the modification is generated including the necessary activities for verification and validation, such as a definition of suitable test cases		N/A
R.3.4.2.4	The modification is carried out as planned		N/A
R.3.4.2.5	The assessment of the modification is carried out based on the specified verification and validation activities, which may include:		N/A
	- a reverification of changed software modules		N/A
	- a reverification of affected software modules		N/A
	- a revalidation of the complete system		N/A
	All details of modification activities are documented		N/A
R.3.4.2.6	- a reverification of changed software modules		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict

TABLE R.1 – GENERAL FAULT/ERROR CONDITIONS

Component [a]	Fault/error	Acceptable measures [b, c]	Definitions	Document reference for applied measure	Document reference for applied test	Verdict
1 CPU 1.1 Registers	Stuck at	Functional test, or periodic self-test using either: – static memory test, or – word protection with single bit redundancy	H.2.16.5 H.2.16.6 H.2.19.6 H.2.19.8.2			N/A
1.2 VOID						N/A
1.3 Programme counter	Stuck at	Functional test, or periodic self-test, or independent time-slot monitoring, or logical monitoring of the programme sequence	H.2.16.5 H.2.16.6 H.2.18.10.4 H.2.18.10.2			N/A
2 Interrupt handling and execution	No interrupt or too frequent interrupt	Functional test, or time-slot monitoring	H.2.16.5 H.2.18.10.4			N/A
3 Clock	Wrong frequency (for quartz synchroni-zed clock: harmonics /sub-harmonics only)	Frequency monitoring, or time slot monitoring	H.2.18.10.1 H.2.18.10.4			N/A
4 Memory 4.1 Invariable memory	All single bit faults	Periodic modified checksum, or multiple checksum, or word protection with single bit redundancy	H.2.19.3.1 H.2.19.3.2 H.2.19.8.2			N/A

IEC 60335-2-15						
Clause	Requirement + Test		Result - Remark			Verdict
4.2 Variable memory	DC fault	Periodic static memory test, or Word protection with single bit redundancy	H.2.19.6 H.2.19.8.2			N/A
4.3 Addressing (relevant to variable and invariable memory)	Stuck at	Word protection with single bit redundancy including the address	H.2.19.8.2			N/A
5 Internal data path	Stuck at	Word protection with single bit redundancy	H.2.19.8.2			N/A
5.1 VOID						N/A
5.2 Addressing	Wrong address	Word protection with single bit redundancy including the address	H.2.19.8.2			N/A
6 External communica-tion						N/A
6.1 Data	Data corruption of up to Hamming distance 3	Word protection with multi-bit redundancy, or CRC – single word, or transfer redundancy, or protocol test	H.2.19.8.1 H.2.19.4.1 H.2.18.2.2 H.2.18.14			
6.2 Addressing	Wrong address	Word protection with multi-bit redundancy including the address, or CRC – single word including the address, or transfer redundancy, or protocol test	H.2.19.8.1 H.2.19.4.1 H.2.18.2.2 H.2.18.14			N/A
6.3 Timing	Wrong point in time Wrong sequence	Time-slot monitoring, or scheduled transmission Logical monitoring, or time-slot monitoring, or scheduled transmission	H.2.18.10.4 H.2.18.18 H.2.18.10.2 H.2.18.10.4 H.2.18.18			N/A

IEC 60335-2-15						
Clause	Requirement + Test		Result - Remark			Verdict
7 Input/output periphery	Fault conditions specified in 19.11.2	Plausibility check	H.2.18.13			N/A
7.1 VOID						N/A
7.2 Analog I/O 7.2.1 A/D and D/A convertor	Fault conditions specified in 19.11.2	Plausibility check	H.2.18.13			N/A
7.2.2 Analog multiplexer	Wrong addres-sing	Plausibility check	H.2.18.13			N/A
8 VOID						N/A
9 Custom chips [d] e.g. ASIC, GAL, gate array	Any output outside the static and dynamic functional specifica-tion	Periodic self-test	H.2.16.6			N/A
NOTE A Stuck-at fault model denotes a fault model representing an open circuit or a non-varying signal level. A DC fault model denotes a stuck-at fault model incorporating short circuits between signal lines.						
[a] For fault/error assessment, some components are divided into their sub-functions. [b] For each sub-function in the table, the Table R.2 measure will cover the software fault/error. [c] Where more than one measure is given for a sub-function, these are alternatives. [d] To be divided as necessary by the manufacturer into sub-functions.						

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict

TABLE R.2 – SPECIFIC FAULT/ERROR CONDITIONS						
Component [a]	Fault/error	Acceptable measures [b, c]	Definitions	Document reference for applied measure	Document reference for applied test	Verdict
1 CPU 1.1 Registers	DC fault	Comparison of redundant CPUs by either: – reciprocal comparison – independent hardware comparator, or internal error detection, or redundant memory with comparison, or periodic self-tests using either – walkpat memory test – Abraham test – transparent GALPAT test; or word protection with multi-bit redundancy, or static memory test and word protection with single bit redundancy	 H.2.18.15 H.2.18.3 H.2.18.9 H.2.19.5 H.2.19.7 H.2.19.1 H.2.19.2.1 H.2.19.8.1 H.2.19.6 H.2.19.8.2			N/A
1.2 Instruction decoding and execution	Wrong decoding and execution	Comparison of redundant CPUs by either: – reciprocal comparison – independent hardware comparator, or internal error detection, or periodic self-test using equivalence class test	 H.2.18.15 H.2.18.3 H.2.18.9 H.2.18.5			N/A

IEC 60335-2-15						
Clause	Requirement + Test		Result - Remark			Verdict
1.3 Programme counter	DC fault	Periodic self-test and monitoring using either: – independent time-slot and logical monitoring – internal error detection, or comparison of redundant functional channels by either: – reciprocal comparison – independent hardware comparator	H.2.16.7 H.2.18.10.3 H.2.18.9 H.2.18.15 H.2.18.3			N/A
1.4 Addressing	DC fault	Comparison of redundant CPUs by either: – reciprocal comparison – independent hardware comparator; or internal error detection; or periodic self-test using – a testing pattern of the address lines; or – a full bus redundancy – a multi bus parity including the address	 H.2.18.15 H.2.18.3 H.2.18.9 H.2.16.7 H.2.18.22 H.2.18.1.1 H.2.18.1.2			N/A
1.5 Data paths instruction decoding	DC fault and execution	Comparison of redundant CPUs by either: – reciprocal comparison, or – independent hardware comparator, or – internal error detection, or – periodic self-test using a testing pattern, or – data redundancy, or – multi-bit bus parity	 H.2.18.15 H.2.18.3 H.2.18.9 H.2.16.7 H.2.18.2.1 H.2.18.1.2			N/A

IEC 60335-2-15						
Clause	Requirement + Test		Result - Remark			Verdict
2 Interrupt handling and execution	No interrupt or too frequent interrupt related to different sources	Comparison of redundant functional channels by either – reciprocal comparison, – independent hardware comparator, or – independent time-slot and logical monitoring	H.2.18.15 H.2.18.3 H.2.18.10.3			N/A
3 Clock	Wrong frequency (for quartz synchroni-zed clock: harmonics /sub-harmonics only)	Frequency monitoring, or time-slot monitoring, or comparison of redundant functional channels by either: – reciprocal comparison – independent hardware comparator	H.2.18.10.1 H.2.18.10.4 H.2.18.15 H.2.18.3			N/A
4 Memory 4.1 Invariable memory	99,6 % coverage of all informa-tion errors	Comparison of redundant CPUs by either: – reciprocal comparison – independent hardware comparator, or redundant memory with comparison, or periodic cyclic redundancy check, either – single word – double word, or word protection with multi-bit redundancy	H.2.18.15 H.2.18.3 H.2.19.5 H.2.19.4.1 H.2.19.4.2 H.2.19.8.1			N/A

IEC 60335-2-15						
Clause	Requirement + Test		Result - Remark			Verdict
4.2 Variable memory	DC fault and dynamic cross links	Comparison of redundant CPUs by either: – reciprocal comparison – independent hardware comparator, or redundant memory with comparison, or periodic self-tests using either: – walkpat memory test – Abraham test – transparent GALPAT test, or word protection with multi-bit redundancy	 H.2.18.15 H.2.18.3 H.2.19.5 H.2.19.7 H.2.19.1 H.2.19.2.1 H.2.19.8.1			N/A
4.3 Addressing (relevant to variable and invariable memory)	DC fault	Comparison of redundant CPUs by either: – reciprocal comparison, or – independent hardware comparator, or full bus redundancy testing pattern, or periodic cyclic redundancy check, either: – single word – double word, or word protection with multi-bit redundancy including the address	 H.2.18.15 H.2.18.3 H.2.18.1.1 H.2.18.22 H.2.19.4.1 H.2.19.4.2 H.2.19.8.1			N/A

IEC 60335-2-15						
Clause	Requirement + Test		Result - Remark			Verdict
5 Internal data path 5.1 Data	DC fault	Comparison of redundant CPUs by either – reciprocal comparison – independent hardware comparator, or word protection with multi-bit redundancy including the address, or data redundancy, or testing pattern, or protocol test	 H.2.18.15 H.2.18.3 H.2.19.8.1 H.2.18.2.1 H.2.18.22 H.2.18.14			N/A
5.2 Addressing	Wrong address and multiple addres-sing	Comparison of redundant CPUs by: – reciprocal comparison – independent hardware comparator, or word protection with multi-bit redundancy, including the address, or full bus redundancy; or testing pattern including the address	 H.2.18.15 H.2.18.3 H.2.19.8.1 H.2.18.1.1 H.2.18.22			N/A
6 External communica-tion 6.1 Data	Data corruption of up to Hamming distance 4	CRC – double word, or data redundancy or comparison of redundant functional channels by either – reciprocal comparison; or – independent hardware comparator	H.2.19.4.2 H.2.18.2.1 H.2.18.15 H.2.18.3			N/A

IEC 60335-2-15						
Clause	Requirement + Test		Result - Remark			Verdict
6.2 Addressing	Wrong address and multiple addres-sing	CRC – double word, including the address, or	H.2.19.4.2			N/A
		full bus redundancy of data and address, or	H.2.18.1.1			
		comparison of redundant communication channels by either:				
		– reciprocal comparison; or	H.2.18.15			
		– independent hardware comparator	H.2.18.3			
6.3 Timing	Wrong point in time	Time-slot and logical monitoring, or	H.2.18.10.3			N/A
		comparison of redundant communication channels by either:				
		– reciprocal comparison; or	H.2.18.15			
		– independent hardware comparator	H.2.18.3			
	Wrong sequence	Time-slot and logical monitoring, or	H.2.18.10.3			
		comparison of redundant communication channels by either:				
		– reciprocal comparison; or	H.2.18.15			
		– independent hardware comparator	H.2.18.3			
7 Input/output periphery						N/A
7.1 Digital I/O	Fault conditions specified in 19.11.2	Comparison of redundant CPUs by either:				
		– reciprocal comparison	H.2.18.15			
		– independent hardware comparator, or	H.2.18.3			
		input comparison, or	H.2.18.8			
		multiple parallel outputs, or	H.2.18.11			
		output verification, or	H.2.18.12			
		testing pattern, or	H.2.18.22			
		code safety	H.2.18.2			

IEC 60335-2-15						
Clause	Requirement + Test		Result - Remark			Verdict
7.2 Analog I/O 7.2.1 A/D- and D/A-convertor	Fault conditions in 19.11.2	Comparison of redundant CPUs by either: – reciprocal comparison – independent hardware comparator, or input comparison, or multiple parallel outputs, or output verification, or testing pattern	 H.2.18.15 H.2.18.3 H.2.18.8 H.2.18.11 H.2.18.12 H.2.18.22			N/A
7.2.2 Analog multiplexer	Wrong addres-sing	Comparison of redundant CPUs by either: – reciprocal comparison – independent hardware comparator, or input comparison or testing pattern	 H.2.18.15 H.2.18.3 H.2.18.8 H.2.18.22			N/A
8 Monitoring devices and comparators	Any output outside the static and dynamic functional specifica-tion	Tested monitoring, or redundant monitoring and comparison, or error recognizing means	H.2.18.21 H.2.18.17 H.2.18.6			N/A
9 Custom chips [d] e.g. ASIC, GAL, gate array	Any output outside the static and dynamic functional specificati on	Periodic self-test and monitoring, dual channel (diverse) with comparison, or error recognizing means	H.2.16.7 H.2.16.2 H.2.18.6			N/A
NOTE A DC fault model denotes a stuck-at fault model incorporating short circuits between signal lines.						
[a] For fault/error assessment, some components are divided into their sub-functions. [b] For each sub-function in the table, the software measure will cover the Table R.1 fault/error. [c] Where more than one measure is given for a sub-function, these are alternatives. [d] To be divided as necessary by the manufacturer into sub-functions.						

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
S	**ANNEX S (INFORMATIVE) GUIDANCE FOR THE APPLICATION OF THIS STANDARD ON MEASUREMENT OF POWER INPUT AND CURRENT BASED ON THE REQUIREMENTS OF 10.1 AND 10.2 CONCERNING THE REPRESENTATIVE PERIOD**		N/A
	Flowchart giving guidance on measurement of power input and current concerning the representative period		N/A
T	**ANNEX T (NORMATIVE) UV-C RADIATION EFFECT ON NON-METALLIC MATERIALS**		N/A
	This annex provides requirements for non-metallic materials subject to direct or reflected UV-C radiation (100 nm to 280 nm) exposure and whose mechanical and electrical properties are relied upon for compliance with this standard		N/A
	This annex does not apply to glass, ceramic and similar materials		N/A
	The conditioning and tests are carried out on non-metallic material specimens prepared according to the relevant standard for the test method		N/A
	The conditioning apparatus and test procedure are as specified in ISO 4892-1 and ISO 4892-2		N/A
	Modifications to the clauses of ISO 4892-1:2016:		N/A
5.1	Irradiance		N/A
5.1.1	The UV-C emitter is a low pressure mercury lamp with a quartz envelope having a continuous spectral irradiance of 10 W/m^2 at 254 nm		N/A
5.2	Temperature		N/A
5.2.5	The black-panel temperature is 63 °C ± 3 °C		N/A
5.3	Humidity and wetting		N/A
5.3.1	Humidification of the chamber air is specified in part 2 when necessary		N/A
9	Test report		N/A
	This clause is not applicable		N/A
	Modifications to the clauses of ISO 4892-2:2013:		N/A
7	Procedure		N/A
7.1	General		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	At least three test specimens of each non-metallic material providing mechanical support or impact resistance are exposed in each run		N/A
	Ten samples of the insulated internal wiring are exposed in each run		N/A
	When the internal wiring is provided in more than one colour, the colour having the heaviest organic pigment loading is used		N/A
7.2	Mounting the test specimens		N/A
	The specimens are attached to the specimen holders such that they are not subject to any applied stress		N/A
7.3	Exposure		N/A
	Before placing the specimens in the test chamber, the apparatus is operating under the specified exposure conditions and programmed to operate continuously, conditions are maintained throughout the exposure		N/A
7.4	Measurement of radiant exposure		N/A
	If used, a radiometer is mounted and calibrated such that it measures the irradiance at the exposed surface of the test specimen		N/A
7.5	Determination of changes in properties after exposure		N/A
	The non-metallic material properties and test methods for parts providing mechanical support or impact resistance are specified in Table T.1		N/A
	The non-metallic material properties and test method for electrical insulation of internal wiring are specified in Table T.2		N/A
8	Exposure report		N/A
	This clause is not applicable		N/A
U	**ANNEX U (NORMATIVE) APPLIANCES INTENDED FOR REMOTE COMMUNICATION THROUGH PUBLIC NETWORKS**		N/A
	The measures given in this annex are intended to avoid unauthorized access and the effects of transmission failures via remote communication through public networks, where compliance with this standard could be impaired		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	However, in general, it does not cover aspects concerning confidentiality of data and consumer privacy		N/A
U.1	Terms and definitions		N/A
U.1.1	Definitions relating to remote functionality		N/A
	Definitions used in this appendix as described		N/A
U.2	Marking and instructions		N/A
U.2.1	If there is provision for software download, instructions are provided on how or where to obtain the unique name or code given by the manufacturer, that identifies the current version of the software running in the appliance		N/A
	The instructions also include the necessary steps the user must follow for the software update procedure		N/A
U.3	Construction		N/A
U.3.1	Software enabling communication with a public network is partitioned into modules separate from software which is necessary to comply with the other requirements of this standard		N/A
U.3.2	Remote communication is established, implemented and terminated by the appliance via software that provides:		N/A
	- data integrity protection concerning:		N/A
	data corruption		N/A
	address corruption		N/A
	wrong timing or sequence		N/A
	permanent "auto-sending" or repetition		N/A
	interruption of data transfer		N/A
	- means to detect and respond to communication in which, for any reason, a message being communicated is incomplete, truncated, contains errors or has the correct format but delivers information that is outside the range expected for that type of message		N/A
	- means to detect and respond to communication in which, for any reason, a message being communicated is incomplete, truncated, contains errors or has the correct format but delivers information that is outside the range expected for that type of message		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- measures to control the fault/error conditions specified in Table R.1		N/A
U.3.3	Measures provided to protect against hazards arising from the reception of messages from several sources simultaneously or sequentially		N/A
U.3.4	Remote communication is not enabled prior to authorization		N/A
	Authorization is based on authentication using cryptographic techniques to ensure the identity of both parties		N/A
	For the purposes of this requirement, communication between two entities for preparation of the authentication and authorization process is not considered remote communication		N/A
U.3.5	Measures are taken to prevent unauthorized access and to detect transmission faults/errors in the remote communication		N/A
U.3.6	The safe operation of an appliance does not depend on remote communication		N/A
	In case of doubt, remote communication rendered inoperative for the relevant tests of this standard		N/A
U.3.7	Cryptographic techniques are implemented to provide data integrity protection once authorization for remote communication is established		N/A
	Cryptographic techniques employed are part of the appliance including its accessories, do not rely upon part of the router or similar data transmission device, and are performed prior to transmission		N/A
U.3.8	Provisions are taken to ensure that software updates provided by the manufacturer and transmitted to the appliance via remote communication are verified prior to its installation:		N/A
	- against corruption through communication		N/A
	- that the software version is compatible with the appliance for which the software version was designed		N/A
	The software which performs the above-mentioned checks contains measures to control the fault/error conditions specified in Table R.1		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
U.3.9	Permission for each installation of software in the appliance is given by the person responsible for the appliance		N/A
	User activation of a mode that enables automatic software updates is permitted		N/A
U.3.10	The installation of software does not impair compliance with the requirements of this standard during or after installation		N/A

10.1	TABLE: Power input deviation						P
Input deviation at voltage	**Voltage value (V)**	**P rated (W)**	**P measured (W)**	**Outlet marking (W)**	**ΔP**	**Required ΔP**	**Remark**
One rated voltage	-	-					
Mean of voltage range of ≤ 10% With one power input relating to the mean	220, 50 Hz	1850	1771	-	-4.2%	5%, -10%	pass
Mean of voltage range of ≤ 10% With one power input relating to the mean	240, 50 Hz	2200	2181	-	-0.86%	5%, -10%	pass
Upper limit for other cases							
Lower limit for other cases							
Supplementary information: For combined appliance power to motor or motors =							

10.2	TABLE: Current deviation						N/A
Current deviation at voltage:	**Voltage value (V)**	**I rated (A)**	**I measured (A)**	**Outlet marking (A)**	**ΔI**	**Required ΔI**	**Remark**
One Rated voltage							
Mean of voltage range of ≤ 10% With one rated current relating to the mean							
Upper limit for other cases							
Lower limit for other cases							
Supplementary information: For combined appliance current to motor or motors =							

11.8	TABLE: Heating test (heating appliances)		P
	Test voltage (V)..... : **Test input power (W)..... :** **Frequency (Hz)..... :**	2200 W×1.15	—
	Ambient (°C)..... :	t1: 23.2 °C, t2: 23.3 °C	—

Thermocouple locations**	**Max. temperature rise measured, ΔT (K)**	**Max. temperature rise limit, ΔT (K)**
Internal wire	96.5	180-25=155
Water	77.2	ref.
Power cord	16.9	50
Internal enclosure (the base part)	45.9	For cl.30.1
Weight-engaged Coupler (Pin inlet)	49.6	125-25=100
Internal enclosure (the kettle part)	72.3	For cl.30.1
Indicator light cover	26.9	For cl.30.1
Switch	42.3	T125-25=100
Temperature limiter ta	66.9	T125-25=100
Handle	9.9	60
Lid grip	36.8	60
Test corner	31.2	65

Supplementary information:

** If a thermocouple is used to measure winding temperature the insulation class shall be reported next to the ΔT (K) limit.

	If the resistance method is used to measure winding temperature	**N/A**
	Ambient, t_1 (°C)..... :	—
	Ambient, t_2 (°C)..... :	—

Temperature rise of winding	**R_1 (Ω)**	**R_2 (Ω)**	**ΔT (K)**	**Max. ΔT (K)**	**Insulation class**

Supplementary information:

Test voltage for the results reported =

11.8	TABLE: Heating test (motor-operated appliances and combined appliances)	N/A

	Test voltage (V)..... : R = One rated Voltage (V).....: U = Upper limit of range (V).....: L =Lower limit of range (V)..... : Frequency (Hz)..... :		
	Ambient (°C)..... :		

Thermocouple locations**	**Max. temperature rise measured, ΔT (K)**				**Max. temperature rise limit, ΔT (K)**
	R	**U**	**M**	**L**	
			*		
			*		
			*		
			*		
			*		
			*		

Supplementary information:

* In general it will only be necessary to conduct the test at either the U or L condition whichever gives the higher current.

** If a thermocouple is used to measure winding temperature the insulation class shall be reported next to the ΔT (K) limit.

	If the resistance method is used to measure winding temperature		
	Ambient, t1 (°C).....:		—
	Ambient, t2 (°C).....:		—

Temperature rise of winding	**R1 (Ω)**	**R2 (Ω)**	**ΔT (K)**	**Max. ΔT (K)**	**Insulation class**

Supplementary information:

Test voltage for the results reported =

11.101	TABLE 101: Heating test (maximum temperature rises for specified external accessible surfaces under normal operating conditions)		N/A
	Test voltage (V)…… : R = One rated Voltage (V)……: U = Upper limit of range (V)……: L =Lower limit of range (V)…….. : Frequency (Hz)……..:		—
	Ambient (°C)…….. :		—

Surface	**Max. temperature rise measured, ΔT (K)**		**Max. temperature rise limit, ΔT [a, b] (K)**	
	Surfaces of appliances placed or installed less than 850 mm from the floor	**Surfaces of appliances placed or installed at or above 850 mm from the floor**	**Surfaces of appliances placed or installed less than 850 mm from the floor**	**Surfaces of appliances placed or installed at or above 850 mm from the floor**
Bare metal				
Coated metal [c]				
Glass and ceramic				
Plastic and plastic coating > 0,4 mm [d, e]				

[a] Temperature rises are not measured on:
– the underside of appliances intended to be used on a working surface or floor, where these surfaces are inaccessible to a 75 mm diameter probe having a hemispherical end;
– the fittings and hoses for hot water, vapour, coffee, tea and similar fluids, including pressure regulators and pressure-relief devices;
– functional surfaces;
– surfaces within 25 mm of the outline of the functional surfaces;
– lids and covers;
– surfaces within 25 mm from the edge of lids;
– surfaces within 25 mm from ventilation openings;
– vessels that contain hot liquids and that become hot through conduction by a heated part of the appliance (e.g. coffee pots and coffee filter holders in percolator type coffee-makers and kettles).

[b] When the required values are not met, the maximum temperature rise shall not be higher than two times the values indicated.

[c] Metal is considered coated when a coating having a minimum thickness of 90 µm made of enamel, powder or non-substantially plastic coating is used.

[d] The temperature rise limit of plastic also applies for plastic material having a metal finish of thickness less than 0,1 mm.

[e] When the thickness of the plastic coating does not exceed 0,4 mm, the temperature rise limits of coated metal for underlying metal apply or the temperature rise limits for glass or ceramic material for underlying glass or ceramic material apply.

Supplementary information:

12	TABLE: Charging of metal-ion batteries						N/A
Battery type	**Imbalance**	**T_{meas} (°C)**	**T_{cell} (°C)**	**$T_{amb(max)}$ (°C)**	**$T_{amb(min)}$ (°C)**	**$T_{amb(test)}$ (°C)**	

Supplementary information:

T_{meas} Cell surface temperature measured during the test.
T_{cell} Cell surface temperature specified by the cell manufacturer.
$T_{amb(max)}$ Maximum ambient temperature for charging specified by the manufacturer.
$T_{amb(min)}$ Minimum ambient temperature for charging specified by the manufacturer.
$T_{amb(test)}$ Ambient temperature of the test room during the test.

13.2	TABLE: Leakage current		P
	Heating appliances: 1,15 x rated input (W)….. :	2200 W×1.15	—
	Motor-operated and combined appliances: 1,06 x rated voltage (V)…….. :	-	—

Leakage current between:	**I (mA)**	**Max. allowed I (mA)**
L/N and accessible metal enclosure	0.02	0.75
L/N and accessible plastic enclosure	0.02	0.35 peak

Supplementary information:
Voltage used for rated power input limit for stationary class I heating appliances =

13.3	TABLE: Dielectric strength		P
Test voltage applied between:		**Test potential applied (V)**	**Breakdown/ Flashover (Yes/No)**
Live parts and accessible metal enclosure		1000	No
Live parts and accessible plastic enclosure		3000	No

Supplementary information:

14	TABLE: Transient overvoltages				N/A
Clearance between:	**cl (mm)**	**Required cl (mm)**	**Rated impulse voltage (V)**	**Impulse test voltage (V)**	**Flashover (Yes/No)**

Supplementary information:

16.2	TABLE: Leakage current		P
	Single-phase appliances: 1,06 x rated voltage (V)…… :	254.4	—
	Three-phase appliances: 1,06 x rated voltage divided by √3 (V)……..:	Test voltage = Frequency =	—

Leakage current between:	**I (mA)**	**Max. allowed I (mA)**
Live parts and accessible metal enclosure	0.02	0.75
Live parts and accessible plastic enclosure	0.02	0.25

Supplementary information:
Voltage used for rated power input limit for stationary class I heating appliances =

16.3	TABLE: Dielectric strength		P

Test voltage applied between:	**Test potential applied (V)**	**Breakdown/ Flashover (Yes/No)**
Live parts and accessible metal enclosure	1250	No
Live parts and accessible plastic enclosure	3000	No

Supplementary information:

17	TABLE: Overload protection					N/A
	Test voltage (V)…… : R = One rated Voltage (V)……**:** U = Upper limit of range (V)……**:** L = Lower limit of range* (V)…….. **:** **Frequency (Hz)……:**					—
	Ambient (°C)…… :					—

Thermocouple locations**	**Max. temperature rise measured, ΔT (K)**			**Max. temperature rise limit, ΔT (K)**
	R	**U**	**L**	
			*	
			*	
			*	

Supplementary information:

* Only when a protection system actuates at Upper limit of the range.

** If a thermocouple is used to measure winding temperature the insulation class shall be reported next to the ΔT (K) limit.

	If the resistance method is used to measure winding temperature		
	Ambient, t_1 (°C)……:		—
	Ambient, t_2 (°C)……:		—

Temperature rise of winding	**R_1 (Ω)**	**R_2 (Ω)**	**ΔT (K)**	**Max. ΔT (K)**	**Insulation class**

Supplementary information:

Test voltage for the results reported =

17	TABLE: Short-circuit protection		N/A
	Test voltage (V)…… : R = One rated Voltage (V)……**:** U = Upper limit of range (V)……**:** L = Lower limit of range* (V)…….. **:** **Frequency (Hz)……:**	-	—
	Ambient (°C)…… :		—

Thermocouple locations**	**Max. temperature rise measured, ΔT (K)**			**Max. temperature rise limit, ΔT (K)**
	R	**U**	**L**	
			*	
			*	
			*	

Supplementary information:

* Only when a protection system actuates at Upper limit of the range.

** If a thermocouple is used to measure winding temperature the insulation class shall be reported next to the ΔT (K) limit.

	If the resistance method is used to measure winding temperature	
	Ambient, t_1 (°C)……:	—
	Ambient, t_2 (°C)……:	—

Temperature rise of winding	**R_1 (Ω)**	**R_2 (Ω)**	**ΔT (K)**	**Max. ΔT (K)**	**Insulation class**

Supplementary information:

Test voltage for the results reported = 254.4 V, circuit open

19	TABLE: Abnormal operation conditions						P
Operational characteristics		**YES/NO**	**Operational conditions**				
Are there electronic circuits to control the appliance operation?		N/A	-				
Are there “off” or “stand-by” position?		N/A	-				
The unintended operation of the appliance results in dangerous malfunction?		N/A	-				
The unintended operation of the appliance results in dangerous malfunction?		N/A	-				
Sub-clause	**Operating conditions description**	**Test results description**	**PEC description**	**EMP 19.11.4**	**Software type required**	**19.11.3 PEC**	**Final result**
19.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.3	See cl.19.3 detail	no hazard, temperature limiter / thermal cut-out operated	N/A	N/A	N/A	N/A	N/A
19.4	Temperature limiter short-circuited	no hazard, thermal cut-out operated	N/A	N/A	N/A	N/A	P
19.5	See cl.19.5 detail	no hazard, temperature limiter / thermal cut-out operated	N/A	N/A	N/A	N/A	N/A
19.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.11.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.11.2	See cl.19.3 detail	no hazard	N/A	N/A	N/A	N/A	N/A
19.11.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.11.4.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.14	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A

19.101 & 19.102	See cl.19.101 & cl.19.102 detail	no hazard, thermal cut-out operated	N/A	N/A	N/A	N/A	N/A
Supplementary information: * Only when a non-self-resetting thermal cut-out or a intentionally weak part actuate at upper limit and does not at a lower limit.							

19.7	TABLE: Abnormal operation, locked rotor/moving parts				N/A
	Test voltage (V)..... :		Test voltage = Frequency = R = One rated voltage		—
	Ambient, t_1 (°C)..... :				—
	Ambient, t_2 (°C)..... :				—
Temperature rise of winding	**R_1 (Ω)**	**R_2 (Ω)**	**ΔT (K)**	**T (°C)**	**Max. T (°C)**
Supplementary information:					

19.7	TABLE: Abnormal operation, locked rotor/moving parts				N/A
	Test voltage (V)..... :		Test voltage = Frequency = U = Upper limit of the range		—
	Ambient, t_1 (°C)..... :				—
	Ambient, t_2 (°C)..... :				—
Temperature rise of winding	**R_1 (Ω)**	**R_2 (Ω)**	**ΔT (K)**	**T (°C)**	**Max. T (°C)**
Supplementary information:					

19.7	TABLE: Abnormal operation, locked rotor/moving parts		N/A
	Test voltage (V)..... :	Test voltage = Frequency = M = Mean of range*	—
	Ambient, t_1 (°C)..... :		—
	Ambient, t_2 (°C)..... :		—

Temperature rise of winding	R_1 (Ω)	R_2 (Ω)	ΔT (K)	T (°C)	Max. T (°C)

Supplementary information:

* Only when a non-self-resetting thermal cut-out or a intentionally weak part actuate at upper limit of the range and does not at a lower limit.

19.7	TABLE: Abnormal operation, locked rotor/moving parts		N/A
	Test voltage (V)..... :	Test voltage = Frequency = L = Lower limit of the range*	—
	Ambient, t_1 (°C)..... :		—
	Ambient, t_2 (°C)..... :		—

Temperature rise of winding	R_1 (Ω)	R_2 (Ω)	ΔT (K)	T (°C)	Max. T (°C)

Supplementary information:

* Only when a non-self-resetting thermal cut-out or a intentionally weak part actuate at upper limit of the range and does not at a lower limit.

19.9	TABLE: Abnormal operation, running overload		N/A
	Test voltage (V)..... :	Test voltage = Frequency = R = One rated voltage	—
	Ambient, t_1 (°C)..... :		—
	Ambient, t_2 (°C)..... :		—

Temperature rise of winding	R_1 (Ω)	R_2 (Ω)	ΔT (K)	T (°C)	Max. T (°C)

Supplementary information:

19.9	TABLE: Abnormal operation, running overload		N/A
	Test voltage (V)..... :	Test voltage = Frequency = L = Lower limit of the range*	—
	Ambient, t_1 (°C)..... :		—
	Ambient, t_2 (°C)..... :		—

Temperature rise of winding	R_1 (Ω)	R_2 (Ω)	ΔT (K)	T (°C)	Max. T (°C)

Supplementary information:

* Only when a non-self-resetting thermal cut-out or a intentionally weak part actuate at upper limit of the range and does not at a lower limit.

19.9	TABLE: Abnormal operation, running overload		N/A
	Test voltage (V)..... :	Test voltage = Frequency = U = Upper limit of the range	—
	Ambient, t_1 (°C)..... :		—
	Ambient, t_2 (°C)..... :		—

Temperature rise of winding	R_1 (Ω)	R_2 (Ω)	ΔT (K)	T (°C)	Max. T (°C)

Supplementary information:

* Only when a non-self-resetting thermal cut-out or a intentionally weak part actuate at upper limit of the range and does not at a lower limit.

19.13	TABLE: Abnormal operation, temperature rises	P

Thermocouple locations	Max. temperature rise measured, ΔT (K)	Max. temperature rise limit, ΔT (K)
Supply cord	28.3	150
Test corner	27.8	150

Supplementary information:

21.1	TABLE: Impact resistance		P
Impacts per surface	**Surface tested**	**Impact energy (Nm)**	**Comments**
Three times	Enclosure	0.5	-
Three times	Switch knob	0.5	-
Supplementary information:			

24.1	TABLE: Critical components information				P
Object / part No.	**Manufacturer/ trademark**	**Type / model**	**Technical data**	**Standard**	**Mark(s) of conformity[1)]**
Plug	Guangdong KaiHua Electric Appliance Co.,Ltd	KH-9907	16A 250V～	SANS 164-1	SANS 60799
Alternative	Lianjiangshi Meihe Dianqi	KA-1068	16A 250V~	SANS 164-1/IEC60884-1 2006	SABS
Power cord	Guangdong KaiHua Electric Appliance Co.,Ltd	H05VV-F H03VV-F	16A 250V~	SANS 60227:2022	SANS 60227-5
alternative	Lianjiangshi Meihe Dianqi	H05VV-F	16A 250V~	GB/T 5023.5 IEC 60227-5	CCC2019010105236921
Temperature limiter	Taizhou Tianming Electric Appliance Co.,Ltd.	TM－XD－A	10A ,13A 100-240VAC~ 50/60Hz T120-130℃ operating temperature 70-80°C	EN 60730-1:2016/A2:2022 EN IEC 60730-2-9:2019/A2:2020	CQC09002040075
Weight-engaged Coupler	Taizhou Tianming Electric Appliance Co.,Ltd.	TM－XA－2	10A ,13A 100-240VAC~ 50/60Hz	EN IEC 60320-1:2021 EN IEC 60320-2-4:2021	2010010204419444
Self-resetting thermal cut-outs	Taizhou Tianming Electric Appliance Co.,Ltd.	TM－XE－3	10A ,13A 100-240VAC~ 50/60Hz	GB/T 14536.1 IEC 60730-1 GB/T 14536.10 IEC 60730-2-9	CQC11002055412
Internal wiring (内部线)	Cixi Shuanghong Wire Co., Ltd.	H05S-K H05SJ-K	300/500V 180℃ 0.5mm² /0.75mm²	IEC /ES 60335-2-15 IEC/EN 60335-1	VDE 40017324
alternative	GUANGDONG YONGROI CABLE TECHNOLOGY CO LTD	3122	300/500V 180℃ 1.0/0.75/0.5mm²	EN 60335-2-15 EN 60335-1	Tested with appliance/UL E204893
Heater	ZHONGSHAN HONGFENG ELECTRIC CO.,LTD	HF-2	220-240V～ 50/60Hz 1850-2200W	JB/T4088 IEC 60335-1 IEC 60335-2-15	CQC10002051642

Plastic	Lianjiang Modern Life Electric Appliance Co.,ltd	PP	--	IEC 60335-2-98 IEC 60335-1	Tested with appliance
alternative	Guangdong Hotor Electrical Appliance Co.,Ltd	PP/V-30G	Panchromatic 130℃	IEC 60335-1 IEC 60335-2-15	CQC14134106257
Heat shrinkable sleeve tube	ShenzhenWoer Heat-shrinkable Material Co., Ltd	RSFR-H.WTT	600V, 125°C, VW-1	IEC 60335-2-98 IEC 60335-1	Tested with appliance /UL E203950
Alternative	Kingfa Sci.&Tech.Co.,Ltd.	PE-H025	Panchromatic	IEC 60335-1 IEC 60335-2-15	CQC14134118428
Supplementary information: [1]) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

25.16	TABLE: Cord anchorages for type X attachments			N/A
Supply cord designation **Lightest permissible type**	**Smallest cross-sectional area (mm^2)**	**Supply cord designation** **Next heavier permissible type**	**Largest cross-sectional area (mm^2)**	**Verdict**
Supplementary information: For Type X attachment the appliance was supplied with supply cord (See 25.7). Type = …… cross-sectional area = mm^2.				

25.17	TABLE:				P
Supply cord designation **Supplied type (see 25.7)**	**Cross-sectional area (mm^2)**	**Verdict**	**Supply cord designation** **Listed alternative type in 24.1 Table**	**Cross-sectional area (mm^2)**	**Verdict**
Type Y	3×1.5	pass	-	-	-
Supplementary information: For Type Y attachment the appliance was supplied with supply cord (see 25.7). Type = …… cross-sectional area = mm^2.					

28.1	TABLE: Threaded part torque test	P

Threaded part identification	Diameter of thread (mm)	Column number (I, II, or III)	Applied torque (Nm)
Enclosure screw	3.8	II	1.2
Earthing nut	3.7	II	1.2

Supplementary information:

29	TABLE: Clearance and creepage distance measurements	P

Clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required dcr (mm)	dcr (mm)
L and N	-	240	1.5	＞42.0	4.0	＞5
Heater live part and metal enclosure	-	240	1.5	＞2.0	4.0	＞5
Live part and accessible metal enclosure	-	240	1.5	＞5	4.0	＞5

Supplementary information:

30.1	TABLE: Ball pressure test of thermoplastics			P
Allowed impression diameter (mm)……:		2 mm		—
Object/Part No./Material	Manufacturer/Trademark	Test temperature (°C)	Impression diameter (mm)	
Plastic enclosure	see table 24.1	125	1.1	
Supplementary information:				

30.2	TABLE: Resistance to heat and fire – Glow-wire tests							P
Object/Part No./ Material	Manufacturer/ Trademark	Glow-wire test (GWT); (°C)						Verdict
		550	650		750		850	
			te	ti	te	ti		
Plastic enclosure		√	-	-	0	0	-	pass
Object/Part No./ Material	Manufacturer/ Trademark	Glow-wire flammability index (GWFI); (°C)				GW ignition temperature (GWIT); (°C)		Verdict
		550	650	750	850	675	775	
The test specimen passed the glow-wire test (GWT) with no ignition [(te – ti) ≤ 2s] (Yes/No)…:								Yes
If no, then surrounding parts passed the needle-flame test of annex E (Yes/No)…… :								N/A
The test specimen passed the test by virtue of most of the flaming material being withdrawn with the glow-wire (Yes/No)?..... :								N/A
Ignition of the specified layer placed underneath the test specimen (Yes/No)…… :								No

Supplementary information: 550 °C GWT not relevant (or applicable) to parts of material classified at least HB40 or if relevant HBF. The GWIT pre-selection option, the 850 °C GWFI pre-selection option, and the 850 °C GWT are not relevant (or applicable) for attended appliances. Indicate the voltage for obtaining the current upon which the GWT severity is based: If marked with a rated voltage: Rated voltage □ If marked with a rated voltage range: Lower limit of voltage range: □ Upper limit of voltage range: □

30.2/30.2.4	**TABLE: Needle-flame test (NFT)**				**N/A**
Object/Part No./ Material	**Manufacturer/ Trademark**	**Duration of application of test flame (ta); (s)**	**Ignition of specified layer (Yes/No)**	**Duration of burning (tb); (s)**	**Verdict**
Supplementary information: NFT not relevant (or applicable) for Parts of material classified as V-0 or V-1. NFT not relevant (or applicable) for Base material of PCBs classified as V-0 or if relevant VTM-0.					

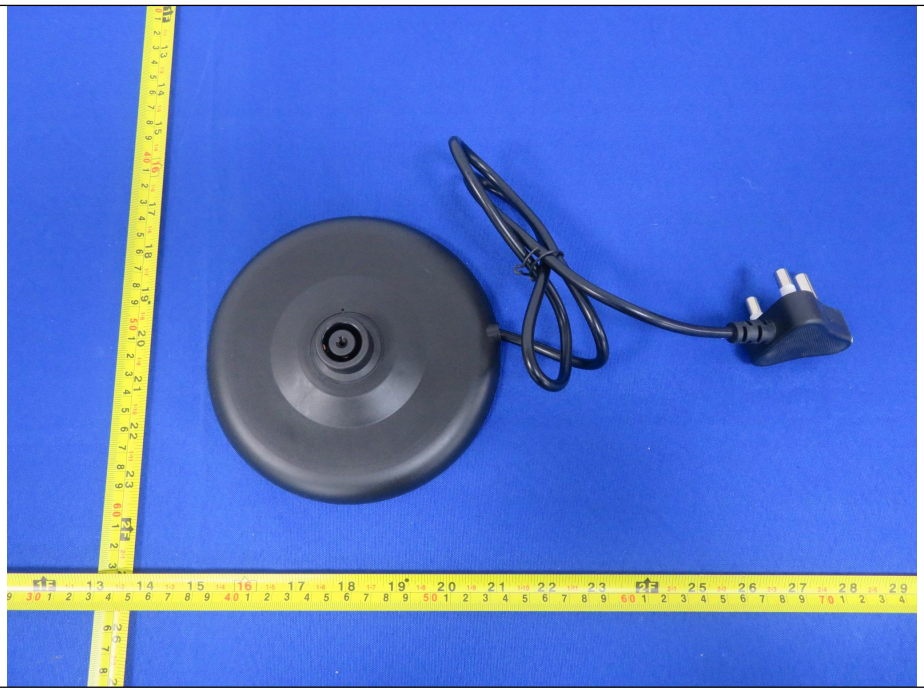
Attachment No.1 **Product Photos**

Details of: Fig. 1

Details of: Fig. 2

Attachment No.1 **Product Photos**

Details of: Fig. 3



- End of report -