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CNAS L2885

CVC Mark Certificate


TEST REPORT

New application Changes Supervision Review Others:

Application Number	Z2020CVC008603-005815 (Task number)
Product name	Oil fume purifier
Model number	JK-120 180W 220V ~ 50Hz
Testing Institution	Zhongshan Testing Center of Guangdong Huisheng Testing Technology Co., LTD



Safety Certification Test Report

Application number:Z2020CVC008603-005815 Sample name:Oil fume purifier Model specification:JK-120 180W 220V~50Hz Sample quantity:2 sets of main inspection model,1 set of each covering model. Sample Serial number:/ Date of receipt:2020-08-01 Source of sample:Send sample Sampling Notice No.:/	Applicant:Foshan Shunde Oubao Luozhineng Catering Equipment Co.,LTD Applicant's address:Factory No.1,Honggang Hongfu Building,Shidagang Section,Daliang Nanguo West Road,Shunde District,Foshan City Manufacturer:Foshan Shunde Oubao Luozhineng Catering Equipment Co.,LTD Manufacturer Address:Factory No.1,Honggang Hongfu Building, Shidagang Section,Daliang Nanguo West Road,Shunde District,Foshan City Manufacturer:Foshan Shunde Oubao Luozhineng Catering Equipment Co.,LTD Factory address:Foshan Shunde District Daliang south West Road Shidagang section Honggang Hongfu building No.1 workshop
Test basis standard: GB 4706.1-2005 "Safety of household and similar electrical appliances-Part1:General requirements"	
Test conclusion:Qualified	
Product model specifications and related information covered by this application unit: This application is a new application, the application model is JK-120,JK-160,JK-185,JK-205 180W 220V~50Hz; The main inspection model is:JK-185;The main difference between the main inspection model and the cover model is:the size is different;The rest of the appearance,power, internal structure, electrical principle,key parts, control mode, material are the same,confirmed to be the same unit product,the difference does not affect the safety conformity judgment.	
Main Inspection:ZhaoQiulan Signature:Recruit autumn like idle Date:2020-12-29	 <p style="font-size: small;">Guangdong Huicheng Inspection technology coe tinited company</p> <p style="font-weight: bold;">Detection Stamp 检测专用章 2020年12月29日</p>
Reviewed :Ho Boon Liang Signed:HeWenliang Date:2020-12-29	
Signed by: Peng Xiaoping Signed:Peng Xiaoping Date:2020-12-29	
Remarks	This product is installed inside the oil fume cleaning table, and the test finger can only touch the smoke pipe of the appliance during normal use. This inspection carried out the whole project test for model JK-120, and carried out the test of Chapter 7,8 and 22 for all covered models, and checked the data. The specific components and material information are detailed in the Components table of this report and the table in Chapter 30.

Sample description and description

1. Anti-shock protection category: 0 Class [] 01 Class [] Class I [] Class II [] Class III []
2. Appliance type: portable [] Handheld [] Standing [] (fixed [] embedded [])
3. Method of connection to the power supply:
Not intended to be permanently connected to fixed wiring:
-- Power cord with one plug attached [] (X connection [] Y connection [] Z connection [])
-- Power cord without plug []
-- Input jack []
Pins inserted directly into output sockets [] intended to be permanently connected to fixed wiring:
-- a set of terminals to connect the fixed wiring cable []
-- a set of terminals to connect a flexible cord []
-- a set of power leads []
-- a set of terminals and cable inlet, conduit inlet, reserved field forming hole or press for connecting the appropriate type of cable or conduit cover
4. Product Special Description:
Full plastic housing [] Metal housing [] Composite housing [] Fixed handle []
Folding handle [] Other []

Sample Tag

Oil fume purifier			
Product Model number	JK-120	Rated voltage	220V
Rated power	180W	Rated frequency	50Hz
Foshan Shunde district Oubao Luozhineng catering equipment Co.,LTD			

Oil fume purifier			
Product Model number	JK-185	Rated voltage	220V
Rated power	180W	Rated frequency	50Hz
Foshan Shunde district Oubao Luozhineng catering equipment Co.,LTD			

Oil fume purifier			
Product Model number	JK-160	Rated voltage	220V
Rated power	180W	Rated frequency	50Hz
Foshan Shunde district Oubao Luozhineng catering equipment Co.,LTD			

Oil fume purifier			
Product Model number	JK-250	Rated voltage	220V
Rated power	180W	Rated frequency	50Hz
Foshan Shunde district Oubao Luozhineng catering equipment Co.,LTD			

Sample Photos



Main inspection model JK-185 appearance (This product is installed inside the oil fume cleaning table, the test finger can only touch the smoke pipe of this appliance during normal use)



Main inspection model JK-185 appearance

Sample Photo



Main inspection model JK-185 appearance



Main inspection model JK-185 appearance

Sample Photos



Main inspection model JK-185 appearanc

Sample Photos



Master check model JK-185 control panel



Internal structure of main inspection model JK-185

Sample Photos

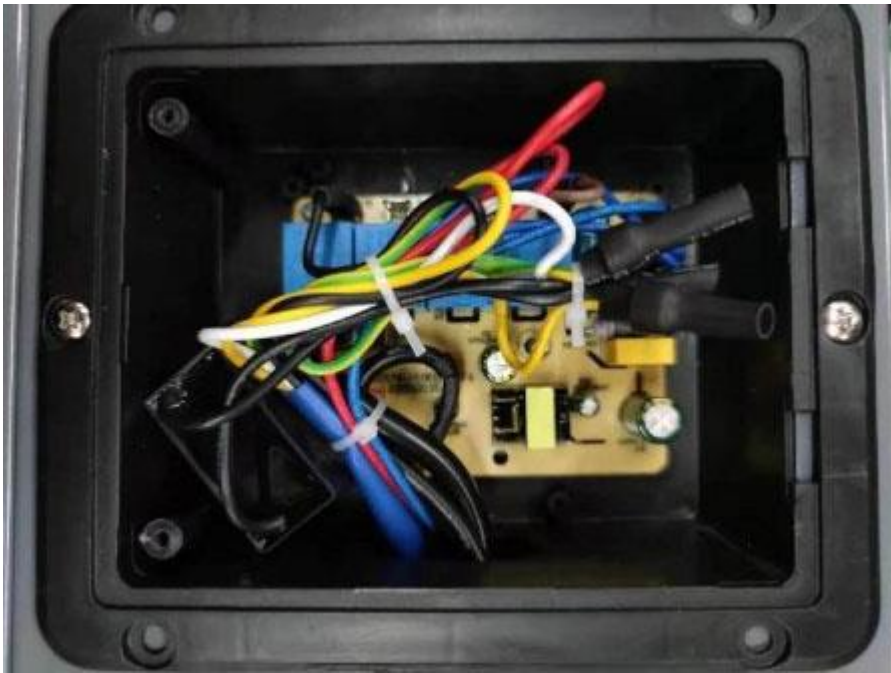


Main inspection Model



Internal structure of main

Sample Photos



Main inspection Model JK-185 internal structure



Main inspection model JK-185 cleaning movement

Sample Photos



Main inspection model JK-185 purification movement

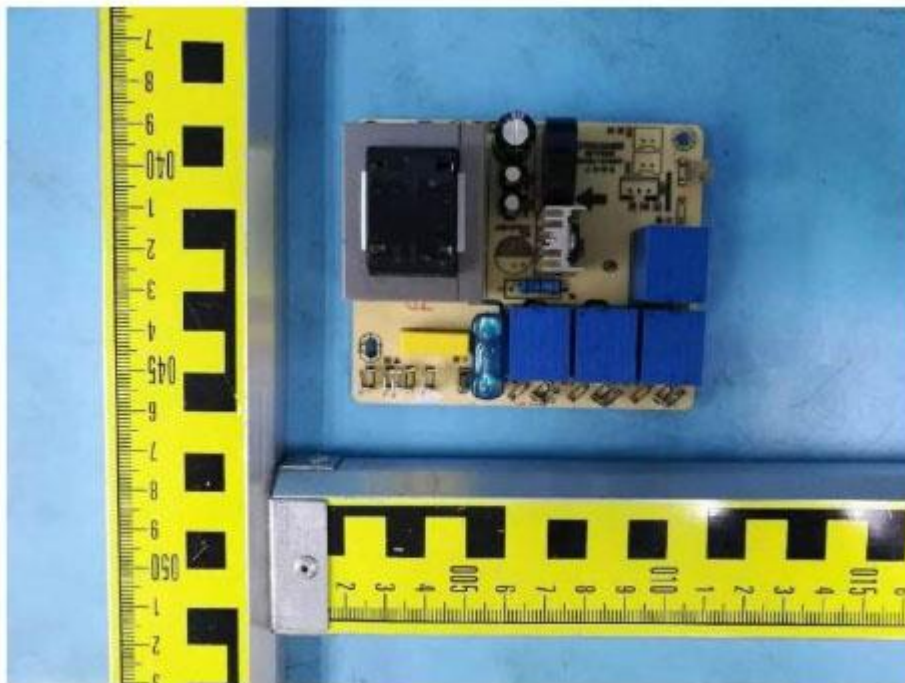


Main inspection model JK-185 motor

Sample Photos

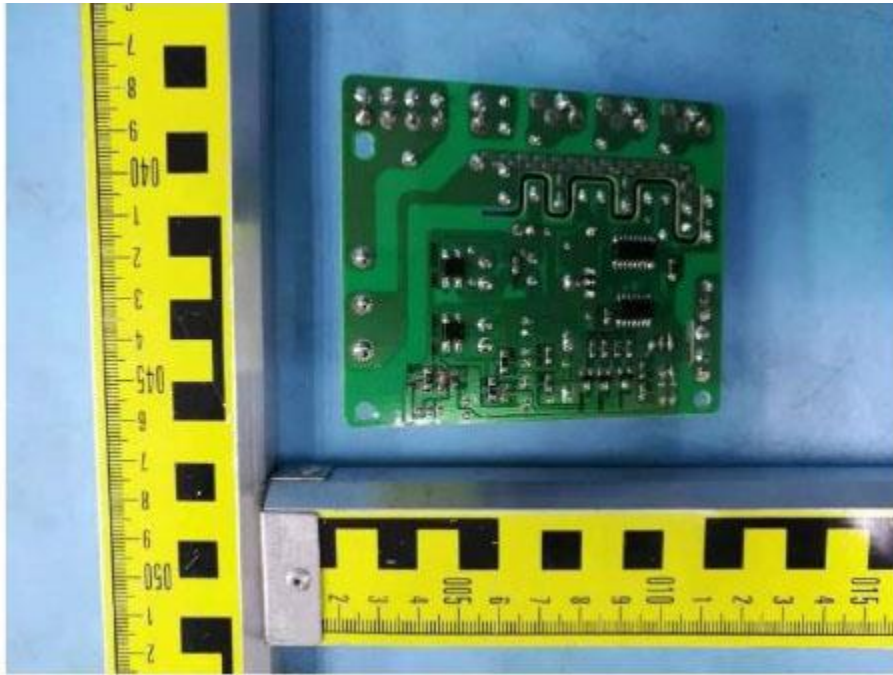


Master inspection Model



Main inspection model JK-185

Sample Photos

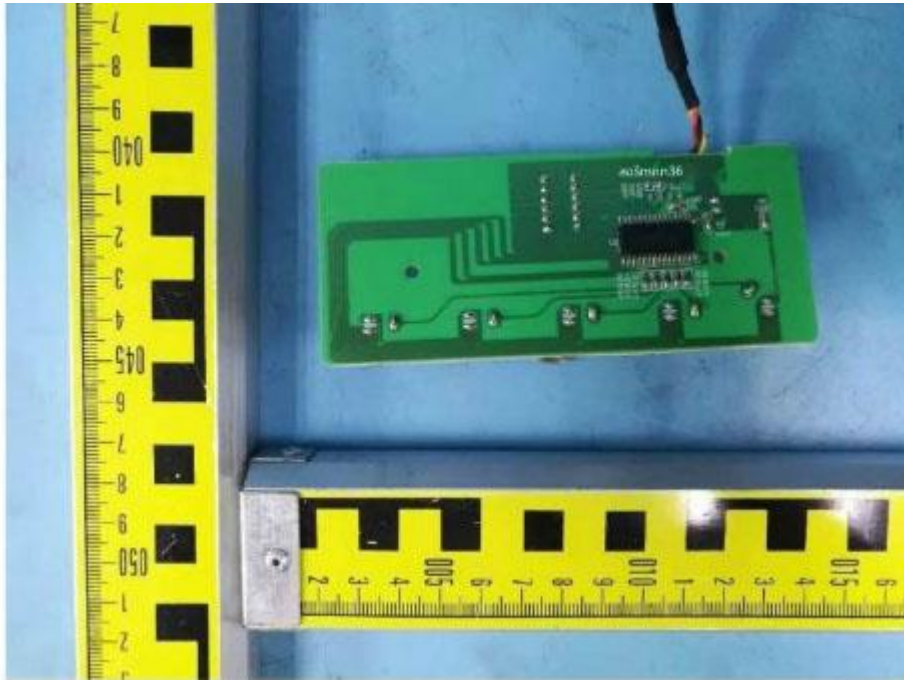


Main inspection Model JK-185

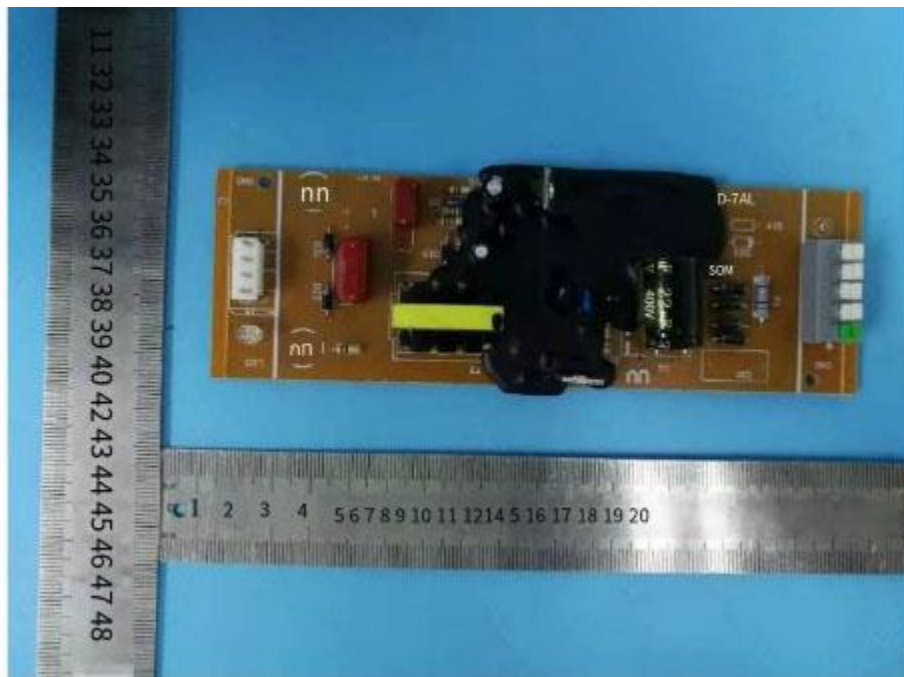


Main inspection model JK-185

Sample Photos

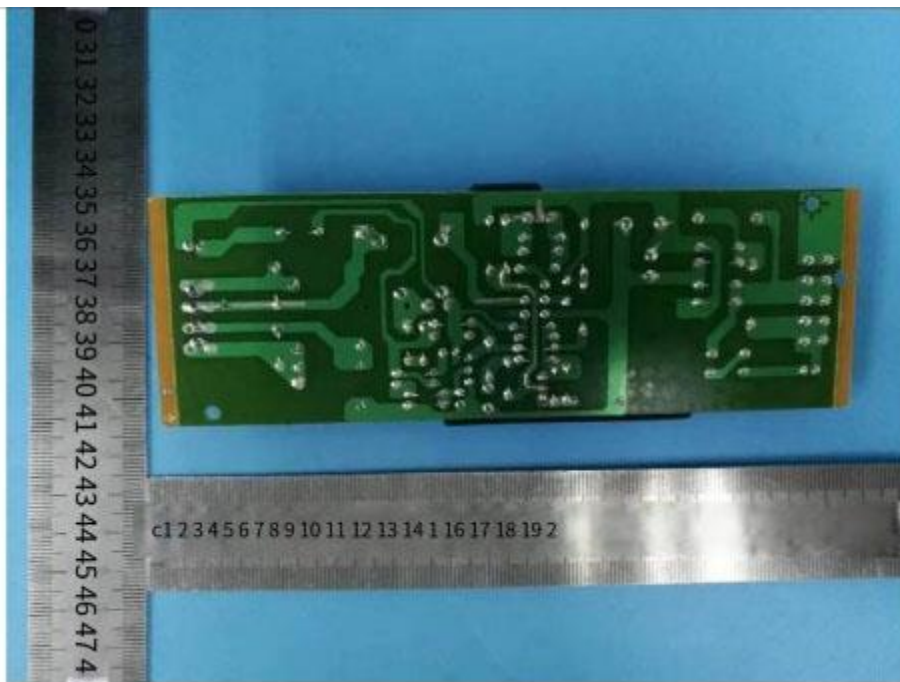


Master inspection Model JK-185 Control panel PCB revers



Master inspection Model JK-185 UV lamp PCB front

Sample Photos



Main inspection model JK-185UV lamp PCB reverse



Master inspection model JK-185 capacitor

GB 4706.1-2005			
clause	Test items and test requirements	Test results-Description	Detemntions
5 General conditions for the trial			
	The tests are conducted according to the provisions of Chapter 5,Psuch as power supply properties,test sequence,etc.		P
6 Classify			
6.1	Shock Protection Categories		P
	Other appliances shall be Class 1, Class II-I or Class III-II	Class I	P
6.2	Waterproof rating		N
7 Labels and descriptions			
7.1	Rated voltage or rated voltage range(V)	220V	P
	Power supply property	~	P
	Rated frequency(Hz)	50Hz	P
	Rated input power (W) or rated input current (A)	180W	P
	The name,trademudk or identifying mark of the manufacturer or respomsble underwriter	Foshan Shunde District Oubao Luozhineng Catering Equipment Co.,LTD	P
	Appliance type specification	JK-120	P
	IEC 60417 symbol 5172(for 11 types of appliances only)		N
	IP code of waterproof rating	IPX0	N
	Where applicable,the electric water valve housing in the external hose assembly connected to the water source shall be marked in accordance with GB/T5465.2		N
7.2	Warnings for standing appliances with multiple power sources		N
	The warning should be located near the terminal cover		N
7.3	Mark the rating range correctly		N
7.4	The setting of the different voltage ratings should be clearty distinguishable		N
7.5	Mark the rated input power or electricity rating corresponding to each rated voltageflow		N
	The corresponding relation between the upper and lower limits of the rated power or rated current and the rated voltage is defined		N
7.6	Use symbols correctly		P
7.7	Appliances and multi-power appliances connected to more than two power supply wires shall have a connection diagram and the diagram shall be fixed to the appliance unless the correct connection mode is clear		N
7.8	Except for Z-type connections:		
	—Terminals dedicated to connecting the center line are marked with the letter N		N
	—The protective ground terminal is marked with a symbol		P
	—Markings should not be placed on removable parts		P
	These symbols should not be placed on screws,removable washers, or other components that can be removed when connecting wires		P
7.9	For a switch that may cause a hazard,the sign or position should clearly indicate the parts it controls		N
7.10	Number,letter or other indication of switches and controllers		N

GB 4706.1-2005			
clause	Test items and test requirements	Test results-Description	Determinations
	The number "0" can only mean "disconnect" gear unless it is not confusing		N
7.11	During installation and normal use, the controller intended to be adjusted shall be marked with the direction of adjustment		N
7.12	The instruction manual should be provided with the appliance		P
7.12.1	Provide detailed instructions on what to do when installing		P
7.12.2	If a standing appliance is not provided with a power cord and plug, or with an all-pole disconnection at least 3mm open, the instructions for use shall state that the fixed line to which it is connected must be equipped with such disconnection		N
7.12.3	If the insulation of the fixed wiring can come into contact with those parts whose temperature rise exceeds 50K, the instructions (book) shall indicate the necessary protection of the fixed wiring		N
7.12.4	The instructions (books) for the use of built-in appliances shall contain the following clear information:		
	—Space size		P
	—Size and position of support and fixation		P
	—Minimum spacing from surrounding appliances		P
	—Minimum size and correct arrangement of ventilation holes		P
	—Connection and interconnection methods		P
	—plugs that can be easily inserted and removed after appliance installation, unless provided		P
	The switch conforms to 24.3		N
7.12.5	X type connected appliance (specially prepared cord), instructions for replacing cord		N
	For appliances with Y connections, instructions for replacing cords		P
	for appliances with Z-connections, instructions for replacing cords		N
7.12.6	Instructions for use of electric heating appliances with non-self-resetting thermal circuit breakers		N
7.12.7	The instructions for the use of fixed appliances should state how the appliance is fixed to the supports		N
7.12.8	For appliances connected to a water source, the instructions should state:		N
	—Maximum inlet pressure (Pa)		N
	—A minimum inlet pressure (Pa), if necessary		N
	For appliances connected to a water source by a removable hose assembly, use of the new hose included should be declared		N
7.13	Instructions for use and other contents required by this standard shall be written in the official language of the country in which the appliance is sold	Simplified Chinese	P
7.14	This standard requires signs to be legible and durable		P
7.15	The mark on the appliance should be marked on the main part of the appliance		P
	The mark should be clearly visible from the outside of the appliance (remove cover if necessary)		P
	For portable appliances, the cover should be able to be opened		N
	without the aid of tools. Standing appliances should be in place for normal use, at least the name, trademark or identification of		P
	the manufacturer or responsible underwriter, and the model and specification of the product should be visible		P
	Switches and controllers shall be marked on or near the component; Should not be placed on parts that can change position if it would cause misunderstanding		N
7.16	Replaceable hot melt or fuse whose grade or similar mark should be clearly visible at the time of replacement		N
8 Protection against touching live parts			

GB 4706.1-2005			
clause	Test items and test requirements	Test results-Description	Determinations
8.1	There should be adequate protection against accidental touching of live parts		P
8.1.1	All states,including after removing removable parts		P
	During the installation of the lamp,there should be protection against touching live parts		P
	Check with probe B in IEC61032 without touching live parts.		P
8.1.2	Check with probe 13 in IEC61032 the pores on Class 0 appliances, Class II appliances or Class 11 structures without touching live parts		P
	Use probe 13 to check the pores in the insulated coated grounded metal housing without touching the live parts		P
8.1.4	An accessible part may be considered unenergized if:		
	—Powered by AC safety ultra lowvoltage:peak voltage<42.4V		N
	—Power supply by DC safety ultra low voltage: voltage ≤42.4V		N
	—Or separated from live parts by protective impedance,DC current ≤2mA		N
	—or alternating peak current separated from live parts by protective impedance ≤0.7mA		N
	—42.4V<Peak voltage<450V,its capacitance ≤0.1uF		N
	—450V<peak voltage<15kV,its discharge 45uC		N
8.1.5	Live parts should be protected by at leastbasic insulation before the appliance is in place or assembled:		
	—Built-in appliances		P
	—Stationary appliances		P
	—Appliance delivered in separate assembly form		N
8.2	Appliances and structures,Class 11,shall have sufficient protection against accidental contact with basic insulation and with metal parts separated onlyby basic insulation from live parts Protection		P
	Should only be reached by double inslation or reinforced Insulation isolated from live parts Popen parts		P
10 Input power and current			
10.1	The deviation of the input power from the rated power of the appliance at normal operating temperature shall not exceed the range specified in the standard.Rated power,Measured power,Deviation:	(See attached table)	P
10.2	The deviation of the current from the rated current of the appliance at normal operating temperature shall not exceed the range specified in the standard.Rated current;Measured current;deviation:		N
11 Fever			
11.1	In normal use,the temperature of the appliance and the sumenting environment should not be too high		P
11.2	Place and install the appliance in the prescribed manner		P
11.3	In addition to the winding,determine the temperature Rise with a thermocouple		P
	The temperature rise of the winding is measured by the resistance method,unless		P
	Uneven winding or difficult to wire correctly		N
11.4	Electric heating appliances operate at 1.15 times rated input power in normal working condition		P

GB 4706.1-2005			
clause	Test items and test requirements	Test results-Description	Detemntions
11.5	Electric appliances are powered at the most unfavorable voltage between 0.94 times and 1.06 times rated voltage to operate in normal conditions:	233.2V	P
11.6	Combined appliances are powered at the most unfavorable voltage between 0.94 times and 1.06 times rated voltage and operate in normal operating condition:		N
11.7	The time during which the appliance is operated is continued until the time during which the most adverse conditions arise in normal use		P
11.8	Temperature rise does not exceed the limits in Table 3	(See attached table)	P
	The protective device should not operate		P
	Sealant should not flow out		P
	The protection of components in the electronic circuit is permitted if they pass the test of the cycle specified in 24.1.4		N
13 Leakage current and electrical strength at operating temperature			
13.1	The leakage current of the appliance at operating temperature should not be excessive and there should be sufficient electrical strength		P
	The electric heating appliance operates at 1.15 times the rated input power		N
	Electric appliances and combined appliances are supplied at 106 times the rated voltage	233.2V	P
	Disconnect the protective impedance and radio interference filters before testing		N
13.2	Leakage current is measured through the circuit described in Figure 4 in IEC60990		P
	Measurement of leakage current	(See attached table)	P
13.3	Test the electrical strength of the insulation	(See attached table)	P
	No breakdown should occur during the test		P
14 Instant overvoltage			
	The appliance should withstand momentary overpressure that it may experience		N
	The electrical gap less than the value specified in Table 16 shall be subjected to a pulse voltage test, which shall be the value specified in Table 6		N
	Flashover should not occur except in the following cases		N
	Flashover of functional insulation is permitted if the appliance complies with Chapter 19 when the electrical gap is short-circuited		N
15 Moisture resistance			
15.1	The housing of the appliance shall be provided according to the classification:	IPX0	N
	of the appliance with the corresponding waterproofing class to inspect the appliance for conformity as specified in 15.1.1 and 15.1.2 and shall be immediately subjected to the electrical strength test specified in 16.3		N
	There are no liquid traces on the insulation that cause the electrical gap and creepage distance to be lower than the values specified in Chapter 29		N
15.1.1	In addition to being classified as IPX0 appliances, appliances shall be subjected to GB4208 (eqv IEC60529) tests as described below provided		N
	Water valves to be subjected to waterproofing tests in accordance with IPX7 appliances Handheld		N
15.1.2	appliances to be continuously turned through the most unfavorable position during the test		N
	Built-in appliances are installed in place according to manufacturer's instructions		N
	An appliance usually fixed to a wall and having a pin inserted into an outlet		N
	An appliance usually fixed to a wall and having a pin inserted into an outlet		N

GB 4706.1-2005			
clause	Test items and test requirements	Test results-Description	Detemntions
	For IPX3 appliances,the underside of wall mounted appliances should N be at the same level as the axis of rotation of the pendulum tube		N
	For IPX4 appliances,the horizontal center line of the appliance shall be consistent with the rotating axis line of the pendulum tube		N
	However,for appliances usually used on the ground or on the table, the swing range is limited to 90° on each side from the vertical calculation, the duration is 5min, and the support is placed on the height of the swing axis line of the pendulum tube		N
	For wall mounted appliances,if the instructions for use indicate that the appliance shall be placed near the ground level,the appliance normally fixed to the ceiling shall be installed under a horizontal non-porous support plate during the test		N
	Appliances with X connections,except those with specially prepared flexible cords,shall be fitted with the lightest flexible cords permitted by the mnimum cross-sectional area specified in Table 13		N
	Remove the detachable parts from the appliance		N
	Other appliances shall be tested according to regulations		N
15.2	The spilled liquid should not affect the appliance's electrical insulation		N
	X-connected appliances are fitted with the specified cords		N
	For appliances with input jacks, choose to install or not install connectors in the most unfavorable case		N
	Remove removable parts		N
	Additional fluid volume for overflow test (L) :		N
	Immediately subjected to the electrical strength test specified in Article 16.3		N
	There is no liquid trace onthe insulation that would cause the electrical clearance and creepage distance to fall below the values specified in Chapter 29		N
15.3	The appliance should be able to withstand the wet conditions that may ocurin normal use		P
	48 hours wet treatment		P
	Subjected to 16 chapters of testing		P
16Leakage cument and electrical strength			
16.1	The leakage current of the appliance should not be excessive and have sufficient electrical strength		P
	The protective Impedance shousld be disconnected before testing		N
16.2	Single-phase appliance:Test at 1.06 times rated voltage \surd	(See attached table)	P
	Three-phase appliance:Test voltageis 1.06 times rated voltage divided by $\sqrt{3}$		N
	Measurement of leakage current	(See attached table)	P
16.3	Perform electrical strength tests according to Table 7	(See attached table)	P
	No breakdown should occurduring the test		P
17 Overload protection of transformers and associated circuits			
17	Excessive temperatures should not occur in the transformer or the circuit associated with it when a short circuit may occur in normal use		P
	unfavorable short circuit or overload that may occur in normal use The appliance shall operate at the most unfavorable voltage of 0.94 times or 1.06 times the rated voltage in the case of the most	233.2V	P
	The wire insulation temperature rise of the safety ultra-low voltage circuit shall not exceed the relevant value specified in Table 3,15K		N
	The temperature rise of the winding shall not exceed the values specilied in Table 8	(See attached table)	P

GB 4706.1-2005			
clause	Test items and test requirements	Test results-Description	Determinations
	The specified value does not apply to failure-safety transformers that comply with Article 15.5 of IEC61558-1		N
19 Abnormal operation			
19.1	Fire hazards and mechanical damage should be avoided in the case of abnormal or misoperation		P
	Electronic circuits should be designed and applied in such a way that any failure of them does not make the appliance unsafe		P
	Appliances with electric heating elements shall, as applicable, be subjected to tests 19.2, 19.3 and, where applicable, the tests specified in Articles 19.4, 19.5 and 19.6		N
	Appliances with electric motors shall be subjected to the tests specified in Articles 19.7-19.10 as applicable		P
	Appliances with electronic wiring shall be subject to 19.11, The tests specified in Article 19.12		P
19.2	Appliances with electric heating elements are tested in accordance with the conditions specified in this article		N
	Test voltage: 0.85 times the rated input power voltage		N
19.3	Repeat 19.2 tests under the voltage conditions specified in this article (performed under voltage conditions at 1.24 times rated input power)		N
19.4	Test the appliance under the test conditions specified in Chapter 11 by short-circuiting the temperature control device on the appliance that was operated during the Chapter 11 test		N
19.5	Repeat the 19.4 test for Class 01 and Class 1 appliances fitted with tubular sheaths or embedded heating elements. Provided that the controller is not short-circuited and that one end of the heating element is connected to its outer sheath		N
	The above tests are repeated with the appliance power supply polarity reversed and the other end of the heating element connected to the outer sheath		N
19.6	An appliance equipped with a PTC electric heating element shall be able to withstand the tests specified in this article to enable		N
19.7	The appliance to operate at stall speed, locking the rotor if the rotor lock torque is less than the full load torque, otherwise locking the moving parts of other appliances		P
	The rotor is blocked, and the motor capacitor is short-circuited or disconnected		P
	The rotor is blocked, disconnecting one capacitor at a time		P
	Repeat the test, shorting one capacitor at a time		P
	In each test, the appliance with a timer or program controller is powered at a rated voltage, and the duration of the test shall be equal to the maximum allowable time		N
	For other appliances, the duration of the test at rated voltage shall be as specified		P
	The temperature of the winding shall not exceed the temperature limit in Table 8; Type of appliance, Insulation class, Measured temperature, Allowable temperature ("C):	(See attached table)	P
19.8	three-phase motor disconnects one phase and supplies power at rated voltage		N
19.10	The series motor operates at 1.3 times the rated voltage for 1min		N
	Parts should not be ejected from the appliance during the test		N
19.11	Unless the conditions specified in 19.11.1 are met, the conformity of the electronic circuit shall be checked by conducting a fault assessment of all circuits or parts on the circuit as specified in 19.11.2		P
19.11.1	For a circuit or a part of a circuit that meets both of the following conditions, It is not necessary to carry out the:		

GB 4706.1-2005			
clause	Test items and test requirements	Test results-Description	Determinations
	This electronic circuit is a low-power circuit, that is, it is tested according to the regulations, and the maximum power at the low power point does not exceed 15W		P
	— Protection against electric shocks, fire hazards, mechanical hazards or dangerous malfunctions does not depend on the proper operation of this electronic circuit		P
19.11.2	The appliance shall operate at rated voltage under the conditions specified in Chapter 11, applying one failure condition at a time, and the duration of the test as specified:		
	a) Short circuit the functional insulation if the electrical gap or creepage distance is less than the values specified in Chapter 29		N
	b) Open any component terminals		P
	c) Short circuit of capacitors, except those conforming to IEC60384-14		P
	d) Short circuit of any two terminals of non-integrated circuit electronic components. The fault condition is not imposed between the two circuits of the optical coupler		P
	e) The triode bidirectional thyristor switch element fails in diode mode		N
	f) Integrated circuit fault. In this case, the appliance is assessed for all possible hazardous conditions to ensure that its safety does not depend on the proper functioning of this component		P
	When simulating any of the fault conditions, the duration of the test is		
	— If the fault cannot be identified by the user, such as a change in temperature, then as specified in 11.7, but only lasts one working cycle		P
	— If the fault can be identified by the user, for example, the motor of a food processing appliance stops running, then the regulation of 19.7		P
	— For circuits that are continuously connected to the grid, such as standby circuits, until a steady state is established		P
19.11.3	If the appliance has a protective electronic circuit which ensures that the appliance meets the requirements of Chapter 19, the relevant tests are repeated in accordance with a) to f) of 19.11.2 simulating a single failure condition		N
	During and after each test, the following checks must be carried out:		
	— The temperature rise of the windings should not exceed the limit values in Table 8		N
	The appliance shall comply with the conditions specified in 19.13		N
	— The current passing through the protection impedance shall not exceed the limit specified in 8.1.4		N
	If the wires of a printed circuit board become open, the appliance may be considered to have been subjected to the special test provided that the following three conditions are met simultaneously:		N
	— The printed circuit board must be subjected to the combustion test		N
	— Any loosening of wires shall not reduce the creepage distance or electrical clearance between live parts and accessible metal parts below the values specified in Chapter 29		N
19.11.4	An appliance with a switch to obtain the disconnection position by electronic disconnection or an appliance with a switch in standby mode, shall be carried out Tests 19.11.4.1-19.11.4.7		P
19.11.4.1	10 positive and 10 negative discharge tests are carried out at each pre-selected point		P
19.11.4.2	The apparatus is tested in the radiation area and level 3 tests are applicable		P
19.11.4.3	The appliance performs transient pulse tests		P

GB 4706.1-2005			
clause	Test items and test requirements	Test results-Description	Detemntions
19.11.4.4	Perform voltage surge test on appliance power terminal		P
19.11.4.5	The appliance is tested with current at GB/T 17626.6, and the 3-pole test standard is applicable		P
19.11.4.6	The appliance is tested for voltage dips and short interruptions according to GB/T17626.11		P
19.11.4.7	The appliance shall be subjected to power signal testing level 2 test level is applicable		P
19.12	If for a fault condition specified in 19.11.2 the safety of the appliance all depends on the action of a miniature fuse conforming to IEC60127, replace the miniature fuse with an ammeter and repeat the test to measure the current passing through the miniature fuse. The rated current of the miniature fuse (A); Measured current.....	The rated current of the miniature fuse (5A); Measured current >40A	P
19.13	The appliance should not emit flame, molten metal, toxic or ignitable gases in dangerous amounts during the test.		P
	The temperature rise should not exceed the values in Table 9.		P
	The case cannot be deformed to the extent that the appliance contravenes the provisions of Chapter 8		P
	If the appliance is still working, it shall comply with the provisions of 20.2.		P
	The insulation of non-Class 1 appliances shall be subjected to electrical strength tests of 16.3. The test voltage is as follows:		
	—1250V for basic insulation		P
	—The additional insulation is 1750V		P
	—The reinforced insulation is 3000V		P
	If the appliance is still operational, the appliance does not have to experience a dangerous functional failure and the protective electronic circuit must not fail		N
20 Stability and mechanical hazards			
20.1	The appliance should have adequate stability (except for stationary and hand-held appliances)	Install in a cabinet	N
	The appliance shall be able to withstand a tilt test of 10° without tipping over		N
	Appliances with heating elements shall be able to withstand repeated tilt tests of 15°		N
	If the appliance is overturned, the heat test shall be carried out in the overturned position		N
	The temperature rise shall not exceed the values specified in Table 9		N
20.2	Moving parts should be properly positioned or capped to provide protection against personal injury		P
	Protective housings, shields and similar parts shall be non-removable		P
	Should have sufficient mechanical strength and firmly fixed protective housing		P
	Self-resetting thermal circuit breakers and over current protection devices should not cause a hazard when accidentally reconnected		P
	The test means that moving parts can not be touched		P
21 Mechanical strength			
21.1	The apparatus shall have sufficient mechanical strength, and its structure shall withstand the savage handling that may occur in normal use, and there		P
	shall be no damage after three blows to each part of the enclosure of the apparatus with 0.5±0.04J of impact energy		P
	If necessary, reinforced insulation or additional insulation shall be subjected to electrical strength tests of 16.3		N
	If necessary, hit the same part of the new sample repeatedly, three times in a set		N

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clause	Test items and test requirements	Test results-Description	Detemntions
21.2	Solid insulated easily accessible parts should be strong enough to prevent puncture by sharp tools		P
	If the thickness of the additional insulation is not less than 1mm and the thickness of the reinforced insulation is not less than 2mm, the test shall not be carried out		P
22 structure			
22.1	The appliance marked with the first characteristic digit of the IP code shall meet the relevant requirements of IEC60529		N
22.2	For standing appliances,a measure to ensure full disconnection from the power supply shall be provided,as described below:		
	—A power supply cord with a plug		P
	—A switch that conforms to 24.3		N
	—It is indiated in the instructions that a disconnecting device		N
	—an appliance input jack-is provided in the fixedwiring		N
	Single-phase Class 1 appliances intended to be permanently connected to fixed wiring shall be connected to the phase line if they are fitted with a single-phase switch or a unipolar protection device for disconnecting the heating element from the power supply		N
22.3	Appliances with pins should not put excessive stress on the socket		N
	Apply no more than 0.25Nm of torque		N
	After taking the appliance out of the oven,immediately apply 50N tension to each pin for lmin, and the displacement of the pin shall not exceed 1mm after cooling to room temperature		N
22.4	Appliances used to heat liquids and appliances that cause excessive vibrationshould not be provided with pins for direct insertion into an output socket		P
22.5	There should be no danger of electric shock when touching the pin of the plug		P
	The voltage at which the plug is momentarily discharged should not exceed 34v		P
22.6	Electrical insulation should be protected from condensation or leaking liquids		N
	Hose breaks or seal leaks should not affect the electrical insulation of Class II appliances and Class II structures		N
	When in doubt, the appliance shall be able to withstand a drip test in accordance with the method specified in this article		N
22.7	Appliances with steam generating devices shall be adequately protected against the danger of overpressure		N
22.8	If the compartment is accessible without tools and may be cleaned in normal use, the electrical connection shall not be strained during cleaning		P
22.9	Parts such as insulation,internal wiring, windings, commutators, and slip rings are not exposed to oil, grease, or similar substances		P
	Oil or grease that has insulation exposed to it should have adequate insulating properties		N
22.10	The reset button of a non-self-resetting controller should be positioned or guarded so that an accidental reset is not possible		N
22.11	Non-removable parts that provide the necessary protection against electric shock, water, or against contact with moving parts shall be securely secured		P

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clause	Test items and test requirements	Test results-Description	Detemntions
	Acarabiner hitch lock used to secure such parts should have an obvious lock		N
	Position the carabiner lock device for use on parts that may be removed during installation or maintenance, and its retention performance should not deteriorate		N
	Test fingers, test nails, etc. specified in this standard shall be used for testing, and the test results shall conform to the requirements of this article		P
22.12	Handles, knobs, etc. are secured in a reliable manner		N
	Handles, knobs, etc. used to indicate the gear position of switches and similar components should not be fixed in the wrong position		N
	Force test of 15N is applied to parts that cannot be subjected to axial forces in use, 1min		N
	Force test of 30N is applied to parts that may be subjected to axial forces in use, 1min		N
22.13	When holding the handle in normal use, it should be impossible for the operator's hand to touch parts whose temperature rise exceeds the specified value		N
22.14	There should be no rough or sharp edges that pose a danger to the user during normal use or user maintenance		P
	There should be no exposed tips such as self-tapping screws easily accessible to the user during normal use or user maintenance		P
22.15	A storage hook or similar for flexible flexible wire should be smooth and smooth		N
22.16	The automatic reel shall not cause excessive scratching or damage to the flexible flexible wire sheath, broken strands of the wire, excessive wear at the contact		N
	The reel carried out 6000 operation tests according to the regulations		N
	16.3 electrical strength test, test voltage is 1000V		N
22.17	Corroded current-carrying parts and other metal parts that		N
22.18	cannot be removed from the outside of the appliance by hand, screwdriver or wrench shall withstand normal use		P
22.19	The drive belt must not be used as electrical insulation		N
22.20	Direct contact of live parts with thermal insulation shall be effectively prevented unless the material is non-corrosive, non-moisture absorbing and non-combustible		N
	Pass inspection and, if necessary, test to check its conformity		N
22.21	Wood, cotton, silk, plain paper, and similar fibers or hygroscopic materials are not to be used as insulation unless treated with dip	No such objects	P
22.22	Asbestos should not be used in the construction of the appliance	No such objects	P
22.23	oils(PCBS) containing polychlorinated biphenyls should not be used	No such objects	P
22.24	Bare heating elements should be adequately supported		N
	Even if broken, it is not possible for the electric heating wire to come into contact with accessible metal parts.		N
22.25	For non-Class III appliances, the structure shall be such that the sagging electric heating wire cannot come into contact with accessible metal parts		N
22.26	Class II appliances with Class III construction shall be constructed in such a way that the insulation between parts operating at a safe ultra-low voltage and other live parts shall conform to a double absolute		N

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clause	Test items and test requirements	Test results-Description	Detemntions
22.27	Parts connected with protective impedance shall be separated by double insulation or reinforced insulation		N
22.28	Class II appliances connected to the gas main road or the water main road in normal use, which have conductive connections with the gas pipeline, or metal parts in contact with water, should be separated from the live parts by double insulation or reinforced insulation		N
22.29	III appliances intended to be permanently connected to fixed wiring shall be constructed in such a way that the required level of protection against electric shock will be maintained after installation of the appliance		N
22.30	Parts used as additional insulation or reinforcing insulation shall be securely secured so that they cannot be removed without serious damage, or		P
	They should be constructed so that they cannot be replaced in a wrong position and, if left out, the appliance will not work or be visibly incomplete		P
22.31	The electrical clearance and creepage distance on the additional insulation or reinforced insulation shall not fall below the values specified in Chapter 29 due to wear and tea		P
	Loosening or falling off of similar parts, such as wires, screws, nuts or springs, should not cause the electrical clearance and creepage distance between the live part and the accessible part to fall below the specified value for the additional insulation		P
22.32	Additional insulation or reinforced insulation should be designed or protected to prevent the deposition of dust or dirt		P
	Parts of natural or synthetic rubber material acting as additional insulation shall be age-resistant or shall be arranged and sized so that the creepage distance is not lower than the value specified in 29.2		N
	Ceramic materials, similar materials or separate insulating beads that are not tightly sintered shall not be used as additional insulation or reinforcing insulation		N
	Oxygen tank test: 70°C for 96h, room temperature for 16h		N
	After the test, the sample should not have cracks observable in the naked eye		N
	Ceramic materials should be tested according to regulations without any traces of dye		N
22.33	Conductive liquids that are, or may become, accessible in normal use should not come into direct contact with live parts		N
	Electrodes should not be used to heat liquids		N
	For Class II structures, conductive liquids that are easily accessible or may become accessible in normal use should not come into direct contact with the basic insulation or reinforced insulation		N
	For Class II structures, if the conducting liquid is in contact with the live part, it should not come into direct contact with the reinforced insulation		N
22.34	Shafts of operating knobs, handles, operating rods, and similar parts on the appliance should not be charged		N
22.35	Hold or manipulate handles, joysticks and knobs in normal use and should not be charged even if insulation fails		N
	If such parts are made of metal and their shafts or fixtures may be electrically charged if insulation fails, they shall be adequately covered with insulation or easily accessible parts separated from their shafts or fixtures by additional insulation		N
	For standing appliances, handles, joysticks and knobs of non-electrical components, provided that they are reliably connected to a ground terminal or ground contact, or to a ground meta		N

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clause	Test items and test requirements	Test results-Description	Detemntions
22.36	A handle continuously held by the hand in normal use shall be of such a structure as to make it impossible for the operator's hand to come into contact with metal parts when grasped in accordance with normal use, unless these metal parts are separated from live parts by double insulation or reinforced insulation		N
22.37	For Class II appliances, capacitors should not be connected to easily accessible metal parts, except in accordance with article 22.42		N
	The metal housing of capacitors of Class II appliances shall be separated from accessible metal parts by additional insulation, except in accordance with Article 22.42		N
22.38	Capacitors should not be connected between the contacts of a thermal circuit breaker		P
22.29	Lamp holders should only be used to connect lamp holders		P
22.40	Electric appliances and combination appliances intended to move or have easily accessible moving parts while working shall be fitted with a switch to control the motor. The moving member of the switch should be visible and easy to operate		N
22.41	Appliances should have no mercury containing elements other than lamp holders		P
	The mercury switch should be placed in such a way that the mercury liquid or steam will not be released to pollute the environment if the capsule is broken		N
22.42	Protective impedance consisting of at least two separate elements		N
	A short circuit or open circuit in any of these components should not be exceeded Values specified in 8.1.4		N
22.43	Appliances that can be adjusted for different voltages shall be of such construction as to make it impossible for accidental changes in the setting position		N
22.44	The shape or decoration of the appliance housing should not make the appliance easy for a child to use as a toy		P
22.45	When air is used to strengthen insulation, it should be ensured that the electrical gap is not less than the specified value of 29.1.3 when the enclosure of the appliance is deformed under the action of external forces		P
22.46	Software used in protecting electronic circuits, shall be Class B or Class C software		N
22.47	Appliances intended to be connected to a water source should be able to withstand the water pressure in normal use		N
22.48	Appliances intended to be connected to a water source should be constructed to prevent backsiphoning from causing non-potable water to enter the source		N
23 Internal Cabling			
23.1	The wiring slot should be smooth without sharp edges		P
	Wiring protection should not be in contact with burrs and heat sinks		P
	Metal wire holes should be smooth or with bushing		N
	Wiring should be effectively prevented from contact with moving parts		P
23.2	Beading and similar ceramic insulation on live wires should be securely secured and not altered in their position or placed on sharp edges		N
	The insulating bead in the flexible metal tube shall be installed in the insulating sleeve		N
23.3	Electrical connections and internal wires moving relative to each other should not be subjected to undue stress		N
	Flexible metal pipes should not cause damage to wire insulation		N
	Open coil springs should not be PbSn		N
	Coil springs in contact with each other shall be provided with sufficient insulating lining		N

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clause	Test items and test requirements	Test results-Description	Detemntions
	Wires that bend in normal use are not damaged after 10,000 bending tests; A wire that will bend only during user maintenance will not be damaged after 100 bending tests		N
	After the above test, the apparatus shall not be damaged which is not allowed by this standard, and shall not be damaged which will affect the normal use of the apparatus. The wires and connections involved in the test shall be able to withstand the electrical strength test specified in Article 16.3 (test voltage 1000V)		N
23.4	The exposed internal wiring should be rigid and secured		N
23.5	The insulation of the internal wiring should be able to withstand the electrical stresses that may occur in normal use		P
	Apply 2000V voltage between the wire and the metal foil wrapped around the outside of the insulation for 15min and should not break down		P
23.6	Bushings, used as additional insulation for internal wiring, shall be kept in place in a reliable manner		P
23.7	Yellow green two-tone wire should only be used for ground wires		P
23.8	Aluminum wire should not be used for internal wiring	No aluminum wire	P
23.9	Multiple strands of stranded wire should not be welded together using lead-tin welding where they are under pressure unless		P
	The structure of the clamping device is such that there is no risk of poor contact due to the cold flow of the flux		N
23.10	The insulation and sheathing of the internal wire of the electric water control valve consisting of the connector and external hose of the water source should be at least equivalent to that of the light PVC sheathed flexible wire		N
24 element			
24.1	Components shall comply with the list of components with safety requirements specified in the respective IEC standard		P
	Component list	(See attached table)	P
	If the component has not been tested and is found to meet the IEC standard requirements for the number of cycles,the component shall be tested in accordance with the provisions of 24.1.1 to 24.1.6		N
	If the component has not been tested and is found to conform to IEC standards,is not marked or is not used according to the mark,the test shall be carried out according to the actual conditions in the appliance		P
24.1.1	Capacitors that may permanently withstand a supply voltage and are used for radio interference suppression or voltage separation shall comply with IEC60384-14,or		P
	Test according to Appendix F		N
24.1.2	Safety isolation transformer shall comply with IEC61558-2-6,or		N
	Test according to Appendix G		N
24.1.3	The switch should comply with IEC 61058-1 and have a working cycle of at least 10,000 times,or		N
	Test according to Appendix H		N
	If the switch controls relays or currentcontactors,the entire switching system shall be tested in accordance with		N
24.1.4	IEC 60730-1 and the corresponding Part 2 standard.The number of working cycles is:		

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clause	Test items and test requirements	Test results-Description	Detemntions
	—Temperature controller 10000		N
	—Temperature limiter 1000		
	—Self-resetting thermal circuit breaker 300		
	—Voltage holding type non-self-resetting thermal circuit breaker 1000		
	—Other non-self-resetting thermal circuit breakers 30		
	—Timer 3000		
24.1.5	—Energy Regulator 10000		
	Appliance couplers should comply with IEC 60320-1		
	However, for appliances with a waterproof rating higher than IPX0, the appliance coupler should conform to 60320-2-3		N
24.1.6	The relevant standard for interconnect couplers is GB17465.2		N
24.2	Small lamp holders similar to E10 lamp holders shall comply with IEC60238 for E10 lamp holders.		N
	There should be no switches or automatic controlers on the flexible cords		P
	There should be no device that causes the protective device in the fixed wiring to operate when the appliance fails		P
24.3	Thermal circuit breakers that are reset by soldering should not be fitted		P
24.4	A switch for all-pole disconnection of a standing appliance shall be connected directly to the power terminal and shall have a separation contact at each pole to enable all-pole disconnection under overvoltage conditions		N
24.5	Plugs and sockets for electric heating elements and ultra-low voltage circuits shall not be interchangeable with plugs and sockets listed in IEC60083 or IEC 60906-1 or connectors and appliance input jacks conforming to IEC60320-1		N
	Capacitors in the auxiliary winding of the motor should be marked with rated voltage and rated capacity and used as indicated		P
24.6	For capacitors in series with motor windings, the terminal voltage of the capacitor should not exceed 1.1 times its rated voltage when the appliance is supplied with 1.1 times its rated voltage under minimum load		P
	If the motor is connected to a grid power source and its basic insulation is insufficient for the rated voltage of the appliance, its operating voltage should not exceed 42V		N
	Such motors shall conform to the Appendix		N
24.7	Hose fittings shall comply with IEC 61770 and they shall be delivered with the appliance		N
25 Power cables and external cables			
25.1	Appliances that are not intended to be permanently connected to fixed wiring should have one of the following power connections:		
	—A power cord with a plug		P
	—An appliance input jack with at least the same waterproof rating as the appliance requires		N
25.2	—Pins used to plug in the output socket		N
	The appliance should not have more than one power connection device		P

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clause	Test items and test requirements	Test results-Description	Detemntions
	A standing appliance for multiple power supplies may be equipped with more than one power connection device, as long as the connecting devices can withstand the electrical strength test of 1250V, 1min, without being broken down		N
25.3	Appliances permanently connected to fixed wiring, allowing for a power cord connection after the appliance has been mounted to the bracket, and providing one of the following connection devices:		N
	—A set of terminals connecting a fixed wiring cable with a nominal cross-sectional area in accordance with 26.6		N
	—A set of terminal blocks connected to a flexible cord		N
	—A set of power leads contained in a suitable compartment		N
	—A set of terminals and a flexible collar inlet, a conduit inlet, a reserved field forming hole or gland for connecting a flexible cable or conduit of the appropriate type		N
25.4	For appliances intended to be connected to fixed wiring and rated for currents not exceeding 16A, the conduit or flexible cable inlet shall be able to accommodate conduits or flexible cables with a total diameter of the values specified in Table 10		N
	The inlet of the conduit or cable will not affect protection against shock or reduce the electrical clearance and creepage distance below the values specified in Chapter 29		N
25.5	Method of installing Power cord to appliance:		
	—Type X connection		N
	—Type Y connection		P
	—TypeZconnection (if special security requirements permit)		N
	Xtype connection:specially prepared flexiblewire		N
	Xtype connection: do not apply to flat double core metal foil wire connection		N
	Type Z connections (if special safety requirements allow)		N
	Type X connections:specially prepared flexible wires		N
	Xtype connection:do not apply to flat double core metal foil wire connection		N
25.6	The plug should contain only one flexible cord		P
25.7	The power cord should not be lighter than the following specifications:		P
	—Woven flexible wire (No.51 of IEC60245)		N
	—Flexible wire with plain hard rubber sheathed (No.53 wire from IEC60245)		N
	—Flat twin-core foil flexible wire(IEC60227 wire No.41)		N
	—Appliances with a mass not exceeding 3kg, light PVC sheathed flexible cord (Line 52 of IEC60227)		N
	—Appliances with a mass of more than 3kg, common PVC sheathed flexible wire (IEC60227 line 53)		P
	If the temperature rise of the external metal parts of the appliance exceeds 75K, PVC wire cannot be used as a power cord unless		N
	—The structure of the appliance makes it impossible for the power cord to touch the external metal parts in normal use,or		N
	—PVC wire is resistant to high temperatures, and Y connections or Z connections should be used in this case Pick up		N
25.8	The nominal cross-sectional area of the power cord shall not be less than the value specified in Table 11; The rated current of the appliance (A); Nominal 0.8A, 0.75mm2 cross-sectional area(mm2).....	0.8A, 0.75 mm ²	P
25.9	The power cord should not be in contact with a sharp point or sharp edge		P

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clause	Test items and test requirements	Test results-Description	Detemntions
25.10	Class I appliances should have green/yellow two-tone wire in the power cord for grounding		P
25.11	The wires of the power cord should not be reinforced by push-tin welding at the point of contact pressure, unless		P
	The structure of the clamping device is such that there is no risk of poor contact due to cold deformation of the flux		N
25.12	The insulation of this power supply cable or cord should not be damaged when molding the cord to the housing		N
25.13	The cord inlet bushing is shaped to prevent damage to the power cord		P
	Unless the housing at the cord inlet is an insulating material, there shall be a non-removable bushing or sheath to provide additional insulation in accordance with 29.3		P
	If the supply cord has no bushing, there shall be similar additional bushing or bushing, unless		N
	The appliance belongs to class 0		N
25.14	The power cord should have adequate protection against excessive bending		N
	Bending test; Force applied; Number:		N
	of bends this test should not result in:		N
	—Short circuit between wires		N
	—The stranded wire of any conductor is broken by more than 10%		N
	—Wire detached from terminal block		N
	—The conductor is loose from the wire protection		N
	—device on the terminal Damage of cord or cord protection within the meaning of this standard		N
	—The broken wire penetrates the insulation and becomes accessible		N
25.15	The wires of the power cord are protected from tension, distortion and wear by the flexible wire fastening device		P
	Damage It should not be possible to push the cord into the appliance, so that the cord or the power supply cord of the internal component of the		P
	appliance is tested for tension and torque, as shown in Table 10: Tension (N): Torque (non-automatic reel) (Nm):	100N; 0.35Nm	P
	The maximum displacement of the flexible wire is 2mm, and the displacement of the wire on the terminal is not greater than 1mm	0.3mm	P
	Creepage distance and electrical clearance shall not be reduced below the specified value of 29.1		P
25.16	For flexible wire fixtures with X connections, the structure and position shall be such that:		
	—The replacement of flexible wire is convenient and feasible		N
	—Can clearly show how to relieve tension and anti-twist		N
	—Suitable for different types of cords		N
	—If the clamping screws of a flexible wire fixture are easily accessible, the flexible wire must not reach these screws unless		N
	The screws are separated from easily accessible metal parts by additional insulation		N
	—The cord is secured without metal screws pressing directly onto the cord		N
	—At least part of the flexible wire fixture is reliably fixed to the appliance, unless the fixture is part of a special flexible wire		N

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clause	Test items and test requirements	Test results-Description	Detemntions
	—If applicable,a screw that must be operated when replacing the cord,cannot be used to secure other components		N
	—If the labyrinth device has the potential to be bypassed,it must stil be subjected		N
	—For Class o,Class 0 I,and Class I appliances: Flexible wire fixtures shall be made of insulating material, or with insulating lining, unless failure of flexible wire insulation will not electrify accessible metal parts		N
	—For Class- II appliances: Flexible wire fixtures shall be made of insulating material or, in the case of metal,separated from easily accessible metal parts by additional insulation		N
25.17	Flexible wire fixtures for Y and Z connections should be adequate for their function		P
25.18	Flexible wire fixtures can only be reached with the aid of tools		N
	Or its structure is such that the cord can onty be installed with the help of atool		P
25.19	Device to X type connection, gland should not be fixed as flexible wire for portable appliance		N
	Do not tie the cord into a knot or use a string to tie the cord		N
25.20	Power cords forY and Z connections should have adequate supplemental insulation		P
25.21	For compartments provided for the connection of an X-connected power cord or fixed wiring, the construction shall ensure that:		
	—Check that the wires are in the correct position and properly connected prior to fitting the cover		N
	—There isno danger of damage to the wire and is insulation during connection		N
	—For portable appliances, if the wire is likely to slip out of the terminal,prevent the uninsulated end of the wire from coming into contact with easily accessible metal parts		N
25.22	Appliance input jack:		
	—Live parts are not easily accessible when inserted or pulled out		N
	—Connector for easy insertion		N
	—Connectors should not support the appliance		N
	— If the temperature rise of external metal components exceeds 75K, input jacks suitable for cold environments should not be used, unless it is impossible for the power cord to contact such metal components		N
25.23	The interconnect cords shall meet therequirements of the power cords, except in the followingcases:		N
	—The cross-sectional area of the interconnect cords is determined by the maximum current carried by the wires during the Chapter11 test, not by the rated current of the appliance		N
	—If the veltage of the wire is less than the rated voltage of the appliance, the thickness of the insulation layer of the wire can be appropriately reduced		N
	Perform electrical strength tests of 16.3 if necessary		N
25.24	If a break in the interconnect cord prevents the appliance from complying with this Standard, the interconnect cord appliance pins shall not be removed without the aid of a tool and shall be sized to match the appropriate socket.		N
25.25	The pins and meshing surfaces shall be dimensioned in accordance with the IEC 60083 corresponding plug dimensions		N

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clause	Test items and test requirements	Test results-Description	Detemntions
26 Wiring terminals for external wires			
26.1	The appliance shall have a temminal or equivalent desice for connecting external wines		P
	This terminal should only be reached after removing the non-removable cover		P
	The ground terminal may be accessible if it requires a tool for connection and provides a tightening device independent of the wire connection		N
26.2	X-connected appliances and appliances connected to fixed wiring shall be provided with terminals for connection with screws,nuts or equivalent devices, unless welding is used		N
	Screws and nuts are only used to clamp power leads, except		N
	Screws and nuts can also be used to tighten the internal wires if the internal wires are arranged so that they cannot be replaced when the power wires are assembled		N
	If connected by brazing, the reliability of wire positioning or fixing must not depend solely on the welding		N
	If there is a baffle, even if the wire is removed from the solder joint, the creepage distance and electrical clearance can still meet the requirements, then the welding can be used alone		N
26.3	Terminals connected to type X and connected to fixed wiring should have sufficient contact pressure to clamp the wire between metal surfaces and not damage the wire		N
	Such terminals shall be fixed so that when the clamping device is loosened or tightened:		N
	—The terminal is not loose		N
	—The internal wiring is not stressed		N
	—The creepage distance and electrical clearance shall not be reduced below the values specified in Chapter 29		N
	Inspect and test according to IEC60999-1 8.6, the applied torque is equal to 2/3 of the specified torque, the standard diameter of the thread(mm); Type of thread; Torque (Nm):		N
26.4	Except for terminals used to connect specially prepared flexible wires or to connect fixed wiring, terminals used for type X connections shall not require special preparation of wires and shall be constructed or placed so as to prevent wires from slipping out when fastened		N
26.5	Terminals for Type X connections shall be positioned and protected so that there is no danger of accidental connection between live parts and easily accessible metal parts if one of the strands slips out when assembling the wire		N
	Remove 8mm of insulation from the end of the wire and test		N
	There is no risk of accidental connection between live parts and accessible metal parts and,for Class II structures, between live parts and metal parts isolated only by additional insulators from accessible metal parts		N
26.6	Type X connections and terminals connected to fixed wiring shall be suitable for connecting wires with nominal cross-sectional areas as listed in Table 13.Rated current(A); Nominal cross-sectional area(mm2):		N
	Applicable oniy to terminals connected to tpecially prepared fleable wires		N
26.7	Terminals for Type X connections should be accessible after the cover or part of the housing has been removed		N

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clause	Test items and test requirements	Test results-Description	Detemntions
26.8	The temminals connecting thefied winng, including the ground terminals, should be against each		N
26.9	The structure and setup of the post terminal should meet the specified requirements		N
26.10	Screw-clamped terminals and screw-free terminals should not be used to connect flat twin-core foil wires unless the wire ends are fitted with suitable connecting devices		N
	Test the connection by applying a tension of 5N		N
26.11	Y and Z connections may be made using tin soldering, fusion soldering, crimping and similar joining methods		P
	For Class II appliances, wire positioning or fixation shall not rely solely on soldering, fusion welding and crimping		N
	For Class II appliances, if there is a baffle, even if the wire is removed from the connection, the creepage distance and electrical gap can still meet the requirements, then the single use of tin welding, fusion welding and crimping can be used		N
27 Grounding Measures			
27.1	Easy to reach metal parts of Class 0I and Class I appliances, permanently and reliably attached to a ground terminal or ground contact in an input jack		P
	The ground terminal should not be connected to a neutral terminal		P
	Class 0, Class II and Class III appliances shall not have grounding measures		N
	Safety ultra-low voltage circuits should not be grounded unless they are protective ultra-low voltage circuits		N
27.2	The clamping device of the ground terminal should be reliable and firm to prevent accidental locsening		P
	Terminals connecting external equipotential wires shall allow connection of wires with nominal cross sections of 2.5mm ² to 6mm ²		N
	The terminal should not be used to provide ground continuity for different parts of the appliance		N
	Do not loosen the wire without tools		P
	The clamping device of the ground terminal should be sufficiently secured to prevent accidental loosening		P
27.3	Removable parts with ground connections are inserted into another part of a large number of appliances, and the starting ground connection shall be completed before the current-carrying connection; When pulling out the part, the ground connection is disconnected after the current-carryingconnection is disconnected		N
	For appliances with power cords, if the cord slips out of the fixture, the current-carrying wire should be tightened before the ground wire		P
27.4	Contact between the metal of the ground terminal and other metals shall not give rise to a corrosion hazard		P
	All parts, except metal frames or housings, used to provide ground continuity shall be adequately protected against corrosion		P
	Steel parts providing ground continuity shall have a coating of at least 5µm thickness on the basic surface of coated		P
	uncoated steel parts used only to provide and transmit contact pressure shall be adequately protected against rust		P
	Precautions should be taken to avoid corrosion hazards caused by aluminum alloys		N
27.5	The connection between the ground terminal or contact and the grounded metal part should be low resistance		P

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clause	Test items and test requirements	Test results-Description	Detemntions
	If, for a protective ultra-low voltage circuit,the electrical gap of the basic insulation depends on the rated voltage of the appliance, this requirement does not apply		N
	In the specified low resistance test, the resistance value should not exceed 0.10Ω	0.03Ω	P
27.6	Printed conductors on a printed circuit board cannot be used to provide ground continuity in a handheld appliance		N
	The conductor may be used in other appliances if		
	—At least two circuits use solder joints that are independent of each other, and the appliance complies with 27.5 for each circuit		N
	—Printed circuit board materialscomply with IEC 60249-2-4 or IEC 60249-2-5		N
28 screws and connections			
28.1	Fastening devices,electrical connections, and connections that provide ground continuity should withstand mechanical stress		P
	Screws should not be made of soft or creep prone metals such as zinc and aluminum build		P
	If the screw is an insulating material, the nominal diameter is at least 3mm		N
	Continuous insulation screws shall not be used in any electrical connection or provide a ground connection		N
	Screws used for electrical connections or to provide ground continuity should be screwed into metal		P
	If replacement with a metal screw would damage the additional insulation and reinforcing insulation, the screw should not be made of insulating material		N
	The screw can be removed when replacing the power cord with an X-type connection or during maintenance. If replacing it with a metal screw will damage the basic insulation, do not use insulation materials		N
	Screws and nuts,subjected to torque tests as specified, applying the torque(Nm) shown in Table 14:	(See attached table)	P
28.2	Contact pressure should not be transmitted through insulating materials that are prone to shrinkage or deformation unless shrinkage or deformation can be compensated		P
	This requirement does not apply to electrical connections with currents not exceeding 0.5A		N
28.3	Wide pitch (sheet metal) screws can be used for electrical connections if the parts can be clamped together		P
	Self-tapping screws should not be used for electrical connections unless a mechanical screw thread of a fully standard shape can be machined.		N
	If the screw may be disassembled by the user or installer,self-tapping screws should not be used unless the thread is extruded		N
	Wide pitch screws or self-tapping screwvs can be used for connections that provide ground continuity if the connections are not obstructed and each connection has at least two screws		P
28.4	Screws and nuts for mechanical connections, if used simultaneously for electrical connections or to provide ground continuity, should be securely fixed to prevent loosening		P
	Rivets used for electrical connections or to provide ground continuity should be securely fixed to prevent loosening if subjected to torque		N
29 Electrical clearance,creepage distance and solid insulation			

GB 4706.1-2005			
clause	Test items and test requirements	Test results-Description	Determinations
	Electrical clearance, creepage distance and solid insulation should be sufficient to withstand the electrical stresses the appliance may be subjected to		P
	If the coating on the printed circuit board is used to protect the microenvironment or to provide basic insulation, then Appendix J applies		N
29.1	Taking into account the rated pulse voltage corresponding to the overvoltage category in Table 15, the electrical gap shall be no less than the value specified in Table 16		P
	If the electrical gap can withstand the pulse voltage test in Chapter 14, the specified values for basic and functional insulation can be smaller		N
	The appliance belongs to Class II overpressure category		P
	Electrical gaps less than the values specified in Table 16 cannot be used as basic insulation for Class 0 and Class 01 appliances or basic insulation for Class 3 contamination		N
	Its conformity is checked by inspection and measurement		P
29.1.1	Taking into account the rated pulse voltage, the electrical gap of the basic insulation should withstand the overvoltage that occurs in normal use		P
	If the pollution level of the microenvironment is level 1, the electrical gap can be reduced to 1mm for the terminal of the tubular armored electric heating element		N
	The enamelled wire of the winding is regarded as a bare wire, but when the rated pulse voltage is more than 1500V, the specified value in Table 16 is reduced by 0.5mm		P
29.1.2	The electrical gap of the additional insulation shall not be less than the value specified in Table 16 for the electrical gap of the basic insulation		P
29.1.3	The electrical gap of the additional insulation shall not be less than the value specified in Table 16 for the electrical gap of the basic insulation, but shall be based on the rated pulse voltage at a higher grade than the actual one		P
29.1.4	For functional insulation, the values specified in Table 16 apply, except		P
	Where the functional insulation is short-circuited, the appliance still meets the requirements of Chapter 19		N
	Do not measure the electrical clearance at the crossing points of enameled wires		P
	The electrical gap between the surfaces of PTC heating elements can be reduced to 1mm		N
	The enamelled wire of the winding is regarded as a bare wire, but when the rated pulse voltage is above 1500V, the specified value in Table 16 is reduced by 0.5mm		P
29.1.5	For appliances with an operating voltage higher than the rated voltage, the voltage used to determine the electrical gap in Table 16 shall be the difference between the rated pulse voltage plus the peak value of the operating voltage and the peak value of the rated voltage		P
	If the secondary winding of the step-down transformer is grounded, or there is a grounding shield between the primary and secondary winding, the electrical gap on the secondary winding side shall not be less than the value specified in Table 16, but shall be based on the rated pulse voltage one grade lower than the actual pulse voltage		N
	If the supply voltage of the circuit is lower than the rated voltage, the electrical gap of the functional insulation shall be based on the operating voltage, which is regarded as the rated voltage in Table 15		N
29.2	The creepage distance should be no less than the corresponding value of the operating voltage, taking into account the class of material and contamination level		P
	Pollution level is level 2, unless		N

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clause	Test items and test requirements	Test results-Description	Detemntions
	Take precautions to protect the insulation, at this time the contamination level is level 1		N
	—The insulation is subjected to electrical conductivity pollution, and the pollution level is level 3		P
	Check its conformity by measuring		P
29.2.1	The creepage distance of the basic insulation shall not be less than the value specified in Table 17		P
	Except for Class 1 contamination, if a particular electrical gap has been checked using the tests in Chapter 14, the corresponding creepage distance shall not be less than the minimum value of the electrical gap in Table 16		N
29.2.2	The creepage distance of the additional insulation shall not be less than the value specified in Table 17		P
29.2.3	The creepage distance of reinforced insulation shall not be less than twice the value specified in Table 17		P
29.2.4	The creepage distance of the functional insulation shall not be less than the value specified in Table 18		P
	The creepage distance of the functional insulation may be reduced if the appliance complies with the requirements of Chapter 19 even if the functional insulation is short-circuited		N
29.3	Additional insulation and reinforced insulation shall be of sufficient thickness or number of layers to withstand electrical stresses that may occur in the appliance during use		P
	Determined by the following tests:		
	—According to 29.3.1 Measurement methods, or		P
	—Electrical strength test according to 29.3.2, or		N
	—According to 29.3.3, the thermal properties of the material are evaluated in conjunction with electrical strength tests		N
29.3.1	If used as additional insulation, the minimum thickness of insulation is 1mm		P
	If used for reinforcing insulation, the minimum thickness of insulation is 2mm		P
29.3.2	Each layer of material should be subjected to 16.3 electrical strength tests for additional insulation		N
	The additional insulation consists of at least two layers		N
	Reinforced insulation consists of at least three layers		N
29.3.3	48h dry heat test shall be conducted according to GB/T 2423.2 Bb test, and electrical strength test shall be conducted according to regulations.		N
	The measured temperature rise in Chapter 19 test does not exceed the value specified in Table 3, and GB/T 2423.2 test is not carried out		N
30 Heat and fire resistance			
30.1	The following parts should all be adequately heat-resistant		P
	—External parts made of non-metallic materials		P
	—Parts that support live parts		P
	—Thermoplastic materials for additional insulation or reinforced insulation are available		N
	Ball pressure test according to IEC 60695-10-2		P
	For external parts, the maximum value of 75°C or 40°C plus the maximum temperature rise during the 11 chapter test is taken as the maximum value, and N the test temperature is (°C).		N
	For the parts supporting live parts, 125°C or 40°C plus the maximum temperature rise during the 11 chapter test, the maximum value of the test temperature (°C):		P
30.2	The non-metallic material of the part concerned shall be flame resistant and flame retardant		P

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clause	Test items and test requirements	Test results-Description	Detemntions
30.2.1	Perform the IEC 60695-2-11 glow-wire test at 550°C, unless		P
	According to IEC 60695-11-10,the class of the material shall be at least HB40		N
	Parts that cannot be tested for glowing wires should meet the requirements of ISO 9772 for FH3 materials		N
30.2.2	For appliances working under care,insulating material components supporting current carrying connections and insulating material components within a distance of 3mm of these connections shall be subjected tothe glow-wire test of GB/T5169.11(idt IEC60695-2-11)		N
	—750°C for connectors whose current carrying exceeds 0.5A during normal operation		N
	—650°C for other connectors		N
30.2.3	Appliances left unattended at work shall be tested as specified in 30.2.3.1 and 30.2.3.2.However, the test shall not apply		P
	—The parts supporting the fused weided fittings		N
	—Components supporting connectors in low power circuits described in 19.11.1		N
	—welded connectors for printed circuit boards		N
	—Aconnector for small components on a printed circuit board		N
	—Parts within 3mm of these connections		N
30.2.3.1	Insulating material components supporting connectors with A current carrying greater than 0.2A during normal operation, and insulating materials within 3mm of these connections,have a burning index of the hot wire(according to GB/T5169.12 (idtIEC60695-2-12) of at least 850°C, and the sample is not thicker than the relevant part		P
30.2.3.2	Insulating material components supporting current-carrying connections, and insulating material components within 3mm of these connections, are subjected to GB/T5169.11(idtIEC60695-2-11) glow-wire tests		P
	However, according to GB/T5169.13(idt IEC60695-2-13) the material N class of the glowing wire at least meet the following ignition temperature values, the glowing wire test is not carried out		N
	—775°C for connectors whose current carrying exceeds 0.2A during normal operation		P
	—675° C for other connectors		N
	When performing the glow-wire test for GB/T5169.11(idt IEC60695-2-11), the temperature is as follows		N
	—750°C for connectors whose current carrying exceeds 0.2A during normal operation		P
	—Other connectors, 650°C		N
30.2.4	For the substrate of the printed circut beard, pefere the needie flame test in Appendix E		P
	The brush circuit board is placed in accordance with the direction of normal use, and the flame is applied to the edge of the board where the heat dissipation effect is worst during normal use and positioning		P
	The experiment was not conducted on		
	—19.11.1 Printed circuit board of the low power circuit		N

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clause	Test items and test requirements	Test results-Description	Detemntions
	—Printed circuit boards in the following cases		N
	Fire resistant or fire resistant metal housing		N
	A handheld appliance		N
	An appliance that must be kept electrified by hand or foot		N
	An appliance that is continuously loaded by hand		N
31 Rust prevention			
	The iron parts concerned shall be adequately protected against rust		P
32 Radiation, toxicity and similar hazards			
	Appliances should not emit harmful radiation, or carry toxic or similar hazards		P
Appendix A (Informative Appendix) Routine tests			
	Routine tests are intended to be performed by the manufacturer on each appliance		N
Appendix B: (Normative Appendix) Appliances powered by Rechargeable batteries			
	The following modifications to this standard apply to appliances powered by rechargeable batteries housed within the appliance		N
	This appendix does not apply to battery chargers		N
3.1.9	The appliance shall be operated under the following conditions:		N
	—The appliance shall be powered by a fully charged battery and shall be operated in accordance with the provisions of Part II of the Standard		N
	—The battery shall be discharged prior to charging to such an extent that the appliance cannot operate. If possible		N
	The appliance is powered from the grid through its charger, in Before this, the battery should be discharged sufficiently to the point where the appliance cannot operate		N
	—If the appliance consists of two separable parts, remove the detachable parts and power the appliance through the grid		N
3.6.2	Parts that need to be removed when the battery is discarded are not considered removable parts		N
5.101	Appliances powered through the grid should be carried out in accordance with the regulations for electric appliances		N
7.1	In cases where the test is intended to replace the battery by the user, the battery box should be marked with the battery Voltage and electrode		N
7.12	Appliances where batteries are to be replaced by users should be equipped with instructions to provide the necessary information.		N
	If the batteries contain substances hazardous to the environment, instructions on how to remove such batteries should be provided		N
7.15	The sign should be on the part where the appliance is connected to the power cord		N
8.2	If the battery of the appliance can be replaced by the user according to the instructions, only basic insulation is required between the live parts and the inner surface of the battery box		N
	If the appliance is capable of operating without batteries, double insulation and reinforced insulation will be required in the above locations		N
11.7	Charge the battery for the prescribed amount of time		N
19.1	The appliance should withstand tests of 19.101, 19.102, and 19.103		N
19.101	Power the appliance at rated voltage for 168h while continuously charging the battery		N

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clause	Test items and test requirements	Test results-Description	Detemntions
19.102	For appliances that remove batteries without the aid of tools, short circuit their fully charged batteries		N
19.103	For appliances where the battery can be replaced by the user, remove the battery or place the battery in any position permitted by the instructions so that the appliance operates properly at rated voltage		N
21.101	Appliances with pins shall have sufficient mechanical strength to be tested according to Method 2 of IEC68-2-32		N
	Parts with pins on the appliance shall be subjected to the free drop test specified in Method 2 of IEC 60068-2-32, the number of drops being:		N
	—100, the weight of the parts does not exceed 250g		N
	—50, parts weighing more than 250g		N
	After testing, the appliance shall meet the requirements of Chapter 8.1, 15.1.1, 16.3 and 29		N
22.3	Appliances with pins shall be tested as fully assembled as possible		N
25.13	Interconnect cords used at safe extra-low voltages do not require additional padding or bushings		N
30.2	For parts of the appliance that are connected to a power cord during charging, 30.2.3 applies		N
	For other components, 30.2.2 applies		N
Appendix C, (Normative Appendix) Ageing tests performed on motors			
	When in doubt about the classification of the insulation system of the motor windings the test		N
Appendix D, (Normative Appendix) Motor thermal protectors may be carried out			
	For electric appliances with built in thermal peotectors		N
Appendix E, (Normative Appendix) Needle flame test			
	needle fiame tests are carried out in accordance with IEC 60695-2-2, modified as follows		P
5	Severity Rating		
	The flame duration in the test was 30s±1s		P
8	Test methods		
8.2	The sample should be arranged so that the flame can be applied to a vertical or horizontal edge as shown in Figure 1		P
8.4	The first paragraph does not apply		P
	If possible, the flame should be applied at least 10mm from the comer		P
8.5	The trial is performed on a sample		P
	If the sample cannot withstand the test, the test may be repeated on the other two samples, but both samples must be able to withstand the test		N
10	Evaluation of trial results		
	The combustion duration should not exceed 30s		N
	However, for printed circuit boards, the duration of combustion should not exceed 15s		P
Appendix F, (Normative Appendix) Capacitors			
	Capacitors that may permanently withstand a supply voltage and are used for RF interference suppression or voltage division shall comply with the following provisions of IEC 60384-14, as amended next:		N

GB 4706.1-2005			
clause	Test items and test requirements	Test results-Description	Detemntions
1.5	Terminology		N
1.5.3	Type X capacitors are tested according to Type X2 subclasses		N
1.5.4	This clause applies		N
1.6	Signs		N
	Items a)and b)apply		N
3.4	Approval trials		N
3.4.3.2	Apply according to Table II of requirements		N
4.1	Visual inspection and dimensional inspection		N
	This clause applies		N
4.2	Electrical testing		N
4.2.1	This clause applies		N
4.2.5	The terms apply		N
4.2.5.2	Only Table IX applies		N
	Data from trial A are applicable		N
	However,for capacitors of electric heating appliances,the data of test B or C apply		N
4.12	Hot and humid,steady state		N
	The terms apply		N
	Check only insulation resistance and voltage protection		N
4.13	Pulse voltage		N
	The terms apply		N
4.14	Durability		N
	4.14.1,4.14.3,4.14.4and4.14.7 apply		N
4.14.7	Check only insulation resistance and voltage protection		N
	On visual examination,no visible damage		N
4.17	Passive burningtest test		N
	This clause applise		N
4.18	Active flammability test		N
	This clause applise		N
Appendix G, (Normative Appendix) Safety isolation transformer			
	The following modifications to the standard apply to safety isolation transformers:		N
7	Signs and instructions		N
7.1	Special purpose transformers should be marked with:		N
	—the name, trademark or identifying mark of the manufacturer or responsible underwriter		N
	—Model or specification of the product		N
17	Overload protection of transformers and associated circuits		N
	Safety failure transformers shall comply with IEC 61558-1 in 15.5		N

GB 4706.1-2005			
clause	Test items and test requirements	Test results-Description	Detemntions
22	Structure		
	19.1 and 19.1.2 in IEC 61558-2-6 apply		N
29	Electrical clearance,creepage distance and solid insulation		
29.1, 29.2,29.3	2a,2c and 3 in Table 13 of IEC 61558-1 apply		N
H	Appendix H, (standard appendix) switch		N
	The switches shall comply with the following provisions of IEC 61058-1,with the following modifications:		N
	—Tests to IEC 61058-1 shall be carried out where practically possible		N
	—Make the switch operate 20 times without load before the test		N
8	Signs and materials		
	Switch no logo required		N
	However, switches that can be tested separately from the appliance shall be marked with the manufacturer's name or trademark and model numbe		N
15	Insulation impedance and dielectric strength		
15.1	This clause does not apply		N
15.2	This clause does not apply		N
15.3	Suitable for all pole breaks and small breaks		N
17	Durability		
	Three separate samples are tested to judge their eligibility		N
	In 17.2.4.4, the number of tests is 10,000, unless otherwise specified in Article 24.1.3 of Part II of IEC60335		N
	Switches operating under no load, switches operated by tools only, and manual switches with interlocking devices so that they cannot operate under load do not need to be tested		N
	17.2.5.2 Not Applicable		N
	After the test, the temperature rise of the terminal shall not exceed 30K higher than the temperature rise in the test of IEC60335-1 Chapter 11		N
20	Coated electrical clearance, creepage distance, solid insulation and rigid printed circuit board Group This clause applies to the electrical clearance and creepage distance of functional		
	insulation, all-pole breaks and micro-breaks, as listed in Table 24		N
Appendix 1, (Normative Appendix)Basic insulated Motors not suitable for therated voltage			
	of the appliance The following modifications apply to basic insulated motors not suitable for the rated voltage of the appliance		N
8	Protection from touching live parts		
8.1	The metal parts of the motor are considered exposed live parts		N
11	fever		
11.3	Replace the with the temperature rise ofthe motor housing		N

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clause	Test items and test requirements	Test results-Description	Detemntions
11.8	The temperature rise of the motor housing at the point of contact with the insulation material shall not exceed the values specified in Table 3 for the relevant insulation material		N
16	Leakage current and electrical strength		
16.3	The test shall not be carried out between the live parts of the motor and other metal parts		N
19	Abnormal work		
19.1	Do not run trials 19.7 to 19.9		N
19.101	The appliance is operated at rated voltage, simulating one of the following failure conditions at a time:		
	—A short circuit of a motor terminal, including a short circuit of any capacitor in the motor circuit		N
	—Each diode in the rectifier shorted		N
	—Motor open circuit		N
	—During the operation of the motor, any parallel resistance is open		N
	One faultcondition is simulated each time, and the tests are caried out continuously		N
22	Structure		
22.101	For Class 1 appliances, where the motor is powered by a rectifier circuit, there shall be double insulation or reinforced insulation between the direct current circuit and the accessible parts of the appliance		N
	Its conformity is checked by the test of double insulation and reinforced insulation		N
Appendix J, (Normative Appendix) Coating printed circuit boards			
	Tests for protective coatings on printed circuit boards are carried out in accordance with IEC 60664-3, modified as follows:		N
6.6	Order of environmental change		
	Test of three printed circuit boards when using a mass-produced sample		N
6.6.1	cooling		
	The test was carried out at-25°C		N
6.6.3	Quick change of temperature		
	Specify a severity rating of 1		N
6.8.6	Partial discharge residual pressure		
	Class A coatings are not subjected to partial discharge tests		N
6.9	Additional Trials		
	This clause does not apply		N
Appendix K, (Normative Appendix) Overvoltage categories			
	Information on overvoltage categories is taken from IEC60664-1		P
	The overvoltage category is a number that defines the transient overvoltage condition		P
	Equipment in the overvoltage category land IV is equipment used at the initial installation site		N

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clause	Test items and test requirements	Test results-Description	Detemntions
	Overvoltage category III equipment is equipment in fixed facilities, and the reliability and effectiveness of the equipment under specific circumstances should meet special requirements		N
	Overvoltage category II equipment is energy consuming equipment powered by stationary facilities		P
	If such equipment meets special requirements in terms of reliability and effectiveness, it belongs to the overvoltage category III		N
	Overvoltage category I devices are those that have the necessary measures in the connection circuit to limit the transient overvoltage to a low level		N
Appendix L, (Informative Appendix) Guidelines for measurement of electrical clearance and creepage distance			
	Results of measurement of electrical clearance and creepage distance		P
Appendix M, (Normative Appendix) Pollution levels			
	Information on pollution levels is taken from IEC 60664-1		P
	Pollution		P
	Considering the macroscopic pipeproperty, the microscopic environment determines the contamination of the insulation		P
	Contamination of insulation can be reduced by providing effective housing or similar measures		P
	In the case of pollution in the micro-environment, the minimum electrical clearance shall comply with the regulations		N
	In order to assess the creepage distance, the following pollution levels are established for the micro-environment:		
	—Pollution Level 2: Only non-conductive contamination is present except for short-term conduction due to predictable condensation		N
	—Contamination Level 3: There is conductive contamination or dry non-conductive contamination, and the latter will conduct electricity due to condensation		P
	—Contamination Level 4: Persistent conductive pollution due to conductive dust or rain or snow		N
Appendix N, (Normative Appendix) Creepage resistance test			
	Leakage resistance marking test according to IEC60112, modified as follows:		P
5	test device		
5.1	Electrodes		
	This definition does not apply		N
5.4	Test solution		
	Use test solution A		P
6	Methods		
6.3	Creepage resistance test		N
	The voltage is 100V,175V,400V,600V	175V	P
	Note 3 to Article 3 applies		P
	The trial was conducted on five samples		P
	If in doubt, additional tests can be performed by lowering the voltage by 25V and increasing the number of drops to 100		N
7	Report		

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clause	Test items and test requirements	Test results-Description	Detemntions
	If the PTI value is obtained from a test with voltage (PTI-25)V, drop number 100, this should be stated in the report		N
Appendix O, (Informative Appendix) Chapter 30 Selection and Sequence of tests			
	Description of heat and fire resistance tests		P
Appendix P (Informative Appendix) Standard Application Guidelines for Appliancesused in hot and humid Climates			
	The following amendments to this standard applyto appliances marked WDaE Mark Class 0 and 01 in countries and regions with rated voltages exceeding 150V and specified for use in hot and humid climate		N
	The humid and hot climate has the characteristics of high humidity and highambient temperature with little change as specified in GB/T4797.1(neg IEC60721-2-1)		N
	Where it is possible to connect to a power source without ground protection due to the absence of fixed wiring, this standard may also be applied to Class I appliances marked with the WDaE mark with a rated voltage of more than 150V and intended for use in countries and regions with hot and humid climates		N
5	General conditions for the trial		
5.7	5 The ambient temperature of the test in chapters 11 and 13 is 40°C		N
7	Signs and instructions		
7.1	Appliances should have the WDaE logo		N
7.12	The instructions shall indicate that the appliance shall be equipped with aresidual current device (RCD) with a rated residual current not exceeding30mA		N
	The following should be stated		
	This device is suitable for use in countries and regions with humid and hot climates, and can also be used in other countries and regions		N
11	fever		
11.8	Table 3 decreases the value by 15K		N
13	Leakage current and electrical strength for operating temperature		
13.2	The leakage current of Class 1 appliances should not exceed 0.5mA		N
15	Resistance to moisture		
15.3	The T-value is 37°C		N
16	Leakage current and electrical strength		
16.2	The leakage current of Class 1 appliances should not exceed o.5mA		N
19	Abnormal work		
19.13	Flow test In addition to 16.3 electrical strength test,16.2 leakage of electricity		N
Appendix Q(Information Appendix)Electronic Circuit evaluation test procedures			
Appendix R(Normative Appendix)Software evaluation			
	The modified software evaluation should be conducted in accordance with Appendix H of IEC60730-1 and done as follows		N
H.2	definition		
	Only the definitions of H.2.16 through H.2.20 apply		N

GB 4706.1-2005			
clause	Test items and test requirements	Test results-Description	Detemntions
H.7	Message		
	Only footnotes 12)-18) in Table 7.2 apply		N
	Footnote 15)replace"Requirements of 17,25,26 and 27" with" 19.13 of GB4706.1(idt IEC60335-1)";And replace"H.27"with" 19.11.2 of GB4706.1(IDT IEC60335-1)" H.11.12		N
H.11.12	Software controller		
	With the exception of H.11.12.6 and H.11.12.6.1,all contents of H.11.12 are applicable with the following modifications		N
	In the second paragraph,replace "66-72" with "refer to footnotes 12) -18)"		N
H.11.12.7	Delete "and the requirements of 68 as set out in Table 7.2"		N
H.11.12. 7.1	Forthose using single-channel Level C software with sell-test and monitoring capabilities 7.1 Appliance, Manufacturer shall provide the necessary measures to enable fault/error messages to be addressed in accordance with the safety-related fields and data given in Table H.11.12.7.1 H.11.12.8		N
H.11.12.8	Fault/error detection should be in GB4706.1(idt IEC60335-1) 19.13 before the test fails		N
H.11.12.8. 1	The test with "GB4706.1(idt IEC60335-1)19.13 failed.		N
H.11.12.13	The initialization and termination of the software and safety-related hardware used in the control "before"instead of "Results refer to Table 7.2" shall be carried out before the failure of the test of 19.13 of GB4706.1(idt IEC60335-1)		N

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Schedule:

10.1	Table:Input Power Deviation Measurement(JK-120)				P
Measuring unit	Power rating(W)	Measured power(W)	Power deviation(%)	Rating deviation	Remarks
JK-120	180W	175.3W	-2.6%	+20%	220V~,50Hz

10.2	Table:Current deviation measurement				N
Measuring unit	Rated current (A)	Measured curren(A)	Current deviation	Rating deviation	Remarks
—	—	—	—	—	—

11.8	Form:Heat Test,Thermocouple temperature Measurement(JK-120)				P
	Room temperature t1(°C).....	23.7			
	Room temperature t2(°C).....	22.8			
	Test voltage (V).....	233.2			
Measuring parts (parts)		Measured temperature rise(K)		Temperature rise limit (K)	
Power cord insulation		6.2		50	
Inside Line 1		6.2		T200-25=175	
Inside Line 2		5.8		T200-25=175	
Transformer(Power PCB)		11.3		85 (Level B)	
Relay(Power PCB)		12.5		T70-25=45	
X2 Capacitor(Power PCB)		7.6		T100-25=75	
Starting capacitance		5.3		T85-25=60	
Power PCB		17.6		Chapter 120/30	
UV LampPCB		8.0		Chapter 120/30	
Transformer (UV LampPCB)		19.9		65 (Level A)	
Control panel PCB		3.4		Chapter 120/30	
Junction Box Plastic		5.1		Chapte 30	
UV lamp Box Plastic		4.5		Chapte 30	
Touch Panel		3.0		Chapte 60/30	
Metal case		3.9		Chapte 25.7	
Testing the Backboard		3.1		65	
Test top plate		4.8		65	
Test baseplate		3.9		65	

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Test side wall	4.0			65	
11.8	Table: Heat test, resistance method for temperature measurement				P
Winding temperature rise	R1(Ω)	R2(Ω)	Measured temperature rise (K)	temperature rise limit(K)	Insulation class
Motor winding (full winding)	96.5	111.9	42.10	95	Grade B

13.2	Table: Leakage current measurement at operating temperature			P
	Electric heating apparatus: 1.15 times rated power (W).....:		/	
	Electric appliances and combined appliances: 1.06 times rated voltage(V).....:		233.2	
Measure part bit			Measured value (mA)	Limit value (mA)
Between any pole of the power supply and accessible parts			0.031	3.5

13.3	Form: Electrical strength test at operating temperature			P
Test where voltage is applied			Test voltage (V)	Breakdown or not
Between the live part and the easily accessible grounded part			1085	no
Between the internal wire insulation skin and accessible non-grounded parts			1750	no
Between live parts and accessible non-grounded parts			3170	no

14	Form: Instant overpressure				N
Electrical clearance measurement position	Measurement value (mm)	Specified value (mm)	Rated pulse voltage (V)	Test voltage (V)	Whether it flashover
—	—	—	—	—	—

16.2	Table: Leakage current			P
	Single-phase appliances: 1.06 times rated electricity (V).....:		233.2	
	Three-phase appliance : 1.06 times rated voltage divided $\sqrt{3}$ (V).....:		/	
Measuring part position			Measured value (mA)	Limit value (mA)
Between live parts and easy to reach parts			0.042	3.5

16.3	Form: Electrical strength test			P
Test where voltage is applied			Test voltage (V)	Breakdown or not
Between the live part and the easily accessible grounded part			1335	no

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Between internal wire insulation and accessible non-grounded parts	1750	No
No Between live parts and accessible non-grounded parts	3170	No

17	Table:Overload protection, temperature rise measurement		P
	1.06 or 0.94 times rated electricity (V).....:	233.2	
	position (Location)	Measured temperature°C	Temperature limit°C
	Transformer windings	126.5	175 (Level B)

19.7	Table:Abnormal Test				P
	t1=.....: (°C)	23.4/23.8/23.1/23.3			
	t2=.....: (°C)	24.0/24.4/23.8/22.9			
	Measuring parts (parts)	Real temperature rise K			Limit temperature rise K
		Chapters 19.7-1	Chapters 19.7-2	Chapters 19.7-3	Appendix D
	Power Cord Insulation	23.1	20.0	27.7	24.5
	Junction box Plastic	21.0	18.1	25.1	22.3
	UV lamp Box Plastic	2.0	1.1	3.4	1.2
	Touch Panel	2.2	1.2	3.6	0.8
	Testing Backboard	2.4	1.4	2.8	1.2
	Test top plate	2.6	1.6	3.1	0.7
	Test baseplate	2.8	1.8	3.3	0.4
	Test side wall	3.1	2.0	2.9	0.7
<p>Note:</p> <p>chapte19.7-1: Test conditions Motor winding(motor blocked, capacitance normal);</p> <p>chapte19.7-2: Test conditions Motor winding(motor blocked, capacitor open);</p> <p>chapte19.7-3: Test conditions Motor winding(motor blocked, capacitor circuit);</p>					

19	Table:Abnormal Test:				P
	t1_____ (°C)	23.4/23.8/23.1/23.3			
	t2_____ (°C)	24.0/24.4/23.8/22.9			
	Winding temperature rise measurement	R1(Ω)	R2(Ω)	Actual temperature measurement	Limit temperature (°C)
	chapte 19.7-1	96.5	144.6	153.0	225
					Insulation class
					(GradeB)

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Chapter 19.7-2	96.4	141.6	145.5	225	(Grade B)
Chapter 19.7-3	96.8	147.3	158.7	225	(Grade B)
Appendix D	97.3	146.3	155.2	225	(Grade B)

24.1	Table:Components					P
component/ partname	manufacturer/ trademark	model/specifi cation	Technical parameters	Standard	Certification mark	
*PVC insulated flexible cable wire	Zhongshan Meijing Electric Appliance Co.,LTD	60227 IEC 53(RVV) 300/500V	3×0.75mm ² 3×1.0mm ²	GB/T5023.5-2008/IE C60227-5:2003	2008010105305132	
PVC insulated flexible cable wire	Zhongshan City Dongfeng town wanzhen Electrical Appliance Factory	60227 IEC 53(RVV) 300/500V	3×0.75mm ² 3×1.0mm ²	GB/T5023.5-2008/IE C60227-5:2003	2019010105224746	
*Single-phase bipolar unremovable plug with ground	Zhongshan Meijing Electric Appliance Co.,LTD	MJ-03	10A 250V~	GB/T2099.1-2008;GB /T1002-2008	2008010201301619	
Single-phase bipolar unremovable plug with ground	Zhongshan City Dongfeng town wanzhen Electrical Appliance Factory	WZ-02	10A 250V~	GB/T2099.1-2008;G B/T1002-2008	2019010201213023	
* Electric motor for smoke exhaust fan	Zhongshan City Dongfeng town xiangyong motor Factory	YYX100A-4	100W B Class 50Hz220V~	GB/T12350-2009	2020980401000751	
* motor thermal protector	Changzhou City Tongli Electronics Co.,LTD	KW-135	250V~ 5A 135 °C	GB14536.1-2008 GB14536.3-2008	CQC03002007802	
* High frequency transformer	Guangdong Haoer Electronics Co.,LTD	EE13	Class B	GB19212.1-2008;GB /T19212.17-2013	CQC16001148592	
High frequency transformer	Foshan Shunde District Jingwei Electronic Appliance Co., Ltd	JW13	Class B	GB/T19212.1-2016; GB/T19212.17-2019	CQC13001103899	
*Capacitor	Foshan derong Electronic Appliance Co., Ltd	CBB61	5μF 450V~ 40/85/21	GB/T3667.1-2016	CQC19002230182	
Capacitor	Foshan Shunde District Tli Electronic Appliance Co., Ltd	CBB61	5μF 450V~ 25/70/21	GB/T3667.1-2016	CQC07006019816	
Capacitor	Zhongshan Huangpu Town Heli Electrical Appliance Factory	CBB61	5μF 450V~ 25/70/21	GB/T3667.1-2016	CQC04002011131	
Capacitor	Foshan Shunde District Zhuoli Capacitor Manufacturing Co., Ltd	CBB61	5μF 450V~ 25/70/21	GB/T3667.1-2016	CQC05002012241	
Capacitor	Zhongshan Huangpu Town Bangli Electrical Appliance Factory	CBB61	5μF 450V~ 25/70/21	GB/T3667.1-2016	CQC10002040819	

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Capacitor	Foshan Shunde Yingyi Electric Appliance Co.,LTD	CBB61	5 μ F 450V~25/70/21	GB/T3667.1-2016	CQC07002020959
Capacitor	Zhongshan City Kewei Electric Appliance Co.,LTD	CBB61	5 μ F 450V~40/70/21	GB/T3667.1-2016	CQC07002020492
Capacitor	Foshan Shunde District Xunwei Capacitor Co.,LTD	CBB61	5 μ F 450V~25/70/21	GB/T3667.1-2016	CQC03002005176
Capacitor	Shengye Electric Co., LTD	CBB61	5 μ F 450V~40/85/21	GB/T3667.1-2016	CQC07006018868
*relay	Zhongshan Daoheng Relay Co., LTD	DH3F-A-12D-SS	10A 250VAC 5E4 cycle; ambient temperature: -30 $^{\circ}$ C~70 $^{\circ}$ C	GB/T21711.1-2008	CQC14002105343
relay	Zhongshan City Xiaolan town Guoke relay factory	GK3FF-12VDC- S-A	10A 250VAC 1E5 cycle; ambient temperature: -40~105 $^{\circ}$ C	GB/T21711.1-2008	CQC05001012265
relay	Ningbo Songle Relay Co.,LTD	SRU-12VDC-SL-A	10A 250VAC electrical:100000 Cycle; ambient temperature:-40~85 $^{\circ}$ C	GB/T21711.1-2008	CQC08002027667
relay	Ningbo Saitele Electronics Co.,LTD	JQC-3FF	250VAC -40 $^{\circ}$ C~85 $^{\circ}$ C	GB/T21711.1-2008	CQC07001021474
relay	Zhongshan Daoheng Relay Co., LTD	DH3F-A-12D-S S	10A 250VAC Electrical life: 5E4 ambient temperature: -30 $^{\circ}$ C~70 $^{\circ}$ C	GB/T21711.1-2008	CQC14002105343
relay	Ningbo Saitele Electronics Co.,LTD	JQC-3FF (HF3FF)	10A 227VAC Electrical life: 1E4 Ambient temperature: -40 $^{\circ}$ C~85 $^{\circ}$ C	GB/T21711.1-2008	CQC07001021474
relay	Zhongshan City Xiaolan town Guoke relay factory	CK3FF-VDC-S	10A 250VAC Electrical life:1E5 Ambient temperature: -40~105 $^{\circ}$ C	GB/T21711.1-2008	CQC05001012265
Safety tube	Asahi Cheng Electronics (Shenzhen) Co.,LTD	5F	F5L250V	GB9364.1-1997 GB9364.3-1997 CQC/R131-2003 附件2	2020970207000086
Safety tube	Zhenjiang jianhao Electric Appliance Co.,LTD	RF1-20	F5AL250V	GB/T9364.1-2015; GB/T9364.2-2018	2020970207000275
* Safety tube	Shenzhen Liangshen Electronics Co.,LTD	5J	F5A 250V F5AL250V	GB/T9364.1-2015; GB/T9364.2-2018	2020970207000110
Tubular fuse	Dongguan Dawei Hardware Electronics Co.,LTD	3T	T5A250V	GB/T 9364.1-2015; GB/T 9364.7-2016	2020980207000084

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Tubular fuse	Zhenjiang jianhao Electric Appliance Co.,LTD	RF1-20	F5AL250V	GB/T 9364.1-2015; GB/T9364.7-2016	2020970207000275
Tubular fuse	Shenzhen Liangshen Electronics Co.,LTD	5J	F5AL250V	GB/T 9364.1-2015; GB/T9364.7-2016	2020970207000110
*PVC insulated flexible cable wire	Zhongshan Guangshengchang Wire Co.,LTD	60227 IEC 08 (RV-90) 300/500V	0.5mm ² 0.75mm ² 1.0mm ²	GB/T5023.3-2008 IEC60227-3:1997	2014010105724738
PVC insulated flexible cable wire	Guangdong Yongrul Cable Technology Co.,LTD	60227 IEC 07 (BV-90) 300/500V	0.5mm ² 0.75mm ² 1.0mm ²	GB/T5023.3-2008 IEC60227-3:1997	2003010105057075
PVC insulated flexible cable wire	Guangdong Zhou's Shenlong electric wire manufacturing Co.,LTD	60227 IEC 08 (RV-90) 300/500V	0.5mm ² 0.75mm ² 1.0mm ²	GB/T5023.3-2008 IEC60227-3:1997	2005010105147089
PVC insulated flexible cable wire	Guangdong Zhihe wire and cable Co., LTD	60227 IEC 08 (RV-90) 300/500V	0.5mm ² 0.75mm ² 1.0mm ²	GB/T5023.3-2008 IEC60227-3:1997	2015010105748355
PVC insulated flexible cable wire	Zhongshan Heyi Electric Appliance Co., LTD	60227 IEC 08 (RV-90) 300/500V	0.5mm ² 0.75mm ² 1.0mm ²	GB/T5023.3-2008 IEC60227-3:1997	2008010105266434
PVC insulated flexible cable wire	Zhongshan City Dongfeng town wanzhen Electrical Appliance Factory	60227 IEC 53 (RVV) 300/500V	0.75mm ²	GB/T5023.5-2008/ IEC60227-5:2003	2019010105224746
PVC insulated flexible cable wire	Zhongshan Meijing Electric Appliance Co.,LTD	60227 IEC 53 (RVV) 300/500V	0.75mm ²	GB/T5023.5-2008/ IEC60227-5:2003	2008010105305132

28.1	Table: Torque test for threaded components			P
Component Name	thread diameter(mm)	number of leads (I 、 II 、 III)	Applying torque (Nm)	
grounding screw	3.8	II	1.2	

29.1	Form:Electrical clearance					P
	Overpressure category:	II				
		Insulation class				
Rated pulse voltage(V)	Minimum electrical clearance (mm)	Basic insulation	Function insulation	Additional insulation	Reinforced insulation	Conclain/Romans
330	0.5	—	—	—	—	N
500	0.5	—	—	—	—	N
800	0.5	—	—	—	—	N
1500	0.5	—	—	—	—	N

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2500	1.5	>2.6	>2.6	>2.6	—	P
2741	1.7	>2.9	—	—	—	P
4000	3.0	—	—	—	>4.6	P
4241	3.2	—	—	—	>4.8	P
6000	5.5	—	—	—	—	N
8000	8.0	—	—	—	—	N
10000	11.0	—	—	—	—	N

29.2	Table:Creepage distance,Basic insulation,Additional insulation and Reinforced insulation	P
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Operating voltage (V)	Creepage distance(mm)										result
	Contamination level1	Contamination level 2			Contamination level 3			Insulation class			
Material Group			Material Group								
I		II	IIIa/IIIb	I	II	IIIa/IIIb	B*)	S*)	R*)		
≤50	0.2	0.6	0.9	1.2	1.5	1.7	1.9		?	?	N
≤50	0.2	0.6	0.9	1.2	1.5	1.7	1.9	?		?	N
≤50	0.4	1.2	1.5	2.4	3.0	3.4	3.8	?	?		N
>50 and ≤125	0.3	0.8	1.1	1.5	1.9	2.1	2.4		?	?	N
>50 and ≤125	0.3	0.8	1.1	1.5	1.9	2.1	2.4	?		?	N
>50 and ≤125	0.6	1.6	2.2	3.0	3.8	4.2	4.8	?	?		N
>125 and ≤250	0.6	1.3	1.8	2.5	3.2	3.6	4.0	>5.2	?	?	P
>125 and ≤250	0.6	1.3	1.8	2.5	3.2	3.6	4.0	?	>5.2	?	P
>125 and ≤250	1.2	2.6	3.6	5.0	6.4	7.2	8.0	?	?	>10.4	P
>250 and ≤400	1.0	2.0	2.8	4.0	5.0	5.6	6.3	>8.2	?	?	P
>250 and ≤400	1.0	2.0	2.8	4.0	5.0	5.6	6.3	?		?	N
>250 and ≤400	2.0	4.0	5.6	8.0	10.0	11.2	12.6	?	?	>16.5	P
>400 and ≤500	1.3	2.5	3.6	5.0	6.3	7.1	8.0		?	?	N
>400 and ≤500	1.3	2.5	3.6	5.0	6.3	7.1	8.0	?		?	N
>400 and ≤500	2.6	5.0	7.2	10.0	12.6	14.2	16.0	?	?		N
>500 and ≤800	1.8	3.2	4.5	6.3	8.0	9.0	10.0		?	?	N
>500 and ≤800	1.8	3.2	4.5	6.3	8.0	9.0	10.0	?		?	N

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29.2	Table:Creepage distance,Basic insulation,Additional insulation and Reinforced insulation										P
Operating voltage (V)	Creepage distance(mm)										
	Contaminat ion level1	Contamination level 2			Contamination level 3			Insulation class			result
		Material Group			Material Group						
		I	II	IIIa/ IIIb	I	II	IIIa/IIIb	B*)	S*)	R*)	
>500 and ≤800	3.6	6.4	9.0	12.6	16.0	18.0	20.0	?	?		N
>800 and ≤1000	2.4	4.0	5.6	8.0	10.0	11.0	12.5		?	?	N
>800 and ≤1000	2.4	4.0	5.6	8.0	10.0	11.0	12.5	?		?	N
>800 and ≤1000	4.8	8.0	11.2	16.0	20.0	22.0	25.0	?	?		N
>1000 and ≤1250	3.2	5.0	7.1	10.0	12.5	14.0	16.0		?	?	N
>1000 and ≤1250	3.2	5.0	7.1	10.0	12.5	14.0	16.0	?		?	N
>1000 and ≤1250	6.4	10.0	14.2	20.0	25.0	28.0	32.0	?	?		N
>1250 and ≤1600	4.2	6.3	9.0	12.5	16.0	18.0	20.0		?	?	N
>1250 and ≤1600	4.2	6.3	9.0	12.5	16.0	18.0	20.0	?		?	N
>1250 and ≤1600	8.4	12.6	18.0	25.0	32.0	36.0	40.0	?	?		N
>1600 and ≤2000	5.6	8.0	11.0	16.0	20.0	22.0	25.0		?	?	N
>1600 and ≤2000	5.6	8.0	11.0	16.0	20.0	22.0	25.0	?		?	N
>1600 and ≤2000	11.2	16.0	22.0	32.0	40.0	44.0	50.0	?	?		N
>2000 and ≤2500	7.5	10.0	14.0	20.0	25.0	28.0	32.0		?	?	N
>2000 and ≤2500	7.5	10.0	14.0	20.0	25.0	28.0	32.0	?		?	N
>2000 and ≤2500	15.0	20.0	28.0	40.0	50.0	56.0	64.0	?	?		N
>2500 and ≤3200	10.0	12.5	18.0	25.0	32.0	36.0	40.0		?	?	N
>2500 and ≤3200	10.0	12.5	18.0	25.0	32.0	36.0	40.0	?		?	N
>2500 and ≤3200	20.0	25.0	36.0	50.0	64.0	72.0	80.0	?	?		N
>3200 and ≤4000	12.5	16.0	22.0	32.0	40.0	45.0	50.0		?	?	N
>3200 and ≤4000	12.5	16.0	22.0	32.0	40.0	45.0	50.0	?		?	N
>3200 and ≤4000	25.0	32.0	44.0	64.0	80.0	90.0	100.0	?	?		N
>4000 and ≤5000	16.0	20.0	28.0	40.0	50.0	56.0	63.0		?	?	N
>4000 and ≤5000	16.0	20.0	28.0	40.0	50.0	56.0	63.0	?		?	N
>4000 and ≤5000	32.0	40.0	56.0	80.0	100.0	112.0	126.0	?	?		N
>5000 and ≤6300	20.0	25.0	35.0	50.0	63.0	71.0	80.0		?	?	N

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29.2	Table:Creepage distance,Basic insulation,Additional insulation and Reinforced insulation										P	
Operating voltage (V)	Creepage distance(mm)								Insulation class			result
	Contamination level1	Contamination level 2			Contamination level 3			Insulation class				
		Material Group			Material Group							
		I	II	IIIa/IIIb	I	II	IIIa/IIIb	B*)	S*)	R*)		
>5000 and≤6300	20.0	25.0	35.0	50.0	63.0	71.0	80.0	?		?	N	
>5000 and≤6300	40.0	50.0	70.0	100.0	126.0	142.0	160.0	?	?		N	
>6300 and≤8000	25.0	32.0	45.0	63.0	80.0	90.0	100.0		?	?	N	
>6300 and≤8000	25.0	32.0	45.0	63.0	80.0	90.0	100.0	?		?	N	
>6300 and≤8000	50.0	64.0	90.0	126.0	160.0	180.0	200.0	?	?		N	
>8000 and≤10000	32.0	40.0	56.0	80.0	100.0	110.0	125.0		?	?	N	
>8000 and≤10000	32.0	40.0	56.0	80.0	100.0	110.0	125.0	?		?	N	
>8000 and≤10000	64.0	80.0	112.0	160.0	200.0	220.0	250.0	?	?		N	
>10000and≤12500	40.0	50.0	71.0	100.0	125.0	140.0	160.0		?	?	N	
>10000and≤12500	40.0	50.0	71.0	100.0	125.0	140.0	160.0	?		?	N	
>10000and≤12500	80.0	100.0	142.0	200.0	200.0	280.0	320.0	?	?		N	

*) B for basic insulation, S for additional insulation, and R for enhanced insulation

29.2	Table:Creepage distance,functional insulation							P
Operating voltage (V)	Creepage distance(mm)							Fruit Setting
	Contamination level1	2			3			
		Material Group			Material Group			
		I	II	IIIa/IIIb	I	II	IIIa/IIIb	
≤50	0.2	0.6	0.8	1.1	1.4	1.6	1.8	N
>50 and≤125	0.3	0.7	1.0	1.4	1.8	2.0	2.2	N
>125 and≤250	0.4	1.0	1.4	2.0	2.5	2.8	3.2	P
>250 and≤400	0.8	1.6	2.2	3.2	4.0	4.5	5.0	N
>400 and≤500	1.0	2.0	2.8	4.0	5.0	5.6	6.3	N

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>500 and≤800	1.8	3.2	4.5	6.3	8.0	9.0	10.0	N
>800 and≤1000	2.4	4.0	5.6	8.0	10.0	11.0	12.5	N
>1000 and≤1250	3.2	5.0	7.1	10.0	12.5	14.0	16.0	N
>1250 and≤1600	4.2	6.3	9.0	12.5	16.0	18.0	20.0	N
>1600 and≤2000	5.6	8.0	11.0	16.0	20.0	22.0	25.0	N
>2000 and≤2500	7.5	10.0	14.0	20.0	25.0	28.0	32.0	N
>2500 and≤3200	10.0	12.5	18.0	25.0	32.0	36.0	40.0	N
>3200 and≤4000	12.5	16.0	22.0	32.0	40.0	45.0	50.0	N
>4000 and≤5000	16.0	20.0	28.0	40.0	50.0	56.0	63.0	N
>5000 and≤6300	20.0	25.0	36.0	50.0	63.0	71.0	80.0	N
>6300 and≤8000	25.0	32.0	45.0	63.0	80.0	90.0	100.0	N
>8000 and≤10000	32.0	40.0	56.0	80.0	100.0	110.0	125.0	N
>10000 and≤12500	40.0	50.0	71.0	100.0	125.0	140.0	160.0	N

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30	Table: Heat and flame resistant													P	
Measuring Parts	Maker	Colors	Material Name/Specification (Brand)	Ball pressure test: applied 20N force, maintain for 1 hour Conduct ball pressure test		Glow-wire test						needle flame test	Tracking PTI/ CTI	Determine	Certification certificate number
				Ball pressure temperature (°C)	Indentation diameter (mm)	GWT 550°C	GWT 650°C	GWT 750°C	GWFI ≥850°C	GWIT					
										≥675°C	≥775°C				
Plastic box	Guangdong Shunwei Saite Engineering Plastics Development Co., Ltd	black	PP: 99.06	75	P	P	N	N	N	N	N	N	N	P	CQC1113 4064618
Plastic box (Reported)	Jinfa Technology Co., Ltd	black	PP: PP-R0508	75	P	P	N	N	N	N	N	N	N	P	CQC1113 4063702
Clesing terminal	Golden Pen Electronics (Dongguan) Co., Ltd	white	CE2 PA66:A216	N	N	N	N	N	P	N	P	N	N	P	CQC1213 4080868
Closing terminal (Reported)	Shenzhen Hongyu Electronics Co., Ltd	white	HY-CE2A60M2 FR WT002(PA6)	N	N	N	N	N	P	N	P	N	N	P	CQC1113 4059224
PCB	Jiangmen Jiantao Plywood Co., Ltd	Yellow-green	KB-5152 (V0) 0.8mm1.6mm KB-5152(V1) 0.8mm-1.6mm	125	P	N	N	N	N	N	N	P	N	P	CQC1100 1061103
PCB (Reported)	Laizhou Pengzhou Electronics Co., Ltd	Yellow-green	PZ-22(G)F	125	P	N	N	N	N	N	N	P	N	P	CQC0300 1006710
PCB (Reported)	South Asia Electronic Materials (Huizhou) Co., Ltd	Yellow-green	FR-4-86	125	P	N	N	N	N	N	N	P	N	P	CQC1213 4083482
PCB (Reported)	Shantou Fenglida Electronic Technology Co., Ltd	Yellow-green	Paper: KB-5150	125	P	N	N	N	N	N	N	P	N	P	CQC1313 4100687

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PCB (Reported)	Zhongshan Zhongguan Circuit Board Co., Ltd	Yellow- green	Paper: KB-5152	125	P	N	N	N	N	N	N	P	N	P	CQC1413 4105667
PCB(to be Reported)	Shenzhen Xinmanda Industrial Co., Ltd	Yellow- green	printed circuit board: 22F(ZD-68 (G)F)	125	P	N	N	N	N	N	N	P	N	P	CQC1513 4133127
Heat Shrink sleeve	Jiangyin Ruixing Plastic and Glass Products Co., Ltd	black	PVC: SG-5	N	N	N	N	N	P	N	P	N	N	P	CQC1313 4098774
Heat Shrink sleeve (Reported)	Dongguan Sanlian Heat Shrinkable Materials Co., Ltd	black	Polyolefin resin: RSFR-H,	N	N	N	N	N	P	N	P	N	N	P	CQC2013 4269296
Terminal sheath	Jiangyin Ruixing Plastic and Glass Products Co., Ltd	panchro matic	PVC SG-5	N	N	N	N	N	P	N	P	N	N	P	CQC1313 4098774

Determine: P The test results meet the requirements
 F The test results do not meet the requirements
 N The requirement is not applicable to the product, or the test is not conducted

Statement

The results of this report are valid only for the test samples.
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