

TEST REPORT IEC 60335-2-9 Safety of household and similar electrical appliances Part 2: Particular requirements for grills, toasters and similar cooking appliances	
Report Number.....	2502B0691SHA-001
Date of issue.....	2025-03-13; Amendment 3: 2026-04-03
Total number of pages	54 pages of report (including 9 pages of photos)
Name of Testing Laboratory preparing the Report	Intertek Testing Services Zhejiang Ltd., Hangzhou branch.
Applicant's name	Ningbo HengChuang Electric Appliance Co., LTD.
Address.....	No.258 Zhouxi Road,Zhouxiang Town, Cixi City, Zhejiang Province, China
Test specification:	
Standard	EN IEC 60335-2-9:2023+A11:2023 used in conjunction with EN 60335-1:2012+ AC:2014+A11:2014+ A13:2017+A1:2019 +A2:2019 +A14:2019+A15:2021+A16:2023 and EN 62233:2008
Test procedure	CE-LVD
Non-standard test method	EK1-AG2:2018-05
Test Report Form No.	IEC60335_2_9P
Test Report Form(s) Originator	LCIE
Master TRF	Dated 2019-08-23
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General disclaimer:	
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Test item description	Hot-air fryer for household use
Trade Mark(s)	-
Original Product/Equipment Manufacturer	Ningbo HengChuang Electric Appliance Co., LTD.
Branding Manufacturer(s)	-
Model/Type reference	HC-8003EH, HC-8003EAH, HC-8003ETH, HC-8003EATH, HC-8005EH, HC-8005EAH, HC-8005EATH, HC-8005ETH, HC-8002EH, HC-8002ETH, HC-1101EH, HC-1101ETH, HC-1102EH, HC-1102ETH, HC-8006EH, HC-8006ESH, HC-8006ETH, HC-8006ETSH, HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH
Ratings	220-240V~, 50/60Hz, Class I, 2200W for HC-8002EH, HC-8002ETH, HC-8003EH, HC-8003EAH, HC-8003ETH, HC-8003EATH, HC-8005EH, HC-8005EAH, HC-8005EATH, HC-8005ETH, HC-8006EH, HC-8006ESH, HC-8006ETH, HC-8006ETSH; 2300W for HC-1101EH, HC-1101ETH, HC-1102EH, HC-1102ETH, HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒	Testing Laboratory:	Intertek Testing Services Zhejiang Ltd., Hangzhou branch.
Testing location/ address		4th Floor, Building 4#, No. 22, 22nd Street, Qiantang District, Hangzhou, China 310018
Tested by (name, function, signature)		Charlie Chen/ Engineer <i>charlie chen</i>
Approved by (name, function, signature) ..		Chain Zhang/ Reviewer <i>chain zhang</i>
☐	Testing procedure: CTF Stage 1:	
Testing location/ address		N/A
Tested by (name, function, signature)		N/A
Approved by (name, function, signature) ..		N/A
☐	Testing procedure: CTF Stage 2:	
Testing location/ address		N/A
Tested by (name + signature).....		N/A
Witnessed by (name, function, signature) .		N/A
Approved by (name, function, signature) ..		N/A
☐	Testing procedure: CTF Stage 3:	
☐	Testing procedure: CTF Stage 4:	
Testing location/ address		N/A
Tested by (name, function, signature)		N/A
Witnessed by (name, function, signature) .		N/A
Approved by (name, function, signature) ..		N/A
Supervised by (name, function, signature) :		N/A

List of Attachments (including a total number of pages in each attachment):	
None	
Summary of testing:	
From the result of our inspection and tests on the submitted samples, we conclude they comply with the requirements of the standard.	
Tests performed (name of test and test clause):	Testing location:
Refer to description for Amendment 3 (page 8) for details.	Same as previous page.
Summary of compliance with National Differences (List of countries addressed):	
List of countries addressed:	
National difference of EU and United Kingdom concerned.	
☒ The product fulfils the requirements of <u>EN IEC 60335-2-9:2023+A11:2023+EK1-AG2:2018-05 used in conjunction with EN 60335-1:2012+ AC:2014+A11:2014+ A13:2017+A1:2019 +A2:2019+A14:2019+A15:2021+A16:2023 and EN 62233:2008</u>	
Statement concerning the uncertainty of the measurement systems used for the tests	
Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.	
☒ Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:	
Procedure number, issue date and title:	
INTERTEK GLOBAL MANAGEMENT SYSTEM GMS-QC-12	
Estimation of Measurement Uncertainty	
The last revision date: 19-Apr-2018	
Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.	
☐ Statement not required by the standard used for type testing	

Copy of marking plate (Representative):

Note: When the equipment is vended to EU, then name and address of the importer or authorized representative within the EEA shall be added on the equipment.

Test item particulars	
Classification of installation and use : Portable appliance, household and indoor use	
Supply Connection : Cord connected with type Y attachment :	
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 : 2026-01-16	
Date (s) of performance of tests : 2026-01-16 to 2026-04-03	
General remarks: "(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report a ☒ comma / ☐ point is used as the decimal separator. This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program. Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.	
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) : Ningbo HengChuang Electric Appliance Co., LTD. No.258 Zhouxi Road,Zhouxiang Town, Cixi City, Zhejiang Province, China	

General product information and other remarks:

The appliances covered by this report are portable Hot-air fryers for household indoor use only. All models employed interlock switch and thermal link to safeguard the appliances.

All models have same construction, the difference between them as following:

Models	Fan motor type	Power PCB type	Control panel PCB type	Power PCB+ Control panel PCB type
HC-8002EH, HC-8002ETH	HC-61-16	A1	B1	--
HC-8003EH, HC-8003ETH, HC-8005EH, HC-8005ETH	HC-61-16	A2	B2	--
HC-8003EAH, HC-8003EATH, HC-8005EAH, HC-8005EATH	HC-61-16	--	--	C1
HC-1101EH, HC-1101ETH, HC-1102EH, HC-1102ETH	HC-7213	A2	B3	--
HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH	HC-7213	A2	B5	--
HC-8006EH, HC-8006ESH, HC-8006ETH, HC-8006ETSH	HC-61-16	A1	B4	--

1. HC-8003 series and HC-8005 series have the same appearance, except for a different top cover. So do HC-1101 series and HC-1102 series.
2. For the HC-8002EH, HC-8003EH, HC-8005EH, HC-8003EAH, HC-8005EAH, they have four optional basket, and HC-8002ETH, HC-8003ETH, HC-8005ETH, HC-8003EATH, HC-8005EATH they have two optional basket (Basket please refer to photo).
3. Letter "T" in the model name means the basket does have a viewable window.
4. The HC-8002 series, HC-8003 series and HC-8005 series have the same fan motor, but the appearance and Power PCB are different.
5. The HC-8003EH and HC-8003EAH use the same fan motor, but the HC-8003EAH control panel PCB and power PCB are integrated. So do HC-8003ETH and HC-8003EATH; HC-8005EH and HC-8005EAH; HC-8005ETH and HC-8005EATH.
6. The HC-8006 series models are similar to one another, differing only in the decorative materials used for their baskets.
7. The HC-8006 series and the HC-8002 series are largely comparable, with the only notable distinction being their control panels PCB.
8. The HC-1105 series and the HC-1101/HC-1102 series are similar, except for the different Control panel PCB(Only the number of LED digital tubes is different) and appearance.
9. All models of upper and lower heating elements can only work simultaneously.

Tests were performed on models: HC-8002ETH, HC-8002EH, HC-8005ETH, HC-8005EATH, HC-8005EAH, HC-1101ETH, HC-1101EH, HC-8006ETSH, HC-8006ETH, HC-1105ETSH, HC-1105ESH are selected as representatives for the tests and other models are also tested while mentioned, finally only the most unfavourable results are recorded.

Amendment 3:

The original test report ref. No. 2502B0691SHA-001, dated on 2025-03-13, with amendment 1 dated on 2025-07-21, with amendment 2 dated on 2025-12-09, was modified on 2026-04-03 to including the following addition:

- 1: Added new models: HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH.
- 2: Update table 24.1.

After review, tests are performed on HC-1105ETSH, HC-1105ESH, finally only the most unfavourable results were recorded.

Clause concerned: Cl.7, Cl.8, Cl.10, Cl.11, Cl.13, Cl.15, Cl.16, Cl.20, Cl.21, Cl.22 and EMF need to be concerned.

Other clauses which were not mentioned in the report were referred to original test report.

Table concerned: Table 10.1, 11.8, 13.2, 13.3, 16.2, 16.3, 24.1, 29.1, 29.2, 30.1. 30.2.

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
7	MARKING AND INSTRUCTIONS		—
7.1	Rated voltage or voltage range (V)	Refer to marking plate	P
	Symbol for nature of supply, or	Refer to marking plate	P
	Rated frequency (Hz)	Refer to marking plate	P
	Rated power input (W), or	Refer to marking plate	P
	Rated current (A)		N/A
	Manufacturer's or responsible vendor's name, trademark or identification mark.....	Refer to marking plate	P
	Model or type reference	Refer to marking plate	P
	Symbol IEC 60417-5172, for class II appliances		N/A
	IP number, other than IPX0.....	IPX0	N/A
	Symbol IEC 60417-5180, for class III appliances, unless		N/A
	the appliance is operated by batteries only, or		N/A
	for appliances powered by rechargeable batteries recharged in the appliance		N/A
	Symbol IEC 60417-5018, for class II and class III appliances incorporating a functional earth		N/A
	The rated power input or rated current of induction hotplates shall also be marked..... (IEC 60335-2-9)		N/A
	Appliances intended to be partially immersed in water for cleaning shall be marked with the maximum level of immersion and the substance of the following: Do not immerse beyond this level (IEC 60335-2-9)		N/A
	If appliances have accessible metal surfaces, for which temperature rise limits are specified in Table 102 and for which the provisions of footnote b to Table 102 apply, then the appliance shall be marked with symbol IEC 60417-5041(2002-10), the rules of ISO 3864-1 applying except for the specified colours, or marked with the substance of the following: CAUTION: Hot surface (IEC 60335-2-9)		N/A
	Symbol IEC 60417-5036, for the enclosure of electrically-operated water valves in external hose-sets for connection of an appliance to the water mains, if the working voltage exceeds extra-low voltage		N/A
7.3	Range of rated values marked with the lower and upper limits separated by a hyphen	220-240V	P

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
	Different rated values marked with the values separated by an oblique stroke	50/60Hz	P
7.5	Appliances with more than one rated voltage or one or more rated voltage ranges, marked with rated input or rated current for each rated voltage or range, unless		N/A
	the power input is related to the arithmetic mean value of the rated voltage range		P
	Relation between marking for upper and lower limits of rated power input or rated current and voltage is clear		N/A
7.6	Correct symbols used		P
	Symbol for nature of supply placed next to rated voltage	~	P
	Symbol for class II appliances placed unlikely to be confused with other marking		N/A
	Units of physical quantities and their symbols according to international standardized system		P
	Symbol IEC 60417-5041 (2002-10) caution, hot surface (IEC 60335-2-9)		N/A
7.8	Except for type Z attachment, terminals for connection to the supply mains indicated as follows:		--
	- marking of terminals exclusively for the neutral conductor (letter N)		N/A
	- marking of protective earthing terminals (symbol IEC 60417-5019)		P
	- marking of functional earthing terminals (symbol IEC 60417-5018)		N/A
	- marking not placed on removable parts		P
7.9	Marking or placing of switches which may cause a hazard		P
7.10	Indications of switches on stationary appliances and controls on all appliances by use of figures, letters or other visual means	See photo documentation for details	P
	This applies also to switches which are part of a control		P
	If figures are used, the off position indicated by the figure 0		N/A
	The figure 0 indicates only OFF position, unless no confusion with the OFF position		N/A
7.11	Indication for direction of adjustment of controls		P

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
7.12	Instructions for safe use provided		P
	Details concerning precautions during user maintenance		P
	The instructions state that:		--
	- the appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction	Replaced by EN 60335-1:2012	N/A
	- children being supervised not to play with the appliance	Replaced by EN 60335-1:2012	N/A
	For a part of class III construction supplied from a detachable power supply unit, the instructions state that the appliance is only to be used with the unit provided		N/A
	Instructions for class III appliances state that it must only be supplied at SELV, unless		N/A
	it is a battery-operated appliance, the battery being charged outside the appliance		N/A
	For appliances for altitudes exceeding 2000 m, the maximum altitude is stated.....		N/A
	The instructions for appliances incorporating a functional earth states that the appliance incorporates an earth connection for functional purposes only		N/A
	Appliance with inlet and intended to be immersed for cleaning, instruction sheet including in substance:(IEC 60335-2-9)		--
	- remove connector before cleaning		N/A
	- dry appliance inlet before re-use		N/A
	The instructions for use for appliances intended to be used with a connector incorporating a thermostat shall state that only the appropriate connector must be used (IEC 60335-2-9)		N/A
	Instructions for appliances for outdoor use (IEC 60335-2-9):		--
	-The appliance is suitable for outdoor use		N/A
	-The supply cord should be regularly examined for signs of damage, and if the cord is damaged, the appliance must not be used		N/A
	-The appliance must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA		N/A

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
	-The appliance is to be connected to a socket-outlet having an earthing contact (class I)		N/A
	If symbol IEC 60417-5041 (2002-10) is marked on appliances, its meaning shall be explained (IEC 60335-2-9)		N/A
	The instructions shall state that the appliances are not intended to be operated by means of an external timer or separate remote-control system (IEC 60335-2-9)		P
	The instructions shall include details on how to clean surfaces in contact with food (IEC 60335-2-9)		P
	For toasters, they shall include details on how to remove breadcrumbs, when applicable.(IEC 60335-2-9)		N/A
	For toaster: Bread may burn. Therefore toasters must not be used near or below curtains and other combustible materials, such as curtains..(IEC 60335-2-9)		N/A
	For barbecue: WARNING: Charcoal or similar combustible fuels must not be used with this appliance. (IEC 60335-2-9)		N/A
	The instructions for barbecues intended to be used with water shall state the maximum quantity of water to be poured into the appliance.(IEC 60335-2-9)		N/A
	For hotplates having surfaces of glass-ceramic or similar material protecting live parts : WARNING: If the surface is cracked, switch off the appliance to avoid the possibility of electric shock. (IEC 60335-2-9)		N/A
	For induction hotplates: Metallic objects such as knives, forks, spoons and lids should not be placed on the hotplate since they can get hot(IEC 60335-2-9)		N/A
	For breadmakers: maximum quantities of flour and raising agent that may be used(IEC 60335-2-9)		N/A
	For candy floss appliances shall state the maximum quantities of sugar and other ingredients that may be used. (IEC 60335-2-9)		N/A
	The instructions shall include the substance of the following: (IEC 60335-2-9)		--

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
	This appliances is intended to be used in household and similar applications such as: -staff kitchen areas in shops, offices and others working environments; -farm houses; -by clients in hotels, motels and other residential type environments; -bed and breakfast type environments.		P
	If the use of the appliance is limited to less than the above, this shall be clearly stated in the instructions. (IEC 60335-2-9)		P
7.12.5	Replacement cord instructions, type X attachment with a specially prepared cord		N/A
	Replacement cord instructions, type Y attachment	Type Y	P
	Replacement cord instructions, type Z attachment		N/A
7.12.9	Instructions specified in 7.12 and from 7.12.1 to 7.12.8 appear together before any other instructions supplied with the appliance		P
	These instructions may be supplied with the appliance separately from any functional use booklet		P
	They may follow the description of the appliance that identifies parts, or follow the drawings/sketches		P
	In addition, instructions are also available in an alternative format such as on a website or on request from the user in a format such as a DVD		P
	In addition, instructions are also available in an alternative format such as on a website or in a format such as a DVD:	Website	P
7.13	Instructions and other texts in an official language	English	P
7.14	Marking clearly legible and durable, rubbing test as specified		P
	Signal words WARNING, CAUTION, DANGER in uppercase having a height as specified.....:		P
	Uppercase letter of the text explaining the signal word not smaller than 1,6 mm:		P
	Moulded in, engraved, or stamped markings either raised above or have a depth below the surface of at least 0,25 mm, unless		N/A
	contrasting colours are used		N/A
	Markings checked by inspection, measurement and rubbing test as specified		P

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
	The height of the triangle used with symbol IEC 60417-5041(2002-10) shall be at least 20 mm.(IEC 60335-2-9)		P
7.15	Markings on a main part		P
	Marking clearly discernible from the outside, if necessary after removal of a cover		P
	For portable appliances, cover can be removed or opened without a tool		N/A
	For stationary appliances, name, trademark or identification mark and model or type reference visible after installation		N/A
	For fixed appliances, name, trademark or identification mark and model or type reference visible after installation according to the instructions		N/A
	Indications for switches and controls placed on or near the components. Marking not on parts which can be positioned or repositioned in such a way that the marking is misleading		P
	The symbol IEC 60417-5018 placed next to the symbol IEC 60417-5172 or IEC 60417-5180		N/A
	The marking specified for hot surfaces shall be visible when the appliance is operated as in normal used including when actuating any switch, adjusting any control or opening a lid, door or drawer. It shall not be placed on a hot functional surface (IEC 60335-2-9)		N/A
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

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
	For toasters having a crumb tray : use of test probe 41 of IEC 61032 : no contact through crumb tray with live parts that are disconnected by double pole switch using (IEC 60335-2-9)		N/A
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	Class II constructions	P
	Test probe 13 also applied through openings in earthed metal enclosures having a non-conductive coating: no contact with live parts		N/A
8.2	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
10	POWER INPUT AND CURRENT		--
10.1	Power input at normal operating temperature, rated voltage and normal operation not deviating from rated power input by more than shown in table 1.....:	(see appended table)	P
	If the power input varies throughout the operating cycle and 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, the power input is the maximum value that is exceeded for more than 10 % of the representative period		N/A
	Otherwise the power input is the arithmetic mean value		N/A
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated power input is related to the arithmetic mean value		P
	Power input of induction hotplates measured separately and the tolerances for motor-operated appliances apply. (IEC 60335-2-9)		N/A
11	HEATING		--
11.1	No excessive temperatures in normal use		P

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
	Compliance for toasters is also checked by the test of 11. 101 (IEC 60335-2-9)		N/A
	Compliance for ovens, rotary grills and cookers is also checked by the test of 11.102. (IEC 60335-2-9)		P
	Compliance for contact grills, waffle irons, radiant grills, raclette grills, barbecues, candy floss appliances and hot plates, is also checked by the test of 11.103. (IEC 60335-2-9)		N/A
	Compliance for breadmakers, pop-corn makers, and food dehydrators is also checked by the test of 11.104. (IEC 60335-2-9)		N/A
	Compliance for roasters is also checked by the test of 11.105. (IEC 60335-2-9)		P
	For all other types of appliances, compliance is checked by submitting the appliance to the tests of the nearest mentioned relevant type of appliance. (IEC 60335-2-9)		N/A
11.2	The appliance is held, placed or fixed in position as described	Back as near as possible to one of the walls of the test corner and away from the other wall	P
	Radiant grills and raclette grills that are loaded from the front, rotary grills, ovens, breadmakers, cookers and hotplates are placed with their backs as near as possible to one of the walls of the test corner and away from the other wall (IEC 60335-2-9)		P
	Other appliances are placed away from the walls. (IEC 60335-2-9)		N/A
11.3	Temperature rises, other than of windings, determined by thermocouples		P
	Temperature rises of windings determined by resistance method, unless		P
	the windings are non-uniform or it is difficult to make the necessary connections		N/A
	Where the external accessible surfaces are suitably flat and access permits, then the test probe of Figure 105 is used to measure the temperature rises of external accessible surfaces specified in Table 102. The probe is applied with a force of $4\text{ N} \pm 1\text{ N}$ to the surface in such a way that the best possible contact between the probe and the surface is ensured.(IEC 60335-2-9)		P
11.4	Heating appliances operated under normal operation at 1.15 times rated power input (W)	(see appended table)	P

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
	Breadmakers are operated as specified for combined appliances. (IEC 60335-2-9)		N/A
	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, the test is repeated with the appliance supplied at 1,06 times rated voltage (IEC 60335-2-9)		N/A
11.7	Tests carried out in compliance with the paragraphs N° 1 to 13 (IEC 60335-2-9)		P
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
	For radiant grills, rotary grills, raclette grills, hotplates and cookers, instead of 65 K, the temperature rise of the wall of the test corner shall not exceed 75 K. (IEC 60335-2-9)		N/A
	When an appliance connector incorporates a thermostat, the temperature rise limit for the pins of the inlet does not apply (IEC 60335-2-9)		N/A
	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 60335-2-9)		N/A
	Cheese used in sandwich toasting attachments shall not flow into places where it could give rise to a hazard, such as reducing clearances or creepage distances below the values specified in Clause 29 (IEC 60335-2-9).		N/A
	The temperature rise limits for touch controls also include all surfaces within 5 mm of the touch controls, regardless of their shape. (IEC 60335-2-9)		N/A

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
11.102	Ovens, rotary grills and cookers are placed as specified in 11.2 and are supplied at rated power input and operated under normal operation (IEC 60335-2-9)		P
	Appliances are operated until steady conditions are established or for 60 min, whichever is shorter. During the test, the temperature rise of surfaces shall not exceed the values specified in Table 102.		P
	Ovens having settings higher than 240 °C are also operated at the maximum setting until steady conditions are established or for 60 min, whichever is shorter. The temperature rise limits of Table 102 for top surfaces and door or drawer surfaces are increased by 10 K.		N/A
11.105	Roasters are placed as specified in 11.2 and are supplied at rated power input and operated under normal operation. (IEC 60335-2-9) During the test, the temperature rise of surfaces shall not exceed the values specified in Table 102.		P
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).....:	Same as Cl.11.4	P
	Motor-operated appliances and combined appliances supplied at 1.06 times the rated voltage (V).....:		N/A
	Protective impedance and radio interference filters disconnected before carrying out the tests		N/A
	grill incorporated in oven, oven or grill operated most unfavourable (IEC 60335-2-9).		N/A
	Induction wok hotplates are operated with the wok pan that is supplied by the manufacturer with the induction wok hotplate at the point of sale. (IEC 60335-2-9).		N/A
13.2	The leakage current is measured by means of the circuit described in Figure 4 of IEC 60990:1999		P
	For class 0I appliances and class I appliances, except parts of class II construction, C may be replaced by a low impedance ammeter	Class I	P
	Leakage current measurements	(see appended table)	P

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
	If earthed metal between live parts and surface of glass-ceramic (or similar) of hotplate, leakage current between live parts and each vessel in turn connected to earthed metal not exceeding 0,75 mA (IEC 60335-2-9)		N/A
	If no earthed metal between live parts and surface of glass-ceramic (or similar) of hotplate, leakage current between live parts and each of vessels in turn not exceeding 0,25 mA (IEC 60335-2-9)		N/A
13.3	The appliance is disconnected from the supply		P
	Electric strength tests according to table 4	(see appended table)	P
	test voltage of 1000V if earthed metal between live parts and surface of glass-ceramic (or similar) of hotplate (IEC 60335-2-9).		N/A
	test voltage of 3000 V if no earthed metal between live parts and surface of glass-ceramic (or similar) of hotplate (IEC 60335-2-9).		N/A
	No breakdown during the tests		P
15	MOISTURE RESISTANCE		--
15.2	Spillage of liquid does not affect the electrical insulation		P
	Spillage solution comprising water containing approximately 1 % NaCl and 0,6 % rinsing agent		P
	Appliances with type X attachment fitted with a flexible cord as described		N/A
	Appliances incorporating an appliance inlet tested with or without an connector, whichever is most unfavourable		N/A
	Detachable parts are removed		P
	Overfilling test with additional amount of the solution, over a period of 1 min (I)		P
	Overfilling test; quantity : as specified in IEC 60335-2-9		N/A
	Ovens: 0.5l (IEC 60335-2-9)		P
	Hotplates and cookers : 0.5l ,15s (IEC 60335-2-9)		N/A
	For induction wok hotplates, the test is performed using the wok pan that is supplied by the manufacturer with the induction wok hotplate at the point of sale. (IEC 60335-2-9)		N/A

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
	Hotplates incorporate a thermal control : 0.02l (IEC 60335-2-9)		N/A
	Hotplates having ventilating openings : 0.2l (IEC 60335-2-9)		N/A
	Other appliances : 0.1l/100cm ² 1min (IEC 60335-2-9)		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
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	23°C, 93% R.H.	P
	Reassembly of those parts that may have been removed		P
	The appliance withstands the tests of clause 16		P
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
	For hotplates, the tests are carried out with a vessel as specified for normal operation placed on each cooking zone (IEC 60335-2-9).		N/A
	Induction wok hotplates are operated with the wok pan that is supplied by the manufacturer with the induction wok hotplate at the point of sale. (IEC 60335-2-9).		N/A
16.2	Single-phase appliances: test voltage 1.06 times rated voltage (V)	254,4V	P
	Three-phase appliances: test voltage 1.06 times rated voltage divided by $\sqrt{3}$ (V)		N/A
	Leakage current measurements	(see appended table)	P
	Limit values doubled if:		--

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
	- 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	(see appended table)	N/A
	If earthed metal between live parts and surface of glass-ceramic (or similar) of hotplate, leakage current between live parts and each vessel in turn connected to earthed metal not exceeding 0,75 mA (IEC 60335-2-9)		N/A
	If no earthed metal between live parts and surface of glass-ceramic (or similar) of hotplate, leakage current between live parts and each of vessels in turn not exceeding 0,25 mA (IEC 60335-2-9)		N/A
16.3	Electric strength tests according to table 7	(see appended table)	P
	Test voltage applied between the supply cord and inlet bushing and cord guard and cord anchorage as specified	(see appended table)	P
	test voltage of 1250 V if earthed metal between live parts and surface of glass-ceramic (or similar) of hotplate. (IEC 60335-2-9)		N/A
	test voltage of 3000 V if no earthed metal between live parts and surface of glass-ceramic (or similar) of hotplate. (IEC 60335-2-9)		N/A
	No breakdown during the tests		P
20	STABILITY AND MECHANICAL HAZARDS		--
20.1	Appliances having adequate stability		P
	Tilting test through an angle of 10°, appliance placed on an inclined plane/horizontal support, not connected to the supply mains; appliance does not overturn		P
	Tilting test repeated on appliances with heating elements, angle of inclination increased to 15°		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		P

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
	Protective enclosures, guards and similar parts are non-detachable, and		P
	have adequate mechanical strength		P
	Enclosures that can be opened by overriding an interlock are considered to be detachable parts		P
	Self-resetting thermal cut-outs and overcurrent protective devices not causing a hazard by unexpected closure		N/A
	Not possible to touch dangerous moving parts with the test probe described		P
21	MECHANICAL STRENGTH		--
21.1	Appliance has adequate mechanical strength and is constructed as to withstand rough handling		P
	Checked by applying 3 blows to every point of the enclosure like to be weak, in accordance with test Ehb of IEC 60068-2-75, spring hammer test, with an impact energy of 0,5 J	(see appended table)	P
	The appliance shows no damage impairing compliance with this standard, and		P
	compliance with 8.1, 15.1 and clause 29 not impaired		P
	If doubt, supplementary or reinforced insulation subjected to the electric strength test of 16.3		N/A
	If necessary, repetition of groups of three blows on a new sample		N/A
	For appliances intended for outdoor use, the impact energy is 0.7J (IEC 60335-2-9)		N/A
	Appliances incorporates visibly glowing heating elements the blows are applied to the tubes without removing any heater guards as mounted in the appliance if they are (IEC 60335-2-9)		--
	-located at the top of the oven and accessible to test probe 41 of IEC 61032;		N/A
	-located elsewhere in the oven and accessible to test probe B of IEC 61032.		N/A
	For hotplates with surfaces of glass-ceramic or similar, three blows applied to parts surfaces not exposed to the test of 21.101, impact energy 0,7 J (IEC 60335-2-9).		N/A
21.2	Accessible parts of solid insulation having strength to prevent penetration by sharp implements		P

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
	Test not applicable if the thickness of supplementary insulation is at least 1 mm and reinforced insulation at least 2 mm		P
	The insulation is tested as specified, and does withstand the electric strength test of 16.3		N/A
22	CONSTRUCTION		--
22.5	No risk of electric shock when touching pins, for appliances having a capacitor with rated capacitance equal to or greater than 0,1μF, the appliance being disconnected from the supply at the instant of voltage peak		P
	Voltage not exceeding 34 V (V):	Max 12V	P
	If compliance relies on the operation of an electronic circuit, the electromagnetic phenomena tests of 19.11.4.3 and 19.11.4.4 are applied		N/A
	The discharge test is then repeated three times, voltage not exceeding 34 V (V):		N/A
22.6	Electrical insulation not affected by condensing water or leaking liquid		P
	Electrical insulation of Class II appliances not affected if a hose ruptures or seal leaks		N/A
	In case of doubt, test as described		N/A
22.9	Insulation, internal wiring, windings, commutators and slip rings not exposed to oil, grease or similar substances, unless	No such substances used	P
	the substance has adequate insulating properties		N/A
22.11	Reliable fixing of non-detachable parts that provide the necessary degree of protection against electric shock, moisture or contact with moving parts		P
	Obvious locked position of snap-in devices used for fixing such parts		P
	No deterioration of the fixing properties of snap-in devices used in parts that are likely to be removed during installation or servicing		P
	Tests as described	50N pull and push to enclosure and handle	P
22.12	Handles, knobs etc. fixed in a reliable manner, if loosening result in a hazard		P
	Removing or fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible, if resulting in a hazard		P

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict
	A choking hazard does not apply to appliances for commercial use		N/A
	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied		N/A
	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied	Handle	P
	If the part is removed and can be contained within the small parts cylinder, it is considered to be a choking hazard		N/A
22.13	Unlikely that handles, when gripped as in normal use, make the operator's hand touch parts having a temperature rise exceeding the value specified for handles which are held for short periods only		P
22.14	No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance		P
	No exposed pointed ends of self-tapping screws or other fasteners, likely to be touched by the user in normal use or during user maintenance		P
22.17	Spacers not removable from the outside by hand or by means of a screwdriver or a spanner		P
22.18	Current-carrying parts and other metal parts resistant to corrosion		P
22.20	Direct contact between live parts and thermal insulation effectively prevented, unless		P
	material used is non-corrosive, non-hygroscopic and non-combustible		N/A
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless		P
	impregnated		N/A
	This requirement does not apply to magnesium oxide and mineral ceramic fibres used for the electrical insulation of heating elements		P
22.22	Appliances not containing asbestos		P
22.23	Oils containing polychlorinated biphenyl (PCB) not used	No oils used	P
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

IEC 60335-2-9			
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		P
	~~Insulating~~ Ceramic and similar porous 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
22.34	Shafts of operating knobs, handles, levers etc. not live, unless		P
	the shaft is not accessible when the part is removed		N/A
22.35	For other than class III constructions, handles, levers and knobs, held or actuated in normal use, not becoming live in the event of a failure of basic insulation		P
	Such parts being of metal, and their shafts or fixings are likely to become live in the event of a failure of basic insulation, are either adequately covered by insulation material or their accessible parts are separated from their shafts or fixings by supplementary insulation		N/A
	This requirement does not apply to handles, levers and knobs on stationary appliances and cordless appliances, other than those of electrical components, provided they are reliably connected to an earthing terminal or earthing contact, or separated from live parts by earthed metal		N/A

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict

	Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation		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	Model number with letter "T"	P
22.41	No components, other than lamps, containing mercury	No such components	P
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
22.55	Devices operated to stop the intended function of the appliance, if any, are be distinguished from other manual devices by means of shape, size, surface texture or position		P
	The requirement concerning position does not preclude use of a push on push off switch		P
	An indication when the device has been operated is given by:		--
	– tactile feedback from the actuator or from the appliance, or		P
	– reduction in heat output; or		N/A
	– audible and visible feedback		P
22.103	Oven ventilation constructed so that they do not discharge moisture or grease in such a way that clearances and creepage distances are affected (IEC 60335-2-9)		P
22.105	Appliances have not openings on the underside that would allow small items to penetrate and touch live parts. (IEC 60335-2-9)	No such opening	P

	ANNEX EN 62233:2008		
	EMF- ELECTROMAGNETICS FIELDS		
	The tested product also complies with the requirements of EN 62233:2008		-
	Limit 100%	Weighting result: max. 0,685uT<10%	P

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict

10.1	TABLE: Power input deviation					P
Input deviation of/at:	P rated (W)	P measured (W)	ΔP	Required ΔP	Remark	
HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH	2300	2205	-4,1%	-10% ~ +5%	Tested at 230V	
Supplementary information: 50Hz and 60Hz were both tested, and the most unfavourable results were recorded						

11.8	TABLE: Heating test, thermocouple (for HC-1105ETSH)					P
	Test voltage (V)	2755W/261V				—
	Ambient (°C)	23				—
Thermocouple locations		Max. temperature rise measured, ΔT (K)		Max. temperature rise limit, ΔT (K)		
Supply cord		46		50		
Internal wire		82		155(T-25)		
Interlock switch		45		100(T-25)		
Wire connector		45		125(T-25)		
Insulation of thermal link(Top 1)		130		--		
Insulation of thermal link(Top 2)		131		--		
Insulation of thermal link(bottom)		90		--		
PCB		43		120		
PCB Support		40		--		
Relay		40		60(T-25)		
X2 Capacitor		42		75(T-25)		
Varistor		42		60(T-25)		
Lamp holder		122		325(T-25)		
Control panel		17		60		
Top cover		19		--		
Internal enclosure		121		--		
External enclosure plastic		67		--		
Handle of basket(metal)		30		35		
Centre of container		150		--		
Air outlet grilles		85		--		

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict

Test corner	59	65
Supplementary information: the most unfavourable data was recorded.		

11.102/ 11.105	TABLE: Temperature rise for surfaces (for HC-1105ETSH)				P
	Test voltage (V)	2395W/244V			—
	Ambient (°C).....	23			—
Item No.	Surfaces	Actual Temperature (°C)	Temperature Rise (K)	Limitation (K)	
1	Bare metal	65	42	45	
2	Coated metal	--	--	55	
3	Glass and ceramic	--	--	60	
4	Plastic having a thickness exceeding 0,3mm	82	59	65	
Supplementary information: the most unfavourable data was recorded.					

11.102/ 11.105	TABLE: Temperature rise for surfaces (for HC-1105ESH)				P
	Test voltage (V)	2395W/244V			—
	Ambient (°C).....	23			—
Item No.	Surfaces	Actual Temperature (°C)	Temperature Rise (K)	Limitation (K)	
1	Bare metal	--	--	45	
2	Coated metal	--	--	55	
3	Glass and ceramic	--	--	60	
4	Plastic having a thickness exceeding 0,3mm	80	57	65	
Supplementary information: the most unfavourable data was recorded.					

11.8	TABLE: Heating test, resistance method					P
	Test voltage (V)	261V				—
	Ambient, t1 (°C).....	23				—
	Ambient, t2 (°C).....	23				—
Temperature rise of winding		R1 (Ω)	R2 (Ω)	Δ T (K)	Max. Δ T (K)	Insulation class
Fan Motor (HC-7213)		338,4	440,2	101	140	Class 180

IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information: HC-1105 series models were tested, the most unfavourable data was recorded.

13.2	TABLE: Leakage current		P
	Heating appliances: 1.15 x rated input (W).....:	Same as Cl.11.4	—
	Motor-operated and combined appliances: 1.06 x rated voltage (V).....:	N/A	—
Leakage current between		I (mA)	Max. allowed I (mA)
L/N — Earthing metal parts		Max. 0,06	0,75
L/N — Enclosure (with metal foil or ungrounded metal parts)		Max. 0,01 peak	0,35 peak
L/N — handle		Max. 0,01 peak	0,35 peak
Supplementary information: All models were tested, the most unfavourable data was recorded.			

13.3	TABLE: Dielectric strength		P
Test voltage applied between:		Test potential applied (V)	Breakdown / flashover (Yes/No)
Parts isolated with basic insulation		1000	No
Parts isolated with supplementary insulation		1750	No
Parts isolated with reinforced insulation		3000	No
Supplementary information: All models were tested, the most unfavourable data was recorded.			

16.2	TABLE: Leakage current		P
	Single phase appliances: 1.06 x rated voltage (V).....:	254,4V	—
	Three phase appliances 1.06 x rated voltage divided by $\sqrt{3}$ (V).....:	N/A	—
Leakage current between		I (mA)	Max. allowed I (mA)
Live parts — Earthing metal parts		Max. 0,06	0,75
Live parts — Enclosure (with metal foil)		Max. 0,01	0,25
Live parts — Handle		Max. 0,01	0,25
Supplementary information: All models were tested, the most unfavourable data was recorded.			

16.3	TABLE: Dielectric strength		P
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IEC 60335-2-9			
Clause	Requirement + Test	Result - Remark	Verdict

Test voltage applied between:	Test potential applied (V)	Breakdown / flashover (Yes/No)
Parts isolated with basic insulation	1250	No
Parts isolated with supplementary insulation	1750	No
Parts isolated with reinforced insulation	3000	No
Supplementary information: All models were tested, the most unfavourable data was recorded.		

21.1	TABLE: Impact resistance			P
Impacts per surface	Surface tested	Impact energy (Nm)	Comments	
3 times	All surface	0,5J	P	

24.1	TABLE: Components information					P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Plug	Ningbo Qiaopu Electric Co., Ltd.	D03	250 V ~, 16A DIN 49441-R2	DIN VDE 0620-2-1	TUV*/ R 50286272	
Alternative	Ningbo Liansheng Wire&Cable Co., Ltd.	LS03	250 V ~, 16A DIN 49441-R2	DIN VDE 0620-2-1	VDE*/ 40034732	
Alternative	ZheJiang JinTing Nuclear Cable Co., Ltd.	JT008	250 V ~, 16A DIN 49441-R2	DIN VDE 0620-2-1	VDE*/ 40050831	
Alternative	Yuyao Gangda Electric Co., Ltd	AU-003	250 V ~, 16A DIN 49441-R2	DIN VDE 0620-2-1	VDE*/ 40027097	
Alternative	Yuyao Gangda Electric Co., Ltd	AU-003B	250 V ~, 16A DIN 49441-R2	DIN VDE 0620-2-1	VDE*/ 40033080	
Alternative	Ningbo Chaoyu Electric Appliance Co., Ltd.	CY03	250 V ~, 16A DIN 49441-R2	DIN VDE 0620-2-1	VDE*/ 40036307	
Plug only for U.K.	Yuyao Yunbiao Electroics Co., Ltd.	YB006 YB006A	250V~	BS 1363-1	BSI*/ KM 73093	
Alternative	ZheJiang JinTing Nuclear Cable Co., Ltd.	JT006A	250V~	BS 1363-1	ASTA*/ 1120	
Alternative	Ningbo Qiaopu Electric Co., Ltd.	D09 D09A	250V~	BS 1363-1	ASTA*/ 930	

IEC 60335-2-9					
Clause	Requirement + Test		Result - Remark		Verdict
Alternative	Yuyao Gangda Electric Co., Ltd	AU-006B	250V~	BS 1363-1	ASTA*/1458
Alternative	Ningbo Chaoyu Electric Appliance Co., Ltd.	CY07	250V~	BS 1363-1	ASTA*/1413
Remark: The rating of BS fuse-links should be used according to the table 2 of BS 1361-1:2016+A1:2018.					
Power cord for all 2300W	ZheJiang JinTing Nuclear Cable Co., Ltd.	H05VV-F	3Gx1,0 mm ² (length≤2m) or 3Gx1,5 mm ²	EN 50525-2-11	VDE*/40013419
Alternative	Ningbo Qiaopu Electric Co., Ltd.	H05VV-F	3Gx1,0 mm ² (length≤2m) or 3Gx1,5 mm ²	EN 50525-2-11	TUV*/R 50279805
Alternative	Ningbo Liansheng Wire&Cable Co., Ltd	H05VV-F	3Gx1,0 mm ² (length≤2m) or 3Gx1,5 mm ²	EN 50525-2-11	VDE*/40022054
Alternative	Yuyao Gangda Electric Co., Ltd	H05VV-F	3Gx1,0 mm ² (length≤2m) or 3Gx1,5 mm ²	EN 50525-2-11	VDE*/40022724
Alternative	Ningbo Chaoyu Electric Appliance Co., Ltd.	H05VV-F	3Gx1,0 mm ² (length≤2m) or 3Gx1,5 mm ²	EN 50525-2-11	VDE*/40034480
Alternative	ZheJiang JinTing Nuclear Cable Co., Ltd.	H05V2V2-F	3Gx1,0 mm ² (length≤2m) or 3Gx1,5 mm ²	EN 50525-2-11	VDE*/40020021
Alternative	Ningbo Qiaopu Electric Co., Ltd.	H05V2V2-F	3Gx1,0 mm ² (length≤2m) or 3Gx1,5 mm ²	EN 50525-2-11	TUV*/R 50447922
Alternative	Yuyao Gangda Electric Co., Ltd	H05V2V2-F	3Gx1,0 mm ² (length≤2m) or 3Gx1,5 mm ²	EN 50525-2-11	VDE*/40051249
Power cord for 2200W models	ZheJiang JinTing Nuclear Cable Co., Ltd.	H05VV-F	3Gx0,75 mm ² (length≤2m) or 3Gx1,0mm ²	EN 50525-2-11	VDE*/40013419
Alternative	Ningbo Qiaopu Electric Co., Ltd.	H05VV-F	3Gx0,75 mm ² (length≤2m) or 3Gx1,0mm ²	EN 50525-2-11	TUV*/R 50279805
Alternative	Ningbo Liansheng Wire&Cable Co., Ltd	H05VV-F	3Gx0,75 mm ² (length≤2m) or 3Gx1,0mm ²	EN 50525-2-11	VDE*/40022054

IEC 60335-2-9					
Clause	Requirement + Test			Result - Remark	Verdict
Alternative	Yuyao Gangda Electric Co., Ltd	H05VV-F	3Gx0,75 mm ² (length≤2m) or 3Gx1,0mm ²	EN 50525-2-11	VDE*/ 40022724
Alternative	Ningbo Chaoyu Electric Appliance Co., Ltd.	H05VV-F	3Gx0,75 mm ² (length≤2m) or 3Gx1,0mm ²	EN 50525-2-11	VDE*/ 40034480
Alternative	ZheJiang JinTing Nuclear Cable Co., Ltd.	H05V2V2-F	3Gx0,75 mm ² (length≤2m) or 3Gx1,0mm ²	EN 50525-2-11	VDE*/ 40020021
Alternative	Ningbo Qiaopu Electric Co., Ltd.	H05V2V2-F	3Gx0,75 mm ² (length≤2m) or 3Gx1,0mm ²	EN 50525-2-11	TUV*/ R 50447922
Alternative	Yuyao Gangda Electric Co., Ltd	H05V2V2-F	3Gx0,75 mm ² (length≤2m) or 3Gx1,0mm ²	EN 50525-2-11	VDE*/ 40051249
Thermal link of top for 2200W models (Two sets)	ZhongshanQilinElectronics Co.,Ltd.	QLF182	250V~,10A, Tf:184°C	EN 60691	TUV*/ B09073500 04 Rev.01
Alternative	The Third Radio Factory of Yangzhong, Jiangsu	RY184	250V~,10A, Tf:184°C	EN 60691	TUV*/ R 50311907
Alternative	ZhongShan LongDe Electrical Co., Ltd.	RY184	250V~,10A, Tf:184°C	EN 60691	TUV SUD*/ B 067446 0027 Rev.02
Alternative	Changzhou Fansheng Electric Appliance Co., Ltd.	FSRY01 184	250V~,10A, Tf:184°C	EN 60691	TUV*/ R 50309236
Thermal link of bottom for 2200W models	Changzhou Fansheng Electric Appliance Co., Ltd.	FSRY01 169	250V~, 10A, Tf:169°C	EN 60691	TUV*/ R 50309236
Alternative	The Third Radio Factory of Yangzhong, Jiangsu	RY169	250V~, 10A, Tf:169°C	EN 60691	TUV*/ R 50311907
Alternative	ZhongshanQilinElectronics Co.,Ltd.	QLF169	250V~,10A, Tf:172°C	EN 60691	TUV*/ B09073500 04 Rev.01

IEC 60335-2-9					
Clause	Requirement + Test		Result - Remark		Verdict
Thermal link of top for all models (Two sets)	ZhongshanQilinElectronics Co.,Ltd.	QLF182	250V~,16A, Tf:184°C	EN 60691	TUV*/ B09073500 04 Rev.01
Alternative	The Third Radio Factory of Yangzhong, Jiangsu	RY184	250V~,16A, Tf:184°C	EN 60691	TUV*/ R 50311907
Alternative	ZhongShan LongDe Electrical Co., Ltd.	RY184	250V~,16A, Tf:184°C	EN 60691	TUV SUD*/ B 067446 0027 Rev.02
Alternative	Changzhou Fansheng Electric Appliance Co., Ltd.	FSRY01 184	250V~,16A, Tf:184°C	EN 60691	TUV*/ R 50309236
Thermal link of bottom for all models	Changzhou Fansheng Electric Appliance Co., Ltd.	FSRY01 169	250V~, 16A, Tf:169°C	EN 60691	TUV*/ R 50309236
Alternative	The Third Radio Factory of Yangzhong, Jiangsu	RY169	250V~, 16A, Tf:169°C	EN 60691	TUV*/ R 50311907
Alternative	ZhongshanQilinElectronics Co.,Ltd.	QLF169	250V~,16A, Tf:172°C	EN 60691	TUV*/ B09073500 04 Rev.01
Interlock switch	Foshan shunde yushun Electron appliance., Ltd.	KW-16	250V~,16(6)A, 3E4, T125	EN 61058-1	TUV*/ R 50179582
Alternative	Zhejiang Qihong Electronics Co., Ltd.	LF-20	250V~, 16(10)A, 1E4 T125	EN 61058-1	TUV */ B 118603 0001 Rev.00
Alternative	DONGNAN ELECTRONICS CO., LTD.	KW3AT-16	250V~, 16(4)A, 10E3, T125	EN 61058-1	VDE*/ 40011294
Alternative	ZHEJIANG Chuangye ELECTRONICS CO LTD	KW11	250V~, 16(10)A, 5E4, T125	EN 61058-1	TUV*/ R 50199565

IEC 60335-2-9					
Clause	Requirement + Test		Result - Remark		Verdict
Internal wire	CIXI SHUANGHONG WIRE CO., LTD.	H05S-K, H05SJ-K	0,5 mm ² for indicator, 0,75-1,50 mm ² for others, T180	EN 50525-2-41	VDE*/ 40017324
Alternative	Cixi Haosheng Wire&Cable Co., Ltd.	H05S-K, H05SJ-K	0,5 mm ² for indicator, 0,75-1,50 mm ² for others, T180	EN 50525-2-41	VDE*/ 40020128
Alternative	Cixi Jiangyuan Power Cord Co., Ltd.	H05S-K, H05SJ-K	0,5 mm ² for indicator, 0,75-1,50 mm ² for others, T180	EN 50525-2-41	VDE*/ 40031080
Alternative	Cixi Shenhong Wires Co., Ltd	H05S-K, H05SJ-K	0,5 mm ² for indicator, 0,75-1,50 mm ² for others, T180	EN 50525-2-41	VDE*/ 40049048
PCB	KINGBOARD LAMINATES HOLDINGS LTD	KB-5150	Min thickness: 1,6mm, 94V-0, (E123995)	EN 60335-2-9 EN 60335-1	Tested with appliance
Alternative	KINGBOARD LAMINATES HOLDINGS LTD	KB-5152	Min thickness: 1,6mm, 94V-0, (E123995)	EN 60335-2-9 EN 60335-1	Tested with appliance
X2 capacitor	TENTA ELECTRIC INDUSTRIAL CO LTD	MEX	0,1uF, 275V~ 40/100/21/B	EN 60384-14	VDE/ 119119
Alternative	SHAOYANG SHIRONG ELECTRONIC CO LTD	MKP	0,1uF, 275VA~ 40/100/21/C	EN 60384-14	TUV/ 69262154
Alternative	DAIN ELECTRONICS CO LTD	MPX	0,1uF, 275VA~ 40/100/21/C	EN 60384-14	VDE/ 40018798
Alternative	DONGGUAN CHENG DONG ELECTRONIC TECHNOLOGY CO LTD	MPX	0,1uF, 275/300/305/ 310V~ 40/110/56/B	EN 60384-14	VDE/ 40046845
Alternative	GUANGDONG FENGMING ELECTRONIC TECH. CO., LTD.	MKP-X2	0,1uF, 275/305/310V~ 40/105/21/C	EN 60384-14	VDE*/ 40025702

IEC 60335-2-9					
Clause	Requirement + Test		Result - Remark		Verdict
Alternative	SHANTOU BONDED AREA SONGTIAN ELECTRONIC TECHNOLOGY CO., LTD	MPX	0,1uF, 310VAC/305VAC/275VAC 40/110/56	EN 60384-14	VDE*/ 40034679
Alternative	JYH HSU(JEC)ELECTRONICS.,LTD.	MPX	0,1uF, 310/305/300/275/250~, 40/110/56	EN 60384-14	VDE*/ 40044985
Relay for all models	NINGBO JIAGUAN ELECTRONIC CO LTD	GSK-1A-5VDC	250V~, 15A/20A, DC 5V, T85, 1E5	EN 61810-1 Clause 17of IEC/EN 60730-1	TUV*/ R 50463327
Alternative	Anhui Mingguang Life Electronic Co., Ltd	BRD-SS-105LM	250 V~, 12A, DC 5V, T85, 6E4	EN 61810-1 Clause 17of IEC/EN 60730-1	TUV*/ R 50183595
Alternative	Marketing Department of Yuanze Relay	Y3F-SS-105DM Y3U-SS-105LM	250V~, 15A/20A, DC 5V, T85, 1E4	EN 61810-1 Clause 17of IEC/EN 60730-1	TUV*/ R 50197243
Alternative	DONGGUAN YONGNENG ELECTRONIC CSCO., LTD.	YX305-S105DM	AC277V, 17A, DC 5V, T105, 10E5	EN 61810-1 Clause 17of IEC/EN 60730-1	TUV*/ R50390979
Alternative	Sanyou Corporation Limited	SRD-S-105DM	250VAC, 15A, DC 5V, T105, 10E4	EN 61810-1 Clause 17of IEC/EN 60730-1	VDE*/ 40034479
Alternative	Mingguang Xinda Electronics Co.,Ltd	243T-1A-5DSU	AC277V, 12A, DC 5V T105, 10E5	EN 61810-1 Clause 17of IEC/EN 60730-1	TUV*/ R 50626294
Relay only for 2200W models	NINGBO YONGWEI ELECTRONICS CO LTD	Y3F-105DM	250V~, 10A DC 5V, T85, 5E4	EN 61810-1 Clause 17of IEC/EN 60730-1	TUV/50369779
Alternative	HUNNAN SAN YI SEIKO TECHNOLOGY CO LTD	SED-05DM	250V~ 10A DC 5V, T105, 5E4	EN 61810-1 Clause 17of IEC/EN 60730-1	TUV/50328904
Alternative	DONGHAI COUNTY TONGLING ELECTRICAL APPLIANCE CO LTD	JQC-3FF-S	250V~, 10A DC 5V, T85, 1E5	EN 61810-1 Clause 17of IEC/EN 60730-1	TUV*/ R 50316150

IEC 60335-2-9					
Clause	Requirement + Test		Result - Remark		Verdict
Alternative	Shenzhen Yuanze Electronic co., Ltd	Y3F-SS-105DM	250VAC, 10A T105, 10E4, DC5V	EN 61810-1 Clause 17 of IEC/EN 60730-1	TUV*/ R 50197243
Varistor	HUIZHOU SHI SONGLONG LISHANG ELECTRONICS CO LTD.	07D471K VDR	AC2500V, T125,	EN 61051-1	VDE*/ 40028836
Alternative	SHAANXI HUAXING ELECTRONIC GROUP CO LTD	07K471 MYG	AC2500V, T85	EN 61051-1	VDE*/ 40018747
Alternative	DONGGUAN CHENG DONG ELECTRONIC TECHNOLOGY CO LTD	07D471K CDSPC	AC1500V, T125	EN 61051-1	VDE*/ 40052833
Alternative	Centra Science Corp.	07D471K CNR	AC2500V, T85	EN 61051-1	VDE*/ 40008220
Alternative	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	STE 10D471K 07D471K	AC2500V, T85	EN 61051-1	VDE*/ 40023049
Alternative	GuangDong HongZhi EElectronic Technology Co.,Ltd.	HEL 10D471K	AC2500V, T85	EN 61051-1	VDE*/ 40037512
Alternative	HUIZHOU SHI SONGLONG LISHANG ELECTRONICS CO.,LTD	10D471K	AC2500V, T85	EN 61051-1	VDE*/ 40028836
Alternative	FOSHAN HAOHUA ELECTRONIC COMPANY CO.,LTD.	HVR 10K471T	AC2500V, T85	EN 61051-1	VDE*/ 40031718
Alternative	DONGGUAN CHENG DONG ELECTRONIC TECHNOLOGY CO LTD	07D471K 10D471K CDSPC	AC1500V, T125	EN 61051-1	VDE*/ 40052833

IEC 60335-2-9					
Clause	Requirement + Test		Result - Remark		Verdict
Fuse for HC-8003EH, HC-8003EAH, HC-8003ETH, HC-8003EATH, HC-8005EH, HC-8005EAH, HC-8005EATH, HC-8005ETH, HC-1101EH, HC-1101ETH, HC-1102EH, HC-1102ETH, HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH	Honghu Bluelight Electronic Co., Ltd.	6ET	T2A/T3,15A, 250V	EN 60127-1 EN 60127-3	VDE*/ 40034107
Alternative	Dongguan Reomax Electronics Technology Co., Ltd.	MTS	T2A/T3,15A, 250V	EN 60127-1 EN 60127-3	VDE*/ 40039420
Alternative	Dongguan Better Electronics Technology Co.,L td.	932	T2A/T3,15A, 250V	EN 60127-1 EN 60127-3	VDE*/ 40033369
Alternative	XC Electronics (S henzhen) Co.,Ltd.	5TE	T2A/T3,15A, 250V	EN 60127-1 EN 60127-3	VDE*/ 40029550
Alternative	Dongguan Chevron Electronic Technology Co., Ltd.	SET	T2A/T3,15A, 250V	EN 60127-1 EN 60127-3	VDE*/ 40038565
Lamp holder for models with letter "T"	Ningbo Lai Ting Electrical Appliance Co., Ltd.	MR16-01	250V~, 2 A, T200	EN 60838-1 EN 60335-1 EN 60335-2-9	VDE*/ 40017006
NTC resistor	AnHui Eagle Electron Co Ltd(E502983)	MF58 series MF51 series	Resistance at 25°C: 100KΩ (E502983)	EN 60335-1 EN 60335-2-9	Tested with appliance
Internal wire for NTC	FOSHAN CITY ZHENG GUAN FLUORPLASTI CS WIRE FACTORY	1332	22-26AWG, 300VAC, 200°C (E307535)	EN 60335-1 EN 60335-2-9	Tested with appliance

IEC 60335-2-9					
Clause	Requirement + Test		Result - Remark		Verdict
Alternative	FOSHAN CITY ZHENG GUAN FLUORPLASTI CS WIRE FACTORY	10362	22-26AWG, 600VAC, 250°C (E307535)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	Dongguan zhihe electrical cable tech (134986- 001)CO.,LTD	1332	24AWG/26AWG 200°C,300V (E258239)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	Dongguan zhihe electrical cable tech (134986- 001)CO.,LTD	10362	24AWG/26AWG 250°C,600V (E258239)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	HONG SHUN WIRE & CABLE FLUOROPLASTI CS FACTORY	1332	24-26AWG, 300VAC, 200°C (E238396)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	HONG SHUN WIRE & CABLE FLUOROPLASTI CS FACTORY	10362	24-26AWG, 600VAC, 250°C (E238396)	EN 60335-1 EN 60335-2-9	Tested with appliance
Multi wire	ZHONGSHAN WEIFENG ELECTRIC APPLIANCES CO LTD	2651	26-28AWG, 300VAC, 105°C (E314135)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	ZHONGSHAN WEIFENG ELECTRIC APPLIANCES CO LTD	2468	26AWG, 300VAC, 80°C (E314135)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	GUANG DONG XIN LONG ENTERPRISE CO	2651	26-28AWG, 300VAC,105°C (E207567)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	GUANG DONG XIN LONG ENTERPRISE CO	2468	26AWG,300VAC, 80°C (E207567)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	GUANGDONG ZHOUHISHENL ONG WIRE MANUFACTURE CO LTD	2468	26AWG,300V, 80°C (E257280)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	Zhejiang Jiezh Wire & Cable Co Ltd	2468 2651	24-26AWG, 300V, 80°C for 2468, 105°C for 2651 (E480750)	EN 60335-1 EN 60335-2-9	Tested with appliance

IEC 60335-2-9					
Clause	Requirement + Test		Result - Remark		Verdict
Alternative	XINYA ELECTRONIC CO LTD	2468 2651	24-26AWG, 300V, 80°C for 2468, 105°C for 2651 (E170689)	IEC 60335-1 IEC 60335-2-9	Tested with appliance
Fan motor except for HC-1101EH, HC-1101ETH, HC-1102EH, HC-1102ETH, HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH	Ningbo HengChuang Electric appliance.Co.,Ltd	HC-61-16	220-240V~, 50/60Hz, Class H	EN 60335-1 EN 60335-2-9	Tested with appliance
Fan motor for HC-1101EH, HC-1101ETH, HC-1102EH, HC-1102ETH, HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH	Ningbo HengChuang Electric appliance.Co.,Ltd	HC-7213	220-240V~, 50/60Hz, Class H	EN 60335-1 EN 60335-2-9	Tested with appliance
Thermal link for motor	Zhangzhou Aupo Electronics Co., Ltd.	A8-F	250V~, 2A, Tf:150°C	EN 60691	VDE*/ 40008720
Alternative	Xiamen SET Electronics co., Ltd.	K7	250V~, 2A, Tf:150°C	EN 60691	VDE*/ 40017055
Winding for motor	Guandong Wellkey Electric Material Co., Ltd.	QZY-2/180	Class180 (E211138)	EN 60335-1 EN 60335-2-9	Tested with appliance
Bobbin for motor	E I DUPONT DE NEMOURS & CO INC	PET	FR530 (E69939)	EN 60335-1 EN 60335-2-9	Tested with appliance
Top Heating element except for HC-1101EH, HC-1101ETH, HC-1102EH, HC-1102ETH, HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH	Ningbo HengChuang Electric appliance.Co.,Ltd	--	220-240V~, 1700W	EN 60335-1 EN 60335-2-9	Tested with appliance

IEC 60335-2-9					
Clause	Requirement + Test		Result - Remark		Verdict
Top Heating element for HC-1101EH, HC-1101ETH, HC-1102EH, HC-1102ETH, HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH	Ningbo HengChuang Electric appliance.Co.,Ltd	--	220-240V~, 1800W	EN 60335-1 EN 60335-2-9	Tested with appliance
Bottom Heating element for all models	Ningbo HengChuang Electric appliance.Co.,Ltd	--	220-240V~, 500W	EN 60335-1 EN 60335-2-9	Tested with appliance
Wire connector	Heavy Power Co., Ltd.	CE2, CE2X, CE5, CE5X	300V, 105°C (E113650)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	SHENZHEN HONGYU ELECTRICAL CO LTD	HY-CE2, HY-CE5, HY-CE2X, HY-CE5X	300V, 105°C (E314734)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	Jiangxi Gaochao Industrial Co.,LTD	CE2 CE2X	300V 105°C/750°C	EN 60335-1 EN 60335-2-9	Tested with appliance
Insulation of thermal link	FOSHAN SHUNDE BEIJIAO HONGQIAO INSULATIION MATERIAL CO LTD	CSEEUL001	VW-1, 200°C (E154902)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	JIANGYIN HUAQIANG RUBBERS&PLA STICS CO LTD	SRG-514	VW-1, 200°C (E231589)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	JIANGYIN HUAXUAN CABLE CO LTD	HX1303	VW-1, 200°C (E360584)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	Jiangyin Zhijun Appliance Electric Cable&Wire Co., Ltd	HST	VW-1, 200°C (E302890)	EN 60335-1 EN 60335-2-9	Tested with appliance
Alternative	Jiangyin Huate Electrical Material Co., Ltd.	SRT-70	VW-1, 200°C (E482983)	EN 60335-1 EN 60335-2-9	Tested with appliance

IEC 60335-2-9					
Clause	Requirement + Test			Result - Remark	Verdict
Knob, handle cover, Top cover	Ningbo HengChuang Electric appliance.Co.,Ltd	ABS	Min thickness: 2,0 mm	EN 60335-1 EN 60335-2-9	Tested with appliance
Handle	Ningbo HengChuang Electric appliance.Co.,Ltd	PA66	Min thickness: 2,0 mm	EN 60335-1 EN 60335-2-9	Tested with appliance
Glass for models with letter "T"	Ningbo HengChuang Electric appliance.Co.,Ltd	Glass	Min thickness: 2,0 mm	EN 60335-1 EN 60335-2-9	Tested with appliance
Control panel and window plastic	Ningbo HengChuang Electric appliance.Co.,Ltd	PC	Min thickness: 2,0 mm	EN 60335-1 EN 60335-2-9	Tested with appliance
External enclosure	Ningbo HengChuang Electric appliance.Co.,Ltd	PP	Min thickness: 2,0 mm	EN 60335-1 EN 60335-2-9	Tested with appliance
Internal enclosure and Air outlet	Ningbo HengChuang Electric appliance.Co.,Ltd	PA66	Min thickness: 2,0 mm	EN 60335-1 EN 60335-2-9	Tested with appliance
1)An asterisk indicates a mark which assures the agreed level of surveillance					

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	<u>1,5</u> / 2,0***	X	X		X	P
4 000	<u>3,0</u> / 3,5***			X		P
6 000	5,5 / 6,0***					N/A
8 000	8,0 / 8,5***					N/A

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Clause	Requirement + Test	Result - Remark	Verdict

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						

29.2	TABLE: Creepage distances, basic, supplementary and reinforced insulation										P
Working voltage (V)	Creepage distance (mm) Pollution degree							Type of insulation			
	1	2			3						
		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	<u>0,56</u>	1,25	1,8	2,5	3,2	3,6	<u>4,0</u>	X	—	—	P
250	0,56	1,25	1,8	2,5	3,2	3,6	<u>4,0</u>	—	X	—	P
250	1,12	2,5	3,6	5,0	6,4	7,2	<u>8,0</u>	—	—	X	P
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3		—	—	N/A
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3	—		—	N/A
400	2,0	4,0	5,6	8,0	10,0	11,2	12,6	—	—		N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0		—	—	N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0	—		—	N/A
500	2,6	5,0	7,2	10,0	12,6	14,2	16,0	—	—		N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0		—	—	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	—		—	N/A
>630 and ≤800	3,6	6,4	9,0	12,6	16,0	18,0	20,0	—	—		N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5		—	—	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	—		—	N/A

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Clause	Requirement + Test							Result - Remark			Verdict

>800 and ≤1000	4,8	8,0	11,2	16,0	20,0	22,0	25,0	—	—		N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0		—	—	N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	—		—	N/A
>1000 and ≤1250	6,4	10,0	14,2	20,0	25,0	28,0	32,0	—	—		N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0		—	—	N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	—		—	N/A
>1250 and ≤1600	8,4	12,6	18,0	25,0	32,0	36,0	40,0	—	—		N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0		—	—	N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	—		—	N/A
>1600 and ≤2000	11,2	16,0	22,0	32,0	40,0	44,0	50,0	—	—		N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0		—	—	N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	—		—	N/A
>2000 and ≤2500	15,0	20,0	28,0	40,0	50,0	56,0	64,0	—	—		N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0		—	—	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	—		—	N/A
>2500 and ≤3200	20,0	25,0	36,0	50,0	64,0	72,0	80,0	—	—		N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0		—	—	N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	—		—	N/A
>3200 and ≤4000	25,0	32,0	44,0	64,0	80,0	90,0	100,0	—	—		N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0		—	—	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	—		—	N/A
>4000 and ≤5000	32,0	40,0	56,0	80,0	100,0	112,0	126,0	—	—		N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0		—	—	N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	—		—	N/A
>5000 and ≤6300	40,0	50,0	72,0	100,0	126,0	142,0	160,0	—	—		N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0		—	—	N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	—		—	N/A
>6300 and ≤8000	50,0	64,0	90,0	126,0	160,0	180,0	200,0	—	—		N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0		—	—	N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	—		—	N/A
>8000 and ≤10000	64,0	80,0	112,0	160,0	200,0	220,0	250,0	—	—		N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0		—	—	N/A

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Clause	Requirement + Test							Result - Remark			Verdict

>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	—		—	N/A
>10000 and ≤12500	80,0	100,0	142,0	200,0	250,0	280,0	320,0	—	—		N/A
Supplementary information: *) Material group IIIb is allowed if the working voltage does not exceed 50 V **) B = Basic insulation, S = Supplementary insulation, R = Reinforced insulation											

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	<u>3,2</u>	P	
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									

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Clause	Requirement + Test	Result - Remark	Verdict

30.1	TABLE: Ball Pressure Test of Thermoplastics			P
Allowed impression diameter (mm)		≤ 2,0mm		—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
External enclosure	Refer to table 24.1	107	1,4	
Internal enclosure	Refer to table 24.1	161	1,5	
Plastic of control panel	Refer to table 24.1	125	1,6	
Air outlet grilles	Refer to table 24.1	125	1,4	

30.2	TABLE: Resistance to heat and fire - Glow wire tests							P
Object/ Part No./ Material	Manufacturer/ trademark	Glow wire test (GWT); (°C)						Verdict
		550	650		750		850	
			te	ti	te	ti		
External enclosure	Refer to table 24.1					NI	X	P
Internal enclosure	Refer to table 24.1					NI	X	P
Plastic control panel	Refer to table 24.1			NI				P
Object/ Part No./ Material	Manufacturer/ trademark	Glow-wire flammability index (GWFI), °C				GW ignition temp. (GWIT), °C		Verdict
		550	650	750	850	675	775	
								NA
The test specimen passed the glow wire test (GWT) with no ignition [(te – ti) ≤ 2s] (Yes/No) :								Yes
If no, then surrounding parts passed the needle-flame test of annex E (Yes/No) :								N/A
The test specimen passed the test by virtue of most of the flaming material being withdrawn with the glow-wire (Yes/No)? :								Yes
Ignition of the specified layer placed underneath the test specimen (Yes/No) :								No
Supplementary information:								
- 550 °C GWT not relevant (or applicable) to parts of material classified at least HB40 or if relevant HBF								
- The GWIT pre-selection option, the 850 °C GWFI pre-selection option, and the 850 °C GWT are not relevant (or applicable) for attended appliances								
- “NI” means no ignition								

Photo 1.

Description: Overall view for HC-1105ETSH



Photo 2.

Description: Overall view for HC-1105ESH, HC-1105ETSH



Photo 3.

Description: Overall view for HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH



Photo 4.

Description: Overall view for HC-1105ESH, HC-1105ETSH



Photo 5.

Description: Overall view for HC-1105EH, HC-1105ETH



Photo 6.

Description: Overall view for HC-1105ESH, HC-1105ETSH



Photo 7.

Description: Overall view for HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH



Photo 8.

Description: Overall view for HC-1105ESH



Photo 9.

Description: Overall view for HC-1105ETH



Photo 10.

Description: Overall view for HC-1105EH, HC-1105ETH



Photo 11.

Description: Overall view for HC-1105EH, HC-1105ETH



Photo 12.

Description: Overall view for HC-1105EH



Photo 13.

Description: Internal view for HC-1105ETH, HC-1105ETSH

Remark: Exactly the same as model HC-1101ETH, HC-1102ETH

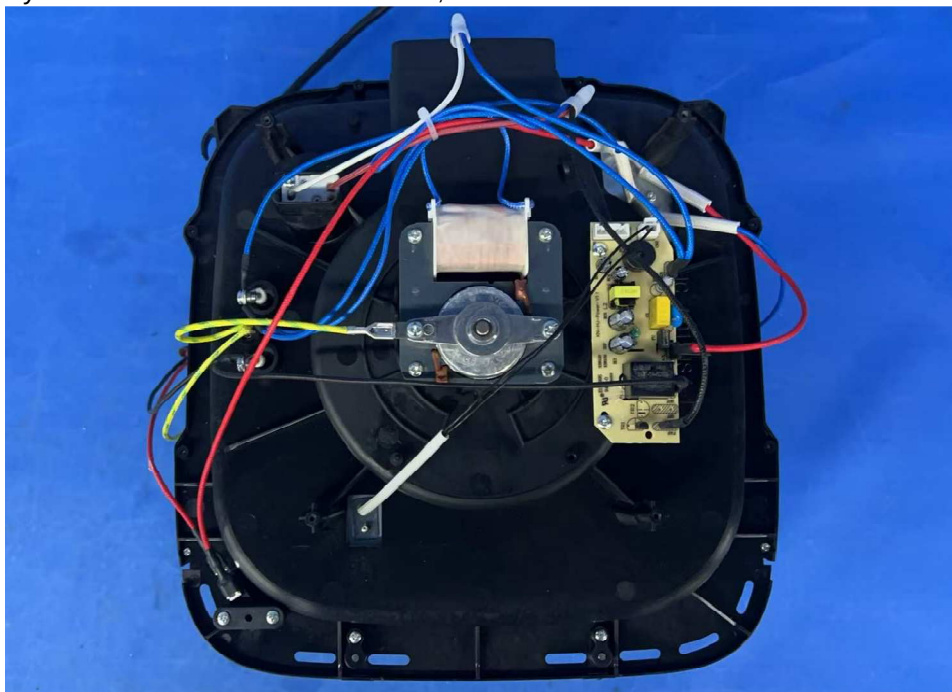


Photo 14.

Description: Internal view for HC-1105EH, HC-1105ESH

Remark: Exactly the same as model HC-1101EH, HC-1102EH

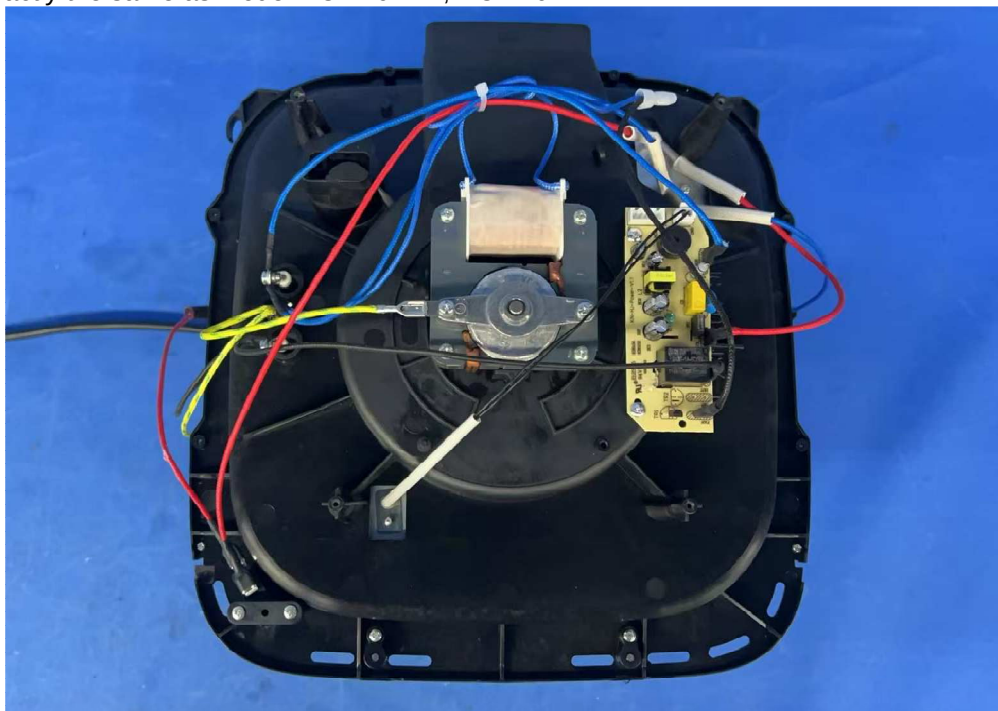


Photo 15.

Description: Control panels view for HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH



Photo 16.

Description: Control panels PCB view for HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH

Remark: Similar to HC-1101EH, HC-1101ETH, HC-1102EH, HC-1102ETH, but the number of LED digital tubes is different

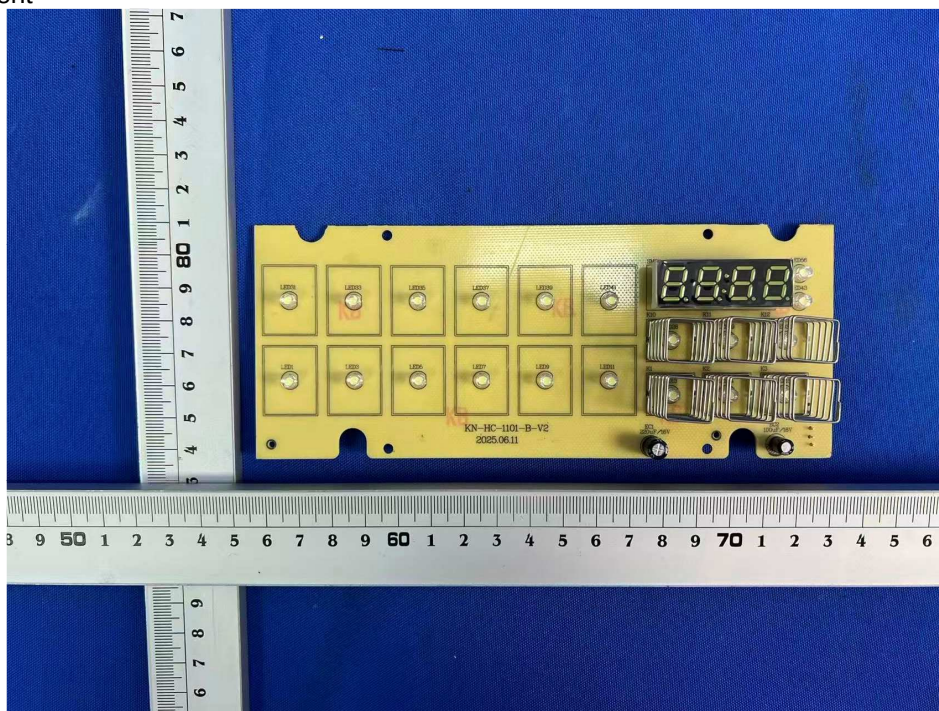


Photo 17.

Description: Control panels PCB view for HC-1105EH, HC-1105ETH, HC-1105ESH, HC-1105ETSH

Remark: Similar to HC-1101EH, HC-1101ETH, HC-1102EH, HC-1102ETH, but the number of LED digital tubes is different

