Test Report issued under the responsibility of:

SGS Fimko Ltd.

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

Report Number..... :	GZES140600729202A1
Date of issue..... :	2014-07-30, Amendment No.1: 2015-10-15
Total number of pages ..... :	54
Applicant's name ..... :	Foshan Shunde Believe Electrical Appliances Co., Ltd.
Address..... :	6 South Area Industrial District, West-side, Tianhebei Road, Ronggui, Shunde, Foshan, Guangdong, China
Test specification:	
Standard ..... :	IEC 60335-2-15:2012 (Sixth edition) in conjunction with IEC 60335-1:2010 (Fifth edition)
Test procedure..... :	CB Scheme
Non-standard test method……..:	N/A
Test Report Form No. ..... :	IEC60335_2_15J
Test Report Form(s) Originator.... :	IMQ S.p.A.
Master TRF ..... :	Dated 2013-06

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

Test item description..... :	**Coffee Maker**
Trade Mark..... :	iBelieve
Manufacturer ..... :	Same as applicant
Model/Type reference..... :	CM6636B, CM6637B, CM6636D, CM6637D
Ratings..... :	220 – 240 V; 50 Hz; 800 W; Class I

Testing procedure and testing location:			
☒	**CB Testing Laboratory**:	SGS-CSTC Standards Technical Services Co., Ltd. - E&E Lab Guangzhou	
Testing location/ address.....:		198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, Guangdong, China 510663	
☒	**Associated CB Testing Laboratory:**	SGS-CSTC Standards Technical Services Co., Ltd. - E&E Lab Shunde	
Testing location/ address.....:		1st Floor, Building 1 of European Industrial Park No. 1 Shunhenan Road Wusha Section, Daliang Town 528333 Shunde of Foshan Guangdong Province CHINA	
Tested by (name + signature).....:		Devin Zeng	
Approved by (name + signature) .....:		Leo Huang	
☐	**Testing procedure: TMP**	N/A	
Testing location/ address.....:			
Tested by (name + signature).....:			
Approved by (name + signature) .....:			
☐	**Testing procedure: WMT**	N/A	
Testing location/ address.....:			
Tested by (name + signature).....:			
Witnessed by (name + signature) ....:			
Approved by (name + signature) .....:			
☐	**Testing procedure: SMT**	N/A	
Testing location/ address.....:			
Tested by (name + signature).....:			
Approved by (name + signature) .....:			
Supervised by (name + signature)...:			

List of Attachments (including a total number of pages in each attachment):

Attachment 2 Photo documentation, 1 page.

Attachment 4 IEC 60335-1:2010 +A1: 2013, 12 pages.
Attachment 5 EN 60335-1:2012/ A11: 2014, 1 page.

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
Tests were carried out according to the following standards: IEC 60335-2-15: 2012 IEC 60335-1: 2010 + A1: 2013 CM6636D was subjected to clause 11, 13, 15, 16, 19.11, 19.12, 22.5 and construction checking. Alternative switch and PCB was subjected to clause 30. The submitted samples fulfil the requirements of the above standard. All tests were carried out in ACTL.	**See page 2**

Summary of compliance with National Differences

List of countries addressed:

CENELEC common modifications and national differences for Germany are taken into account.

Requirements in German legislation ProdSG and EK decisions for electrical equipment have been taken into account. Risk analysis and evaluation for PAH has been performed (ref. AfPS GS 2014:01 PAK, EK1 601-15).

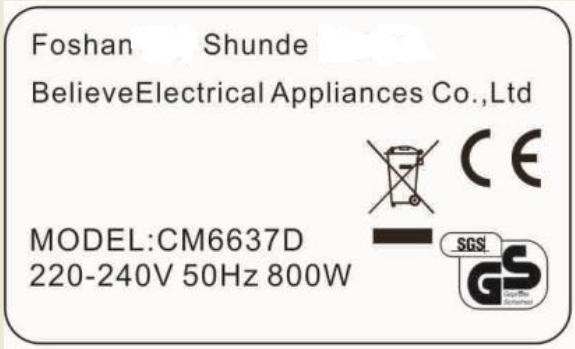
The product fulfils the requirements of:

EN 60335-2-15: 2002 + A1: 2005 + A2: 2008 + A11: 2012
EN 60335-1: 2012 + A11: 2014
EN 62233: 2008

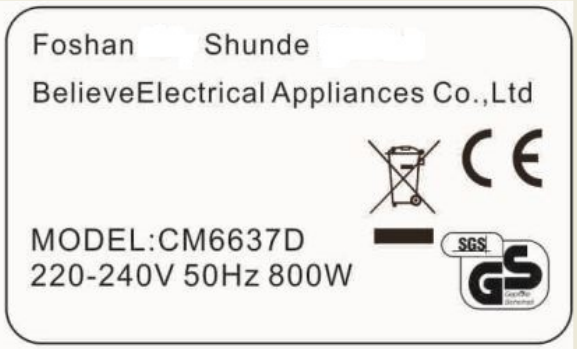
Copy of marking plate

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.

English:



German:



Remark: other model marking plate is same as CM6637D except for model name.

Test item particulars ..... :	
Classification of installation and use ..... :	Portable Appliance
Supply Connection ..... :	Non-detachable power 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.....:	2015-09-23
Date (s) of performance of tests .....:	2015-09-23 to 2015-10-09

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(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.
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This report (GZES140600729202A1) is not valid without in conjoin use with report GZES14060072920201.

Manufacturer's Declaration per sub-clause 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) .....: Same as the applicant
General product information: This appliance intend for household and indoor use only. Model CM6636D is same as model CM6637D except for filter Model CM6636B is same as model CM6637B except for filter CM6636B and CM6637B are separately same as CM6636D and CM6637D except for their control means. Amendment 1: The original Test Report Ref. No. GZES140600729201, dated 2014-07-30 was amended on 2015-10-15 to include the following changes, which were considered technical modifications: 1.Standard updated to IEC 60335-1: 2010 / A1: 2013 and EN 60335-1: 2012 / A11: 2014. 2.Alternative new layout of power PCB which is identical with old power PCB except the layout is different. 3.Update PAHs (ref. AfPS GS 2014:01 PAK, EK1 601-15) 4.Updated table 24.1 for alternative switch, PCB and varistor.

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
8	PROTECTION AGAINST ACCESS TO LIVE PARTS		---
8.1	Adequate protection against accidental contact with live parts		P
8.1.1	Requirement applies for all positions, detachable parts removed		P
	Lamps behind a detachable cover not removed, if conditions met		N/A
	Insertion or removal of lamps, protection against contact with live parts of the lamp cap		N/A
	Use of test probe B of IEC 61032, with a force not exceeding 1 N: no contact with live parts		P
	Use of test probe B of IEC 61032 through openings, with a force of 20N: no contact with live parts		P
8.1.2	Use of test probe 13 of IEC 61032, with a force not exceeding 1 N, through openings in class 0 appliances and class II appliances/constructions: no contact with live parts		P
	Test probe 13 also applied through openings in earthed metal enclosures having a non-conductive coating: no contact with live parts		P
	See Note 101 (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		N/A
8.1.4	Accessible part not considered live if:		N/A
	- safety extra-low a.c. voltage: peak value not exceeding 42.4 V		N/A
	- safety extra-low d.c. voltage: not exceeding 42.4 V		N/A
	- or separated from live parts by protective impedance		N/A
	If protective impedance: d.c. current not exceeding 2 mA, and		N/A
	a.c. peak value not exceeding 0.7 mA		N/A
	- for peak values over 42.4 V up to and including 450 V, capacitance not exceeding 0,1 μF		N/A
	- for peak values over 450 V up to and including 15 kV, discharge not exceeding 45 μC		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	- for peak values over 15kV, the energy in the discharge not exceeding 350 mJ		N/A
8.1.5	Live parts protected at least by basic insulation before installation or assembly:		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		P
	Only possible to touch parts separated from live parts by double or reinforced insulation		P
11	HEATING		---
11.1	No excessive temperatures in normal use		P
11.2	The appliance is held, placed or fixed in position as described.....:	Place away from wall	P
	Portable appliances tested away from the walls of the test corner (IEC 60335-2-15)		P
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
	See Note 101 (IEC 60335-2-15)		N/A
11.4	Heating appliances operated under normal operation at 1.15 times rated power input (W) .....:	1,15 x (240 / 230)^2 x 800 = 1002 W	P
	If 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, test repeated with the appliance supplied at 1,06 times rated voltage (IEC 60335-2-15)		N/A
11.5	Motor-operated appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage (V).....:		N/A
11.6	Combined appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage (V).....:		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Combined appliances tested as heating appliances (IEC 60335-2-15)		N/A
11.7	Appliances operated for the duration specified in 11.7.101 to 11.7.106 (IEC 60335-2-15)		P
11.7.101	For kettles with temperature limiter: test terminated after second operation of temperature limiter (IEC 60335-2-15)		N/A
	For kettles with thermostat: test terminated 15 min after the water has attained 95 °C		N/A
	For other kettles: test terminated 5 min after the water has attained 95 °C		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: (IEC 60335-2-15)		---
	- 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
	- portable appliances provided with a thermal control: 15 min after the thermal control has operated for the first time		N/A
	- fixed appliances provided with a thermal control: 30 min after the thermal control has operated for the first time		N/A
	- appliances with acoustic signal: 1 min after signal		N/A
	- egg boilers having provision for keeping eggs warm, and appliances having a heated surface intended to keep liquid warm: when steady conditions are established		N/A
11.7.103	Slow cookers, rice cookers, steam cookers and yoghurt makers operated until steady conditions are established (IEC 60335-2-15)		N/A
	Slow cookers prewarmed in the dry state if this instruction is given		N/A
11.7.104	Espresso coffee-makers operated in accordance with the instructions for use (IEC 60335-2-15)		N/A
	Automatic espresso coffee makers and espresso coffee makers, 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		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Manual espresso coffee makers, maximum quantity of coffee to be produced specified in the instructions, or		N/A
	the brewing period is the time necessary to produce 100 ml of coffee for each cycle		N/A
	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		N/A
	- espresso coffee makers having an outlet for supplying steam, 1 min.		N/A
	- espresso coffee makers having an outlet for supplying water, the time necessary to produce 100 ml of water		N/A
	Espresso coffee-makers operated until steady conditions are established		N/A
	Other coffee-makers operated for the time necessary to make the maximum quantity of coffee stated in the instructions		P
	The container refilled as quickly as possible and the coffee-maker operated again until steady conditions are established		P
11.7.105	Pressure cookers operated 15 min after attaining the maximum cooking pressure (IEC 60335-2-15)		N/A
11.7.106	Soy milk makers 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
	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		P
	Protective devices do not operate, except		P
	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

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	The temperature rise limits of motors, transformers, components of electronic circuit and 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
13	LEAKAGE CURRENT AND ELECTRIC STRENGTH AT OPERATING TEMPERATURE		---
13.1	Leakage current not excessive and electric strength adequate		P
	Heating appliances operated at 1.15 times the rated power input (W).....:	1,15 x (240 / 230)^2 x 800 = 1003 W	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		P
13.2	For class 0, class II and class III appliances, leakage current measured by means of the circuit described in figure 4 of IEC 60990		P
	For other appliances, a low impedance ammeter may be used		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
15	MOISTURE RESISTANCE		---
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
15.1.1	Appliances, other than IPX0, subjected to tests as specified in IEC 60529 .....:		N/A
	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 appliance turned continuously through the most unfavourable positions during the test		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	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 and appliances with pins for insertion into socket-outlets are mounted on a wooden board		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, take into account the distance to the floor stated in the instructions		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		N/A
	Detachable parts subjected to the relevant treatment with the main part		N/A
	However, if a part has to be removed for user maintenance and a tool is needed, this part is not removed		N/A
15.2	Spillage of liquid does not affect the electrical insulation		P
	Appliances with type X attachment fitted with a flexible cord as described		N/A
	Appliances incorporating an appliance inlet tested with or without an connector, whichever is most unfavourable		N/A
	The test is only carried out with the appliance connector in position (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	For cordless appliances, the test with the appliance on the horizontal plane carried out with the appliance both on and off its stand (IEC 60335-2-15)		N/A
	For rice cookers, the test carried out with the rice container in place (IEC 60335-2-15)		N/A
	In case of doubt, spillage tests carried out with the appliance deviating from the normal position by an angle not exceeding 5° (IEC 60335-2-15)		P
	Detachable parts are removed		P
	Overfilling test with additional amount of water, over a period of 1 min (l) .....:	0,25L	P
	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
	Kettles that can be filled through the spout: additional overfilling test in conditions as specified (IEC 60335-2-15)		N/A
	For cordless kettles, the additional test carried out only with the cordless kettle off its stand, the kettle being replaced on its stand in order to carry out the electric strength test of 16.3 (IEC 60335-2-15)		N/A
	Coffee makers provided with a removable coffee pot: particular overfilling test in conditions as specified (IEC 60335-2-15)		P
	Steam sterilizers: particular overfilling test in conditions as specified (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
	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		P
	The appliance withstands the tests of clause 16		P
15.101	Appliances to be partially or completely immersed in water for cleaning sufficiently protected against effects of immersion (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Compliance is checked by the tests as specified, which are carried out on three additional appliances		N/A
	No trace of water on insulation which can result in reduction of creepage distances and clearance below values specified in 29		N/A
15.102	Connecting device of stands for cordless kettles not affected by water : particular electric strength test in conditions as specified (IEC 60335-2-15)		N/A
	Compliance is checked by the test in conditions as specified		N/A
	Stand withstanding the test of 16.3 with voltage reduced to 2500 V for reinforced insulation		N/A
15.103	Interior of rice cookers not affected by water (IEC 60335-2-15)		N/A
	Compliance is checked by the test as specified		N/A
	Rice cookers withstanding the electric strength test of 16.3		N/A
16	LEAKAGE CURRENT AND ELECTRIC STRENGTH		---
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).....:	1,06 x 240 V= 254,4 V	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:		---
	- 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 do not exceed limits specified .....:		P
16.3	Electric strength tests according to table 7 .....:	(see appended table)	P

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Test voltage applied between the supply cord and inlet bushing and cord guard and cord anchorage as specified .....:		N/A
	No breakdown during the tests		P
19	ABNORMAL OPERATION		---
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 .....:		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 limit 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
	Unless otherwise specified, the tests are continued until a non-self-resetting thermal cut-out operates, or		P
	until steady conditions are established		P
	If a heating element or intentionally weak part becomes open-circuited, the relevant test is repeated on a second sample		P
	Kettles are not subjected to the test of 19.2 (IEC 60335-2-15)		N/A
	Kettles also subjected to the test of 19.101, unless the appliance incorporates a non-self-resetting thermal cut-out, in order to comply with 19.4 (IEC 60335-2-15)		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Kettles for which compliance with 19.101 relies on the operation of a non-self-resetting thermal cut-out are subjected to the test of 19.102 (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 (W) .....:	0,85 x (220 / 230)^2 x 800 = 622 W	P
	Appliances are placed as near as possible to the walls of the test corner (IEC 60335-2-15)		P
	They are tested empty with lids open or closed whichever is the more unfavourable (IEC 60335-2-15)		P
	Induction rice cookers operating 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 (W) .....:	1,24 x (240 / 230)^2 x 800 = 1080 W	P
	Kettles are operated empty at 1.15 times rated power input (IEC 60335-2-15)		N/A
	The test is carried out with the kettle filled with sufficient water to cover the heating element or if the heating element is not positioned inside the container, to a depth of 10 mm (IEC 60335-2-15)		N/A
19.4	Test conditions as in clause 11, any control limiting the temperature during tests of clause 11 short-circuited		P
	Pressure cookers: (IEC 60335-2-15)		N/A
	- all pressure regulating devices rendered inoperative; and		N/A
	- in other than dynamic pressure cookers, all protective devices that vent steam and intentionally weak parts that vent steam rendered inoperative; and		N/A
	- in dynamic pressure cookers, all protective devices, other than intentionally weak parts, that vent steam 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 and on appliances where an all-pole disconnection occurs during the test of 19.4		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		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
	capacitor is of class P2 of IEC 60252-1		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
	Other appliances supplied with rated voltage for a period as specified .....:		N/A
	Espresso coffee-makers incorporating a pump operated for a period of 5 min (IEC 60335-2-15)		N/A
	Soy milk makers operated for one cycle of operation (IEC 60335-2-15)		N/A
	Winding temperatures not exceeding values specified in table 8.....:		N/A
19.8	Multi-phase motors operated at rated voltage with one phase disconnected		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 .....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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		P
	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:		---
	- the temperature of the windings do not exceed the values specified in table 8		N/A
	- the appliance complies with the conditions specified in 19.13		P
	- any current flowing through protective impedance not exceeding the limits specified in 8.1.4		N/A
	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:		---
	- the base material of the printed circuit board withstands the test of 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:		---
	- 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	After CX1	P

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Clause	Requirement + Test	Result - Remark	Verdict
	- 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		P
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:		---
	a) short circuit of functional insulation if clearances or creepage distances are less than the values specified in clause 29		P
	b) open circuit at the terminals of any component	RV1, RF1, CX1, D1, R12 no hazard.	P
	c) short circuit of capacitors, unless		N/A
	they comply with IEC 60384-14		P
	d) short circuit of any two terminals of an electronic component, other than integrated circuits	RV1, RF1, CX1, D1, R12 no hazard.	P
	This fault condition is not applied between the two circuits of an optocoupler		N/A
	e) failure of triacs in the diode mode		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		P
19.11.3	If the appliance incorporates a protective electronic circuit which operates to ensure compliance with clause 19, the relevant test is repeated with a single fault simulated, as indicated in a) to g) of 19.11.2		N/A
19.11.4	Appliances having a device with an off position obtained by electronic disconnection, or		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		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, except that		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	appliances operated for 30 s or 5 min during the test of 19.7 are not subjected to the tests for electromagnetic phenomena.		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, test level 3		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, test level 3 or 4 as specified		N/A
	Earthed heating elements in class I appliances disconnected		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		N/A
	Appliances having a rated current exceeding 16 A are subjected to the Class 3 voltage dips and interruptions in accordance with IEC 61000-4-34		N/A
19.11.4.7	The appliance is subjected to mains signals in accordance with IEC 61000-4-13, test level class 2		N/A
19.11.4.8	The appliance is supplied at rated voltage and operated under normal operation. After 60s 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); rated current of the fuse-link (A).....:	Without fuse-link	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
19.13	During the tests the appliance does not emit flames, molten metal, poisonous or ignitable gas in hazardous amounts		P
	Temperature rises not exceeding the values shown in table 9.....:	(see appended table)	P
	Compliance with clause 8 not impaired		P
	If the appliance can still be operated it complies with 20.2		N/A
	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:		---
	- basic insulation (V).....:	1000	P
	- supplementary insulation (V) .....:		N/A
	- reinforced insulation (V) .....:	3000	P
	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		P
	The appliance does not undergo a dangerous malfunction, and		P
	no failure of protective electronic circuits, if the appliance is still operable		N/A
	Appliances tested with an electronic switch in the off position, or in the stand-by mode:		---
	- 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:		---
	- 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 operate before pressure has reached 350 kPa (IEC 60335-2-15)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	During the test of 19.4, protective devices or intentionally weak parts of dynamic pressure cookers operate before pressure has reached 250 kPa (IEC 60335-2-15)		N/A
	Temperature rise of windings of induction rice cookers not exceeding the values specified in 19.7 (IEC 60335-2-15)		N/A
	Induction rice cookers: electric strength test 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		P
	If more than one relay or contactor operates in clause 11, they are short-circuited in turn		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
19.101	Kettles operated empty at 0,85 times or 1,15 times rated power input, whichever is more unfavourable, with thermal cut-out that operates during the test of 19.4 short circuited (IEC 60335-2-15)		N/A
	During the test, any flames keep within the enclosure of the kettle and supporting surface does not ignite		N/A
	After the test, live parts not be accessible		N/A
19.102	Kettles incorporating two self-resetting thermal cut-outs operated with one of the thermal cut-out short circuited, empty at 0.85 or 1.15 times rated power input, whichever is most unfavourable (IEC 60335-2-15)		N/A
	Within 2 s of the 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		N/A
	The test is carried out 100 times		N/A
19.103	Appliances with detachable liquid containers: automatic transfer of liquid from one container to another is liable and safe (IEC 60335-2-15)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Compliance is checked by the test as specified		N/A
	After the test, the appliance withstands the tests of 16.3 and		N/A
	no trace of water on insulation which can result in reduction of creepage distances and clearances below values specified in clause 29		N/A
19.104	The overloading of a soy milk maker does not result in a hazard (IEC 60335-2-15)		N/A
	Compliance is checked by the test as specified		N/A
	During the test, any flames keep within the enclosure and supporting surface does not ignite		N/A
	After the test, live parts not be accessible		N/A
19.105	When a soy milk maker is disconnected from the supply accidently during normal use, it does not result in a hazard (IEC 60335-2-15)		N/A
	Compliance is checked by the test as specified		N/A
	During the test, any flames keep within the enclosure and supporting surface does not ignite		N/A
	After the test, live parts not be accessible		N/A
20	STABILITY AND MECHANICAL HAZARDS		---
20.1	Appliances having adequate stability		P
	Tilting test through an angle of 10°, appliance placed on an inclined plane/horizontal support, not connected to the supply mains; appliance does not overturn		P
	Tilting test repeated on appliances with heating elements, angle of inclination increased to 15°		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

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Clause	Requirement + Test	Result - Remark	Verdict
	Not possible to touch dangerous moving parts with the test probe described		N/A
20.101	The container and cutting blades of soy milk makers have adequate mechanical strength (IEC 60335-2-15)		N/A
	Compliance is checked by the test as specified		N/A
	Container and cutting blades not broken		N/A
20.102	The rotating parts of soy milk makers not become loose during operation (IEC 60335-2-15)		N/A
	Compliance is checked by inspection and manual test as specified		N/A
	Fastening of screws and nuts in a direction opposite to the direction of rotation of the rotating parts considered to be a suitable means of securing the rotating parts		N/A
20.103	For soy milk makers: lid interlock, if any, constructed so that accidental operation of the appliance is prevented (IEC 60335-2-15)		N/A
	Lid interlock switches are biased-off switches		N/A
	If there is an interlock between the lid and the main switch, the lid is locked when the switch is in the on position		N/A
	When the lid is not correctly closed, the switch is locked in the off position		N/A
	Compliance is checked by inspection, by manual test and by applying test probe B of IEC 61032		N/A
22	CONSTRUCTION		---
22.1	Appliance marked with the first numeral of the IP system, relevant requirements of IEC 60529 are fulfilled	IPX0	N/A
22.2	Stationary appliance: means to ensure all-pole disconnection from the supply being provided:		---
	- a supply cord fitted with a plug, or		N/A
	- a switch complying with 24.3, or		N/A
	- a statement in the instruction sheet that a disconnection incorporated in the fixed wiring is to be provided, or		N/A
	- an appliance inlet		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Singe-pole switches and single-pole protective devices for the disconnection of heating elements in single-phase, permanently connected class 01 and class I appliances, connected to the phase conductor		N/A
22.3	Appliance provided with pins: no undue strain on socket-outlets		N/A
	Applied torque not exceeding 0.25 Nm		N/A
	Pull force of 50N to each pin after the appliance has being placed in the heating cabinet; when cooled to room temperature the pins are not displaced by more than 1mm		N/A
	Each pin subjected to a torque of 0.4Nm; the pins are not rotating, unless		N/A
	rotating does not impair compliance with this standard		N/A
22.4	Appliance for heating liquids and appliance causing undue vibration not provided with pins for insertion into socket-outlets		P
22.5	No risk of electric shock when touching the pins of the plug, for appliances having a capacitor with rated capacitance exceeding 0,1μF, the appliance being disconnected from the supply at the instant of voltage peak		P
	Voltage not exceeding 34 V (V) .....:	8V	P
22.6	Electrical insulation not affected by condensing water or leaking liquid		P
	Electrical insulation of Class II appliances not affected if a hose ruptures or seal leaks		P
	In case of doubt, test as described		P
	Drain holes, at least 5 mm in diameter or 20 mm² in area with a width of at least 3 mm (IEC 60335-2-15)	diameter: 5.2mm	P
22.7	Adequate safeguards against the risk of excessive pressure in appliances containing liquid or gases or having steam-producing devices		P
	Additional test for espresso coffee-maker : (IEC 60335-2-15)		---
	Appliance operated with coffee filter blocked and any steam valve closed. The maximum pressure attained is measured, then the appliance is subjected to twice the measure pressure for 5 min		N/A
	No rupture, no abnormal leakage; appliance fit for further use		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Maximum pressure test with pressure limiting devices made ineffective		N/A
	No explosion nor emission of dangerous jets of steam		N/A
	Last test repeated in case of rupture of an intentionally weak part: the appliance shall be terminated in the same mode		N/A
	Pressure cookers except dynamic pressure cookers: all pressure regulators and pressure-relief devices are rendered inoperative and lids closed. Pressure increased to two times the operating pressure of the pressure relief device during the test of 19.4		N/A
	Dynamic pressure cookers: the pressure is gradually increased hydraulically to 50 kPa in excess of the operating pressure of the pressure relief device or intentionally weak part during the test of 19.4		N/A
	No rupture of container		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		P
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

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Clause	Requirement + Test	Result - Remark	Verdict
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
	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		P
	Fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible		P
	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied		P
	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied		P
22.13	Unlikely that handles, when gripped as in normal use, make the operator's hand touch parts having a temperature rise exceeding the value specified for handles which are held for short periods only		P
22.14	No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance		P
	No exposed pointed ends of self-tapping screws or other fasteners, likely to be touched by the user in normal use or during user maintenance		P
22.15	Storage hooks and the like for flexible cords smooth and well rounded		N/A
22.16	Automatic cord reels cause no undue abrasion or damage to the sheath of the flexible cord, no breakage of conductors strands and no undue wear of contacts		N/A
	Cord reel tested with 6000 operations, as specified		N/A
	Electric strength test of 16.3, voltage of 1000 V applied		N/A
22.17	Spacers not removable from the outside by hand or by means of a screwdriver or a spanner		N/A
22.18	Current-carrying parts and other metal parts resistant to corrosion		P
22.19	Driving belts not relied upon to provide the required level of insulation, unless		N/A
	constructed to prevent inappropriate replacement		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
22.20	Direct contact between live parts and thermal insulation effectively prevented, unless		N/A
	material used is non-corrosive, non-hygroscopic and non-combustible		N/A
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless		N/A
	impregnated		N/A
	This requirement does not apply to magnesium oxide and mineral ceramic fibres used for the electrical insulation of heating elements		P
22.22	Appliances not containing asbestos		P
22.23	Oils containing polychlorinated biphenyl (PCB) not used		P
22.24	Bare heating elements, except in class III appliances or class III constructions that do not contain live parts, adequately supported		N/A
	In case of rupture, the heating conductor is unlikely to come in contact with accessible metal parts		N/A
22.25	Sagging heating conductors, except in class III appliances or class III constructions that do not contain live parts, cannot come into contact with accessible metal parts		N/A
22.26	For class III constructions the insulation between parts operating at safety extra-low voltage and other live parts complies with the requirements for double or reinforced insulation		N/A
22.27	Parts connected by protective impedance separated by double or reinforced insulation		N/A
22.28	Metal parts of Class II appliances conductively connected to gas pipes or in contact with water, separated from live parts by double or reinforced insulation		N/A
22.29	Class II appliances permanently connected to fixed wiring so constructed that the required degree of access to live parts is maintained after installation		N/A
22.30	Parts serving as supplementary or reinforced insulation fixed so that they cannot be removed without being seriously damaged, or		P
	so constructed that they cannot be replaced in an incorrect position, and so that if they are omitted, the appliance is rendered inoperable or manifestly incomplete		P

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Clause	Requirement + Test	Result - Remark	Verdict
22.31	Neither clearances nor creepage distances over supplementary and reinforced insulation reduced below values specified in clause 29 as a result of wear		P
	Neither clearances nor creepage distances between live parts and accessible parts reduced below values for supplementary insulation if wires, screws etc. become loose		P
22.32	Supplementary and reinforced insulation constructed or protected against pollution so that clearances or creepage distances are not reduced below the values in clause 29		P
	Supplementary insulation of natural or synthetic rubber resistant to ageing, or arranged and dimensioned so that creepage distances are not reduced below values specified in 29.2		N/A
	Ceramic material not tightly sintered, similar materials or beads alone not used as supplementary or reinforced insulation		N/A
	Insulating material in which heating conductors are embedded is considered to be basic insulation, not reinforced insulation		P
	Oxygen bomb test at 70 °C for 96 h and 16 h at room temperature		N/A
22.33	Conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts are not in direct contact with live parts		P
	Electrodes not used for heating liquids		N/A
	For class II constructions, conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts, not in direct contact with basic or reinforced insulation, unless		P
	the reinforced insulation consists of at least 3 layers		N/A
	For class II constructions, conductive liquids which are in contact with live parts, not in direct contact with reinforced insulation, unless		N/A
	the reinforced insulation consists of at least 3 layers		N/A
	An air layer not used as basic or supplementary insulation in a double insulation system if likely to be bridged by leaking liquid		N/A
22.34	Shafts of operating knobs, handles, levers etc. not live, unless		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	the shaft is not accessible when the part is removed		N/A
22.35	For other than class III constructions, handles, levers and knobs, held or actuated in normal use, not becoming live in the event of a failure of basic insulation		P
	Such parts being of metal, and their shafts or fixings are likely to become live in the event of a failure of basic insulation, are either adequately covered by insulation material or their accessible parts are separated from their shafts or fixings by supplementary insulation		N/A
	This requirement does not apply to handles, levers and knobs on stationary appliances, other than those of electrical components, provided they are reliably connected to an earthing terminal or earthing contact, or separated from live parts by earthed metal		N/A
	Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation		N/A
22.36	For appliances other than class III, handles continuously held in the hand in normal use so constructed that when gripped as in normal use, the operators hand is not likely to touch metal parts, unless		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		P
22.39	Lamp holders used only for the connection of lamps		N/A
22.40	Motor-operated appliances and combined appliances intended to be moved while in operation, or having accessible moving parts, fitted with a switch to control the motor. The actuating member of the switch being easily visible and accessible		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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 also disconnect electronic circuits, if their malfunction would impair compliance with this standard (IEC 60335-2-15)		N/A
	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 14.1 a) in IEC 60065		N/A
	Capacitors checked by the tests for class Y capacitors in IEC 60384-14		N/A
22.43	Appliances adjustable for different voltages, accidental changing of the setting of the voltage unlikely to occur		N/A
22.44	Appliances not having an enclosure that is shaped or decorated like a toy		P
22.45	When air is used as reinforced insulation, clearances not reduced below the values specified in 29.1.3 due to deformation as a result of an external force applied to the enclosure		P
22.46	For programmable protective electronic circuits used to ensure compliance with the standard, the software contains measures to control the fault/error conditions in table R.1		N/A
	Software that contains measures to control the fault/error conditions specified in table R.2 is to be specified in parts 2 for particular constructions or to address specific hazards		N/A
	These requirements are not applicable to software used for functional purpose or compliance with clause 11		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
22.47	Appliances connected to the water mains withstand the water pressure expected in normal use		N/A
	No leakage from any part, including any inlet water hose		N/A
22.48	Appliances connected to the water mains constructed to prevent backsiphonage of non-potable water		N/A
22.49	For remote operation, the duration of operation is to be set before the appliance can be started, unless		N/A
	the appliance switches off automatically or can operate continuously without hazard		N/A
22.50	Controls incorporated in the appliance take priority over controls actuated by remote operation		N/A
22.51	There is a control on the appliance manually adjusted to the setting for remote operation before the appliance can be operated in this mode		N/A
	There is a visual indication showing that the appliance is adjusted for remote operation		N/A
	These requirements not necessary on appliances that can operate as follows, without giving rise to a hazard:		---
	- continuously, or		N/A
	- automatically, or		N/A
	- remotely		N/A
22.52	Socket-outlets on appliances accessible to the user in accordance with the socket-outlet system used in the country in which the appliance is sold		N/A
22.101	Kettles constructed so that the lid does not fall off when water is poured out (IEC 60335-2-15)		N/A
	Compliance is checked by the test as specified		N/A
	Lid not fall off and water only emitted from the spout		N/A
22.102	Kettles so constructed 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)		N/A
	Compliance is checked by inspection during the test of clause 11		N/A
22.103	Appliance coupler of cordless appliances constructed to withstand the stresses occurring during normal use (IEC 60335-2-15)		N/A
	Compliance is checked by the test as specified		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliance is placed on its stand and withdrawn for:		N/A
	- cordless kettles 10 000 times		N/A
	- cordless coffee makers 10 000 times		N/A
	- other cordless appliances 6 000 times		N/A
	The test continued without current flowing for a further 10 000 times for cordless kettles and cordless coffee makers, or		N/A
	6 000 times for other cordless appliances		N/A
	If a single stand is supplied with more than one cordless appliance, the test for each cordless appliance is carried out using the same stand		N/A
	The appliance is suitable for further use and compliance with 8.1, 16.3, 27.5 and clause 29 not be impaired		N/A
	The test is carried out without current flowing if the connection contacts cannot make or break on load		N/A
22.104	Portable appliances in which water boil with a container greater than 3 l is filled to its rated capacity with the lid closed in accordance with instructions for use (IEC 60335-2-15)		N/A
	The plane is slowly inclined to an angle of 25 ° ; if the appliance overturns, it is left in this position for 10 s and then returned to its normal position		N/A
	The rate of discharge of liquid does not exceed 16 l/min		N/A
22.105	Fixed appliances for boiling water constructed so that the container is always open to the atmosphere through an aperture of at least 5 mm in diameter or 20 mm² in area with a width of at least 3 mm (IEC 60335-2-15)		N/A
	Aperture not likely to be obstructed in normal use		N/A
	If the appliance has provisions for discharging steam or water overflowing, the discharge aperture shall be at the base of the appliance and discharge vertically downwards		N/A
22.106	Espresso coffee-maker: not possible to remove the filter by a simple operation while there is hazardous pressure within the container (IEC 60335-2-15)		N/A
22.107	Pressure cookers incorporate a non-self-resetting pressure or temperature responsive pressure relief device (IEC 60335-2-15)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
22.108	Pressure cooker: not possible to remove the lid when the inner pressure is excessive (IEC 60335-2-15)		N/A
	Pressure test at 4 kPa and 100 N		N/A
	No hazardous displacement of lid at removal		N/A
	Test 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		N/A
22.109	Pressure cookers 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		N/A
	Pressure not exceeding 4,0 kPa		N/A
22.110	Feeding-bottle heater: visible or audible signal to indicate the end of the heating period (IEC 60335-2-15)		N/A
22.111	Espresso coffee-makers, incorporating a pressurized reservoir filled by the user constructed so that there is no spillage of water or sudden jets of steam or hot water (IEC 60335-2-15)		N/A
	When removing the filling cap of the pressurized reservoir, before the cap is removed completely, the pressure relieves in a controlled manner		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		N/A
22.112	Soy milk makers constructed so that steam or hot water are not ejected which may expose the user to a hazard (IEC 60335-2-15)		N/A
22.113	Appliances with moving mechanical parts constructed so that lubricants are prevented from polluting food compartments (IEC 60335-2-15)		N/A
22.114	Appliances constructed so that food or liquids are prevented from penetrating into places that could cause electrical or mechanical faults (IEC 60335-2-15)		N/A
29	CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION		---
	Clearances, creepage distances and solid insulation withstand electrical stress		P
	For coatings used on printed circuits boards to protect the microenvironment (Type 1) or to provide basic insulation (Type 2), Annex J applies.....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	The microenvironment is pollution degree 1 under type 1 protection		N/A
	For type 2 protection, the spacing between the conductors before the protection is applied is not less than the values specified in Table 1 of IEC 60664-3		N/A
	These values apply to functional, basic, supplementary and reinforced insulation .....:		N/A
29.1	Clearances not less than the values specified in table 16, taking into account the rated impulse voltage for the overvoltage categories of table 15, unless .....:	(see appended table)	P
	for basic insulation and functional insulation they comply with the impulse voltage test of clause 14		N/A
	However, if the distances are affected by wear, distortion, movement of the parts or during assembly, the clearances for rated impulse voltages of 1500V and above are increased by 0,5 mm and the impulse voltage test is not applicable		P
	Impulse voltage test is not applicable:		---
	- when the microenvironment is pollution degree 3, or		N/A
	- for basic insulation of class 0 and class 01 appliances		N/A
	Appliances are in overvoltage category II		P
	A force of 2 N is applied to bare conductors, other than heating elements		P
	A force of 30 N is applied to accessible surfaces		P
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		N/A
29.1.2	Clearances of supplementary insulation not less than those specified for basic insulation in table 16:	(see appended table)	P

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

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Clause	Requirement + Test	Result - Remark	Verdict
	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1, the clearances of reinforced insulation dimensioned as specified in Table F.7a are to withstand 160% of the withstand voltage required for basic insulation		N/A
	If clearances for basic insulation are selected from Clause 4 of IEC 60664-4, the clearances of reinforced insulation are twice the value required for basic insulation		N/A
	If the secondary winding of a step-down transformer is earthed, or if there is an earthed screen between the primary and secondary windings, clearances of basic insulation on the secondary side not less than those specified in table 16, but using the next lower step for rated impulse voltage		N/A
	Circuits supplied with a voltage lower than rated voltage, clearances of functional insulation are based on the working voltage used as the rated voltage in table 15		N/A
29.2	Creepage distances not less than those appropriate for the working voltage, taking into account the material group and the pollution degree.....:	(see appended table)	P
	Pollution degree 2 applies, unless		N/A
	- precautions taken to protect the insulation; pollution degree 1		N/A
	- insulation subjected to conductive pollution; pollution degree 3		P
	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
	A force of 2 N is applied to bare conductors, other than heating elements		P
	A force of 30 N is applied to accessible surfaces		P
	In a double insulation system, the working voltage for both the basic and supplementary insulation is taken as the working voltage across the complete double insulation system		P
29.2.1	Creepage distances of basic insulation not less than specified in table 17.....:	(see appended table)	P

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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, these values being used if exceeding the values in table 17 .....:		N/A
	Except for pollution degree 1, corresponding creepage distance not less than the minimum specified for the clearance in table 16, if the clearance has been checked according to the test of clause 14 .....:		N/A
29.2.2	Creepage distances of supplementary insulation at least those specified for basic insulation in table 17, or .....:	(see appended table)	P
	Table 2 of IEC 60664-4, as applicable .....:		N/A
29.2.3	Creepage distances of reinforced insulation at least double those specified for basic insulation in table 17, or .....:	(see appended table)	P
	Table 2 of IEC 60664-4, as applicable .....:		N/A
29.2.4	Creepage distances of functional insulation not less than specified in table 18.....:	(see appended table)	P
	However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from table 2 of IEC 60664-4, these values being used if exceeding the values in table 18 .....:		N/A
	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:		---
	- by measurement, in accordance with 29.3.1, or		P
	- by an electric strength test in accordance with 29.3.2, or		N/A
	- by an assessment of the thermal quality of the material combined with an electric strength test, in accordance with 29.3.3, and		N/A
	for accessible parts of reinforced insulation consisting of a single layer, by measurement in accordance with 29.3.4, or		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- as specified in subclause 6.3 of IEC 60664-4 for insulation that is subjected to any periodic voltage having a frequency exceeding 30 kHz		N/A
29.3.1	Supplementary insulation have a thickness of at least 1 mm	Plastic enclosure (body): 2,0 mm Plastic enclosure (bottom): 2,0 mm	P
	Reinforced insulation have a thickness of at least 2 mm		N/A
29.3.2	Each layer of material withstand the electric strength test of 16.3 for supplementary insulation		N/A
	Supplementary insulation consist of at least 2 layers		N/A
	Reinforced insulation consist of at least 3 layers		N/A
29.3.3	The insulation is subjected to the dry heat test Bb of IEC 60068-2-2, followed by		N/A
	the electric strength test of 16.3		N/A
	If the temperature rise during the tests of clause 19 does not exceed the value specified in table 3, the test of IEC 60068-2-2 is not carried out		N/A
29.3.4	Thickness of accessible parts of reinforced insulation consisting of a single layer not less than specified in table 19.....:		N/A
30	RESISTANCE TO HEAT AND FIRE		---
30.1	External parts of non-metallic material,		P
	parts supporting live parts, and	Certified thermostat, switch	P
	parts of thermoplastic material providing supplementary or reinforced insulation		P
	sufficiently resistant to heat		P
	Ball-pressure test according to IEC 60695-10-2		P
	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)	P
	Parts supporting live parts tested at 40°C plus the maximum temperature rise determined during the test of clause 11, or at 125 °C, whichever is the higher; temperature (°C) .....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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) .....:		N/A
	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)		P
30.2	Parts of non-metallic material resistant to ignition and spread of fire		P
	This requirement does not apply to:		P
	parts having 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		P
	Compliance checked by the test of 30.2.1, and in addition:		P
	- for attended appliances, 30.2.2 applies		P
	- for unattended appliances, 30.2.3 applies		N/A
	For appliances for remote operation, 30.2.3 applies		N/A
	For base material of printed circuit boards, 30.2.4 applies		P
	For water distillers, appliances incorporating a delayed start timer and appliances intended to maintain liquid or food at a particular temperature, 30.2.3 applies (IEC 60335-2-15)		N/A
	For other appliances, 30.2.2 applies (IEC 60335-2-15:2002)		P
30.2.1	Parts of non-metallic material subjected to the glow-wire test of IEC 60695-2-11 at 550 °C		P
	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		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
30.2.2	Appliances operated while attended, parts of non-metallic material supporting current-carrying connections, and		P
	parts of non-metallic material within a distance of 3mm of such connections,		P
	subjected to the glow-wire test of IEC 60695-2-11		P
	The test severity is:		---
	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation		P
	- 650 °C, for other connections		N/A
	Glow-wire applied to an interposed shielding material, if relevant		P
	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:		---
	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation		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:		---
	- 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 Annex E, or		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
30.2.3	Appliances operated while unattended, tested as specified in 30.2.3.1 and 30.2.3.2		N/A
	The tests are not applicable to conditions as specified .....:		N/A
30.2.3.1	Parts of non-metallic material supporting connections carrying a current exceeding 0,2 A during normal operation, and		N/A
	parts of non-metallic material, other than small parts, within a distance of 3 mm,		N/A
	subjected to the glow-wire test of IEC 60695-2-11 with a test severity of 850 °C		N/A
	Glow-wire applied to an interposed shielding material, if relevant		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	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, and		N/A
	parts of non-metallic material within a distance of 3mm,		N/A
	subjected to glow-wire test of IEC 60695-2-11		N/A
	The test severity is:		N/A
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation		N/A
	- 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		N/A
	• 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		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 Annex E, or		N/A
	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10		N/A

IEC 60335-2-15			
Clause	Requirement + Test	Result - Remark	Verdict
	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 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 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
	- 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 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 Annex E		P
	Test not applicable to conditions as specified.....:		N/A

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

11.8	**TABLE: Heating test** (For model CM6636D)		P
	Test voltage (V)..... :	1,15 × (240/230)^2 x 800 W = 1001,7 W	—
	Ambient (°C)..... :	t1= 24,7; t2= 24,6	—

Thermocouple locations	**Max. temperature rise measured, Δ T (K)**	**Max. temperature rise limit, Δ T (K)**
Supply cord	25,3	50
Internal wire	34,0	T200-25=175
Ambient of thermostat	79,7	T200-25=175
Ambient of thermal link	105,7	T350-25=325
Tube of thermal link	171,2	T200-25=175
Ambient of X capacitor	32,9	T105 -25=80
Ambient of Relay	44,2	T105 -25=80
Ambient of varistor	33,4	T85 -25=60
PCB	30,3	T130 -25=105
Connector on PCB	27,5	For clause 30.1
Enclosure	30,8	For clause 30.1
Lid of container	56,8	60
Handle of cup	31,9	60
Switch button	10,2	60
Test corner	25,8	65
Supplementary information:		

11.8	**TABLE: Heating test, resistance method**		N/A
	Test voltage (V)..... :	—	—
	Ambient, t1 (°C) ..... :	—	—
	Ambient, t2 (°C) ..... :	—	—

Temperature rise of winding	**R1 (Ω)**	**R2 (Ω)**	**Δ T (K)**	**Max. Δ T (K)**	**Insulation class**
—	—	—	—	—	—
Supplementary information:					

13.2	**TABLE: Leakage current**		P
	Heating appliances: 1.15 x rated input (W)...:	1,15 × (240/230)^2 x 800 W = 1001,7 W	—
	Motor-operated and combined appliances: 1.06 x rated voltage (V).....:	—	—

Leakage current between	**I (mA)**	**Max. allowed I (mA)**
Live parts and earthed metal	0,023	0,75
Live parts and plastic enclosure/ knob	0,008	0,35 peak
Supplementary information:		

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Clause	Requirement + Test	Result - Remark	Verdict

13.3	TABLE: Dielectric strength		P
Test voltage applied between:		**Test potential applied (V)**	**Breakdown / flashover (Yes/No)**
Live parts and earthed metal		1000	No
Live parts and plastic enclosure/ knob		3000	No
Supplementary information:			

16.2	TABLE: Leakage current		P
	Single phase appliances: 1.06 x rated voltage (V).....:	1,06 x 240 V= 254,4 V	—
	Three phase appliances 1.06 x rated voltage divided by √3 (V).....:	—	—
Leakage current between		**I (mA)**	**Max. allowed I (mA)**
Live parts and earthed metal		0,027	0,75
Live parts and plastic enclosure/ knob		0,009	0,25
Supplementary information:			

16.3	TABLE: Dielectric strength		P
Test voltage applied between:		**Test potential applied (V)**	**Breakdown / flashover (Yes/No)**
Live parts and earthed metal		1250	No
Live parts and plastic enclosure/ knob		3000	No
Supplementary information:			

19	Abnormal operation conditions						N/A
Operational characteristics		**YES/NO**	**Operational conditions**				
Are there electronic circuits to control the appliance operation?		---	---				
Are there “off” or “stand-by” position?		---	---				
The unintended operation of the appliance results in dangerous malfunction?		---	---				
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	---	---	---

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Clause	Requirement + Test			Result - Remark			Verdict
19.3	---	---	---	---	---	---	---
19.4	---	---	---	---	---	---	---
19.5	---	---	---	---	---	---	---
19.6	---	---	---	N.A	---	---	---
19.7	---	---	---	---	---	---	---
19.8	---	---	---	---	---	---	---
19.9	---	---	---	---	---	---	---
19.10	---	---	---	---	---	---	---
19.11.2	---	---	---	---	---	---	---
19.11.4.8	---	---	---	---	---	---	---
19.10X	---	---	---	---	---	---	---
Supplementary information:							

19.7	**TABLE: Abnormal operation, locked rotor/moving parts**					N/A
	Test voltage (V)..... :			---		—
	Ambient, t1 (°C) ..... :			---		—
	Ambient, t2 (°C) ..... :			---		—
Temperature of winding	**R1 (Ω)**	**R2 (Ω)**	**Δ T (K)**	**T (°C)**	**Max. T (°C)**	
---	---	---	---	---	---	
Supplementary information:						

19.9	**TABLE: Abnormal operation, running overload**					N/A
	Test voltage (V)..... :			---		—
	Ambient, t1 (°C) ..... :			---		—
	Ambient, t2 (°C) ..... :			---		—
Temperature of winding	**R1 (Ω)**	**R2 (Ω)**	**Δ T (K)**	**T (°C)**	**Max. T (°C)**	
---	---	---	---	---	---	
Supplementary information:						

19.13	**TABLE: Abnormal operation, temperature rises**	N/A
Thermocouple locations	**Max. temperature rise measured, Δ T (K)**	**Max. temperature rise limit, Δ T (K)**
—	—	—

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Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information: —

24.1	TABLE: Components				P
Object	**Manufacturer**	**Type**	**Technical data**	**Standard**	**Mark(s) of conformity**
Plug	Sheng Yi Electrical Factory	SY-22	AC 250 V, 16 A	DIN VDE 0620-1 IEC 60884-1	VDE 40007744
Power cord	Sheng Yi Electrical Factory	H03VV-F 60227 IEC 52	3G 0,75 mm², length <2m	EN 50525-2-11 IEC 60227-5	VDE 40023272
Switch CM6636B CM6637B	Guangzhou Taiheng Electric Appliance Co., Ltd.	TH1	AC 250 V, 15 A, T85, 850 °C, 10000 cycles	IEC/EN 61058-1	TÜV 50150473
(Alternative)	Zhejiang Zhongxun Electronics Co., Ltd.	KCD1-115	AC 250 V, 10 A, T105, 850 °C, 10000 cycles	IEC/EN 61058-1	TÜV R 50203707
(Alternative)	Zhejiang Guanbao Electronic Co., Ltd.	XCK-017	AC 250 V, 10 A, T125, 850 °C, 10000 cycles	IEC/EN 61058-1	TÜV R 50185880
(Alternative)	Tongde Electronics Electric Appliances Co., Ltd.	KDC-A05	AC 250 V, 10 A, T105, 850 °C, 1E4	IEC/EN 61058-1	TÜV R 50162980
(Alternative)	Shenzhen Ningrui Electronic Co., Ltd.	SC	AC 250 V, 10（8） A, T105,1E4	IEC/EN 61058-1	DEKRA ENEC 2160942.01
Heating element	Foshan BELIEVE Electric Heating Appliance Co., Ltd.	BL-02	230 V,800 W	IEC/EN 60335-2-15 IEC/EN 60335-1	Tested with appliance
Plastic enclosure	Samsung Total Petrochemicals Co., Ltd.	PP/HJ730	HB	IEC/EN 60335-2-15 IEC/EN 60335-1	Tested with appliance UL E140331
Internal wire	Qifurui Electronics Co.	3122	18 AWG, 300 Vac, 200 °C	IEC/EN 60335-2-15 IEC/EN 60335-1	Tested with appliance UL E211048
Internal wire to others	Wuxi Huacheng Cable Co., Ltd.	3122	18 AWG, 300 Vac, 200 °C	IEC/EN 60335-2-15 IEC/EN 60335-1	Tested with appliance ULE206992
(Alternative)	Jiangyin City Tiancheng Electronic & Cable Co., Ltd.	3122	18 AWG, 300 Vac, 200 °C	IEC/EN 60335-2-15 IEC/EN 60335-1	Tested with appliance UL E332921

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

Thermal link	Foshan Shunde Jinyu Electrical Co., Ltd.	JY216A	AC 250 V, 10 A, Tf: 216 °C, Tmax: 350 °C	IEC/EN 60691	TÜV 50209412
(Alternative)	Aupo Electronics Ltd.	BF216	AC 250 V, 10 A, Tf: 216 °C, Tmax: 380 °C	IEC/EN 60691	VDE 40005418
(Alternative)	Zhong Shan City Dickson Electric Co., Ltd.	RY216S	AC 250 V, 10 A, Tf: 216 °C, Tmax: 240 °C	IEC/EN 60691	TÜV 50080342
(Alternative)	NEC SCHOTT Components Corporation	SF 214 E	AC 250 V, 10 A, Tf: 216 °C, Tmax: 375 °C	IEC/EN 60691	VDE 40006568
(Alternative)	Therm-O-Disc Europe B.V.	E4	AC 250 V, 10 A, Tf: 216 °C, Tmax: 375 °C	IEC/EN 60691	VDE 40017228
(Alternative)	Therm-O-Disc Europe B.V.	G4	AC 250 V, 10 A, Tf: 216 °C, Tmax: 375 °C	IEC/EN 60691	VDE 40017228
(Alternative)	Shanghai Xinyuan Electronic Corporation	RY216	AC 250 V, 10 A, Tf: 216 °C, Tmax: 230 °C	IEC/EN 60691	TÜV 50056552
Silicone tube of thermal link	DOW CORNING TORAY CO LTD	SH-502U-A/B	V-0, HWI=0, HAI=0, 150ºC.	IEC/EN 60691	Test with appliance UL E55519
Thermostat	Foshan Shunde Xingtan Zhongbao Thermostat Co., Ltd.	KSD301	AC 250 V, 10 A, Tf: 110 °C, Tmax: 200 °C, 35000 cycles, 850 °C	IEC/EN 60730-2-9 IEC/EN 60730-1	TÜV 50114187
(Alternative)	Foshan Kehua Electric Appliance Co., Ltd.	KSD301	AC 250 V, 10 A,100000 cycles, Tmax:205 °C, Tf110 °C	IEC/EN 60730-2-9 IEC/EN 60730-1	TÜV 50209508
(Alternative)	Foshan Shunde Chengji Electronics Co., Ltd.	KSD 301	AC 250 V, 12 A, Tmax:170 °C, Tf110 °C, 50000 cycles, 850 °C	IEC/EN 60730-2-9 IEC/EN 60730-1	TÜV 50090812
PCB CM6636D, CM6637D	KINGBOARD LAMINATES HOLDINGS LTD	KB-3150, FR-1	V-0, 130 °C	UL 94	Tested with appliance UL E123995
(Alternative)	Kingboard Laminates Holdings Limited	KB-3151C	V-0	IEC/EN 60335-2-15 IEC/EN 60335-1	Tested with appliance VDE 005722

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

(Alternative)	Shandong Jinbao Electronics Co., Ltd.	ZD-90F	V-0	IEC/EN 60335-2-15 IEC/EN 60335-1	Tested with Appliance VDE 40032178
Relay CM6636D, CM6637D	Ningbo Tianbo Ganglian Electronics Co., Ltd.	HJR-3FF-S-H	AC240V,10A; 85℃, 10E4Cycles	IEC/EN 61810-1	TUV R50116163
(Alternative)	Dongguan Sanyou Electrical Appliances Co. Ltd	SRD-S-112D	AC 250V, 7A, T85°C,100000 Cycles	IEC/EN 61810-1	TUV R 50142424
(Alternative)	Shenzhen Yuanze Electric Co.,LTD.	Y3F-SS-112DM	AC250V, 10A, T 105°C, 100000 cycles	IEC/EN 61810-1	TUV R50197243
X capacitor CM6636D, CM6637D	Shunde Da Hua Electric Co., Ltd.	HD	AC 275 V, 0,47μF,T105°C	IEC/EN60384-14	VDE 40027182
(Alternative)	Guang dong Fengming Electronic Tech Co.,Ltd.	MPX-X2	AC275V, 0.47μF,T105°C	IEC/EN60384-14	VDE 40025702
Varistor CM6636D, CM6637D	Cerglass MFG Inc No。450 Chang Cheng Shen Rd，239 YING KO TOWN ， TAIPEI TAIWAN	10D471K	AC50-420V, 25 A T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40028836
(Alternative)	Centra Science(Holdings) Ltd	CNR-10D471K	AC50-820V, 25 A, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40008220
(Alternative)	Shantou High-New Technology Dev. Zone Songtian Enterprise Co.,Ltd.	STE-10D471K	AC 625V, 25A, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40023049
(Alternative)	Guangdong Foshan Kestar ElectronicCo.,Ltd.	MYG10-471	AC50- 680V, 25A T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40005616
(Alternative)	Guangxi New Future Information Industry Co., Ltd.	10D471K	AC 2500 V, 25A, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40030322
Heating-shrink sleeving	Dongguan Quantai Electronics Co.,Ltd.	T-2	600V,T125°C.	IEC/EN 60335-2-15 IEC/EN 60335-1 UL 94	Test with appliance E227336

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

(Alternative)	CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-HFT	600V,T125°C.	IEC/EN 60335-2-15 IEC/EN 60335-1 UL 94	Test with appliance UL E180908
Supplementary information: **[1]) Provided evidence ensures the agreed level of compliance. See OD-CB2039.**					

29.1	**TABLE: Clearances**		P
	Overvoltage category ....:	II	—

		Type of insulation:				
Rated impulse voltage (V):	**Min. cl (mm)**	**Basic (mm)**	**Supplementary (mm)**	**Reinforced (mm)**	**Functional (mm)**	**Verdict / Remark**
330	0,2* / 0,5 / 0,8**					N/A
500	0,2* / 0,5 / 0,8**					N/A
800	0,2* / 0,5 / 0,8**					N/A
1 500	0,5 / 0,8** / 1,0***					N/A
2 500	1,5 / 2,0***	4,9 mm				P (1)
2 500	1,5 / 2,0***	6,2 mm				P (2)
2 500	1,5 / 2,0***		5,0 mm			P (3)
2 500	1,5 / 2,0***				3,3 mm	P (5)
4 000	3,0 / 3,5***			15 mm		P (4)
6 000	5,5 / 6,0***					N/A
8 000	8,0 / 8,5***					N/A
10 000	11,0 / 11,5***					N/A

Supplementary information:

***) For tracks on printed circuit boards if pollution degree 1 and 2**
****) For pollution degree 3**
*****) If the construction is affected by wear, distortion, movement of the parts or during assembly**

(1): B/W live part of heating element and earthed metal;
(2: B/W live part of thermostat and earthed metal;
(3): B/W internal wire and accessible surface;
(4): B/W live part and accessible part;
(5): B/W of L and N on PCB

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

29.2	TABLE: Creepage distances, basic, supplementary and reinforced insulation										P
Working voltage (V)	**Creepage distance (mm) Pollution degree**										
	1	**2**			**3**			**Type of insulation**			
		Material group			**Material group**						
		I	**II**	**IIIa/IIIb**	**I**	**II**	**IIIa/IIIb***	**B****	**S****	**R****	**Verdict**
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9		—	—	N/A
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9	—		—	N/A
≤50	0,36	1,2	1,7	2,4	3,0	3,4	3,8	—	—		N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4		—	—	N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4	—		—	N/A
125	0,56	1,5	2,1	3,0	3,8	4,2	4,8	—	—		N/A
250	0,56	1,25	1,8	2,5	3,2	3,6	**4,0**	4,9	—	—	P (1)
250	0,56	1,25	1,8	2,5	3,2	3,6	**4,0**	6,2		—	P (2)
250	0,56	1,25	1,8	2,5	3,2	3,6	**4,0**		6,0		P (3)
250	1,12	2,5	3,6	5,0	6,4	7,2	**8,0**			15,0	P (4)
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3		—	—	N/A
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3	—		—	N/A
400	2,0	4,0	5,6	8,0	10,0	11,2	12,6	—	—		N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0		—	—	N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0	—		—	N/A
500	2,6	5,0	7,2	10,0	12,6	14,2	16,0	—	—		N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0		—	—	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	—		—	N/A
>630 and ≤800	3,6	6,4	9,0	12,6	16,0	18,0	20,0	—	—		N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5		—	—	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	—		—	N/A
>800 and ≤1000	4,8	8,0	11,2	16,0	20,0	22,0	25,0	—	—		N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0		—	—	N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	—		—	N/A
>1000 and ≤1250	6,4	10,0	14,2	20,0	25,0	28,0	32,0	—	—		N/A

IEC 60335-2-15											
Clause	Requirement + Test							Result - Remark			Verdict
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0		—	—	N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	—		—	N/A
>1250 and ≤1600	8,4	12,6	18,0	25,0	32,0	36,0	40,0	—	—		N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0		—	—	N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	—		—	N/A
>1600 and ≤2000	11,2	16,0	22,0	32,0	40,0	44,0	50,0	—	—		N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0		—	—	N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	—		—	N/A
>2000 and ≤2500	15,0	20,0	28,0	40,0	50,0	56,0	64,0	—	—		N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0		—	—	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	—		—	N/A
>2500 and ≤3200	20,0	25,0	36,0	50,0	64,0	72,0	80,0	—	—		N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0		—	—	N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	—		—	N/A
>3200 and ≤4000	25,0	32,0	44,0	64,0	80,0	90,0	100,0	—	—		N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0		—	—	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	—		—	N/A
>4000 and ≤5000	32,0	40,0	56,0	80,0	100,0	112,0	126,0	—	—		N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0		—	—	N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	—		—	N/A
>5000 and ≤6300	40,0	50,0	72,0	100,0	126,0	142,0	160,0	—	—		N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0		—	—	N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	—		—	N/A
>6300 and ≤8000	50,0	64,0	90,0	126,0	160,0	180,0	200,0	—	—		N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0		—	—	N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	—		—	N/A
>8000 and ≤10000	64,0	80,0	112,0	160,0	200,0	220,0	250,0	—	—		N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0		—	—	N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	—		—	N/A
>10000 and ≤12500	80,0	100,0	142,0	200,0	250,0	280,0	320,0	—	—		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information:
***) Material group IIIb is allowed if the working voltage does not exceed 50 V**
****) B = Basic insulation, S = Supplementary insulation, R = Reinforced insulation**

29.2	TABLE: Creepage distances, functional insulation							P
Working voltage (V)	**Creepage distance (mm) Pollution degree**							
	1	**2**			**3**			
		Material group			**Material group**			
		I	**II**	**IIIa/IIIb**	**I**	**II**	**IIIa/IIIb***	**Verdict / Remark**
≤10	0,08	0,4	0,4	0,4	1,0	1,0	1,0	N/A
50	0,16	0,56	0,8	1,1	1,4	1,6	1,8	N/A
125	0,25	0,71	1,0	1,4	1,8	2,0	2,2	N/A
250	0,42	1,0	1,4	2,0	2,5	2,8	**3,2**	L and N on PCB / 3,3 mm
400	0,75	1,6	2,2	3,2	4,0	4,5	5,0	N/A
500	1,0	2,0	2,8	4,0	5,0	5,6	6,3	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	N/A

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

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

30	**TABLE: Resistance to heat and fire** (appended table)																			
Object/ part No.	**Manufacturer/ trademark**	**Type/ model**	**Ball pressure test °C**				**Glow wire test (GWT) °C**						**Glow-wire flammability index (GWFI) °C**				**Glow- wire ignition temp. (GWIT) °C**		**Needle-flame test (NFT)**	**Verdict**
			75	**125**	**cl. 11 +40**	**cl. 19 +25**	**550**	**650**		**750**		**850**	**550**	**650**	**750**	**850**	**675**	**775**		**P**
								te	**ti**	**te**	**ti**									
Switch(SC)										0s	0s	x								P
PCB(KB-3151C)																			x	P
PCB(ZD-90F)																			x	P

---End of Report---

Attachment 2

Photo documentation

Type of equipment, model: Coffee Maker, CM6636B, CM6637B, CM6636D, CM6637D

Details of: Alternative power PCB of all models

View:

☒ general

☒ front

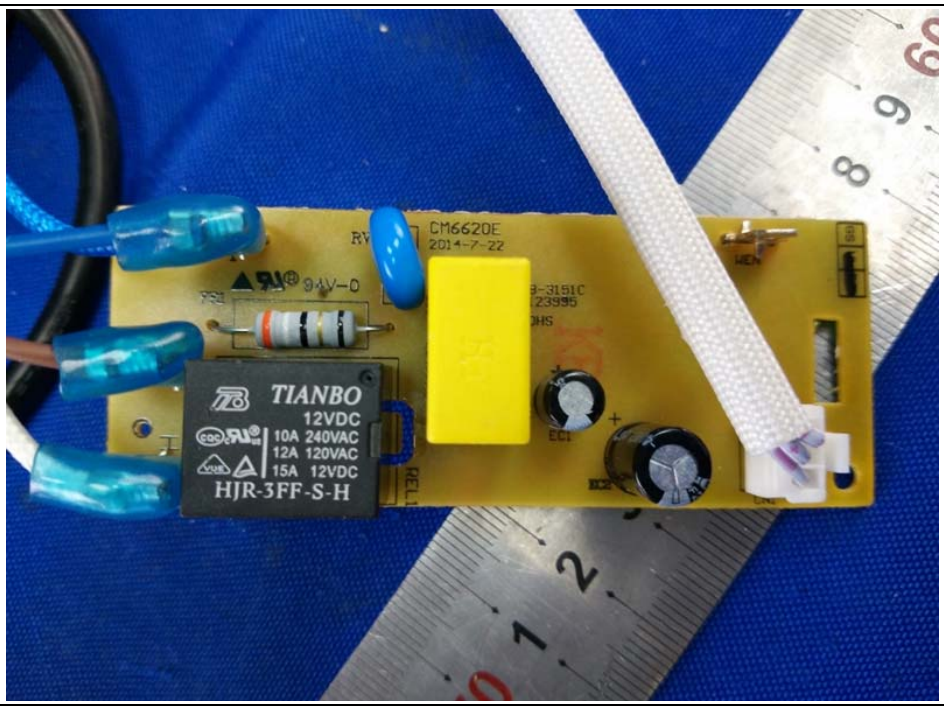
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: Alternative power PCB of all models

View:

☒ general

☒ front

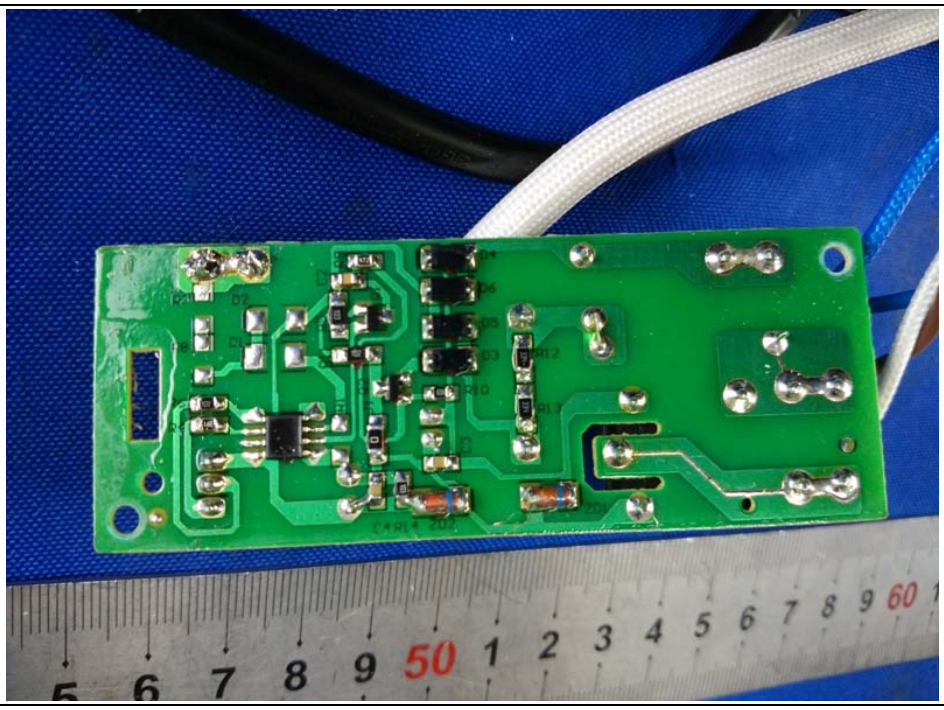
☐ rear

☐ right

☐ left

☐ top

☐ bottom



IEC 60335-1:2010/A1:2013			
Clause	Requirement - Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60335-1
Household and similar electrical appliances – Safety –
Part 1: General requirements

Differences according to:	IEC 60335-1:2010 +A1: 2013
Attachment Form No.:	IEC60335-1/A1_A
Attachment Originator:	SGS-CSTC
Master Attachment:	Date 2014-03

7	**Marking and instructions**		—
7.1	*Add the following new paragraph after Note 4:* **Class II appliances** and **class III appliances** incorporating a functional earth shall be marked with the symbol IEC 60417-5018 (2011-07).		N/A
7.3	*In Note 3, replace the text of the example by the following.* EXAMPLE: 230 V /400 V 3N : The appliance is only suitable for the voltage values indicated, 230 V being for single-phase, a.c. operation and 400 V 3N for three-phase, a.c. with neutral operation (an appliance with terminals for both supplies).		N/A
7.4	*Replace the requirement by the following:* If the appliance can be adjusted for different **rated voltages** or **rated frequencies**, the voltage or the frequency to which the appliance is adjusted shall be clearly discernible. If frequent changes in voltage setting or frequency setting are not required, this requirement is considered to be met if the **rated voltage** or **rated frequency** to which the appliance is to be adjusted can be determined from a wiring diagram fixed to the appliance.		N/A
7.6	*Replace* [symbol ISO 7000-0434 (2004-01)] by [symbol ISO 7000-0434A (2004-01)		N/A
7.8	*Add the following to the first paragraph of the requirement:* – functional earthing terminals shall be indicated by symbol IEC 60417-5018 (2011-07).		N/A
7.12	*Delete* "for use" *in the first paragraph and in the Note.* *Add the following after the existing last paragraph of the requirement:* For appliances intended for use at altitudes exceeding 2 000 m, the maximum altitude of use shall be stated.		N/A
	The instructions for appliances incorporating a functional earth shall state the substance of the following: This appliance incorporates an earth connection for functional purposes only.		N/A

IEC 60335-1:2010/A1:2013			
Clause	Requirement - Test	Result - Remark	Verdict
7.12.1	*Add the following text:* For appliances marked with different **rated voltages** or different **rated frequencies** (separated by a /), instructions shall be included to indicate to the user or installer what action must be taken to adjust the appliance for operation at the required **rated voltage** or **rated frequency**.		N/A
7.15	*Add the following:* The symbol IEC 60417-5018 (2011-07) shall be placed next to the symbol IEC 60417-5172 (2003-02) or the symbol IEC 60417-5180 (2003-02) as appropriate.		N/A
8	**Protection against access to live parts**		—
8.1.1	*Delete the Note.*		N/A
10	**Power input and current**		—
10.1	*Replace the penultimate paragraph of the test specification by the following:* *If the power input varies throughout the operating cycle and the maximum value of the power input exceeds, by a factor greater than two, the arithmetic mean value of the power input occurring during a representative period, then the power input is the maximum value that is exceeded for more than 10 % of the representative period. Otherwise the power input is taken as the arithmetic mean value.*		N/A
10.2	*Replace the penultimate paragraph of the test specification by the following:* *If the current varies throughout the operating cycle and the maximum value of the current exceeds, by a factor greater than two, the arithmetic mean value of the current occurring during a representative period, then the current is the maximum value that is exceeded for more than 10 % of the representative period. Otherwise the current is taken as the arithmetic mean value.*		N/A
11	**Heating**		—
11.8	*Delete the second sentence of the first paragraph*		P
	Table 3 and its notes modification *External enclosure of **motor-operated appliances** except handles held in normal use:*[m] – *of bare metal* 48 – *of coated metal*[n] 59 – *of glass and ceramic* 65 – *of plastic having a thickness exceeding 0,4 mm* 74 *Surfaces of handles, knobs, grips and similar parts which are continuously held in normal use (e.g. soldering irons):*[m] – *of bare metal* 30 – *of coated metal*[n] 34 – *of porcelain or vitreous material* 40 – *of rubber or of plastic having a thickness exceeding 0,4 mm* 50 – *of wood* 50 *Surfaces of handles, knobs, grips and similar parts*[k] *which are held for short periods only in normal use (e.g. switches):*[m] – *of bare metal* 35 – *of coated metal*[n] 39 – *of porcelain or vitreous material* 45 – *of rubber or of plastic having a thickness exceeding 0,4 mm* 60 – *of wood* 65		P
13	**Leakage current and electric strength at operating temperature**		—

IEC 60335-1:2010/A1:2013			
Clause	Requirement - Test	Result - Remark	Verdict
13.2	*In the first paragraph, after "**class II appliances**" add ", **class II constructions**" and replace the second sentence by the following:* *For **class 0I appliances** and **class I appliances**, C may be replaced by a low impedance ammeter responding to the **rated frequency** of the appliance.*		P
	Replace the second paragraph by the following: *The leakage current is measured between any pole of the supply and* *– **accessible metal parts** intended to be connected to protective earth, for **class I appliances** and **class 0I appliances**;* *– metal foil having an area not exceeding 20 cm × 10 cm which is in contact with **accessible surfaces** of insulating material and metal parts not intended to be connected to protective earth, for **class 0 appliances**, **class II appliances**, **class II constructions** and **class III appliances**.*		P
	Replace the fourth paragraph by the following: *For single-phase appliances, the measuring circuit is shown in the following figures:* *– if they are **class II appliances** or parts of **class II construction**, Figure 1;* *– if they are neither class II appliances nor parts of **class II construction**, Figure 2.*		P
	Replace the sixth paragraph by the following: *For three-phase with neutral (3N~) connected appliances, the measuring circuit is shown in the following figures:* *– if they are **class II appliances** or parts of **class II construction**, Figure 3;* *– if they are neither **class II appliances** nor parts of **class II construction**, Figure 4.*		P
	Delete "For three-phase appliances," from the first sentence of the seventh paragraph.		N/A
	Replace the third sentence of the seventh paragraph by the following: *For three-phase without neutral (3~) connected appliances, the measuring circuit in Figure 3 or Figure 4 shall be used as applicable, but the neutral is not connected to the appliance.*		N/A
	In the existing eighth paragraph, replace the first dashed item by the following: *– for **class II appliances** and for parts of **class II construction** 0,35 mA peak*		P
15	**Moisture resistance**		—
15.2	*Replace the first paragraph of the test specification by the following:* *Compliance is checked by the following test using a spillage solution comprising water containing approximately 1 % NaCl and 0,6 % rinsing agent.*		P

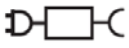
IEC 60335-1:2010/A1:2013			
Clause	Requirement - Test	Result - Remark	Verdict
	Replace the fifth paragraph of the test specification by the following: *The liquid container of the appliance is completely filled with the solution and a further quantity equal to 15 % of the capacity of the container or 0,25 l, whichever is the greater, is poured in steadily over a period of 1 min.*		P
	Add the following new text as a penultimate paragraph: *Any commercially available rinsing agent may be used, but if there is any doubt with regards to the test results, the rinsing agent shall have the following properties:* *– viscosity, 17 mPa.s;* *– pH, 2,2 (1 % in water).* *and its composition shall be* Substance / Parts by mass % Plurafac ® LF 221[2] / 15,0 Cumene sulfonate (40 % solution) / 11,5 Citric acid (anhydrous) / 3,0 Deionized water / 70,5		P
16	**Leakage current and electric strength**		—
16.2	*Replace the first paragraph by the following:* *An a.c. test voltage is applied between **live parts** and* *– **accessible metal parts** intended to be connected to protective earth, for **class I appliances** and **class 0I appliances**;* *– metal foil having an area not exceeding 20 cm × 10 cm which is in contact with **accessible surfaces** of insulating material and metal parts not intended to be connected to protective earth, for **class 0 appliances**, **class II appliances**, **class II constructions** and **class III appliances**.*		P
	In the fourth paragraph, replace the first dashed item by the following: *– for **class II appliances** and for parts of **class II construction***		P
19	**ABNORMAL OPERATION**		—
19.7	*Add the following to the fourth paragraph.* *If the timer or programmer is an electronic type that operates to ensure compliance with the test before the maximum period under the conditions of Clause 11 is reached, it is considered to be a **protective electronic circuit** as well as a control that operates under the conditions of Clause 11.*		N/A

IEC 60335-1:2010/A1:2013			
Clause	Requirement - Test	Result - Remark	Verdict
19.11.4.4	*Replace the first paragraph by the following*: *The power supply terminals of the appliance are subjected to voltage surges in accordance with IEC 61000-4-5, five positive impulses and five negative impulses being applied at the selected points. An open circuit test voltage of 2 kV is applicable for the line-to-line coupling mode, a generator having a source impedance of 2 Ω being used. An open circuit test voltage of 4 kV is applicable for the line-to-earth coupling mode, a generator having a source impedance of 12 Ω being used.*		N/A
22	**Construction**		—
22.5	*In the requirement, replace "*exceeding*" by "*equal to or greater than*".*		P
	Add the following text after the existing last paragraph of the test specification. *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 one at a time to the appliance. The discharge test is then repeated three times and for each test, the voltage shall not exceed 34 V.*		N/A
22.32	*Replace the words* 'Insulating material' *at the beginning of the 4th paragraph of the requirement by* 'Ceramic and similar porous material' *and combine this paragraph with the third paragraph of the requirement*.		N/A
22.33	*Add the following to the first sentence of the first paragraph of the requirement:* "or unearthed metal parts that are separated from **live parts** by **basic insulation** only."		P
22.35	*In the second paragraph of the requirement add* 'and cordless appliances' *after* '**stationary appliances**'.		N/A
	Add the following note after the requirement: NOTE A cordless appliance is an appliance that is connected to the supply only when placed on its associated stand.		N/A
22.53	**Class II appliances** and **class III appliances** that incorporate functionally earthed parts shall 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 shall not be accessible without the aid of a **tool** unless the cover of their compartment can only be opened after at least two independent movements have been applied simultaneously.		N/A
23	**Internal wiring**		—
23.5	*Replace Note 2 by the following text.* For **class II construction**, the requirements for **supplementary insulation** and **reinforced insulation** apply except that the sheath of a cord complying with IEC 60227 or IEC 60245 may provide **supplementary insulation**.		N/A

IEC 60335-1:2010/A1:2013			
Clause	Requirement - Test	Result - Remark	Verdict
	A single layer of internal wiring insulation does not provide **reinforced insulation**.		P
24	**COMPONENTS**		—
24.1	*Replace Notes 1, 2, 3 and 4 by the following, and renumber Note 5 to Note 2.*		—
	Compliance with the IEC standard for the relevant component does not necessarily ensure compliance with the requirements of this standard.		P
	Motors are not required to comply with IEC 60034-1. They are tested as part of the appliance according to this standard.		P
	Relays shall be tested as part of the appliance according to this standard. They may be alternatively tested to IEC 60730-1, in which case they must also meet the additional requirements in IEC 60335-1.		N/A
	Unless otherwise specified, the requirements of Clause 29 of this standard apply between **live parts** of components and **accessible parts** of the appliance. Unless otherwise specified, components may comply with the requirements for **clearances** and **creepage distances** for **functional insulation** as specified in the relevant component standard.		P
	Unless otherwise specified, the requirements of 30.2 of this standard apply to parts of nonmetallic material in components including parts of non-metallic material supporting currentcarrying connections inside components.		P
	Components that have not been previously tested and shown to comply with the IEC standard for the relevant component are tested according to the requirements of 30.2 of this standard.		P
	Components that have been previously tested and shown to comply with the resistance to fire requirements in the IEC standard for the relevant component need not be retested provided that − the severity specified in the component standard is not less than the severity specified in 30.2 of this standard, and − unless the pre-selection alternatives in 30.2 are used, the test report for the component states the values of t_e and t_i. as required by IEC 60695-2-11.		N/A
	If the above two conditions are not satisfied, the component shall be tested as part of the appliance.		P
	NOTE 1 There are two levels of severity specified for appliances for which 30.2.3 is applicable.		N/A
	Power electronic converter circuits are not required to comply with IEC 62477-1. They are tested as part of the appliance according to this standard.		N/A
24.1.2	*Add the following text as a new first paragraph. The relevant standard for transformers in associated switch mode power supplies is Annex BB of IEC 61558-2-16. Clause 26 of IEC 61558-1 and Annex H of IEC 61558-1 are not applicable.*		N/A

IEC 60335-1:2010/A1:2013			
Clause	Requirement - Test	Result - Remark	Verdict
24.1.4	*Add the following new paragraph*: *Thermal cut-outs of the capillary type shall comply with the requirements for type 2.K controls in IEC 60730-2-9.*		N/A
24.1.5	*In the second sentence of the first paragraph, add* "**class II**" *before* "appliances".		N/A
25	**SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS**		
25.1	*Replace the first dashed item of the requirement by the following:* – **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
25.7	*Delete the third dashed item in the first paragraph of the requirement*.		P
25.10	*Add the following as a new paragraph to the requirement.* In multi-phase appliances, the colour of the neutral conductor of the **supply cord**, if any, shall be blue.		N/A
25.13	*In the requirement, replace the second sentence by the following:* If it is not evident from the construction of the appliance that the **supply cord** can be introduced without risk of damage, a **non-detachable lining** or **non-detachable bushing** shall be provided that complies with 29.3 for **supplementary insulation**.		P
25.15	*Replace the second paragraph of the test specification by the following:* *A mark is made on the cord at a distance of approximately 20 mm from the cord anchorage or other suitable point. The mark is made while the cord is subjected to a pull force of* *– 100 N, for **fixed appliances** regardless of the mass of the appliance;* *– the value as shown in Table 12, for other appliances.*		P
25.20	*Delete "*insulated*" and "*additionally*" from the requirement.*		N/A
27	**Provision for earthing**		—
27.1	*In the first paragraph of the requirement replace* "an insulation fault" *by* "a failure of **basic insulation**".		P
	Delete Note 1 and replace "Note 2" by "Note".		N/A
	Replace the third paragraph by the following: **Class 0 appliances**, **class II appliances** and **class III appliances** shall have no provision for protective earthing. **Class II appliances** and **class III appliances** may incorporate an earth for functional purposes.		N/A
27.2	*Add the following paragraph to the requirement:* These requirements are not applicable to **class II appliances** and **class III appliances** that incorporate an earth for functional purposes.		N/A

IEC 60335-1:2010/A1:2013			
Clause	Requirement - Test	Result - Remark	Verdict
27.3	*Add the following paragraph to the requirement:* These requirements are not applicable to **class II appliances** and **class III appliances** that incorporate an earth for functional purposes.		N/A
27.4	*Add the following paragraph to the requirement:* These requirements are not applicable to **class II appliances** and **class III appliances** that incorporate an earth for functional purposes.		N/A
27.5	*Add the following paragraph to the requirement:*		N/A
	These requirements are not applicable to **class II appliances** and **class III appliances** that incorporate an earth for functional purposes.		N/A
	Replace existing Note 1 by the following as an addition to the existing second paragraph of the test specification. *The test is carried out until steady conditions have been established.*		N/A
	Replace existing Note 2 by the following as an addition to the last paragraph of the test specification. *The resistance of the **supply cord** is not included in the resistance calculation.*		N/A
	Renumber existing Note 3 as Note.		N/A
27.6	*Add the following sentence to the requirement:* This requirement is not applicable to **class II appliances** and **class III appliances** that incorporate an earth for functional purposes.		N/A
28	**Screws and connections**		—
28.2	*In the second paragraph of the requirement, replace bullets with dashes in the two bulleted items.*		N/A
29	**CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION**		—
29.1	*Add the following as a new second paragraph of the requirement:* For appliances intended for use at altitudes exceeding 2 000 m, the clearances in Table 16 shall be increased according to the relevant multiplier values in Table A.2 of IEC 60664-1.		N/A
	Add the following to the existing second paragraph of the requirement: or to appliances intended for use at altitudes exceeding 2 000 m.		N/A
	Table 17 – Minimum creepage distances for basic insulation		—
	Replace Note 1 by the following: Lacquered conductors of windings are considered to be bare conductors but **creepage distances** for **basic insulation** in other than a **double insulation** construction need not be greater than the associated **clearance** specified in Table 16 taking into account 29.1.1.		P

IEC 60335-1:2010/A1:2013			
Clause	Requirement - Test	Result - Remark	Verdict
29.3	*Replace the third dashed item by the following:* *– 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 for **accessible parts** of **reinforced insulation** consisting of a single layer, by measurement in accordance with 29.3.4, or*		N/A
	Add the following as the fourth dashed item of the test specification: *− 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
ANNEX B	**Appliances powered by rechargeable batteries that are recharged in the appliance**		—
	Replace the introductory text		—
7	**Marking and instructions**		—
7.1	*Add the following:* Appliances intending to be supplied from a **detachable supply unit** for the purposes of recharging the battery shall be marked with symbol IEC 60417-6181 (2013-03) and its type reference along with symbol ISO 7000-0790 (2004-01) or with the substance of the following: Use only with <model designation> supply unit		N/A
7.6	*Add the following:*		N/A
	 [symbol IEC 60417-6181 (2013-03)] **detachable supply unit**		N/A
7.12	*Add the following:* For appliances intending to be supplied from a **detachable supply unit** for the purposes of recharging the battery, the type reference of the **detachable supply unit** shall be stated along with the substance of the following: WARNING: For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance.		N/A
	If the symbol for **detachable supply unit** is used, its meaning shall be explained.		N/A
7.15	*Add the following:* The type reference of the **detachable supply unit** shall be placed in close proximity to the symbol.		N/A
11	**Heating**		—
11.8	*The temperature rise of the battery surface shall not exceed the temperature rise limit in the battery manufacturer's specification for the type of battery supplied. If no limit is specified, the temperature rise shall not exceed 20 K.*		N/A
19	**Abnormal operation**		—

IEC 60335-1:2010/A1:2013			
Clause	Requirement - Test	Result - Remark	Verdict
19.13	*The battery shall not rupture or ignite.*		N/A
			N/A
ANNEX H	**Switches**		—
20	**Clearances, creepage distances, solid insulation and coatings of rigid printed board assemblies**		—
	Replace the text by the following: Clause 20 is applicable to **clearances** across full disconnection and micro-disconnection. It is also applicable to **creepage distances** for **functional insulation**, across full disconnection and micro-disconnection, as stated in Table 24.		N/A
ANNEX S	**Battery-operated appliances powered by batteries that are non-rechargeable or not recharged in the appliance**		—
5	**General conditions for the tests**		—
5.8.1	*Where the supply terminals for the connection of the battery have no indication of polarity, the more unfavourable polarity shall be applied.*		N/A
5.S.101	***Battery-operated appliances** intended for use with a **battery box** are tested with the **battery box** supplied with the appliance or with the **battery box** recommended in the instructions.*		N/A
5.S.102	***Battery-operated appliances** are tested as **motor-operated appliances**.*		N/A
7	**Marking and instructions**		—
7.1	**Battery-operated appliances** shall be marked with the battery voltage and the polarity of the terminals unless the polarity is irrelevant.		N/A
	Battery-operated appliances shall also be marked with the – name, trade mark or identification mark of the manufacturer or responsible vendor; – model or type reference; – IP number according to degree of protection against ingress of water, other than IPX0; – type reference of battery or batteries.		N/A
	If relevant, the positive terminal shall be indicated by the symbol IEC 60417-5005 (2002-10) and the negative terminal by the symbol IEC 60417-5006 (2002-10).		N/A
	If appliances use more than one battery, they shall be marked to indicate correct polarity connection of the batteries.		N/A
	NOTE 1 Examples of acceptable marking representing three batteries are shown in Figure S.1.		N/A
	NOTE 2 It is not necessary for the **rated current** or **rated power input** to be marked.		N/A
7.6	+ [symbol IEC 60417-5005 (2002-10)] plus; positive polarity — [symbol IEC 60417-5006 (2002-10)] minus; negative polarity		N/A

IEC 60335-1:2010/A1:2013			
Clause	Requirement - Test	Result - Remark	Verdict
7.12	The instructions for **battery-operated appliances** shall contain the substance of the following, as applicable: – the types of batteries that may be used; – how to remove and insert the batteries; – non-rechargeable batteries are not to be recharged; – rechargeable batteries are to be removed from the appliance before being charged; – different types of batteries or new and used batteries are not to be mixed; – batteries are to be inserted with the correct polarity; – exhausted batteries are to be removed from the appliance and safely disposed of; – if the appliance is to be stored unused for a long period, the batteries should be removed; – the supply terminals are not to be short-circuited.		N/A
11	**Heating**		—
11.5	*By means of an external power supply, **battery-operated appliances** are supplied at the terminals for the connection of the battery with the most unfavourable supply voltage between* *– 0,55 and 1,0 times the battery voltage, if the appliance can be used with non-rechargeable batteries;* *– 0,75 and 1,0 times battery voltage, if the appliance is designed for use with rechargeable batteries only.*		N/A
	The values specified in Table S.101 for the internal resistance per cell of the battery shall be taken into account.		N/A
19	**Abnormal operation**		—
19.1	*For **battery-operated appliances**, the tests are carried out with the battery fully charged unless otherwise specified.*		N/A
19.13	*The battery shall not rupture or ignite.*		N/A
19.S.101	***Battery-operated appliances** are supplied with the voltage specified in 11.5. The supply terminals having an indication of polarity are connected to the opposite polarity, unless such a connection is unlikely to occur due to the construction of the appliance.*		N/A
19.S.102	*For **battery-operated appliances** with provision for multiple batteries, one or more of the batteries shall be reversed and the appliance shall be operated, if reversal of batteries is allowed by the construction.*		N/A
25	**Supply connection and external flexible cords**		—
25.5	The flexible leads or flexible cord used to connect an external battery or **battery box** in **battery-operated appliances** shall be connected to the appliance by a **type X attachment**.		N/A

IEC 60335-1:2010/A1:2013			
Clause	Requirement - Test	Result - Remark	Verdict
25.13	This requirement is not applicable to the flexible leads or flexible cord connecting external batteries or a **battery box** with an appliance.		N/A
25.S.101	**Battery-operated appliances** shall have suitable means for connection of the battery. If the type of battery is marked on the appliance, the means of connection shall be suitable for this type of battery.		N/A
26	**Terminals for external conductors**		—
26.5	Terminal devices in an appliance for the connection of the flexible leads or flexible cord connecting an external battery or **battery box** shall be so located or shielded that there is no risk of accidental connection between supply terminals.		N/A
30	**Resistance to heat and fire**		—
30.2.3.2	*Addition:* *There shall be no battery in the area of the vertical cylinder used for the consequential needle flame test unless the battery is shielded by a barrier that meets the needle flame test of Annex E or that comprises material classified as V-0 or V-1 according to IEC 60695-11-10 provided that the test sample used for the classification was no thicker than the relevant part of the appliance.*		N/A

---End of Attachment 4---

Attachment 5

Clause	Requirement - Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60335-1 Household and similar electrical appliances – Safety – Part 1: General requirements	
Differences according to:	EN 60335-1:2012/ A11: 2014
Attachment Form No.:	EN 60335-1/A11
Attachment Originator:	SGS-CSTC
Master Attachment:	Date 2014-09

7.14	In NOTE Z1, replace "IEC 82079-1" by "EN 82079-1".		P
Annex ZF	In Table ZF.1 – List of standards under CLC/TC 61, replace line of EN 60335-2-38 by the following: EN 60335-2-38, Commercial electric griddles and griddle grills with moving parts		N/A

---End of Attachment 5---