TEST REPORT
IEC 60335-2-23
Part 1: Safety of household and similar electrical appliances
Part 2: Particular requirements for appliances for skin or hair care

Report Number. .....:	LCSA01224311S
Date of issue .....:	March 7, 2024
Total number of pages.....:	132 pages
Name of Testing Laboratory preparing the Report.....:	Shenzhen LCS Compliance Testing Laboratory Ltd. Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China
Applicant's name.....:	Cixi Zhaofeng Electric Appliance Co. , Ltd
Address .....:	No.88, Huanyuan South Road, Andong Town Industrial Park, Hangzhou Bay New District, Ningbo, Zhejiang, China
Test specification:	
Standard .....:	IEC 60335-2-23:2016, AMD1:2019 in conjunction with IEC 60335-1:2010, COR1:2010, AMD1:2013, COR1:2014, AMD2:2016, COR1:2016
Test procedure .....:	Type Test
Non-standard test method.....:	N/A
Test Report Form No.....:	IEC60335_2_23L
Test Report Form(s) Originator.....:	VDE Prüf- und Zertifizierungsinstitut GmbH
Master TRF.....:	Dated 2020-07-03

General disclaimer:

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Test item description .....:	Pet dryer (ペットドライヤー)
Trade Mark.....:	N/A
Manufacturer.....:	Same as Applicant
Model/Type reference.....:	GA-11
Ratings.....:	100V, 50/60Hz, 800W

Testing procedure and testing location:

Testing Laboratory:	Shenzhen LCS Compliance Testing Laboratory Ltd.
Testing location/ address ..... :	Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China
Tested by.....	Markson Lu / Test Engineer
Reviewed by..... :	Caps Li / Project engineer
Approved by..... :	Hart Qiu / Technical manager

List of Attachments:
Attachment No.1:
Japanese National Deviations J60335-1(H27)
Attachment No.2:
Japanese National Deviations J60335-2-23(H29).
Atachement No.3:
Photo Document

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
The submitted samples were found to comply with the requirements of: ➢ Electrical safety IEC 60335-2-23:2016, AMD1:2019 in conjunction with IEC 60335-1:2010, COR1:2010, AMD1:2013, COR1:2014, AMD2:2016, COR1:2016 J60335-1(H27); J60335-2-23(H29)	Shenzhen LCS Compliance Testing Laboratory Ltd. Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China

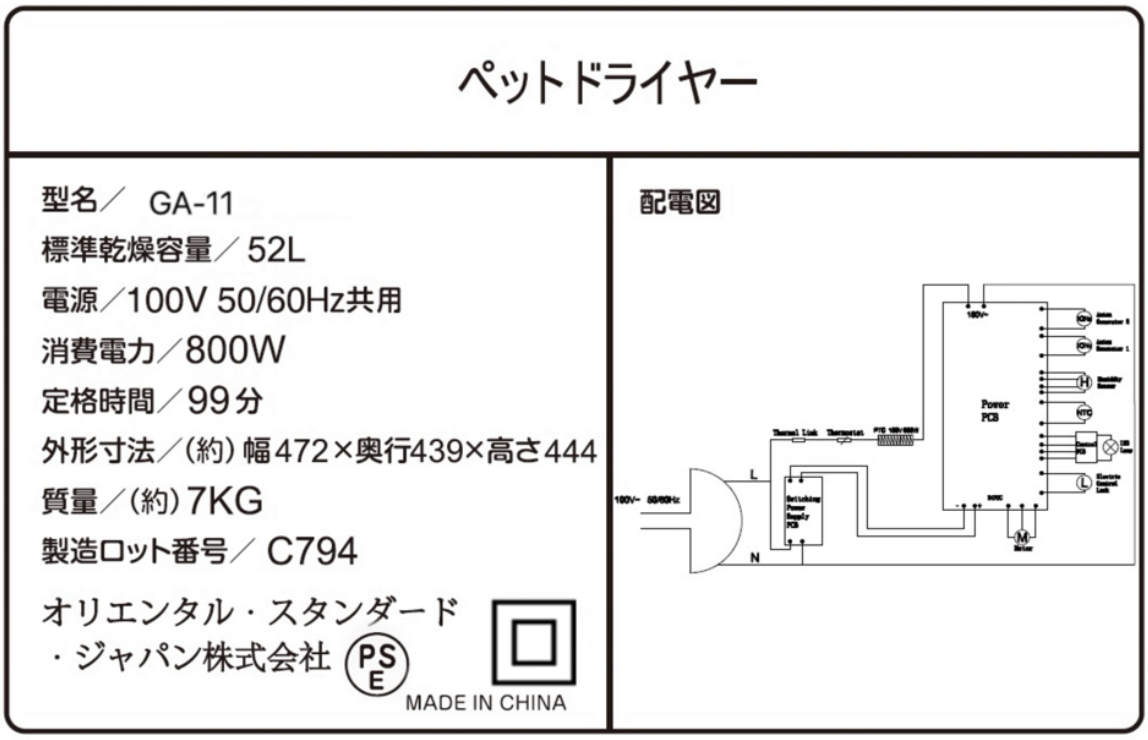
Summary of compliance with National Differences (List of countries addressed):

List of countries addressed: National Differences and Group Differences as per CB bulletin. See attachment of National and Group Differences for details

☒ The product fulfils the requirements of J60335-1(H27); J60335-2-23(H29)

Copy of marking plate:

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



Test item particulars ..... :	
Classification of installation and use ..... :	Class II, Portable appliance
Supply Connection ..... :	Non-detachable power cord with a plug
Possible test case verdicts:	
- test case does not apply to the test object ..... :	N/A
- test object does meet the requirement ..... :	P (Pass)
- test object does not meet the requirement ..... :	F (Fail)
Testing ..... :	
Date of receipt of test item ..... :	2024-01-22
Date (s) of performance of tests ..... :	From 2024-01-22 to 2024-02-27

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.
Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

These marked "*" test clauses are not within the scope of CNAS recognition.

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided..... :	☐ **Yes** ☒ **Not applicable**

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

Name and address of factory (ies) ..... :	Same as Applicant

General product information:

The appliance is used indoor and household only.

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
5	**GENERAL CONDITIONS FOR THE TESTS**		
	Tests performed according to clause 5, e.g. nature of supply, sequence of testing, etc.		P
5.2	The additional test of 25.14 for hand-held appliances is carried out on a separate appliance. (IEC 60335-2-23)		N/A
6	**CLASSIFICATION**		
6.1	Protection against electric shock (IEC 60335-2-23):		--
6.1	- Hairdryers, curling irons, curling combs, facial saunas and other steam-producing or spray producing appliances be class II or III (IEC 60335-2-23).....:		N/A
	However, fixed hairdryers intended to be permanently connected to fixed wiring, helmet-type hairdryers for hairdressers and steam-producing or spray-producing appliances for hairdressers be class I (IEC 60335-2-23) .....:		N/A
	- water filled foot care appliances shall be class II or class III; (IEC 60335 2 23:2016/AMD1:2019)		N/A
	- Other appliances be class I, II or III (IEC 60335-2-23).....:		P
6.2	Protection against harmful ingress of water		N/A
	Hand dryers be at least IPX1 (IEC 60335-2-23)		N/A
	Curling rollers of permanent-wave appliances be at least IPX4 (IEC 60335-2-23)		N/A
7	**MARKING AND INSTRUCTIONS**		
7.1	Rated voltage or voltage range (V)..... :	See label	P
	Symbol for nature of supply, or..... :		N/A
	Rated frequency (Hz)..... :	See label	P
	Rated power input (W), or ..... :	See label	P
	Rated current (A) ..... :		N/A
	Manufacturer's or responsible vendor's name, trademark or identification mark ..... :	See label	P
	Model or type reference..... :	See label	P
	Symbol IEC 60417-5172, for class II appliances	See label	P
	IP number, other than IPX0 ..... :		N/A
	Symbol IEC 60417-5180, for class III appliances, unless		N/A
	the appliance is operated by batteries only, or		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	for appliances powered by rechargeable batteries recharged in the appliance		N/A
	Symbol IEC 60417-5018, for class II and class III appliances incorporating a functional earth		N/A
	Symbol IEC 60417-5036, for the enclosure of electrically-operated water valves in external hose-sets for connection of an appliance to the water mains, if the working voltage exceeds extra-low voltage		N/A
	Portable hairdryers, curling irons and similar appliances shall be marked with symbol ISO 7010-P026 (2011-05) or with the substance of the following: (IEC 60335-2-23)		--
	WARNING: Do not use this appliance near water. (IEC 60335-2-23)		N/A
	[Symbol ISO 7010-P026 (2011-05)] Do not use this device in a bathtub, shower, or water-filled reservoir (IEC 60335-2-23)		N/A
7.2	Warning for stationary appliances for multiple supply		N/A
	Warning placed in vicinity of terminal cover		N/A
7.3	Range of rated values marked with the lower and upper limits separated by a hyphen		N/A
	Different rated values marked with the values separated by an oblique stroke		P
7.4	Appliances adjustable for different rated voltages or rated frequencies, the voltage or the frequency setting is clearly discernible		N/A
	Requirement met if frequent changes are not required and the rated voltage or rated frequency to which the appliance is to be adjusted is determined from a wiring diagram		N/A
7.5	Appliances with more than one rated voltage or one or more rated voltage ranges, marked with rated input or rated current for each rated voltage or range, unless		N/A
	the power input or current are related to the arithmetic mean value of the rated voltage range		N/A
	Relation between marking for upper and lower limits of rated power input or rated current and voltage is clear		N/A
7.6	Correct symbols used		P
	Symbol for nature of supply placed next to rated voltage		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	Symbol for class II appliances placed unlikely to be confused with other marking		N/A
	Units of physical quantities and their symbols according to international standardized system		P
7.7	Connection diagram fixed to appliances to be connected to more than two supply conductors and appliances for multiple supply, unless		N/A
	correct mode of connection is obvious		N/A
7.8	Except for type Z attachment, terminals for connection to the supply mains indicated as follows:		--
	- marking of terminals exclusively for the neutral conductor (letter N)		N/A
	- marking of protective earthing terminals (symbol IEC 60417-5019)		P
	- marking of functional earthing terminals (symbol IEC 60417-5018)		N/A
	- marking not placed on removable parts		P
7.9	Marking or placing of switches which may cause a hazard		P
7.10	Indications of switches on stationary appliances and controls on all appliances by use of figures, letters or other visual means ..... :		P
	This applies also to switches which are part of a control		P
	If figures are used, the off position indicated by the figure 0		P
	The figure 0 indicates only OFF position, unless no confusion with the OFF position		P
7.11	Indication for direction of adjustment of controls		P
7.12	Instructions for safe use provided		P
	Details concerning precautions during user maintenance		P
	Instructions for portable appliances include substance of following (IEC 60335-2-23):		--
	- when the appliance is used in a bathroom, unplug it after use since the proximity of water presents a hazard even when the appliance is switched off (IEC 60335-2-23);		P
	- for additional protection, the installation of a residual current device (RCD) having a rated residual operating current not exceeding 30 mA is advisable in the electrical circuit supplying the bathroom. Ask your installer for advice. (IEC 60335-2-23)		P

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	If symbol ISO 7010-P026 (2011-05) is used the meaning shall be explained. Instructions shall also state the substance of the following: (IEC 60335-2-23)		--
	WARNING Do not use this appliance near bathtubs, showers, basins or other vessels containing water. (IEC 60335-2-23		N/A
	The instructions for facial saunas shall state that after use the appliance should be cleaned to avoid the accumulation of grease and other residues. (IEC 60335-2-23)		N/A
	The instructions for hair straighteners and curling irons shall include the substance of the following: (IEC 60335-2-23)		--
	- burn hazard. Keep appliance out of reach from young children, particularly during use and cool down; (IEC 60335-2-23)		N/A
	- when the appliance is connected to the power supply, never leave it unattended; (IEC 60335-2-23)		N/A
	- always place the appliance with the stand, if any, on a heat-resistant, stable flat surface. (IEC 60335-2-23)		N/A
	The instructions for water filled foot care appliances shall include the substance of the following warnings: (IEC 60335 2 23:2016/AMD1:2019)		N/A
	WARNING: This appliance is intended to be used under the feet of a sitting person. (IEC 60335-2-23:2016/AMD1:2019)		N/A
	WARNING: If water leaks from the appliance, the appliance should no longer be used. (IEC 60335-2-23:2016/AMD1:2019)		N/A
	WARNING: Persons insensitive to heat must be careful when using the appliance. (IEC 60335-2-23:2016/AMD1:2019)		N/A
	The instructions state that:		--
	- the appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction		P
	- children being supervised not to play with the appliance		P
	For a part of class III construction supplied from a detachable power supply unit, the instructions state that the appliance is only to be used with the unit provided		N/A
	Instructions for class III appliances state that it must only be supplied at SELV, unless		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	it is a battery-operated appliance, the battery being charged outside the appliance		N/A
	For appliances for altitudes exceeding 2000 m, the maximum altitude is stated ..... :		N/A
	The instructions for appliances incorporating a functional earth states that the appliance incorporates an earth connection for functional purposes only		N/A
7.12.1	Sufficient details for installation supplied		N/A
	Installation instructions for fixed hairdryers intended for use in bathrooms include substance of the following: This hairdryer must be fixed out of reach of a person taking a bath or shower. (IEC 60335-2-23)		N/A
	Hand-held part of hairdryer incorporates electrical components, instructions state that the appliance must be fixed so that the hand-held part, when fully extended, is out of reach of a person taking a bath or shower (IEC 60335-2-23)		N/A
	For an appliance intended to be permanently connected to the water mains and not connected by a hose-set, this is stated		N/A
	If different rated voltages or different rated frequencies are marked, the instructions state what action to be taken to adjust the appliance		N/A
7.12.2	Stationary appliances not fitted with means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III, the instructions state that means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules		N/A
7.12.3	Insulation of the fixed wiring in contact with parts exceeding 50 K during clause 11; instructions state that the fixed wiring must be protected		N/A
7.12.4	Instructions for built-in appliances:		--
	- dimensions of space		N/A
	- dimensions and position of supporting and fixing		N/A
	- minimum distances between parts and surrounding structure		N/A
	- minimum dimensions of ventilating openings and arrangement		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	- connection to supply mains and interconnection of separate components		N/A
	- allow disconnection of the appliance after installation, by accessible plug or a switch in the fixed wiring, unless		N/A
	a switch complying with 24.3		N/A
7.12.5	Replacement cord instructions, type X attachment with a specially prepared cord		N/A
	Replacement cord instructions, type Y attachment		P
	Replacement cord instructions, type Z attachment		N/A
7.12.6	Caution in the instructions for appliances incorporating a non-self-resetting thermal cut-out that is reset by disconnection of the supply mains, if this cut-out is required to comply with the standard		N/A
7.12.7	Instructions for fixed appliances stating how the appliance is to be fixed		N/A
7.12.8	Instructions for appliances connected to the water mains:		--
	- max. inlet water pressure (Pa)..... :		N/A
	- min. inlet water pressure, if necessary (Pa) ..... :		N/A
	Instructions concerning new and old hose-sets for appliances connected to the water mains by detachable hose-sets		N/A
7.12.9	Instructions specified in 7.12 and from 7.12.1 to 7.12.8 appear together before any other instructions supplied with the appliance		P
	Supplying of instructions in an alternative format is not required for fixed hand dryers and fixed hairdryers. (IEC 60335-2-23)		N/A
	These instructions may be supplied with the appliance separately from any functional use booklet		N/A
	They may follow the description of the appliance that identifies parts, or follow the drawings/sketches		N/A
	In addition, instructions are also available in an alternative format such as on a website or on request from the user in a format such as a DVD		P
	In addition, instructions are also available in an alternative format such as on a website or in a format such as a DVD ..... :		P
7.13	Instructions and other texts in an official language		P
7.14	Markings clearly legible and durable:		P

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	Signal words WARNING, CAUTION, DANGER in uppercase having a height as specified..... :		N/A
	Uppercase letter of the text explaining the signal word not smaller than 1,6 mm ..... :		N/A
	Moulded in, engraved, or stamped markings either raised above or have a depth below the surface of at least 0,25 mm, unless		N/A
	contrasting colours are used		N/A
	Markings checked by inspection, measurement and rubbing test as specified		P
	Outer diameter of the circle in symbol ISO 7010-P026 (2011-05) is at least 10 mm. (IEC 60335-2-23)		N/A
7.15	Markings on a main part		P
	Marking clearly discernible from the outside, if necessary after removal of a cover		P
	For portable appliances, cover can be removed or opened without a tool		N/A
	For stationary appliances, name, trademark or identification mark and model or type reference visible after installation		N/A
	For fixed appliances, name, trademark or identification mark and model or type reference visible after installation according to the instructions		N/A
	Indications for switches and controls placed on or near the components. Marking not on parts which can be positioned or repositioned in such a way that the marking is misleading		P
	The symbol IEC 60417-5018 placed next to the symbol IEC 60417-5172 or IEC 60417-5180		N/A
	The additional marking required for portable hairdryers, curling irons and similar appliances may alternatively be on a warning flag tag that is permanently attached to the supply cord close to the plug. (IEC 60335-2-23)		N/A
7.16	Marking of a possible replaceable thermal link or fuse link clearly visible with regard to replacing the link		N/A
8	**PROTECTION AGAINST ACCESS TO LIVE PARTS**		
8.1	Adequate protection against accidental contact with live parts		P
8.1.1	Requirement applies for all positions, detachable parts removed		P

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	Lamps behind a detachable cover not removed, if conditions met		N/A
	Insertion or removal of lamps, protection against contact with live parts of the lamp cap		N/A
	Use of test probe B of IEC 61032, with a force not exceeding 1 N: no contact with live parts		P
	Use of test probe B of IEC 61032 through openings, with a force of 20 N: no contact with live parts		P
8.1.2	Use of test probe 13 of IEC 61032, with a force not exceeding 1 N, through openings in class 0 appliances and class II appliances/constructions: no contact with live parts		P
	Test probe 13 also applied through openings in earthed metal enclosures having a non-conductive coating: no contact with live parts		N/A
8.1.4	Accessible part not considered live if:		--
	- safety extra-low a.c. voltage: peak value not exceeding 42,4 V		N/A
	- safety extra-low d.c. voltage: not exceeding 42,4 V		N/A
	- or separated from live parts by protective impedance		P
	If protective impedance: d.c. current not exceeding 2 mA, and		N/A
	a.c. peak value not exceeding 0,7 mA		P
	- for peak values over 42,4 V up to and including 450 V, capacitance not exceeding 0,1 μF		P
	- for peak values over 450 V up to and including 15 kV, discharge not exceeding 45 μC		N/A
	- for peak values over 15 kV, the energy in the discharge not exceeding 350 mJ		N/A
	All energized parts in water filled foot care appliances are considered to be live parts. - not applicable to class III appliances or class III constructions that have working voltage not exceeding 12 V. (IEC 60335-2-23: 2016/AMD1: 2019)		N/A
8.1.5	Live parts protected at least by basic insulation before installation or assembly:		--
	- built-in appliances		N/A
	- fixed appliances		N/A
	- appliances delivered in separate units		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
8.2	Class II appliances and constructions constructed so that there is adequate protection against accidental contact with basic insulation and metal parts separated from live parts by basic insulation only		P
	Only possible to touch parts separated from live parts by double or reinforced insulation		P
9	**STARTING OF MOTOR-OPERATED APPLIANCES**		
	Requirements and tests are specified in part 2 when necessary		N/A
10	**POWER INPUT AND CURRENT**		
10.1	Power input at normal operating temperature, rated voltage and normal operation not deviating from rated power input by more than shown in table 1 .. :	(see appended table)	P
	If the power input varies throughout the operating cycle and the maximum value of the power input exceeds, by a factor greater than two, the arithmetic mean value of the power input occurring during a representative period, the power input is the maximum value that is exceeded for more than 10 % of the representative period		N/A
	Otherwise the power input is the arithmetic mean value		N/A
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated power input is related to the arithmetic mean value		N/A
	Representative period for appliances incorporating PTC heating elements is 30 min. (IEC 60335-2-23)		P
10.2	Current at normal operating temperature, rated voltage and normal operation not deviating from rated current by more than shown in table 2 ..... :	(see appended table)	N/A
	If the current varies throughout the operating cycle and the maximum value of the current exceeds, by a factor greater than two, the arithmetic mean value of the current occurring during a representative period, the current is the maximum value that is exceeded for more than 10 % of the representative period		N/A
	Otherwise the current is the arithmetic mean value		N/A
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	the rated current is related to the arithmetic mean value of the range		N/A
	Representative period for appliances incorporating PTC heating elements is 30 min. (IEC 60335-2-23)		N/A
11	**HEATING**		
11.1	No excessive temperatures in normal use		P
	For appliances incorporating swivel connection, compliance also checked by test of clause 11.101 (IEC 60335-2-23)		N/A
11.2	The appliance is held, placed or fixed in position as described ..... :		P
	Appliances intended to be used on a stand or attached to a support placed to give most unfavourable results (IEC 60335-2-23)		N/A
	Hand-held appliances with an integral rest are also tested when placed on their rest away from the walls of the test corner. (IEC 60335-2-23)		N/A
11.3	Temperature rises, other than of windings, determined by thermocouples	Thermocouples	P
	Temperature rises of windings determined by resistance method, unless		N/A
	the windings are non-uniform or it is difficult to make the necessary connections		P
11.4	Heating appliances operated under normal operation at 1,15 times rated power input (W) ..... :		N/A
	Temperature rise limits exceeded in appliances incorporating motors, transformers or electronic circuits, and power input is lower than rated power input, test repeated with appliance supplied at 1,06 times rated voltage (IEC 60335-2-23)		N/A
11.5	Motor-operated appliances operated under normal operation at most unfavourable voltage between 0,94 and 1,06 times rated voltage (V)..... :		N/A
11.6	Combined appliances operated as heating appliances (IEC 60335-2-23)		P
11.7	Appliances without timer operated (IEC 60335-2-23):		--
	- for 30 min, for hand-held appliances (IEC 60335-2-23);		N/A
	- in cycles of 30 s on and 5 s off until steady conditions established, for hand dryers that automatically controlled by presence of hands (IEC 60335-2-23);		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	- until steady conditions established, for other appliances (IEC 60335-2-23).		N/A
	Appliances incorporating timer operated in cycles until steady conditions established. Each cycle consists of maximum operating time of timer (min) followed by rest period of 5 s (IEC 60335-2-23) .....:		P
11.8	Temperature rises monitored continuously and not exceeding the values in table 3 ..... :	(see appended table)	P
	If the temperature rise of a motor winding exceeds the value of table 3, or		N/A
	if there is doubt with regard to classification of insulation,		N/A
	tests of annex C are carried out		N/A
	Sealing compound does not flow out		P
	Protective devices do not operate, except		P
	components in protective electronic circuits tested for the number of cycles specified in 24.1.4		N/A
	The temperature rise of detachable curlers is not measured. (IEC 60335-2-23)		N/A
	The water temperature at the geometric centre of the water volume not exceeds 50 °C. (IEC 60335 2 23:2016) (IEC 60335 2 23:2016/AMD1:2019)		N/A
11.101	Appliances incorporating a swivel connection positioned with their major axis horizontal, supply cord hanging vertically. Pull force of 1 N applied to supply cord (IEC 60335-2-23)		N/A
	Appliance supplied at rated voltage, current being 1,25 times rated current (IEC 60335-2-23)		N/A
	Appliance rotated about its major axis at rate of approximately 50 rev/min, direction of rotation being reversed every 20 rev. Test carried out for 1500 rev (IEC 60335-2-23)		N/A
	Temperature rise of sliding contacts not exceed 65 K (IEC 60335-2-23)		N/A
13	**LEAKAGE CURRENT AND ELECTRIC STRENGTH AT OPERATING TEMPERATURE**		
13.1	Leakage current not excessive and electric strength adequate		P
	Heating appliances operated at 1,15 times the rated power input (W) ..... :	√1.15 x 100 V =107.2V	P

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	Motor-operated appliances and combined appliances supplied at 1,06 times the rated voltage (V) ..... :		N/A
	Protective impedance and radio interference filters disconnected before carrying out the tests		P
13.2	The leakage current is measured by means of the circuit described in figure 4 of IEC 60990:1999		P
	For class 0I appliances and class I appliances, except parts of class II construction, C may be replaced by a low impedance ammeter		N/A
	Leakage current measurements..... :	(see appended table)	P
13.3	The appliance is disconnected from the supply		P
	Electric strength tests according to table 4..... :	(see appended table)	P
	No breakdown during the tests		P
***14**	**TRANSIENT OVERVOLTAGES**		
	Appliances withstand the transient over-voltages to which they may be subjected		N/A
	Clearances having a value less than specified in table 16 subjected to an impulse voltage test, the test voltage specified in table 6..... :	(see appended table)	N/A
	No flashover during the test, unless		N/A
	of functional insulation if the appliance complies with clause 19 with the clearance short-circuited		N/A
15	**MOISTURE RESISTANCE**		
15.1	Enclosure provides the degree of moisture protection according to classification of the appliance	IPX0	N/A
	Compliance checked as specified in 15.1.1, taking into account 15.1.2, followed by the electric strength test of 16.3		N/A
	No trace of water on insulation which can result in a reduction of clearances or creepage distances below values specified in clause 29		N/A
15.1.1	Appliances, other than IPX0, subjected to tests as specified in IEC 60529..... :		N/A
	Water valves containing live parts in external hoses for connection of an appliance to the water mains tested as specified for IPX7 appliances		N/A
15.1.2	Hand-held appliance turned continuously through the most unfavourable positions during the test		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	Built-in appliances installed according to the instructions		N/A
	Appliances placed or used on the floor or table placed on a horizontal unperforated support		N/A
	Appliances normally fixed to a wall and appliances with pins for insertion into socket-outlets are mounted on a wooden board		N/A
	For IPX3 appliances, the base of wall mounted appliances is placed at the same level as the pivot axis of the oscillating tube		N/A
	For IPX4 appliances, the horizontal centre line of the appliance is aligned with the pivot axis of the oscillating tube, and		N/A
	for appliances normally used on the floor or table, the movement is limited to two times 90° for a period of 5 min, the support being placed at the level of the pivot axis of the oscillating tube		N/A
	Wall-mounted appliances, take into account the distance to the floor stated in the instructions		N/A
	Appliances normally fixed to a ceiling are mounted underneath a horizontal unperforated support, the pivot axis of the oscillating tube located at the level of the underside of the support, and		N/A
	for IPX4 appliances, the movement of the tube is limited to two times 90° from the vertical for a period of 5 min		N/A
	Appliances with type X attachment fitted with a flexible cord as described		N/A
	Detachable parts subjected to the relevant treatment with the main part		N/A
	However, if a part has to be removed for user maintenance and a tool is needed, this part is not removed		N/A
15.2	Spillage of liquid does not affect the electrical insulation		N/A
	Spillage solution comprising water containing approximately 1 % NaCl and 0,6 % rinsing agent		N/A
	Appliances with type X attachment fitted with a flexible cord as described		N/A
	Appliances incorporating an appliance inlet tested with or without an connector, whichever is most unfavourable		N/A
	Detachable parts are removed		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	Overfilling test with additional amount of the solution, over a period of 1 min (l) ..... :		N/A
	The appliance withstands the electric strength test of 16.3		N/A
	No trace of water on insulation that can result in a reduction of clearances or creepage distances below values specified in clause 29		N/A
	Water filled foot care appliances are completely filled with the spillage solution and are then (IEC 60335-2-23:2016/AMD1:2019)		N/A
	emptied within 30 s by being tilted or overturned in the most unfavourable way. (IEC 60335-2-23:2016/AMD1:2019)		N/A
15.3	Appliances proof against humid conditions		P
	Checked by test Cab: Damp heat steady state in IEC 60068-2-78		P
	Detachable parts removed and subjected, if necessary, to the humidity test with the main part		P
	Humidity test for 48 h in a humidity cabinet	93 %, 30°C, 48Hours	P
	Reassembly of those parts that may have been removed		P
	The appliance withstands the tests of clause 16		P
16	**LEAKAGE CURRENT AND ELECTRIC STRENGTH**		
16.1	Leakage current not excessive and electric strength adequate		P
	Protective impedance disconnected from live parts before carrying out the tests		P
	Tests carried out at room temperature and not connected to the supply		P
16.2	Single-phase appliances: test voltage 1,06 times rated voltage (V) ..... :		P
	Three-phase appliances: test voltage 1,06 times rated voltage divided by √3 (V) ..... :		N/A
	Leakage current measurements..... :	(see appended table)	P
	Limit values doubled if:		--
	- all controls have an off position in all poles, or		N/A
	- the appliance has no control other than a thermal cut-out, or		N/A
	- all thermostats, temperature limiters and energy regulators do not have an off position, or		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	- the appliance has radio interference filters		N/A
	With the radio interference filters disconnected, the leakage current do not exceed limits specified..... :	(see appended table)	N/A
16.3	Electric strength tests according to table 7..... :	(see appended table)	P
	Test voltage applied between the supply cord and inlet bushing and cord guard and cord anchorage as specified..... :	(see appended table)	P
	No breakdown during the tests		P
17	**OVERLOAD PROTECTION OF TRANSFORMERS AND ASSOCIATED CIRCUITS**		
	No excessive temperatures in transformer or associated circuits in event of short-circuits likely to occur in normal use ..... :	(see appended table)	P
	Appliance supplied with 1,06 or 0,94 times rated voltage under the most unfavourable short-circuit or overload likely to occur in normal use (V)..... :		P
	Basic insulation is not short-circuited		P
	Temperature rise of insulation of the conductors of safety extra-low voltage circuits not exceeding the relevant value specified in table 3 by more than 15 K		P
	Temperature of the winding not exceeding the value specified in table 8		P
	However, limits do not apply to fail-safe transformers complying with sub-clause 15.5 of IEC 61558-1		N/A
18	**ENDURANCE**		
	Requirements and tests are specified in part 2 when necessary		N/A
19	**ABNORMAL OPERATION**		
19.1	The risk of fire, mechanical damage or electric shock under abnormal or careless operation obviated		P
	Electronic circuits so designed and applied that a fault will not render the appliance unsafe ..... :	(see appended table)	P
	Appliances incorporating heating elements subjected to the tests of 19.2 and 19.3, and		P
	if the appliance also has a control that limit the temperature during clause 11 it is subjected to the test of 19.4, and		N/A
	if applicable, to the test of 19.5		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	Appliances incorporating PTC heating elements are also subjected to the test of 19.6		P
	Appliances incorporating motors subjected to the tests of 19.7 to 19.10, as applicable		P
	Appliances incorporating electronic circuits subjected to the tests of 19.11 and 19.12, as applicable		P
	Appliances incorporating contactors or relays subjected to the test of 19.14, being carried out before the tests of 19.11		N/A
	Appliances incorporating voltage selector switches subjected to the test of 19.15		N/A
	Unless otherwise specified, the tests are continued until a non-self-resetting thermal cut-out operates, or		N/A
	until steady conditions are established		P
	If a heating element or intentionally weak part becomes open-circuited, the relevant test is repeated on a second sample		N/A
	Hairdryers also subjected to tests of clause 19.101 and 19.102 (IEC 60335-2-23)		N/A
19.2	Test of appliances with heating elements with restricted heat dissipation; test voltage (V), power input of 0,85 times rated power input (W)..... :		P
	Restricted heat dissipation is obtained as follows (IEC 60335-2-23):		--
	- motors disconnected (IEC 60335-2-23);		N/A
	- hand-held hairdryers placed on floor of test corner in any stable position likely to occur (IEC 60335-2-23);		N/A
	- appliances intended to be filled with water operated empty (IEC 60335-2-23).		N/A
	- hand-held appliances without an integral rest are placed on the floor of the test corner in any stable position likely to occur (IEC 60335-2-23).		N/A
	Hairdryers with flexible hood attachment also tested with motor operating, airflow through hose being restricted to give most unfavourable result (IEC 60335-2-23)		N/A
	Heaters for detachable curlers placed on piece of low-density glass-fibre insulation having coefficient of thermal insulation of approximately 2,5 m²K/W (IEC 60335-2-23)		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
19.3	Test of 19.2 repeated; test voltage (V), power input of 1,24 times rated power input (W) ..... :		P
19.4	Test conditions as in clause 11, any control limiting the temperature during tests of clause 11 short-circuited		N/A
19.5	Test of 19.4 repeated on class 0I and I appliances with tubular sheathed or embedded heating elements. No short-circuiting, but one end of the element connected to the sheath		N/A
	The test repeated with reversed polarity and the other end of the heating element connected to the sheath		N/A
	The test is not carried out on appliances intended to be permanently connected to fixed wiring and on appliances where an all-pole disconnection occurs during the test of 19.4		N/A
19.6	Appliances with PTC heating elements tested at rated voltage, establishing steady conditions		P
	The working voltage of the PTC heating element is increased by 5 % and the appliance is operated until steady conditions are re-established. The voltage is then increased in similar steps until 1,5 times working voltage or until the PTC heating element ruptures (V) ..... :	(see appended table)	P
19.7	Stalling test by locking the rotor if the locked rotor torque is smaller than the full load torque, or		N/A
	locking moving parts of other appliances		P
	Locked rotor, capacitors open-circuited one at a time		N/A
	Test repeated with capacitors short-circuited one at a time, unless		N/A
	the capacitor is of class S2 or S3 of IEC 60252-1		N/A
	Appliances with timer or programmer supplied with rated voltage for each of the tests, for a period equal to the maximum period allowed ..... :		N/A
	An electronic timer or programmer that operates to ensure compliance with the test before the maximum period under the conditions of clause 11 is reached, is a protective electronic circuit		N/A
	Test carried out for 5 min except for (IEC 60335-2-23):		--
	- hand-held appliances (IEC 60335-2-23);		N/A
	- appliances have to be kept switched on by hand (IEC 60335-2-23);		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	- appliances incorporating a timer (IEC 60335-2-23).		N/A
	During and after the test, the appliance shall not emit flames. (IEC 60335-2-23)		P
	Hand dryers are subjected to the test only if the locked rotor torque is less than the full load torque. (IEC 60335-2-23).		N/A
	Other appliances supplied with rated voltage for a period as specified..... :		P
	Winding temperatures not exceeding values specified in table 8..... :	(see appended table)	P
19.8	Multi-phase motors operated at rated voltage with one phase disconnected		N/A
19.10	Series motor operated at 1,3 times rated voltage for 1 min (V)..... :		N/A
	Test carried out with heating elements disconnected or switched off (IEC 60335-2-23)		N/A
	During the test, parts not being ejected from the appliance		N/A
19.11	Electronic circuits, compliance checked by evaluation of the fault conditions specified in 19.11.2 for all circuits or parts of circuits, unless		P
	they comply with the conditions specified in 19.11.1		N/A
	Appliances incorporating an electronic circuit that relies upon a programmable component to function correctly, subjected to the test of 19.11.4.8, unless		N/A
	restarting does not result in a hazard		P
	Appliances having a device with an off position obtained by electronic disconnection, or a device placing the appliance in a stand-by mode, subjected to the tests of 19.11.4		N/A
	If the safety of the appliance under any of the fault conditions depends on the operation of a miniature fuse-link complying with IEC 60127, the test of 19.12 is carried out		P
	During and after each test the following is checked:		--
	- the temperature of the windings do not exceed the values specified in table 8		P
	- the appliance complies with the conditions specified in 19.13		P
	- any current flowing through protective impedance not exceeding the limits specified in 8.1.4		P

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	If a conductor of a printed board becomes open-circuited, the appliance is considered to have withstood the particular test, provided both of the following conditions are met:		--
	- the base material of the printed circuit board withstands the test of annex E		N/A
	- any loosened conductor does not reduce clearance or creepage distances between live parts and accessible metal parts below the values specified in clause 29		N/A
19.11.1	Fault conditions a) to g) in 19.11.2 are not applied to circuits or parts of circuits meeting both of the following conditions:		--
	- the electronic circuit is a low-power circuit, that is, the maximum power at low-power points does not exceed 15 W according to the tests specified		N/A
	- the protection against electric shock, fire hazard, mechanical hazard or dangerous malfunction of other parts of the appliance does not rely on the correct functioning of the electronic circuit		N/A
19.11.2	Fault conditions applied one at a time, the appliance operating under conditions specified in clause 11, but supplied at rated voltage, duration of the tests as specified:		--
	a) short circuit of functional insulation if clearances or creepage distances are less than the values specified in clause 29		P
	b) open circuit at the terminals of any component		P
	c) short circuit of capacitors, unless		P
	they comply with IEC 60384-14		P
	d) short circuit of any two terminals of an electronic component, other than integrated circuits		P
	This fault condition is not applied between the two circuits of an optocoupler		N/A
	e) failure of triacs in the diode mode		P
	f) failure of microprocessors and integrated circuits		P
	g) failure of an electronic power switching device		P
	Each low power circuit is short-circuited by connecting the low-power point to the pole of the supply source from which the measurements were made		N/A
19.11.3	If the appliance incorporates a protective electronic circuit that operates to ensure compliance with clause 19, the appliance is tested as specified		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
19.11.4	Appliances having a device with an off position obtained by electronic disconnection, or		N/A
	a device that can be placed in the stand-by mode,		N/A
	subjected to the tests of 19.11.4.1 to 19.11.4.7, the device being set in the off position or in the stand-by mode		N/A
	Appliances incorporating a protective electronic circuit subjected to the tests of 19.11.4.1 to 19.11.4.7, the tests being carried out after the protective electronic circuit has operated, except that		N/A
	appliances operated for 30 s or 5 min during the test of 19.7 are not subjected to the tests for electromagnetic phenomena.		N/A
	Surge protective devices disconnected, unless		N/A
	They incorporate spark gaps		N/A
19.11.4.1	The appliance is subjected to electrostatic discharges in accordance with IEC 61000-4-2, test level 4		N/A
19.11.4.2	The appliance is subjected to radiated fields in accordance with IEC 61000-4-3, at frequency ranges specified		N/A
19.11.4.3	The appliance is subjected to fast transient bursts in accordance with IEC 61000-4-4, test level 3 or 4 as specified		N/A
19.11.4.4	The power supply terminals of the appliance subjected to voltage surges in accordance with IEC 61000-4-5, test level 3 or 4 as specified		N/A
	An open circuit test voltage of 2 kV is applicable for the line-to-line coupling mode		N/A
	An open circuit test voltage of 4 kV is applicable for the line-to-earth coupling		N/A
	Earthed heating elements in class I appliances disconnected		N/A
19.11.4.5	The appliance is subjected to injected currents in accordance with IEC 61000-4-6, test level 3		N/A
19.11.4.6	Appliances having a rated current not exceeding 16 A are subjected to the class 3 voltage dips and interruptions in accordance with IEC 61000-4-11		N/A
	Appliances having a rated current exceeding 16 A are subjected to the class 3 voltage dips and interruptions in accordance with IEC 61000-4-34		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
19.11.4.7	The appliance is subjected to mains signals in accordance with IEC 61000-4-13, test level class 2		N/A
19.11.4.8	The appliance is supplied at rated voltage and operated under normal operation. After 60 s the power supply is reduced to a level such that the appliance ceases to respond or parts controlled by the programmable component cease to operate		N/A
	The appliance continues to operate normally, or		N/A
	requires a manual operation to restart		N/A
19.12	If the safety of the appliance for any of the fault conditions specified in 19.11.2 depends on the operation of a miniature fuse-link complying with IEC 60127, the test is repeated, measuring the current flowing through the fuse-link; measured current (A); rated current of the fuse-link (A)..... :		P
19.13	During the tests the appliance does not emit flames, molten metal, poisonous or ignitable gas in hazardous amounts		P
	Temperature rises not exceeding the values shown in table 9 ..... :	(see appended table)	P
	Compliance with clause 8 not impaired		P
	If the appliance can still be operated it complies with 20.2		N/A
	Insulation, other than of class III appliances or class III constructions that do not contain live parts, withstands the electric strength test of 16.3, the test voltage as specified in table 4:		--
	- basic insulation (V) ..... :		N/A
	- supplementary insulation (V) ..... :		N/A
	- reinforced insulation (V)..... :	2500V	P
	After operation or interruption of a control, clearances and creepage distances across the functional insulation withstand the electric strength test of 16.3, the test voltage being twice the working voltage		N/A
	The appliance does not undergo a dangerous malfunction, and		P
	no failure of protective electronic circuits, if the appliance is still operable		N/A
	Appliances tested with an electronic switch in the off position, or in the stand-by mode:		--
	- do not become operational, or		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	- if they become operational, do not result in a dangerous malfunction during or after the tests of 19.11.4		N/A
	If the appliance contains lids or doors that are controlled by one or more interlocks, one of the interlocks may be released provided that:		--
	- the lid or door does not move automatically to an open position when the interlock is released, and		N/A
	- the appliance does not start after the cycle in which the interlock was released		N/A
19.14	Appliances operated under the conditions of clause 11, any contactor or relay contact operating under the conditions of clause 11 being short-circuited		N/A
	For a relay or contactor with more than one contact, all contacts are short-circuited at the same time		N/A
	A relay or contactor operating only to ensure the appliance is energized for normal use is not short-circuited		N/A
	If more than one relay or contactor operates in clause 11, they are short-circuited in turn		N/A
19.15	For appliances with a mains voltage selector switch, the switch is set to the lowest rated voltage position and the highest value of rated voltage is applied		N/A
	Test is repeated with the heat setting switch placed in each position. (IEC 60335-2-23:2016/AMD1:2019)		N/A
	Voltage to the heating element is maintained at the value that gives 1,15 times rated power input with the switch at the highest heat setting position. (IEC 60335-2-23:2016/AMD1:2019)		N/A
19.101	Hairdryers operated as specified in clause 11 until steady conditions established (IEC 60335-2-23)		N/A
	Voltage at terminals of motor reduced until running speed of motor is just sufficient to prevent thermal cut-out from operating, power input to heating element being maintained at 1,15 times rated power input (IEC 60335-2-23)		N/A
	Voltage is decreased at (IEC 60335-2-23)		--
	- 1 V/min, for motors with working voltage not exceeding 30 V (IEC 60335-2-23);		N/A
	- 5 V/min, for motors with working voltage exceeding 30 V (IEC 60335-2-23).		N/A
	Appliance operated until steady conditions established (IEC 60335-2-23)		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
19.102	Portable hair dryers operated under normal operation at 1,15 times rated power input (IEC 60335-2-23)		N/A
	Sheet of polyethylene approximately 200 mm x 200 mm and having thickness of 50 µm placed against air-inlet and moved in any direction in order to reduce airflow so that most unfavourable conditions established (IEC 60335-2-23)		N/A
	Test carried out for 30 min (IEC 60335-2-23)		N/A
	Test repeated with airflow directed horizontally (IEC 60335-2-23)		N/A
20	**STABILITY AND MECHANICAL HAZARDS**		
20.1	Appliances having adequate stability (IEC 60335-2-23:2016/AMD1:2019)		P
	Hand-held appliances with an integral rest have adequate stability when placed on the integral rest. (IEC 60335-2-23:2016/AMD1:2019)		P
	Compliance is tested as specified. (IEC 60335-2-23:2016/AMD1:2019)		P
	Tilting test repeated on appliances with heating elements, angle of inclination increased to 15° (IEC 60335-2-23:2016/AMD1:2019)		P
	If the appliance overturns in one or more positions, it is subjected to the tests of Clause 11 in each of these overturned positions. (IEC 60335-2-23:2016/AMD1:2019)		N/A
	During this test, temperature rises not exceed the values shown in Table 9. (IEC 60335-2-23:2016/AMD1:2019)		N/A
20.2	Moving parts adequately arranged or enclosed as to provide protection against personal injury		P
	Protective enclosures, guards and similar parts are non-detachable, and		P
	have adequate mechanical strength		P
	Enclosures that can be opened by overriding an interlock are considered to be detachable parts		N/A
	Self-resetting thermal cut-outs and overcurrent protective devices not causing a hazard by unexpected closure		N/A
	Not possible to touch dangerous moving parts with the test probe described		P
21	**MECHANICAL STRENGTH**		

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
21.1	Appliance has adequate mechanical strength and is constructed as to withstand rough handling		P
	Checked by applying 3 blows to every point of the enclosure like to be weak, in accordance with test Ehb of IEC 60068-2-75, spring hammer test, with an impact energy of 0,5 J	(see appended table)	P
	The appliance shows no damage impairing compliance with this standard, and		P
	compliance with 8.1, 15.1 and clause 29 not impaired		P
	If doubt, supplementary or reinforced insulation subjected to the electric strength test of 16.3		N/A
	If necessary, repetition of groups of three blows on a new sample		N/A
	Hand-held appliances also subjected to test of clause 21.101 (IEC 60335-2-23)		N/A
	Water filled foot care appliances are loaded as specified for normal operation but with the mass increased to 90 kg. The mass is applied for 30 s. (IEC 60335 2 23:2016/AMD1:2019)		N/A
21.2	Accessible parts of solid insulation having strength to prevent penetration by sharp implements		P
	Test not applicable if the thickness of supplementary insulation is at least 1 mm and reinforced insulation at least 2 mm		P
	The insulation is tested as specified, and does withstand the electric strength test of 16.3		N/A
21.101	The hand-held part of the appliance is placed in a sling that is constructed by tying together the four corners of a single layer of cheesecloth. The lowest point of the sling is suspended at a height of 900 mm above a concrete or similar hard surface. (IEC 60335-2-23:2016/AMD1:2019)		N/A
	The hand-held part of the appliance in the sling is dropped from a stationary position. The test is carried out a total of five times with the hand-held part of the appliance being positioned so that it falls onto the concrete surface in five different orientations. (IEC 60335-2-23:2016/AMD1:2019)		N/A
	The appliance shall not be damaged to such an extent that compliance with 8.1 and Clause 29 is impaired. (IEC 60335-2-23:2016/AMD1:2019)		N/A
22	**CONSTRUCTION**		

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
22.1	Appliance marked with the first numeral of the IP system, relevant requirements of IEC 60529 are fulfilled	IPX0	N/A
22.2	Stationary appliance: means to ensure all-pole disconnection from the supply being provided:		--
	- a supply cord fitted with a plug, or		N/A
	- a switch complying with 24.3, or		N/A
	- a statement in the instruction sheet that a disconnection incorporated in the fixed wiring is to be provided, or		N/A
	- an appliance inlet		N/A
	Singe-pole switches and single-pole protective devices for the disconnection of heating elements in single-phase, permanently connected class 01 and class I appliances, connected to the phase conductor		N/A
22.3	Appliance provided with pins: no undue strain on socket-outlets		N/A
	Applied torque not exceeding 0,25 Nm		N/A
	Pull force of 50 N to each pin after the appliance has being placed in the heating cabinet; when cooled to room temperature the pins are not displaced by more than 1 mm		N/A
	Each pin subjected to a torque of 0,4 Nm; the pins are not rotating, unless		N/A
	rotating does not impair compliance with this standard		N/A
22.4	Appliance for heating liquids and appliance causing undue vibration not provided with pins for insertion into socket-outlets		N/A
22.5	No risk of electric shock when touching pins, for appliances having a capacitor with rated capacitance equal to or greater than 0,1 μF, the appliance being disconnected from the supply at the instant of voltage peak		P
	Voltage not exceeding 34 V (V) ..... :		P
	If compliance relies on the operation of an electronic circuit, the electromagnetic phenomena tests of 19.11.4.3 and 19.11.4.4 are applied		N/A
	The discharge test is then repeated three times, voltage not exceeding 34 V (V)..... :		N/A
22.6	Electrical insulation not affected by condensing water or leaking liquid		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	Electrical insulation of class II appliances not affected if a hose ruptures or seal leaks		N/A
	In case of doubt, test as described		N/A
*22.7	Adequate safeguards against the risk of excessive pressure in appliances containing liquid or gases or having steam-producing devices		N/A
22.8	Electrical connections not subject to pulling during cleaning of compartments to which access can be gained without the aid of a tool, and that are likely to be cleaned in normal use		P
22.9	Insulation, internal wiring, windings, commutators and slip rings not exposed to oil, grease or similar substances, unless		P
	the substance has adequate insulating properties		N/A
22.10	Not possible to reset voltage-maintained non-self-resetting thermal cut-outs by the operation of an automatic switching device incorporated within the appliance, if:		N/A
	- a non-self-resetting thermal cut-out is required by the standard, and		N/A
	- a voltage maintained non-self-resetting thermal cut-out is used to meet it		N/A
	Non-self-resetting thermal motor protectors have a trip-free action, unless		N/A
	they are voltage maintained		N/A
	Reset buttons of non-self-resetting controls so located or protected that accidental resetting is unlikely		N/A
22.11	Reliable fixing of non-detachable parts that provide the necessary degree of protection against electric shock, moisture or contact with moving parts		P
	Obvious locked position of snap-in devices used for fixing such parts		N/A
	No deterioration of the fixing properties of snap-in devices used in parts that are likely to be removed during installation or servicing		N/A
	Tests as described		P
22.12	Handles, knobs etc. fixed in a reliable manner, if loosening result in a hazard		N/A
	Removing or fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible, if resulting in a hazard		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	A choking hazard does not apply to appliances for commercial use		N/A
	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied		N/A
	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied		N/A
	If the part is removed and can be contained within the small parts cylinder, it is considered to be a choking hazard		N/A
22.13	Unlikely that handles, when gripped as in normal use, make the operator's hand touch parts having a temperature rise exceeding the value specified for handles which are held for short periods only		N/A
	To avoid accidental contact with hot surfaces, the handle of curling irons and hair straighteners shall be clearly identified by tactile means, or colour or other visual means. (IEC 60335-2-23)		N/A
22.14	No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance		P
	No exposed pointed ends of self-tapping screws or other fasteners, likely to be touched by the user in normal use or during user maintenance		P
22.15	Storage hooks and the like for flexible cords smooth and well rounded	No storage hooks	N/A
*22.16	Automatic cord reels cause no undue abrasion or damage to the sheath of the flexible cord, no breakage of conductors strands and no undue wear of contacts	No automatic cord	N/A
	Cord reel tested with 6000 operations, as specified		N/A
	Electric strength test of 16.3, voltage of 1000 V applied		N/A
22.17	Spacers not removable from the outside by hand or by means of a screwdriver or a spanner		N/A
22.18	Current-carrying parts and other metal parts resistant to corrosion		P
22.19	Driving belts not relied upon to provide the required level of insulation, unless	No driving belts	N/A
	constructed to prevent inappropriate replacement		N/A
22.20	Direct contact between live parts and thermal insulation effectively prevented, unless		N/A
	material used is non-corrosive, non-hygroscopic and non-combustible		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless		P
	impregnated		N/A
	This requirement does not apply to magnesium oxide and mineral ceramic fibres used for the electrical insulation of heating elements		N/A
22.22	Appliances not containing asbestos		P
22.23	Oils containing polychlorinated biphenyl (PCB) not used		P
22.24	Bare heating elements, except in class III appliances or class III constructions that do not contain live parts, adequately supported		N/A
	In case of rupture, the heating conductor is unlikely to come in contact with accessible metal parts		N/A
	Heating element also be unlikely to come into contact with skin or hair if it ruptures (IEC 60335-2-23)		N/A
22.25	Sagging heating conductors, except in class III appliances or class III constructions that do not contain live parts, cannot come into contact with accessible metal parts		N/A
22.26	For class III constructions the insulation between parts operating at safety extra-low voltage and other live parts complies with the requirements for double or reinforced insulation		P
22.27	Parts connected by protective impedance separated by double or reinforced insulation		P
22.28	Metal parts of class II appliances conductively connected to gas pipes or in contact with water, separated from live parts by double or reinforced insulation		N/A
22.29	Class II appliances permanently connected to fixed wiring so constructed that the required degree of access to live parts is maintained after installation		N/A
22.30	Parts serving as supplementary or reinforced insulation fixed so that they cannot be removed without being seriously damaged, or		P
	so constructed that they cannot be replaced in an incorrect position, and so that if they are omitted, the appliance is rendered inoperable or manifestly incomplete		P
22.31	Neither clearances nor creepage distances over supplementary and reinforced insulation reduced below values specified in clause 29 as a result of wear		P

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Clause	Requirement - Test	Result - Remark	Verdict
	Neither clearances nor creepage distances between live parts and accessible parts reduced below values for supplementary insulation if wires, screws etc. become loose		P
*22.32	Supplementary and reinforced insulation constructed or protected against pollution so that clearances or creepage distances are not reduced below the values in clause 29		N/A
	Supplementary insulation of natural or synthetic rubber resistant to ageing, or arranged and dimensioned so that creepage distances are not reduced below values specified in 29.2		N/A
	Ceramic material not tightly sintered, similar materials or beads alone not used as supplementary or reinforced insulation		N/A
	Ceramic and similar porous material in which heating conductors are embedded is considered to be basic insulation, not reinforced insulation		N/A
	Oxygen bomb test at 70 °C for 96 h and 16 h at room temperature		N/A
	Supplementary insulation and reinforced insulation in class II curling irons and hair straighteners shall be resistant to aging. (IEC 60335-2-23)		N/A
	Insulation mentioned in Table 3 is considered to be resistant to aging. (IEC 60335-2-23)		N/A
	Test samples kept in ventilated heating cabinet as specified: The samples are kept in the cabinet for 240 h and then at ambient temperature for at least 16 h. (IEC 60335-2-23)		N/A
	Samples show no cracks and withstand the electric strength test of 16.3 for supplementary insulation. (IEC 60335-2-23)		N/A
22.33	Conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts are not in direct contact with live parts, or		P
	unearthed metal parts separated from live parts by basic insulation only		N/A
	Electrodes not used for heating liquids		N/A
	For class II constructions, conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts, not in direct contact with basic or reinforced insulation, unless		P

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Clause	Requirement - Test	Result - Remark	Verdict
	the reinforced insulation consists of at least 3 layers		N/A
	For class II constructions, conductive liquids which are in contact with live parts, not in direct contact with reinforced insulation, unless		N/A
	the reinforced insulation consists of at least 3 layers		N/A
	An air layer not used as basic or supplementary insulation in a double insulation system if likely to be bridged by leaking liquid		N/A
22.34	Shafts of operating knobs, handles, levers etc. not live, unless		N/A
	the shaft is not accessible when the part is removed		N/A
22.35	For other than class III constructions, handles, levers and knobs, held or actuated in normal use, not becoming live in the event of a failure of basic insulation		N/A
	Such parts being of metal, and their shafts or fixings are likely to become live in the event of a failure of basic insulation, are either adequately covered by insulation material or their accessible parts are separated from their shafts or fixings by supplementary insulation		N/A
	This requirement does not apply to handles, levers and knobs on stationary appliances and cordless appliances, other than those of electrical components, provided they are reliably connected to an earthing terminal or earthing contact, or separated from live parts by earthed metal		N/A
	Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation		N/A
22.36	For appliances other than class III, handles continuously held in the hand in normal use so constructed that when gripped as in normal use, the operators hand is not likely to touch metal parts, unless		N/A
	they are separated from live parts by double or reinforced insulation		N/A
	Class I appliances, other than hand dryers and face dryers, metal parts could be in contact with skin or hair in normal use separated from live parts by double insulation or reinforced insulation and (IEC 60335-2-23)		N/A
	not be earthed (IEC 60335-2-23).		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
22.37	Capacitors in class II appliances not connected to accessible metal parts and their casings, if of metal, separated from accessible metal parts by supplementary insulation, unless		N/A
	the capacitors comply with 22.42		N/A
22.38	Capacitors not connected between the contacts of a thermal cut-out		P
22.39	Lamp holders used only for the connection of lamps	No lamp holder	N/A
22.40	Motor-operated appliances and combined appliances intended to be moved while in operation, or having accessible moving parts, fitted with a switch to control the motor. The actuating member of the switch being easily visible and accessible		N/A
	Switch in off-position disconnect electronic circuits, unless compliance with clause 19 does not depend on operation of self-resetting thermal cut-out (IEC 60335-2-23)		N/A
	If the appliance cannot operate continuously, automatically or remotely without giving rise to a hazard, appliances for remote operation being fitted with a switch for stopping the operation. The actuating member of the switch being easily visible and accessible		N/A
22.41	No components, other than lamps, containing mercury		P
22.42	Protective impedance consisting of at least two separate components		P
	Values specified in 8.1.4 not exceeded if any one of the components are short-circuited or open-circuited		P
	Resistors checked by the test of 14.1 a) in IEC 60065		N/A
	Capacitors checked by the tests for class Y capacitors in IEC 60384-14		P
22.43	Appliances adjustable for different voltages, accidental changing of the setting of the voltage unlikely to occur		N/A
22.44	Appliances not having an enclosure that is shaped or decorated like a toy		P
22.45	When air is used as reinforced insulation, clearances not reduced below the values specified in 29.1.3 due to deformation as a result of an external force applied to the enclosure		P

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Clause	Requirement - Test	Result - Remark	Verdict
*22.46	For programmable protective electronic circuits used to ensure compliance with the standard, the software contains measures to control the fault/error conditions in table R.1		N/A
	Software that contains measures to control the fault/error conditions specified in table R.2 is to be specified in parts 2 for particular constructions or to address specific hazards		N/A
	These requirements are not applicable to software used for functional purpose or compliance with clause 11		N/A
*22.47	Appliances connected to the water mains withstand the water pressure expected in normal use		N/A
	No leakage from any part, including any inlet water hose		N/A
*22.48	Appliances connected to the water mains constructed to prevent backsiphonage of non-potable water		N/A
22.49	For remote operation, the duration of operation is to be set before the appliance can be started, unless	No remote operation	N/A
	the appliance switches off automatically or can operate continuously without hazard		N/A
22.50	Controls incorporated in the appliance take priority over controls actuated by remote operation		N/A
22.51	There is a control on the appliance manually adjusted to the setting for remote operation before the appliance can be operated in this mode		N/A
	There is a visual indication showing that the appliance is adjusted for remote operation		N/A
	These requirements not necessary on appliances that can operate as follows, without giving rise to a hazard:		--
	- continuously, or		N/A
	- automatically, or		N/A
	- remotely		N/A
22.52	Socket-outlets on appliances accessible to the user in accordance with the socket-outlet system used in the country in which the appliance is sold	No socket-outlets on appliance	N/A
22.53	Class II appliances and class III appliances that incorporate functionally earthed parts have at least double insulation or reinforced insulation between live parts and the functionally earthed parts		N/A
22.54	Button cells and batteries designated R1 not accessible without the aid of a tool, unless		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	the cover of their compartment can only be opened after at least two independent movements have been applied simultaneously		N/A
22.55	Devices operated to stop the intended function of the appliance, if any, are be distinguished from other manual devices by means of shape, size, surface texture or position ..... :		P
	The requirement concerning position does not preclude use of a push on push off switch		P
	An indication when the device has been operated is given by:		--
	- tactile feedback from the actuator or from the appliance, or		P
	- reduction in heat output; or		P
	- audible and visible feedback		N/A
22.56	Detachable power supply part provided with the part of class III construction		N/A
22.57	The properties of non-metallic materials do not degrade from exposure to UV-C radiation, as specified in annex T		N/A
	This requirement does not apply to glass, ceramics or similar materials		N/A
22.101	Appliances with steam-producing or spray-producing devices constructed so that there is no spillage or unintentional burst of steam or water that likely to cause hazard (IEC 60335-2-23)		N/A
22.102	Curling rollers of permanent-wave appliances with integral heating elements supplied with safety extra-low voltage not exceeding 24 V (IEC 60335-2-23)		N/A
22.103	Hairdryers are fitted with a grid or similar protection means to limit the risk of hair being sucked into the air intake. (IEC 60335-2-23)		N/A
23	**INTERNAL WIRING**		
23.1	Wireways smooth and free from sharp edges		P
	Wires protected against contact with burrs, cooling fins etc.		P
	Wire holes in metal well-rounded or provided with bushings		N/A
	Wiring effectively prevented from coming into contact with moving parts		P
23.2	Beads etc. on live wires cannot change their position, and are not resting on sharp edges		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	Beads inside flexible metal conduits contained within an insulating sleeve		N/A
23.3	Electrical connections and internal conductors movable relatively to each other not exposed to undue stress		N/A
	Flexible metallic tubes not causing damage to insulation of conductors		N/A
	Open-coil springs not used		N/A
	Adequate insulating lining provided inside a coiled spring, the turns of which touch one another		N/A
	No damage after 10 000 flexings for conductors flexed during normal use, or		N/A
	100 flexings for conductors flexed during user maintenance		N/A
	Number of flexings for conductors that only flexed when appliance stored is 5000 (IEC 60335-2-23)		N/A
	Electric strength test of 16.3, 1000 V between live parts and accessible metal parts		N/A
	Not more than 10 % of the strands of any conductor broken, and		N/A
	not more than 30 % for wiring supplying circuits that consume no more than 15 W		N/A
23.4	Bare internal wiring sufficiently rigid and fixed		N/A
23.5	The insulation of internal wiring subjected to the supply mains voltage withstanding the electrical stress likely to occur in normal use		P
	Basic insulation electrically equivalent to the basic insulation of cords complying with IEC 60227 or IEC 60245, or		P
	no breakdown when a voltage of 2000 V is applied for 15 min between the conductor and metal foil wrapped around the insulation		P
	For class II construction, the requirements for supplementary insulation and reinforced insulation apply,		P
	except that the sheath of a cord complying with IEC 60227 or IEC 60245 may provide supplementary insulation.		N/A
	A single layer of internal wiring insulation does not provide reinforced insulation		P

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Clause	Requirement - Test	Result - Remark	Verdict
23.6	Sleeving used as supplementary insulation on internal wiring retained in position by clamping at both ends, or		N/A
	be such that it can only be removed by breaking or cutting		N/A
23.7	The colour combination green/yellow only used for earthing conductors		N/A
23.8	Aluminium wires not used for internal wiring		P
23.9	Stranded conductors not consolidated by soldering where they are subjected to contact pressure, unless		P
	the contact pressure is provided by spring terminals		N/A
23.10	The insulation and sheath of internal wiring, incorporated in external hoses for the connection of an appliance to the water mains, at least equivalent to that of light polyvinyl chloride sheathed flexible cord (60227 IEC 52)		N/A
24	**COMPONENTS**		
24.1	Components comply with safety requirements in relevant IEC standards		P
	List of components ..... :	(see appended table)	P
	Motors not required to comply with IEC 60034-1, they are tested as part of the appliance		P
	Relays tested as part of the appliance, or		P
	alternatively acc. to IEC 60730-1, and meeting the additional requirements in IEC 60335-1		N/A
	The requirements of clause 29 apply between live parts of components and accessible parts of the appliance		P
	Components can comply with the requirements for clearances and creepage distances for functional insulation in the relevant component standard		P
	30.2 of this standard apply to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections		P
	Components that have not been previously tested to comply with the IEC standard for the relevant component are tested according to the requirements of 30.2		P

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Clause	Requirement - Test	Result - Remark	Verdict
	Components that have been previously tested to comply with the resistance to fire requirements in the IEC standard for the relevant component need not be retested provided the specified conditions are met		P
	If these conditions are not satisfied, the component is tested as part of the appliance.		P
	Power electronic converter circuits not required to comply with IEC 62477-1, they are tested as part of the appliance		N/A
	If components have not been tested and found to comply with relevant IEC standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9		P
	For components mentioned in 24.1.1 to 24.1.9 no additional tests specified in the relevant component standard are necessary other than those specified in 24.1.1 to 24.1.9		P
	Components not tested and found to comply with relevant IEC standard and components not marked or not used in accordance with its marking, tested under the conditions occurring in the appliance		P
	Lampholders and starterholders that have not being tested and found to comply with the relevant IEC standard, tested as a part of the appliance and additionally according to the gauging and interchangeability requirements of the relevant IEC standard		N/A
	No additional tests specified for nationally standardized plugs such as those detailed in IEC/TR 60083 or connectors complying with the standard sheets of IEC 60320-1 and IEC 60309		P
24.1.1	Capacitors likely to be permanently subjected to the supply voltage and used for radio interference suppression or for voltage dividing, comply with IEC 60384-14		P
	If the capacitors have to be tested, they are tested according to annex F		N/A
24.1.2	Transformers in associated switch mode power supplies comply with annex BB of IEC 61558-2-16		P
	Safety isolating transformers comply with IEC 61558-2-6		N/A
	If they have to be tested, they are tested according to annex G		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
24.1.3	Switches comply with IEC 61058-1, the number of cycles of operation being at least 10 000		N/A
	If they have to be tested, they are tested according to annex H		N/A
	If the switch operates a relay or contactor, the complete switching system is subjected to the test		N/A
	If the switch only operates a motor staring relay complying with IEC 60730-2-10 with the number of cycles of a least 10 000 as specified, the complete switching system need not be tested		N/A
	Switches incorporated in hand dryers subjected to 50 000 cycles of operation (IEC 60335-2-23)		N/A
24.1.4	Automatic controls comply with IEC 60730-1 with the relevant part 2. The number of cycles of operation being at least:		--
	- thermostats: 10 000		N/A
	- temperature limiters: 1 000		N/A
	- self-resetting thermal cut-outs: 300		P
	- voltage maintained non-self-resetting thermal cut-outs: 1 000		N/A
	- other non-self-resetting thermal cut-outs: 30		N/A
	- timers: 3 000		N/A
	- energy regulators: 10 000		N/A
	The number of cycles for controls operating during clause 11 need not be declared, if the appliance meets the requirements of this standard when they are short-circuited		N/A
	Thermal motor protectors are tested in combination with their motor under the conditions specified in annex D		N/A
	For water valves containing live parts and that are incorporated in external hoses for connection of an appliance to the water mains, the degree of protection declared for subclause 6.5.2 of IEC 60730-2-8 is IPX7		N/A
	Thermal cut-outs of the capillary type comply with the requirements for type 2.K controls in IEC 60730-2-9		N/A
24.1.5	Appliance couplers comply with IEC 60320-1		N/A
	However, for class II appliances classified higher than IPX0, the appliance couplers comply with IEC 60320-2-3		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	Interconnection couplers comply with IEC 60320-2-2		N/A
24.1.6	Small lamp holders similar to E10 lampholders comply with IEC 60238, the requirements for E10 lampholders being applicable		N/A
24.1.7	For remote operation of the appliance via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is IEC 62151		N/A
24.1.8	The relevant standard for thermal links is IEC 60691		N/A
	Thermal links not complying with IEC 60691 are considered to be an intentionally weak part for the purposes of clause 19		N/A
24.1.9	Contactors and relays, other than motor starting relays, tested as part of the appliance		N/A
	They are also tested in accordance with clause 17 of IEC 60730-1, the number of cycles of operations in 24.1.4 selected according to the contactor or relay function in the appliance ..... :		N/A
24.2	Helmet-type hairdryers and permanent-wave appliances incorporate switch in flexible cord (IEC 60335-2-23)		N/A
	Appliances not fitted with:		--
	- switches, automatic controls or power supplies in flexible cords		P
	- devices causing the protective device in the fixed wiring to operate in the event of a fault in the appliance		P
	- thermal cut-outs that can be reset by soldering, unless		P
	the solder has a melding point of at least 230 °C		N/A
24.3	Switches intended for all-pole disconnection of stationary appliances are directly connected to the supply terminals and have a contact separation in all poles, providing full disconnection under overvoltage category III conditions		N/A
24.4	Plugs and socket-outlets for extra-low voltage circuits and heating elements, not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1 or with connectors and appliance inlets complying with the standard sheets of IEC 60320-1		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
24.5	Capacitors in auxiliary windings of motors marked with their rated voltage and capacitance, and used accordingly		N/A
	Voltage across capacitors in series with a motor winding does not exceed 1,1 times rated voltage, when the appliance is supplied at 1,1 times rated voltage under minimum load		N/A
24.6	Working voltage of motors connected to the supply mains and having basic insulation that is inadequate for the rated voltage of the appliance, not exceeding 42 V		N/A
	In addition, the motors comply with the requirements of annex I		N/A
24.7	Detachable hose-sets for connection of appliances to the water mains comply with IEC 61770		N/A
	They are supplied with the appliance		N/A
	Appliances intended to be permanently connected to the water mains not connected by a detachable hose-set		N/A
24.8	Motor running capacitors in appliances for which 30.2.3 is applicable and that are permanently connected in series with a motor winding, not causing a hazard in event of a failure		N/A
	One or more of the following conditions are to be met:		--
	- the capacitors are of class S2 or S3 according to IEC 60252-1		N/A
	- the capacitors are housed within a metallic or ceramic enclosure		N/A
	- the distance of separation of the outer surface to adjacent non-metallic parts exceeds 50 mm		N/A
	- adjacent non-metallic parts within 50 mm withstand the needle-flame test of annex E		N/A
	- adjacent non-metallic parts within 50 mm classified as at least V-1 according to IEC 60695-11-10		N/A
24.101	Protective devices incorporated in fixed hand dryers in order to comply with 19.2 and 19.3 not be self-resetting. (IEC 60335-2-23)		N/A
25	**SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS**		
25.1	Appliance not intended for permanent connection to fixed wiring, means for connection to the supply:		--

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Clause	Requirement - Test	Result - Remark	Verdict
	- supply cord fitted with a plug, the current rating and voltage rating of the plug being not less than the corresponding ratings of its associated appliance		P
	- an appliance inlet having at least the same degree of protection against moisture as required for the appliance, or		N/A
	- pins for insertion into socket-outlets		N/A
25.2	Appliance not provided with more than one means of connection to the supply mains		P
	Stationary appliance for multiple supply may be provided with more than one means of connection, provided electric strength test of 1250 V for 1 min between each means of connection causes no breakdown		N/A
25.3	Appliance intended to be permanently connected to fixed wiring provided with one of the following means for connection to the supply mains:		--
	- a set of terminals allowing the connection of a flexible cord		N/A
	- a fitted supply cord		N/A
	- a set of supply leads accommodated in a suitable compartment		N/A
	- a set of terminals for the connection of cables of fixed wiring, cross-sectional areas specified in 26.6, and the appliance allows the connection of the supply conductors after the appliance has been fixed to its support		N/A
	- a set of terminals and cable entries, conduit entries, knock-outs or glands, allowing connection of appropriate types of cable or conduit, and the appliance allows the connection of the supply conductors after the appliance has been fixed to its support		N/A
	For a fixed appliance constructed so that parts can be removed to facilitate easy installation, this requirement is met if it is possible to connect the fixed wiring without difficulty after a part of the appliance has been fixed to its support		N/A
25.4	Cable and conduit entries, rated current of appliance not exceeding 16 A, dimension according to table 10 (mm) ..... :		N/A
	Introduction of conduit or cable does not reduce clearances or creepage distances below values specified in clause 29		N/A
25.5	Method for assembling the supply cord to the appliance:		--

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Clause	Requirement - Test	Result - Remark	Verdict
	- type X attachment		N/A
	- type Y attachment		P
	- type Z attachment, if allowed in relevant part 2		N/A
	Type X attachment is not allowed if the supply cord is fitted with a warning flag tag. (IEC 60335-2-23)		N/A
	- type Z attachment allowed for (IEC 60335-2-23):		--
	- hand-held appliances (IEC 60335-2-23);		N/A
	- hairdryers with flexible hood attachment (IEC 60335-2-23);		N/A
	- heaters for detachable curlers having not more than 10 curlers (IEC 60335-2-23).		N/A
	Type X attachment, other than those with a specially prepared cord, not used for flat twin tinsel cords		N/A
	For multi-phase appliances supplied with a supply cord and that are intended to be permanently connected to fixed wiring, the supply cord is assembled to the appliance by type Y attachment		N/A
25.6	Plugs fitted with only one flexible cord		P
25.7	Supply cords, other than for class III appliances, being one of the following types:		--
	- rubber sheathed (at least 60245 IEC 53)		N/A
	- polychloroprene sheathed (at least 60245 IEC 57)		N/A
	- polyvinyl chloride sheathed. Not used if they are likely to touch metal parts having a temperature rise exceeding 75 K during the test of clause 11		--
	- light polyvinyl chloride sheathed cord (60227 IEC 52) are allowed regardless of the mass of the appliance. (IEC 60335-2-23)		N/A
	- ordinary polyvinyl chloride sheathed cord (60227 IEC 53), for other appliances		P
	- heat resistant polyvinyl chloride sheathed. Not used for type X attachment other than specially prepared cords		--
	- heat-resistant light polyvinyl chloride sheathed cord (60227 IEC 56), for appliances not exceeding 3 kg		N/A
	- heat-resistant polyvinyl chloride sheathed cord (60227 IEC 57), for other appliances		N/A
	- halogen-free, low smoke, thermoplastic insulated and sheathed		--
	- light duty halogen-free low smoke flexible cable (62821 IEC 101) for circular cable and (62821 IEC 101f) for flat cable		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	- Ordinary duty halogen-free low smoke flexible cable (62821 IEC 102) for circular cable and (62821 IEC 102f(for flat cable		N/A
	Supply cords for class III appliances adequately insulated		N/A
	Test with 500 V for 2 min for supply cords of class III appliances that contain live parts		N/A
	Temperature rise limit of 75 K is increased to 130 K provided that the temperature rise decreases to 75 K within 5 min of the appliance being switched off. (IEC 60335-2-23)		N/A
25.8	Nominal cross-sectional area of supply cords not less than table 11; rated current (A); cross-sectional area (mm²)..... :		P
25.9	Supply cords not in contact with sharp points or edges		P
25.10	Supply cord of class I appliances have a green/yellow core for earthing		N/A
	In multi-phase appliances, the colour of the neutral conductor of the supply cord is blue		N/A
	Where additional neutral conductors are provided in the supply cord:		--
	- other colours may be used for these additional neutral conductors;		N/A
	- all of the neutral conductors and line conductors are identified by marking using the alpha numeric notation specified in IEC 60445		N/A
	- the supply cord is fitted to the appliance		N/A
25.11	Conductors of supply cords not consolidated by soldering where they are subject to contact pressure, unless		P
	the contact pressure is provided by spring terminals		N/A
25.12	Insulation of the supply cord not damaged when moulding the cord to part of the enclosure		P
25.13	Inlet openings so constructed as to prevent damage to the supply cord		P
	If it is not evident that the supply cord can be introduced without risk of damage, a non-detachable lining or bushing complying with 29.3 for supplementary insulation provided		N/A
	If unsheathed supply cord, a similar additional bushing or lining is required, unless the appliance is		N/A
	class 0, or		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	a class III appliance not containing live parts		N/A
25.14	Supply cords moved while in operation adequately protected against excessive flexing		N/A
	Force applied to supply cord of appliances provided with a swivel connection is		--
	- 20 N, for cords having nominal cross-sectional area exceeding 0,75 mm² (IEC 60335-2-23);		N/A
	- 10 N, for other cords (IEC 60335-2-23).		N/A
	The appliance is mounted so that the direction of flexing corresponds to that most likely to occur when the supply cord is wound around the appliance for storage. (IEC 60335-2-23).		N/A
	Unless incorporating a swivel connection, hand-held appliances are additionally tested while mounted on an apparatus similar to that of Figure 8 with the supply cord hanging vertically and loaded with a force of 10 N. The oscillating part of the apparatus is moved through an angle of 180° and back to the original position. The number of flexings is 10 000, the rate of flexing being 6 per min. (IEC 60335-2-23).		N/A
	Flexing test, as described:		--
	- applied force (N) ..... :		N/A
	- number of flexings ..... :		N/A
	The test does not result in:		--
	- short-circuit between the conductors, such that the current exceeds a value of twice the rated current		N/A
	- breakage of more than 10% of the strands of any conductor		N/A
	- separation of the conductor from its terminal		N/A
	- loosening of any cord guard		N/A
	- damage to the cord or the cord guard		N/A
	- broken strands piercing the insulation and becoming accessible		N/A
25.15	For appliances with supply cord and appliances to be permanently connected to fixed wiring by a flexible cord, conductors of the supply cord relieved from strain, twisting and abrasion by use of cord anchorage		P
	The cord cannot be pushed into the appliance to such an extent that the cord or internal parts of the appliance can be damaged		P
	Pull and torque test of supply cord:		--

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Clause	Requirement - Test	Result - Remark	Verdict
	- fixed appliances: pull 100 N; torque (not on automatic cord reel) (Nm)..... :		N/A
	- other appliances: values shown in table 12: mass (kg); pull (N); torque (not on automatic cord reel) (Nm)..... :		P
	Swivel connection not locked during tests (IEC 60335-2-23)		N/A
	For appliances with a swivel connection, the value of 30 N in Table 12 is increased to 60 N. (IEC 60335-2-23)		N/A
	Cord not damaged and max. 2 mm displacement of the cord		P
25.16	Cord anchorages for type X attachments constructed and located so that:		--
	- replacement of the cord is easily possible		N/A
	- it is clear how the relief from strain and the prevention of twisting are obtained		N/A
	- they are suitable for different types of supply cord		N/A
	- cord cannot touch the clamping screws of cord anchorage if these screws are accessible, unless		N/A
	they are separated from accessible metal parts by supplementary insulation		N/A
	- the cord is not clamped by a metal screw which bears directly on the cord		N/A
	- at least one part of the cord anchorage securely fixed to the appliance, unless		N/A
	it is part of a specially prepared cord		N/A
	- screws which have to be operated when replacing the cord do not fix any other component, unless		N/A
	the appliance becomes inoperative or incomplete or the parts cannot be removed without a tool		N/A
	- if labyrinths can be bypassed the test of 25.15 is nevertheless withstood		N/A
	- for class 0, 0I and I appliances they are of insulating material or are provided with an insulating lining, unless		N/A
	failure of the insulation of the cord does not make accessible metal parts live		N/A
	- for class II appliances they are of insulating material, or		N/A
	if of metal, they are insulated from accessible metal parts by supplementary insulation		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	After the test of 25.15, under the conditions specified, the conductors have not moved by more than 1 mm in the terminals		N/A
25.17	Adequate cord anchorages for type Y and Z attachment, test with the cord supplied with the appliance		P
25.18	Cord anchorages only accessible with the aid of a tool, or		N/A
	Constructed so that the cord can only be fitted with the aid of a tool		P
25.19	Type X attachment, glands not used as cord anchorage in portable appliances		N/A
	Tying the cord into a knot or tying the cord with string not used		N/A
25.20	The conductors of the supply cord for type Y and Z attachment insulated from accessible metal parts		P
25.21	Space for supply cord for type X attachment or for connection of fixed wiring constructed:		--
	- to permit checking of conductors with respect to correct positioning and connection before fitting any cover		N/A
	- so there is no risk of damage to the conductors or their insulation when fitting the cover		N/A
	- for portable appliances, so that the uninsulated end of a conductor, if it becomes free from the terminal, prevented from contact with accessible metal parts		N/A
	2 N test to the conductor for portable appliances; no contact with accessible metal parts		N/A
25.22	Appliance inlets:		--
	- live parts not accessible during insertion or removal		N/A
	Requirement not applicable to appliance inlets complying with IEC 60320-1		N/A
	- connector can be inserted without difficulty		N/A
	- the appliance is not supported by the connector		N/A
	- not for cold conditions if temp. rise of external metal parts exceeds 75 K during clause 11, unless		N/A
	the supply cord is unlikely to touch such metal parts		N/A
25.23	Interconnection cords comply with the requirements for the supply cord, except that:		

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Clause	Requirement - Test	Result - Remark	Verdict
	- the cross-sectional area of the conductors is determined on the basis of the maximum current during clause 11		--
	- the thickness of the insulation may be reduced		N/A
	- for class I or class II appliance with class III construction, the cross sectional areas of the conductors need not comply with 25.8 if specified conditions are met		N/A
	If necessary, electric strength test of 16.3		N/A
25.24	Interconnection cords not detachable without the aid of a tool if compliance with this standard is impaired when they are disconnected		N/A
25.25	Dimensions of pins that are inserted into socket-outlets compatible with the dimensions of the relevant socket-outlet.		N/A
	Dimensions of pins and engagement face in accordance with the dimensions of the relevant plug in IEC/TR 60083		N/A
25.101	Swivel connections adequate for normal use of appliance (IEC 60335-2-23)		N/A
	Appliance operated under conditions specified in clause 11.101, number of revolutions being increased to 20 000 (IEC 60335-2-23)		N/A
	After test, swivel connection and supply cord fit for further use. Live parts not become accessible and appliance withstand electric strength test of 16.3 (IEC 60335-2-23)		N/A
26	**TERMINALS FOR EXTERNAL CONDUCTORS**		
26.1	Appliances provided with terminals or equally effective devices for connection of external conductors		P
	Terminals only accessible after removal of a non-detachable cover, except		P
	for class III appliances that do not contain live parts		N/A
	Earthing terminals may be accessible if a tool is required to make the connections and means are provided to clamp the wire independently from its connection		N/A
26.2	Appliances with type X attachment and appliances for the connection of cables of fixed wiring provided with terminals in which connections are made by means of screws, nuts or similar devices, unless		N/A
	the connections are soldered		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	Screws and nuts not used to fix any other component, except		N/A
	internal conductors, if so arranged that they are unlikely to be displaced when fitting the supply conductors		N/A
	If soldered connections used, the conductor so positioned or fixed that reliance is not placed on soldering alone, unless		N/A
	barriers provided so that neither clearances nor creepage distances between live parts and other metal parts reduced below the values for supplementary insulation if the conductor becomes free at the soldered joint		N/A
26.3	Terminals for type X attachment and for connection of cables of fixed wiring so constructed that the conductor is clamped between metal surfaces with sufficient contact pressure but without damaging the conductor		N/A
	Terminals fixed so that when the clamping means is tightened or loosened:		--
	- the terminal does not become loose		N/A
	- internal wiring is not subjected to stress		N/A
	- neither clearances nor creepage distances are reduced below the values in clause 29		N/A
	Compliance checked by inspection and by the test of subclause 9.6 of IEC 60999-1, the torque applied being equal to two-thirds of the torque specified (Nm)..... :		N/A
	No deep or sharp indentations of the conductors		N/A
26.4	Terminals for type X attachment, except those having a specially prepared cord and those for the connection of cables of fixed wiring, no special preparation of conductors such as by soldering, use of cable lugs, eyelets or similar, and		N/A
	so constructed or placed that conductors prevented from slipping out when clamping screws or nuts are tightened		N/A
26.5	Terminals for type X attachment so located or shielded that if a wire of a stranded conductor escapes, no risk of accidental connection to other parts that result in a hazard		N/A
	Stranded conductor test, 8 mm insulation removed		N/A
	No contact between live parts and accessible metal parts and,		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	for class II constructions, between live parts and metal parts separated from accessible metal parts by supplementary insulation only		N/A
26.6	Terminals for type X attachment and for connection of cables of fixed wiring suitable for connection of conductors with cross-sectional area according to table 13; rated current (A); nominal cross-sectional area (mm²)..... :		N/A
	If a specially prepared cord is used, terminals need only be suitable for that cord		N/A
26.7	Terminals for type X attachment, except in class III appliances not containing live parts, accessible after removal of a cover or part of the enclosure		N/A
26.8	Terminals for the connection of fixed wiring, including the earthing terminal, located close to each other		N/A
26.9	Terminals of the pillar type constructed and located as specified		N/A
26.10	Terminals with screw clamping and screwless terminals not used for flat twin tinsel cords, unless		N/A
	conductors ends fitted with means suitable for screw terminals		N/A
	Terminals with screw clamping and screwless terminals not used for type X attachments in appliances incorporating swivel connection (IEC 60335-2-23)		N/A
	Pull test of 5 N to the connection		N/A
26.11	For type Y and Z attachment, soldered, welded, crimped or similar connections may be used		P
	For class II appliances, the conductor so positioned or fixed that reliance is not placed on soldering, welding or crimping alone		N/A
	If soldering, welding or crimping alone used, barriers provided so that clearances and creepage distances between live parts and other metal parts are not reduced below the values for supplementary insulation if the conductor becomes free		N/A
27	**PROVISION FOR EARTHING**		
27.1	Accessible metal parts of class 0I and I appliances permanently and reliably connected to an earthing terminal or earthing contact of the appliance inlet		N/A
	Earthing terminals and earthing contacts not connected to the neutral terminal		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	Class 0, II and III appliances have no provision for protective earthing		P
	Class II appliances and class III appliances can incorporate an earth for functional purposes		N/A
	Safety extra-low voltage circuits not earthed, unless		N/A
	protective extra-low voltage circuits		N/A
27.2	Clamping means of earthing terminals adequately secured against accidental loosening		N/A
	Terminals for the connection of external equipotential bonding conductors allow connection of conductors of 2,5 to 6 mm², and		N/A
	- do not provide earthing continuity between different parts of the appliance, and		N/A
	- conductors cannot be loosened without the aid of a tool		N/A
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		N/A
27.3	For a detachable part having an earth connection and being plugged into another part of the appliance, the earth connection is made before and separated after current-carrying connections when removing the part		N/A
	For appliances with supply cords, current-carrying conductors become taut before earthing conductor, if the cord slips out of the cord anchorage		N/A
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		N/A
*27.4	No risk of corrosion resulting from contact between parts of the earthing terminal and the copper of the earthing conductor or other metal		N/A
	Parts providing earthing continuity, other than parts of a metal frame or enclosure, have adequate resistance to corrosion		N/A
	If of steel, these parts provided with an electroplated coating with a thickness at least 5 µm		N/A
	Adequate protection against rusting of parts of coated or uncoated steel, only intended to provide or transmit contact pressure		N/A
	In the body of the earthing terminal is a part of a frame or enclosure of aluminium or aluminium alloys, precautions taken to avoid risk of corrosion		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		N/A
27.5	Low resistance of connection between earthing terminal and earthed metal parts		N/A
	This requirement does not apply to connections providing earthing continuity in the protective extra-low voltage circuit, provided the clearances of basic insulation are based on the rated voltage of the appliance		N/A
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		N/A
	Resistance not exceeding 0,1 Ω at the specified low-resistance test (Ω) ..... :		N/A
27.6	The printed conductors of printed circuit boards not used to provide earthing continuity in hand-held appliances.		N/A
	They may be used to provide earthing continuity in other appliances if at least two tracks are used with independent soldering points and the appliance complies with 27.5 for each circuit		N/A
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		N/A
28	**SCREWS AND CONNECTIONS**		
28.1	Fixings, electrical connections and connections providing earthing continuity withstand mechanical stresses		P
	Screws not of soft metal liable to creep, such as zinc or aluminium		P
	Diameter of screws of insulating material min. 3 mm		N/A
	Screws of insulating material not used for any electrical connections or connections providing earthing continuity		N/A
	Screws used for electrical connections or connections providing earthing continuity screwed into metal		P
	Screws not of insulating material if their replacement by a metal screw can impair supplementary or reinforced insulation		N/A

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

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Clause	Requirement - Test	Result - Remark	Verdict
28.4	Screws and nuts that make mechanical connection secured against loosening if they also make electrical connections or connections providing earthing continuity		N/A
	This requirement does not apply to screws in the earthing circuit if at least two screws are used, or		N/A
	if an alternative earthing circuit is provided		N/A
	Rivets for electrical connections or connections providing earthing continuity secured against loosening if the connections are subjected to torsion		N/A
29	**CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION**		
	Clearances, creepage distances and solid insulation withstand electrical stress		P
	For coatings used on printed circuits boards to protect the microenvironment (Type 1) or to provide basic insulation (Type 2), annex J applies..... :		N/A
	The microenvironment is pollution degree 1 under type 1 protection		N/A
	For type 2 protection, the spacing between the conductors before the protection is applied is not less than the values specified in Table 1 of IEC 60664-3		N/A
	These values apply to functional, basic, supplementary and reinforced insulation..... :		N/A
29.1	Clearances not less than the values specified in table 16, taking into account the rated impulse voltage for the overvoltage categories of table 15, unless ..... :	(see appended table)	P
	for basic insulation and functional insulation they comply with the impulse voltage test of clause 14		N/A
	However, if the distances are affected by wear, distortion, movement of the parts or during assembly, the clearances for rated impulse voltages of 1500 V and above are increased by 0,5 mm and the impulse voltage test is not applicable		N/A
	For appliances intended for use at altitudes exceeding 2 000 m, the clearances in Table 16 is increased according to the relevant multiplier values in Table A.2 of IEC 60664-1		N/A
	Impulse voltage test is not applicable:		--
	- when the microenvironment is pollution degree 3, or		P
	- for basic insulation of class 0 and class 01 appliances, or		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	- to appliances intended for use at altitudes exceeding 2 000 m		N/A
	Appliances are in overvoltage category II		P
	A force of 2 N is applied to bare conductors, other than heating elements		P
	A force of 30 N is applied to accessible surfaces		P
29.1.1	Clearances of basic insulation withstand the overvoltages, taking into account the rated impulse voltage		N/A
	The values of table 16 or the impulse voltage test of clause 14 are applicable ..... :	(see appended table)	N/A
	Clearance at the terminals of tubular sheathed heating elements may be reduced to 1,0 mm if the microenvironment is pollution degree 1		N/A
	Lacquered conductors of windings considered to be bare conductors		N/A
29.1.2	Clearances of supplementary insulation not less than those specified for basic insulation in table 16 ..... :	(see appended table)	N/A
29.1.3	Clearances of reinforced insulation not less than those specified for basic insulation in table 16, using the next higher step for rated impulse voltage ..... :	(see appended table)	P
	For double insulation, with no intermediate conductive part between basic and supplementary insulation, clearances are measured between live parts and the accessible surface, and the insulation system is treated as reinforced insulation		N/A
29.1.4	Clearances for functional insulation are the largest values determined from:		--
	- table 16 based on the rated impulse voltage..... :	(see appended table)	P
	- table F.7a in IEC 60664-1, frequency not exceeding 30 kHz		N/A
	- clause 4 of IEC 60664-4, frequency exceeding 30 kHz		N/A
	If values of table 16 are largest, the impulse voltage test of clause 14 may be applied instead, unless		N/A
	the microenvironment is pollution degree 3, or		N/A
	the distances can be affected by wear, distortion, movement of the parts or during assembly		N/A
	However, clearances are not specified if the appliance complies with clause 19 with the functional insulation short-circuited		P

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

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Clause	Requirement - Test	Result - Remark	Verdict
	- insulation subjected to conductive pollution; pollution degree 3		P
	A force of 2 N is applied to bare conductors, other than heating elements		P
	A force of 30 N is applied to accessible surfaces		P
	In a double insulation system, the working voltage for both the basic and supplementary insulation is taken as the working voltage across the complete double insulation system		N/A
29.2.1	Creepage distances of basic insulation not less than specified in table 17 ..... :	(see appended table)	N/A
	However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from table 2 of IEC 60664-4, these values being used if exceeding the values in table 17 ..... :		N/A
	Except for pollution degree 1, corresponding creepage distance not less than the minimum specified for the clearance in table 16, if the clearance has been checked according to the test of clause 14 ..... :		N/A
29.2.2	Creepage distances of supplementary insulation at least those specified for basic insulation in table 17, or..... :	(see appended table)	N/A
	Table 2 of IEC 60664-4, as applicable..... :		N/A
29.2.3	Creepage distances of reinforced insulation at least double those specified for basic insulation in table 17, or..... :	(see appended table)	P
	Table 2 of IEC 60664-4, as applicable..... :		N/A
29.2.4	Creepage distances of functional insulation not less than specified in table 18 ..... :	(see appended table)	P
	However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from table 2 of IEC 60664-4, these values being used if exceeding the values in table 18 ..... :		N/A
	Creepage distances may be reduced if the appliance complies with clause 19 with the functional insulation short-circuited		P
29.3	Supplementary and reinforced insulation have adequate thickness, or a sufficient number of layers, to withstand the electrical stresses		P
	Compliance checked:		--
	- by measurement, in accordance with 29.3.1, or		P

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Clause	Requirement - Test	Result - Remark	Verdict
	- by an electric strength test in accordance with 29.3.2, or		P
	- for insulation, other than single layer internal wiring insulation, by an assessment of the thermal quality of the material combined with an electric strength test, in accordance with 29.3.3, and		N/A
	for accessible parts of reinforced insulation consisting of a single layer, by measurement in accordance with 29.3.4, or		N/A
	- by an assessment of the thermal quality of the material according to 29.3.3 combined with an electric strength test in accordance with 23.5, for each single layer internal wiring insulation touching each other, or		N/A
	- as specified in subclause 6.3 of IEC 60664-4 for insulation that is subjected to any periodic voltage having a frequency exceeding 30 kHz		N/A
	Curling irons and hair straighteners, distance through insulation between metal parts separated by supplementary insulation reduced to 0,6 mm, provided that distance through basic insulation at least 1 mm (IEC 60335-2-23)		N/A
29.3.1	Supplementary insulation have a thickness of at least 1 mm		P
	Reinforced insulation have a thickness of at least 2 mm		P
29.3.2	Each layer of material withstand the electric strength test of 16.3 for supplementary insulation		P
	Supplementary insulation consist of at least 2 layers		P
	Reinforced insulation consist of at least 3 layers		P
29.3.3	The insulation is subjected to the dry heat test Bb of IEC 60068-2-2, followed by		N/A
	the electric strength test of 16.3		N/A
	If the temperature rise during the tests of clause 19 does not exceed the value specified in table 3, the test of IEC 60068-2-2 is not carried out		N/A
29.3.4	Thickness of accessible parts of reinforced insulation consisting of a single layer not less than specified in table 19 ..... :		N/A
30	**RESISTANCE TO HEAT AND FIRE**		
30.1	External parts of non-metallic material,		P
	parts supporting live parts, and		P

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Clause	Requirement - Test	Result - Remark	Verdict
	parts of thermoplastic material providing supplementary or reinforced insulation		P
	sufficiently resistant to heat		P
	Ball-pressure test according to IEC 60695-10-2		P
	External parts tested at 40 °C plus the maximum temperature rise determined during the test of clause 11, or at 75 °C, whichever is the higher; temperature (°C) ..... :	(see appended table 30.1)	P
	Parts supporting live parts tested at 40 °C plus the maximum temperature rise determined during the test of clause 11, or at 125 °C, whichever is the higher; temperature (°C) ..... :	(see appended table 30.1)	P
	Parts of thermoplastic material providing supplementary or reinforced insulation tested at 25 °C plus the maximum temperature rise determined during clause 19, if higher; temperature (°C) ..... :	(see appended table 30.1)	P
	Hand dryers and hairdryers, temperature rises occurring during tests of clause 19 not taken into account (IEC 60335-2-23)		N/A
30.2	Parts of non-metallic material resistant to ignition and spread of fire		P
	This requirement does not apply to:		--
	parts having a mass not exceeding 0,5 g, provided the cumulative effect is unlikely to propagate flames that originate inside the appliance by propagating flames from one part to another, or	No such parts	N/A
	decorative trims, knobs and other parts unlikely to be ignited or to propagate flames that originate inside the appliance	No such parts	N/A
	Compliance checked by the test of 30.2.1, and in addition:		P
	- for attended appliances, 30.2.2 applies		P
	- for unattended appliances, 30.2.3 applies		N/A
	Heaters for detachable curlers, 30.2.3 is applicable (IEC 60335-2-23)		N/A
	Other appliances, 30.2.2 is applicable (IEC 60335-2-23)		P
	For appliances for remote operation, 30.2.3 applies		N/A
	For base material of printed circuit boards, 30.2.4 applies		P

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Clause	Requirement - Test	Result - Remark	Verdict
30.2.1	Parts of non-metallic material subjected to the glow-wire test of IEC 60695-2-11 at 550 °C	(see appended table 30.2)	P
	However, test not carried out if the material is classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 550 °C, or		N/A
	the material is classified at least HB40 according to IEC 60695-11-10		N/A
	Parts for which the glow-wire test cannot be carried out need to meet the requirements in ISO 9772 for material classified HBF		N/A
30.2.2	Appliances operated while attended, parts of non-metallic material supporting current-carrying connections, and		P
	parts of non-metallic material within a distance of 3 mm of such connections,		P
	subjected to the glow-wire test of IEC 60695-2-11 with appropriate severity level:	(see appended table 30.2)	P
	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation		P
	- 650 °C, for other connections		N/A
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	The glow-wire test is not carried out on parts of material classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least:		--
	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation		N/A
	- 650 °C, for other connections		N/A
	The glow-wire test is also not carried out on small parts. These parts are to:		--
	- comprise material having a glow-wire flammability index of at least 750 °C, or 650 °C as appropriate, or		N/A
	- comply with the needle-flame test of annex E, or	(see appended table 30.2/30.2.4)	N/A
	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10..... :		N/A
	Glow-wire test not applicable to conditions as specified..... :		N/A
30.2.3	Appliances operated while unattended, tested as specified in 30.2.3.1 and 30.2.3.2		N/A
	The tests are not applicable to conditions as specified..... :		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
30.2.3.1	Parts of non-metallic material supporting connections carrying a current exceeding 0,2 A during normal operation, and		N/A
	parts of non-metallic material, other than small parts, within a distance of 3 mm,		N/A
	subjected to the glow-wire test of IEC 60695-2-11 with a test severity of 850 °C	(see appended table 30.2)	N/A
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	The glow-wire test is not carried out on parts of material classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 850 °C		N/A
30.2.3.2	Parts of non-metallic material supporting connections, and		N/A
	parts of non-metallic material within a distance of 3 mm,		N/A
	subjected to the glow-wire test of IEC 60695-2-11 with appropriate severity level:	(see appended table 30.2)	N/A
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation		N/A
	- 650 °C, for other connections		N/A
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	However, the glow-wire test of 750 °C or 650 °C as appropriate, is not carried out on parts of material fulfilling both or either of the following classifications:		--
	- a glow-wire ignition temperature according to IEC 60695-2-13 of at least:		N/A
	- 775 °C, for connections carrying a current exceeding 0,2 A during normal operation		N/A
	- 675 °C, for other connections		N/A
	- a glow-wire flammability index according to IEC 60695-2-12 of at least:		N/A
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation		N/A
	- 650 °C, for other connections		N/A
	The glow-wire test is also not carried out on small parts. These parts are to:		--
	- comprise material having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	- comprise material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- comply with the needle-flame test of annex E, or		N/A
	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
	The consequential needle-flame test of annex E applied to non-metallic parts that encroach within the vertical cylinder placed above the centre of the connection zone and on top of the non-metallic parts supporting current-carrying connections, and parts of non-metallic material within a distance of 3 mm of such connections if these parts are those:		--
	- parts that withstood the glow-wire test of IEC 60695-2-11 of 750 °C or 650 °C as appropriate, but produce a flame that persist longer than 2 s, or		N/A
	- parts that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- small parts, that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- small parts for which the needle-flame test of annex E was applied, or		N/A
	- small parts for which a material classification of V-0 or V-1 was applied		N/A
	However, the consequential needle-flame test is not carried out on non-metallic parts, including small parts, within the cylinder that are:		--
	- parts having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A
	- parts comprising material classified as V-0 or V-1 according to IEC 60695-11-10, or		N/A
	- parts shielded by a flame barrier that meets the needle-flame test of annex E or that comprises material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
30.2.4	Base material of printed circuit boards subjected to the needle-flame test of annex E	(see appended table 30.2/30.2.4)	N/A
	Test not applicable to conditions as specified ..... :	V-0	P
30.101	Helmet-type hairdryers be resistant to fire (IEC 60335-2-23)		N/A
	Compliance checked by inspection and by applying needle-flame test of annex E to (IEC 60335-2-23):		--
	- parts of non-metallic material enclosing heating element and other electrical components (IEC 60335-2-23);		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	- non-metallic parts within the enclosure (IEC 60335-2-23).		N/A
	Needle-flame test not carried out on material classified as V-0 or V-1 according to IEC 60695-11-10, provided that test sample not thicker than relevant part (IEC 60335-2-23)		N/A
31	**RESISTANCE TO RUSTING**		P
	Relevant ferrous parts adequately protected against rusting		P
	Tests specified in part 2 when necessary		N/A
***32**	**RADIATION, TOXICITY AND SIMILAR HAZARDS**		
	Appliance does not emit harmful radiation or present a toxic or similar hazard due to their operation in normal use		N/A
	Compliance is checked by the limits or tests specified in part 2, if relevant		N/A
A	**ANNEX A (INFORMATIVE) ROUTINE TESTS**		
	Description of routine tests to be carried out by the manufacturer		P
B	**ANNEX B (NORMATIVE) APPLIANCES POWERED BY RECHARGEABLE BATTERIES THAT ARE RECHARGED IN THE APPLIANCE**		
	The following modifications to this standard are applicable for appliances powered by batteries that are recharged in the appliance		N/A
	Three forms of construction covered:		--
	a) Appliance supplied directly from the supply mains or a renewable energy source, the battery charging circuitry and other supply unit circuitry incorporated within the appliance		N/A
	b) The part of the appliance incorporating the battery is supplied from the supply mains or a renewable energy source, via a detachable supply unit. The battery charging circuitry is incorporated within the part of the appliance containing the battery		N/A
	c) The part of the appliance incorporating the battery is supplied from the supply mains or a renewable energy source, via a detachable supply unit. The battery charging circuitry is incorporated within the detachable supply unit		N/A
3.1.9	Appliance operated under the following conditions:		--

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Clause	Requirement - Test	Result - Remark	Verdict
	- the appliance, supplied by its fully charged battery, operated as specified in relevant part 2		N/A
	- the battery is charged, the battery being initially discharged to such an extent that the appliance cannot operate		N/A
	- if possible, the appliance is supplied from the supply mains through its battery charger, the battery being initially discharged to such an extent that the appliance cannot operate. The appliance is operated as specified in relevant part 2		N/A
	- if the appliance incorporates inductive coupling between two parts that are detachable from each other, the appliance is supplied from the supply mains with the detachable part removed		N/A
3.6.2	Part to be removed in order to discard the battery is not considered to be detachable		N/A
5.B.101	Appliances supplied from the supply mains tested as specified for motor-operated appliances		N/A
7.1	Battery compartment for batteries intended to be replaced by the user, marked with battery voltage (V) and polarity of the terminals..... :		N/A
	The positive terminal indicated by symbol IEC 60417-5005 and the negative terminal by symbol IEC 60417-5006		N/A
	Appliances intending to be supplied from a detachable supply unit marked with symbol IEC 60417-6181 and its type reference along with symbol ISO 7000-0790 (2004-01), or		N/A
	use only with <model designation> supply unit .... :		N/A
7.6	Additional symbols		N/A
7.12	The instructions give information regarding charging		N/A
	Instructions for appliances incorporating batteries intended to be replaced by the user include required information		N/A
	Instructions for appliances containing non user-replaceable batteries state the substance of the following:		--
	This appliance contains batteries that are only replaceable by skilled persons		N/A
	Instructions for appliances containing non-replaceable batteries shall state the substance of the following:		--
	This appliance contains batteries that are non-replaceable		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	For appliances intending to be supplied from a detachable supply unit for the purposes of recharging the battery, the type reference of the detachable supply unit is stated along with the following:		--
	WARNING: For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance		N/A
	If the symbol for detachable supply unit is used, its meaning is explained		N/A
7.15	Markings placed on the part of the appliance connected to the supply mains		N/A
	The type reference of the detachable supply unit is placed in close proximity to the symbol		N/A
8.2	Appliances having batteries that according to the instruction may be replaced by the user need only have basic insulation between live parts and the inner surface of the battery compartment		N/A
	If the appliance can be operated without batteries, double or reinforced insulation required		N/A
11.7	The battery is charged for the period stated in the instructions or 24 h ..... :		N/A
11.8	Temperature rise of the battery surface does not exceed the limit in the battery manufacturer's specification; measured (K); limit (K)..... :		N/A
	If no limit specified, the temperature rise does not exceed 20 K; measured (K) ..... :		N/A
19.1	Appliances subjected to tests of 19.B.101, 19.B.102 and 19.B.103		N/A
19.10	Not applicable		N/A
19.B.101	Appliances supplied at rated voltage for 168 h, the battery being continually charged		N/A
19.B.102	For appliances having batteries that can be removed without the aid of a tool, short-circuit of the terminals of the battery, the battery being fully charged,		N/A
19.B.103	Appliances having batteries replaceable by the user supplied at rated voltage under normal operation with the battery removed or in any position allowed by the construction		N/A
19.13	The battery does not rupture or ignite		N/A
21.B.101	Appliances having pins for insertion into socket-outlets have adequate mechanical strength		N/A
	Part of the appliance incorporating the pins subjected to the free fall test, procedure 2, of IEC 60068-2-31, the number of falls being:		--

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Clause	Requirement - Test	Result - Remark	Verdict
	- 100, if the mass of the part does not exceed 250 g (g) ..... :		N/A
	- 50, if the mass of the part exceeds 250 g..... :		N/A
	After the test, the requirements of 8.1, 15.1.1, 16.3 and clause 29 are met		N/A
22.3	Appliances having pins for insertion into socket-outlets tested as fully assembled as possible		N/A
25.13	An additional lining or bushing not required for interconnection cords in class III appliances or class III constructions operating at safety extra-low voltage not containing live parts		N/A
30.2	For parts of the appliance connected to the supply mains during the charging period, 30.2.3 applies		N/A
	For other parts, 30.2.2 applies		N/A
C	**ANNEX C (NORMATIVE) AGEING TEST ON MOTORS**		
	Tests, as described, carried out when doubt with regard to the temperature classification of the insulation of a motor winding		N/A
	Test conditions as specified		N/A
D	**ANNEX D (NORMATIVE) THERMAL MOTOR PROTECTORS**		
	Applicable to appliances having motors that incorporate thermal motor protectors necessary for compliance with the standard		N/A
	Test conditions as specified		N/A
E	**ANNEX E (NORMATIVE) NEEDLE-FLAME TEST**		
	Needle-flame test carried out in accordance with IEC 60695-11-5, with the following modifications:		--
7	Severities		--
	The duration of application of the test flame is 30 s ± 1 s		N/A
9	Test procedure		--
9.1	The specimen so arranged that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1		N/A
9.2	The first paragraph does not apply		N/A
	If possible, the flame is applied at least 10 mm from a corner		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
9.3	The test is carried out on one specimen		N/A
	If the specimen does not withstand the test, the test may be repeated on two additional specimens, both withstanding the test		N/A
11	Evaluation of test results		--
	The duration of burning not exceeding 30 s		N/A
	However, for printed circuit boards, the duration of burning not exceeding 15 s		N/A
F	**ANNEX F (NORMATIVE) CAPACITORS**		
	Capacitors likely to be permanently subjected to the supply voltage, and used for radio interference suppression or voltage dividing, comply with the following clauses of IEC 60384-14, with the following modifications:		--
1.5	Terms and definitions		--
1.5.3	Class X capacitors tested according to subclass X2		N/A
1.5.4	This subclause is applicable		N/A
1.6	Marking		--
	Items a) and b) are applicable		N/A
3.4	Approval testing		--
3.4.3.2	Table 3 is applicable as described		N/A
4.1	Visual examination and check of dimensions		--
	This subclause is applicable		N/A
4.2	Electrical tests		--
4.2.1	This subclause is applicable		N/A
4.2.5	This subclause is applicable		N/A
4.2.5.2	Only table 11 is applicable		N/A
	Values for test A apply		N/A
	However, for capacitors in heating appliances the values for test B or C apply		N/A
4.12	Damp heat, steady state		--
	This subclause is applicable		N/A
	Only insulation resistance and voltage proof are checked		N/A
4.13	Impulse voltage		--
	This subclause is applicable		N/A
4.14	Endurance		--

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Clause	Requirement - Test	Result - Remark	Verdict
	Subclauses 4.14.1, 4.14.3, 4.14.4 and 4.14.7 are applicable		N/A
4.14.7	Only insulation resistance and voltage proof are checked		N/A
	No visible damage		N/A
4.17	Passive flammability test		--
	This subclause is applicable		N/A
4.18	Active flammability test		--
	This subclause is applicable		N/A
G	**ANNEX G (NORMATIVE) SAFETY ISOLATING TRANSFORMERS**		
	The following modifications to this standard are applicable for safety isolating transformers:		--
7	Marking and instructions		--
7.1	Transformers for specific use marked with:		--
	- name, trademark or identification mark of the manufacturer or responsible vendor..... :		N/A
	- model or type reference..... :		N/A
17	Overload protection of transformers and associated circuits		--
	Fail-safe transformers comply with subclause 15.5 of IEC 61558-1		N/A
22	Construction		--
	Subclauses 19.1 and 19.1.2 of IEC 61558-2-6 are applicable		N/A
29	Clearances, creepage distances and solid insulation		--
29.1, 29.2, 29.3	The distances specified in items 2a, 2c and 3 in table 13 of IEC 61558-1 apply		N/A
	For insulated winding wires complying with subclause 19.12.3 of IEC 61558-1 there are no requirements for clearances or creepage distances		N/A
	For windings providing reinforced insulation, the distance specified in item 2c of table 13 of IEC 61558-1 is not assessed		N/A
	For safety isolating transformers subjected to periodic voltages with a frequency exceeding 30 kHz, the clearances, creepage distances and solid insulation values specified in IEC 60664-4 are applicable, if greater than the values specified in items 2a, 2c and 3 in table 13 of IEC 61558-1		N/A

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Clause	Requirement - Test	Result - Remark	Verdict

H	**ANNEX H (NORMATIVE) SWITCHES**		
	Switches comply with the following clauses of IEC 61058-1, as modified below:		--
	The tests of IEC 61058-1 carried out under the conditions occurring in the appliance		N/A
	Before being tested, switches are operated 20 times without load		N/A
8	Marking and documentation		--
	Switches are not required to be marked		N/A
	However, a switch that can be tested separately from the appliance marked with the manufacturer's name or trade mark and the type reference		N/A
13	Mechanism		--
	The tests may be carried out on a separate sample		N/A
15	Insulation resistance and dielectric strength		--
15.1	Not applicable		N/A
15.2	Not applicable		N/A
15.3	Applicable for full disconnection and micro-disconnection		N/A
17	Endurance		--
	Compliance is checked on three separate appliances or switches		N/A
	For 17.2.4.4, the number of cycles declared according to 7.1.4 is 10 000, unless		N/A
	otherwise specified in 24.1.3 of the relevant part 2 of IEC 60335..... :		N/A
	Switches for operation under no load and which can be operated only by a tool, and		N/A
	switches operated by hand that are interlocked so that they cannot be operated under load,		N/A
	are not subjected to the tests		N/A
	However, switches without this interlock are subjected to the test of 17.2.4.4 for 100 cycles of operation		N/A
	Subclauses 17.2.2 and 17.2.5.2 not applicable		N/A
	The ambient temperature during the test is that occurring in the appliance during the test of clause 11 in IEC 60335-1		N/A

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
	The temperature rise of the terminals not more than 30 K above the temperature rise measured in clause 11 of IEC 60335-1 (K) ..... :		N/A
20	Clearances, creepage distances, solid insulation and coatings of rigid printed board assemblies		--
	Clause 20 is applicable to clearances across full disconnection and micro-disconnection		N/A
	It is also applicable to creepage distances for functional insulation, across full disconnection and micro-disconnection, as stated in Table 24		N/A
I	**ANNEX I (NORMATIVE) MOTORS HAVING BASIC INSULATION THAT IS INADEQUATE FOR THE RATED VOLTAGE OF THE APPLIANCE**		
	The following modifications to this standard are applicable for motors having basic insulation that is inadequate for the rated voltage of the appliance:		--
8	Protection against access to live parts		--
8.1	Metal parts of the motor are considered to be bare live parts		N/A
11	Heating		--
11.3	The temperature rise of the body of the motor is determined instead of the temperature rise of the windings		N/A
11.8	The temperature rise of the body of the motor, where in contact with insulating material, not exceeding values in table 3 for the relevant insulating material		N/A
16	Leakage current and electric strength		--
16.3	Insulation between live parts of the motor and its other metal parts is not subjected to the test		N/A
19	Abnormal operation		--
19.1	The tests of 19.7 to 19.9 are not carried out		N/A
19.I.101	Appliance operated at rated voltage with each of the following fault conditions:		--
	- short circuit of the terminals of the motor, including any capacitor incorporated in the motor circuit		N/A
	- short circuit of each diode of the rectifier		N/A
	- open circuit of the supply to the motor		N/A
	- open circuit of any parallel resistor, the motor being in operation		N/A
	Only one fault simulated at a time, the tests carried out consecutively		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
22	Construction		--
22.I.101	For class I appliances incorporating a motor supplied by a rectifier circuit, the d.c. circuit being insulated from accessible parts of the appliance by double or reinforced insulation		N/A
	Compliance checked by the tests specified for double and reinforced insulation		N/A
J	**ANNEX J (NORMATIVE) COATED PRINTED CIRCUIT BOARDS**		
	Testing of protective coatings of printed circuit boards carried out in accordance with IEC 60664-3 with the following modifications:		--
5.7	Conditioning of the test specimens		--
	When production samples are used, three samples of the printed circuit board are tested		N/A
5.7.1	Cold		--
	The test is carried out at -25 °C		N/A
5.7.3	Rapid change of temperature		--
	Severity 1 is specified		N/A
5.9	Additional tests		--
	This subclause is not applicable		N/A
K	**ANNEX K (NORMATIVE) OVERVOLTAGE CATEGORIES**		
	The information on overvoltage categories is extracted from IEC 60664-1		P
	Overvoltage category is a numeral defining a transient overvoltage condition		P
	Equipment of overvoltage category IV is for use at the origin of the installation		N/A
	Equipment of overvoltage category III is equipment in fixed installations and for cases where the reliability and the availability of the equipment is subject to special requirements		N/A
	Equipment of overvoltage category II is energy consuming equipment to be supplied from the fixed installation		P
	If such equipment is subjected to special requirements with regard to reliability and availability, overvoltage category III applies		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	Equipment of overvoltage category I is equipment for connection to circuits in which measures are taken to limit transient overvoltages to an appropriate low level		N/A
L	**ANNEX L (INFORMATIVE) GUIDANCE FOR THE MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES**		
	Information for the determination of clearances and creepage distances		P
M	**ANNEX M (NORMATIVE) POLLUTION DEGREE**		
	The information on pollution degrees is extracted from IEC 60664-1		P
	Pollution		--
	The microenvironment determines the effect of pollution on the insulation, taking into account the macroenvironment		P
	Means may be provided to reduce pollution at the insulation by effective enclosures or similar		P
	Minimum clearances specified where pollution may be present in the microenvironment		P
	Degrees of pollution in the microenvironment		P
	For evaluating creepage distances, the following degrees of pollution in the microenvironment are established:		--
	- pollution degree 1: no pollution or only dry, non-conductive pollution occurs. The pollution has no influence		N/A
	- pollution degree 2: only non-conductive pollution occurs, except that occasionally a temporary conductivity caused by condensation is to be expected		N/A
	- pollution degree 3: conductive pollution occurs or dry non-conductive pollution occurs that becomes conductive due to condensation that is to be expected		P
	- pollution degree 4: the pollution generates persistent conductivity caused by conductive dust or by rain or snow		N/A
N	**ANNEX N (NORMATIVE) PROOF TRACKING TEST**		
	The proof tracking test is carried out in accordance with IEC 60112 with the following modifications:		--

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict
7	Test apparatus		--
7.3	Test solutions		--
	Test solution A is used		P
10	Determination of proof tracking index (PTI)		--
10.1	Procedure		--
	The proof voltage is 100 V, 175 V, 400 V or 600 V ..... :	175V	P
	The test is carried out on five specimens		P
	In case of doubt, additional test with proof voltage reduced by 25 V, the number of drops increased to 100		N/A
10.2	Report		--
	The report states if the PTI value was based on a test using 100 drops with a test voltage of (PTI-25) V		N/A
O	**ANNEX O (INFORMATIVE) SELECTION AND SEQUENCE OF THE TESTS OF clause 30**		
	Description of tests for determination of resistance to heat and fire		P
P	**ANNEX P (INFORMATIVE) GUIDANCE FOR THE APPLICATION OF THIS STANDARD TO APPLIANCES USED IN TROPICAL CLIMATES**		
	Modifications applicable for class 0 and 01 appliances having a rated voltage exceeding 150 V, intended to be used in countries having a tropical climate and that are marked with symbol IEC 60417-6332		--
	Modifications may also be applied to class 1 appliances having a rated voltage exceeding 150 V, intended to be used in countries having a tropical climate and that are marked with symbol IEC 60417-6332, if liable to be connected to a supply mains that excludes the protective earthing conductor		--
5.7	The ambient temperature for the tests of clauses 11 and 13 is 40 +3/0 °C		N/A
7.1	The appliance marked with symbol IEC 60417-6332		N/A
7.12	The instructions state that the appliance is to be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA		N/A
	The instructions state that the appliance is considered to be suitable for use in countries having a tropical climate, but may also be used in other countries		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	If symbol IEC 60417-6332 is used, its meaning is explained		N/A
11.8	The values of Table 3 are reduced by 15 K		N/A
13.2	The leakage current for class I appliances not exceeding 0,5 mA		N/A
15.3	The value of t is 37 °C		N/A
16.2	The leakage current for class I appliances not exceeding 0,5 mA (mA):		N/A
19.13	The leakage current test of 16.2 is applied in addition to the electric strength test of 16.3		N/A
Q	**ANNEX Q (INFORMATIVE) SEQUENCE OF TESTS FOR THE EVALUATION OF ELECTRONIC CIRCUITS**		
	Description of tests for appliances incorporating electronic circuits		P
R	**ANNEX R (NORMATIVE) SOFTWARE EVALUATION**		
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2 validated in accordance with the requirements of this annex		--
R.1	Programmable electronic circuits using software		--
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2 constructed so that the software does not impair compliance with the requirements of this standard		N/A
R.2	Requirements for the architecture		--
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2 use measures to control and avoid software-related faults/errors in safety-related data and safety-related segments of the software		N/A
R.2.1.1	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.2 have one of the following structures:		--
	- single channel with periodic self-test and monitoring		N/A
	- dual channel (homogenous) with comparison		N/A
	- dual channel (diverse) with comparison		N/A
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 have one of the following structures:		--

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Clause	Requirement - Test	Result - Remark	Verdict
	- single channel with functional test		N/A
	- single channel with periodic self-test		N/A
	- dual channel without comparison		N/A
R.2.2	Measures to control faults/errors		--
R.2.2.1	When redundant memory with comparison is provided on two areas of the same component, the data in one area is stored in a different format from that in the other area		N/A
R.2.2.2	Programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.2 and that use dual channel structures with comparison, have additional fault/error detection means for any fault/errors not detected by the comparison		N/A
R.2.2.3	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, means are provided for the recognition and control of errors in transmissions to external safety-related data paths		N/A
R.2.2.4	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, the programmable electronic circuits incorporate measures to address the fault/errors in safety-related segments and data indicated in table R.1 and R.2 as appropriate		N/A
R.2.2.5	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, detection of a fault/error occur before compliance with clause 19 is impaired		N/A
R.2.2.6	The software is referenced to relevant parts of the operating sequence and the associated hardware functions		N/A
R.2.2.7	Labels used for memory locations are unique		N/A
R.2.2.8	The software is protected from user alteration of safety-related segments and data		N/A
R.2.2.9	Software and safety-related hardware under its control is initialized and terminates before compliance with clause 19 is impaired		N/A
R.3	Measures to avoid errors		--
R.3.1	General		--

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Clause	Requirement - Test	Result - Remark	Verdict
	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, the following measures to avoid systematic fault in the software are applied		--
	Software that incorporates measures used to control the fault/error conditions specified in table R.2 is inherently acceptable for software required to control the fault/error conditions specified in table R.1		N/A
R.3.2	Specification		--
R.3.2.1	Software safety requirements:	Software Id:	N/A
	The specification of the software safety requirements includes the descriptions listed		N/A
R.3.2.2	Software architecture		--
R.3.2.2.1	The specification of the software architecture includes the aspects listed - techniques and measures to control software faults/errors (refer to R.2.2); - interactions between hardware and software; - partitioning into modules and their allocation to the specified safety functions; - hierarchy and call structure of the modules (control flow); - interrupt handling; - data flow and restrictions on data access; - architecture and storage of data; - time-based dependencies of sequences and data	Document ref. No:	N/A
R.3.2.2.2	The architecture specification is validated against the specification of the software safety requirements by static analysis		N/A
R.3.2.3	Module design and coding		--
R.3.2.3.1	Based on the architecture design, software is suitably refined into modules		N/A
	Software module design and coding is implemented in a way that is traceable to the software architecture and requirements		N/A
R.3.2.3.2	Software code is structured		N/A
R.3.2.3.3	Coded software is validated against the module specification by static analysis		N/A
	The module specification is validated against the architecture specification by static analysis		N/A

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Clause	Requirement - Test	Result - Remark	Verdict

R.3.3.3	Software validation		--
	The software is validated with reference to the requirements of the software safety requirements specification		N/A
	Compliance is checked by simulation of:		--
	- input signals present during normal operation		N/A
	- anticipated occurrences		N/A
	- undesired conditions requiring system action		N/A

TABLE R.1 [e] – GENERAL FAULT/ERROR CONDITIONS

Component [a]	Fault/error	Acceptable measures [b, c]	Definitions	Document reference for applied measure	Document reference for applied test	Ver-dict
1 CPU 1.1 Registers	Stuck at	Functional test, or periodic self-test using either: - static memory test, or - word protection with single bit redundancy	H.2.16.5 H.2.16.6 H.2.19.6 H.2.19.8.2	--	--	N/A
1.2 VOID						--
1.3 Programme counter	Stuck at	Functional test, or Periodic self-test, or Independent time-slot monitoring, or Logical monitoring of the programme sequence	H.2.16.5 H.2.16.6 H.2.18.10.4 H.2.18.10.2	--	--	N/A
2 Interrupt handling and execution	No interrupt or too frequent interrupt	Functional test, or time-slot monitoring	H.2.16.5 H.2.18.10.4	--	--	N/A

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Clause	Requirement - Test	Result - Remark	Verdict

3 Clock	Wrong frequency (for quartz synchronized clock: harmonics/ sub-harmonics only)	Frequency monitoring, or time slot monitoring	H.2.18.10.1 H.2.18.10.4	--	--	N/A
4. Memory 4.1 Invariable memory	All single bit faults	Periodic modified checksum, or multiple checksum, or word protection with single bit redundancy	H.2.19.3.1 H.2.19.3.2 H.2.19.8.2	--	--	N/A
4.2 Variable memory	DC fault	Periodic static memory test, or word protection with single bit redundancy	H.2.19.6 H.2.19.8.2	--	--	N/A
4.3 Addressing (relevant to variable and invariable memory)	Stuck at	Word protection with single bit redundancy including the address	H.2.19.8.2	--	--	N/A
5 Internal data path	Stuck at	Word protection with single bit redundancy	H.2.19.8.2	--	--	N/A
5.1 VOID						--
5.2 Addressing	Wrong address	Word protection with single bit redundancy including the address	H.2.19.8.2	--	--	N/A
6 External communication	Hamming distance 3	Word protection with multi-bit redundancy, or CRC – single work, or Transfer redundancy, or Protocol test	H.2.19.8.1 H.2.19.4.1 H.2.18.2.2 H.2.18.14	--	--	N/A
6.1 VOID						--
6.2 VOID						--

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Clause	Requirement - Test	Result - Remark	Verdict

6.3 Timing	Wrong point in time	Time-slot monitoring, or scheduled transmission Time-slot and logical monitoring, or comparison of redundant communication channels by either: - reciprocal comparison - independent hardware comparator	H.2.18.10.4 H.2.18.18 H.2.18.10.3 H.2.18.15 H.2.18.3	--	--	N/A
	Wrong sequence	Logical monitoring, or time-slot monitoring, or Scheduled transmission	H.2.18.10.2 H.2.18.10.4 H.2.18.18			
7 Input/output periphery	Fault conditions specified in 19.11.2	Plausibility check	H.2.18.13	--	--	N/A
7.1 VOID						--
7.2 Analog I/O 7.2.1 A/D and D/A-converter	Fault conditions specified in 19.11.2	Plausibility check	H.2.18.13	--	--	N/A
7.2.2 Analog multiplexer	Wrong addressing	Plausibility check	H.2.18.13	--	--	N/A
8 VOID						--
9 Custom chips [d] e.g. ASIC, GAL, gate array	Any output outside the static and dynamic functional specification	Periodic self-test	H.2.16.6	--	--	N/A

NOTE A Stuck-at fault model denotes a fault model representing an open circuit or a non-varying signal level. A DC fault model denotes a stuck-at fault model incorporating short circuit between signal lines.

[a] For fault/error assessment, some components are divided into their sub-functions.
[b] For each sub-function in the table, the Table R.2 measure will cover the software fault/error.
[c] Where more than one measure is given for a sub-function, these are alternatives.
[d] To be divided as necessary by the manufacturer into sub-functions.
[e] Table R.1 is applied according to the requirements of R.1 to R.2.2.9 inclusive.

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Clause	Requirement - Test	Result - Remark	Verdict
S	**ANNEX S (NORMATIVE) BATTERY OPERATED APPLIANCES POWERED BY BATTERIES THAT ARE NON-RECHARGEABLE OR NOT RECHARGED IN THE APPLIANCE**		--
	The following modifications to this standard are applicable for battery-operated appliances where the batteries are either non-rechargeable (primary batteries), or		N/A
	rechargeable batteries (secondary batteries) that are not recharged in the appliance		N/A
5.8.1	If the supply terminals for the connection of the battery have no indication of polarity, the more unfavourable polarity is applied		N/A
5.S.101	Appliances intended for use with a battery box are tested with the battery box supplied with the appliance or with the battery box recommended in the instructions		N/A
5.S.102	Appliances are tested as motor-operated appliances.		N/A
7.1	Appliances marked with the battery voltage (V) and the polarity of the terminals, unless ..... :		N/A
	the polarity is irrelevant		N/A
	Appliances also marked with:		--
	- name, trade mark or identification mark of the manufacturer or responsible vendor ..... :		N/A
	- model or type reference ..... :		N/A
	- IP number according to degree of protection against ingress of water, other than IPX0 ..... :		N/A
	- type reference of battery or batteries ..... :		N/A
	If relevant, the positive terminal is indicated by the symbol IEC 60417-5005 and the negative terminal by the symbol IEC 60417-5006		N/A
	If appliances use more than one battery, they are marked to indicate correct polarity connection of the batteries		N/A
7.6	Additional symbols		N/A
7.12	The instructions contain the following, as applicable:		--
	- the types of batteries that may be used ..... :		N/A
	- how to remove and insert the batteries		N/A
	- non-rechargeable batteries are not to be recharged		N/A
	- rechargeable batteries are to be removed from the appliance before being charged		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	- different types of batteries or new and used batteries are not to be mixed		N/A
	- batteries are to be inserted with the correct polarity		N/A
	- exhausted batteries are to be removed from the appliance and safely disposed of		N/A
	- if the appliance is to be stored unused for a long period, the batteries are removed		N/A
	- the supply terminals are not to be short-circuited		N/A
11.5	Appliances are supplied with the most unfavourable supply voltage between		--
	- 0,55 and 1,0 times the battery voltage, if the appliance can be used with non-rechargeable batteries		N/A
	- 0,75 and 1,0 times battery voltage, if the appliance is designed for use with rechargeable batteries only		N/A
	The values specified in Table S.101 for the internal resistance per cell of the battery is taken into account		N/A
19.1	The tests are carried out with the battery fully charged unless otherwise specified		N/A
19.13	The battery does not rupture or ignite		N/A
19.S.101	Appliances are supplied with the voltage specified in 11.5. The supply terminals having an indication of polarity are connected to the opposite polarity, unless		N/A
	such a connection is unlikely to occur due to the construction of the appliance		N/A
19.S.102	For appliances with provision for multiple batteries, one or more of the batteries are reversed and the appliance is operated, if reversal of batteries is allowed by the construction		N/A
25.5	The flexible leads or flexible cord used to connect an external battery or battery box in is connected to the appliance by a type X attachment		N/A
25.13	This requirement is not applicable to the flexible leads or flexible cord connecting external batteries or a battery box with an appliance		N/A
25.S.101	Appliances have suitable means for connection of the battery. If the type of battery is marked on the appliance, the means of connection is suitable for this type of battery		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
26.5	Terminal devices in an appliance for the connection of the flexible leads or flexible cord connecting an external battery or battery box are so located or shielded that there is no risk of accidental connection between supply terminals		N/A
30.2.3.2	There is no battery in the area of the vertical cylinder used for the consequential needle flame test, unless		N/A
	the battery is shielded by a barrier that meets the needle flame test of annex E, or		N/A
	that comprises material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
T	**ANNEX T (NORMATIVE)** **UV-C RADIATION EFFECT ON NON-METALLIC MATERIALS**		**--**
	Requirements for non-metallic materials subject to direct or reflected UV-C radiation exposure and whose mechanical and electrical properties are relied upon for compliance with the		N/A
	Does not apply to glass, ceramic and similar materials		N/A
	Tested as specified in ISO 4892-1 and ISO 4892-2, with the following modifications:		--
	Modifications to ISO 4892-1:		--
5.1.6	The UV-C emitter is a low pressure mercury lamp with a quartz envelope having a continuous spectral irradiance of 10 W/m2 at 254 nm		N/A
	Subclause 5.1.6.1 and Table 1 are not applicable		N/A
5.2.4	The black-panel temperature shall be 63 °C +/- 3 °C		N/A
5.3.1	Humidification of the chamber air is specified in part 2 when necessary		N/A
9	This clause is not applicable		N/A
	Modifications to ISO 4892-2:		--
7.1	At least three test specimens are tested		N/A
	Ten samples of internal wiring is tested		N/A
7.2	The specimens are attached to the specimen holders such that they are not subject to any stress		N/A
7.3	Apparatus prepared as specified		N/A
	The test specimens and, if used, the irradiance-measuring instrument are exposed for 1 000 h		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
7.4	If used, a radiometer is mounted and calibrated such that it measures the irradiance at the exposed surface of the test specimen		N/A
7.5	Material properties and test methods for parts providing mechanical support or impact resistance as specified in Table T.1		N/A
	Material properties and test method for electrical insulation of internal wiring as specified in Table T.2		N/A
8	This clause is not applicable		N/A

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Clause	Requirement - Test	Result - Remark	Verdict

10.1	TABLE: Input deviation measurements					P
Input deviation Dp of/at:		**Prated (W)**	**P (W)**	**Dp**	**required Dp**	**Remark**
100V, 60Hz		800	816.7	+2.1%	+5%, -10%	--
100V, 50Hz		800	814.3	+1.8%	+5%, -10%	--
Supplementary information:						

10.2	TABLE: Current deviation				N/A
Current deviation of/at:	**I rated (A)**	**I measured (A)**	**Δ I**	**Required Δ I**	**Remark**
--	--	--	--	--	--
Supplementary information:					

11.8	TABLE: Heating test		P
	Test voltage (V)..... ..... :	√1.15x100V	—
	Room temperature t1 (°C).....:	24.1°C	—
	Room temperature t2 (°C).....:	24.2°C	—

Thermocouple locations:	**Max. temperature rise measured, Δ T (K)**	**Max. temperature rise limit, Δ T (K)**
Power cord	7.3	50
Terminal block	4.8	Cl 30
Internal wire lead to heating element	28.1	T200-25=175
Internal wire lead to PCB	17.4	T80-25=55
PCB near IC	24.8	T130-25=105
Varistor	16.3	T85-25=60
X-capacitor	20.0	T100-25=75
Winding of line chock	26.2	T180-25=155
Relay	19.8	T85-25=60
Transformer winding	49.1	85
Transformer bobbin	45.8	Cl 30
Y-capacitor (CY1)	17.0	125-25=100
Y-capacitor (CY2)	17.4	125-25=100
Optocoupler	26.7	110-25=85
DC fan	29.8	65
Negative ion generator	14.6	Ref.

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Clause	Requirement - Test	Result - Remark	Verdict

Heater element bracket	14.8	Cl 30
Plastic enclosure inside near heater element	10.9	Cl 30
Plastic enclosure outside near heater element	6.3	60
Test corner	2.3	65
Supplementary information:		

11.8	**TABLE: Heating test, resistance method**					N/A
	Test voltage (V) ..... :		--			—
	Ambient, t1 (°C) ..... :		--			—
	Ambient, t2 (°C) ..... :		--			—
Temperature rise of winding:	**R1 (Ω)**	**R2 (Ω)**	**Δ T (K)**	**Max. Δ T (K)**	**Insulation class**	
--	--	--	--	--	--	
Supplementary information:						

11.101	**TABLE: Temperature rise measurements**		N/A
	Room temperature t1 (°C) .....:	-	**--**
	Room temperature t2 (°C) .....:	-	**--**
	test condition:	-	**--**
	Dt (K)	**required Dt (K)**	
-	-	-	
Supplementary information: hand-held appliance, test as specified condition			

13.2	**TABLE: Leakage current**		P
	Heating appliances: 1,15 x rated input (W) .. :	--	—
	Motor-operated and combined appliances: 1,06 x rated voltage (V) ..... :	1.06x100V	—
Leakage current between:	**I (mA)**	**Max. allowed I (mA)**	
L/N to control panel wrapped metal foil	0.005/0.005	0.35mA Peak	
Supplementary information: Choose the most unfavorable voltage was tested.			

13.3	**TABLE: Dielectric strength**		P
Test voltage applied between:	**Test potential applied (V)**	**Breakdown / flashover (Yes/No)**	
Live parts to control panel wrapped metal foil	2500	No	

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Clause	Requirement - Test	Result - Remark	Verdict

Supplementary information:

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

16.2	TABLE: Leakage current		P
	Single phase appliances: 1,06 x rated voltage (V) ..... :	1.06x100V	—
	Three phase appliances 1,06 x rated voltage divided by √3 (V) ..... :	--	—

Leakage current between:	**I (mA)**	**Max. allowed I (mA)**
Live parts to control panel wrapped metal foil	0.005	0.25mA
Supplementary information: Choose the most unfavorable voltage was tested.		

16.3	TABLE: Dielectric strength		P
Test voltage applied between:		**Test potential applied (V)**	**Breakdown / flashover (Yes/No)**
Live parts to control panel wrapped metal foil		2500	No
Supplementary information:			

17	TABLE: Overload protection		P
Thermocouple locations:		**Max. temperature rise measured, Δ T (K)**	**Max. temperature rise limit, Δ T (K)**
Transformer winding		67.4	200
Supplementary information:			

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Clause	Requirement - Test	Result - Remark	Verdict

17	**TABLE: Overload protection, resistance method**		N/A
	Test voltage (V)..... :	--	—
	Ambient, t1 (°C)..... :	--	—
	Ambient, t2 (°C)..... :	--	—

Temperature of winding:	**R1 (Ω)**	**R2 (Ω)**	**Δ T (K)**	**T (°C)**	**Max. T (°C)**
--	--	--	--	--	--
Supplementary information:					

19	**Abnormal operation conditions**	P

Operational characteristics	**YES/NO**	**Operational conditions**
Are there electronic circuits to control the appliance operation?	Yes	--
Are there "off" or "stand-by" position?	Yes	--
The unintended operation of the appliance results in dangerous malfunction?	No	--

Sub-clause	**Operating conditions description**	**Test results description**	**PEC description**	**EMP 19.11.4**	**Software type required**	**19.11.3 PEC**	**Final result**
19.2	Restricted heat dissipation, 0.85 times normally power input	Pass	N.A	N.A	N.A	N.A	Pass
19.3	Restricted heat dissipation, 1.24 times normally power input	Pass	N.A	N.A	N.A	N.A	Pass
19.4	N.A	N.A	N.A	N.A	N.A	N.A	N.A
19.5	N.A	N.A	N.A	N.A	N.A	N.A	N.A
19.6	Pass	Pass	N.A	N.A	N.A	N.A	Pass
19.7	Pass	Pass	N.A	N.A	N.A	N.A	Pass
19.8	N.A	N.A	N.A	N.A	N.A	N.A	N.A
19.9	N.A	N.A	N.A	N.A	N.A	N.A	N.A
19.10	N.A	N.A	N.A	N.A	N.A	N.A	N.A
19.11.2	See test clause 19.11.2	No hazard	N.A	N.A	N.A	N.A	Pass
19.11.4.8	Pass	Pass	N.A	N.A	N.A	N.A	Pass
19.101	N.A	N.A	N.A	N.A	N.A	N.A	N.A

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Clause	Requirement - Test	Result - Remark	Verdict

19.102	N.A	N.A	N.A	N.A	N.A	N.A	N.A
Supplementary information:							

19.7	**TABLE: Abnormal operation, locked rotor/moving parts**					P
	Test voltage (V)..... :		100			—
	Ambient, t1 (°C)..... :		23.3			—
	Ambient, t2 (°C)..... :		23.6			—
Temperature of winding:	**R1 (Ω)**	**R2 (Ω)**	**Δ T (K)**	**T (°C)**	**Max. T (°C)**	
DC fan	--	--	74.1	97.7	--	
Supplementary information:						

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

19.13	**TABLE: Abnormal operation, temperature rises**	P
Thermocouple locations:	**Max. temperature rise measured, Δ T (K)**	**Max. temperature rise limit, Δ T (K)**
Test clause: 19.2		
Test condition: Restricted heat dissipation, 0.85 times normally power input, test as part 2.		
Test ambient: 24.2°C		
Test voltage: when the power input is √0.85 x 100V		
Plastic enclosure, inside, near heating element	35.8	See clause 30.1
Plastic enclosure, outside, near heating element	30.8	150
Test floor	8.8	150
Test clause: 19.3		
Test condition: Restricted heat dissipation, 1.24 times normally power input, test as part 2		
Test ambient: 24.3°C		
Test voltage:√1.24 x 100V		
Plastic enclosure, inside, near heating element	39.5	See clause 30.1

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Clause	Requirement - Test	Result - Remark	Verdict

Plastic enclosure, outside, near heating element	35.6	150
Test floor	9.7	150
Test clause: 19.6		
Test condition: The working voltage of the PTC heating element is increased by 5 %		
Test ambient: 24.3°C		
Plastic enclosure, inside, near heating element	69.7	See clause 30.1
Plastic enclosure, outside, near heating element	40.7	150
Test floor	18.9	150
Supplementary information:		
Supplementary information:		

21.1	**TABLE: Impact resistance**		P
Impacts per surface	**Surface tested**	**Impact energy (Nm)**	**Comments**
Three times	Plastic enclosure	0.5	No damage
Supplementary information:			

24.1	**TABLE: COMPONENTS**				P
Object / part No.	**Manufacturer/ trademark**	**Type / model**	**Technical data**	**Standard**	**Mark(s) of conformity[1)]**
Plug	Yuyao Weihang Electrical Appliance Co., Ltd.	WH07	125V~, 7A	Appendix 4 Section 1, Section 6 and appendix 10 Chapter 5	JET7472-43001-1002
Alternative	Yuyao Weihang Electrical Appliance Co., Ltd.	WH07	125V~, 15A	Appendix 4 Section 1, Section 6 and appendix 10 Chapter 5	JET7472-43001-1001
Power cord	Yuyao Weihang Electrical Appliance Co., Ltd.	VFF	2x0,75mm2, length of cord＜ 2m,	Appendix 1 Section 1, (1), (6) and (9)	JET7472-12011-1001
Alternative	Yuyao Weihang Electrical Appliance Co., Ltd.	VCTFK	2x0,75mm2, length of cord＜ 2m,	Appendix 1 Section 1, (1), (6) and (9)	JET7472-12011-1001
Internal wire	Cixi Shuanghong Wire Co., Ltd.	H05S-K H05SJ-K	0,75-1,0 mm2 (for other parts), T180	EN 50525-2-41:2011	VDE 40017324

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Clause	Requirement - Test	Result - Remark	Verdict

PCB	Jiangmen Kingboard Laminates Limited	KB-5150, KB-5152	94V-0 130℃	IEC 60335-1 IEC 60335-2-23	E123995 Test with appliance
Alternative	GOLDENMAX international technology （HANGZHOU）LTD	FR-4	94V-0 130℃	IEC 60335-1 IEC 60335-2-23	E134893 Test with appliance
Fuse	Honghu Bluelight Electronic CO.,Ltd	L3F	3.15A/250V	EN 60127-1:2006 EN 60127-3:2015	VDE 40026903
Alternative	Shanghai Fullness Electronic Co.,Ltd	TDP	3.15A/250V	EN 60127-1:2006 EN 60127-3:2015	TUV R 50540808
NTC	Hongzhi Enterprises Ltd.	5D-9	240V~, 3A, 68μF, Class C2, 130°C	UL 1434	UL E319959
Varistor	Dongguan JYHWEI Electronics Co., Ltd.	10D471K	T125	IEC61051-1 IEC61051-2 IEC61051-2-2	TUV B 109627
Alternative	DongGuan Chengdong Electronic Technology Co., Lt	10D471K	T125	IEC61051-1 IEC61051-2 IEC61051-2-2	VDE 40052833
Alternative	Guangzhou Yes Electronic Technology Co. Ltd.,	V-471K-10	T125	IEC61051-1 IEC61051-2 IEC61051-2-2	VDE 40046121
Inductor	Kb Co, Ltd	TO16*9*5mm	6mH, 130°C	--	Tested with appliance
Y-capacitor	Zhi Wei Electronics Co. Ltd	DJ	Max. 2200pF, min. 250Vac, Y2, 125°C	IEC/EN 60384-14	VDE 40032789
X2 capacitor	DongGuan Chengdong Electronic Technology Co., Ltd	MPX	0,22uF/0,47uf 275VAC/310VA	IEC 60384-14 EN 60384-14: 2013 +A1:2016	VDE 40046845
Optocoupler	Everlight Electronics Co., Ltd.	EL 817	Reinforced insulation, Dti. ≥0.4mm, Ext. Cl ≥8.0mm, Ext. Cr ≥8.0mm, 110°C	IEC/EN 60747-5-2	VDE 132249
Transformer	MAIXIONG TECHNOLOGY(SHEN ZHEN)CO,LTD	PQ3220	CLASS B	IEC 60335-1 IEC 60335-2-23	Tested with appliance
-Bobbin	CHANG CHUN PLASTICS CO LTD	T375HF	V-0, 150°C	IEC 60335-1 IEC 60335-2-23	Tested with appliance & UL E59481

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Clause	Requirement - Test	Result - Remark	Verdict

-Magnet wire	SHANTOU SHENGANG ELECTRICAL INDUSTRIAL CO LTD	2UEW/130	Min. 130 °C	IEC 60335-1 IEC 60335-2-23	Tested with appliance & UL E239508
-Triple insulation wire	Shenzhen Darun Science and Technology Co., Ltd	DRTIW-B	130 °C	IEC 61558-1 IEC 61558-2-16	VDE 40041174
- Teflon tube	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-SRT	600V, 150°C	IEC 60335-1 IEC 60335-2-23	Tested with appliance & UL E180908
-Varnish	HANG CHEUNG COATINGS (HUIYANG) LTD	8562*	155°C	IEC 60335-1 IEC 60335-2-23	Tested with appliance & UL E200154
Relay	Shenzhen Yuanze Electronic co., Ltd	Y3F-SS-105DM	250VAC,10A T105, 10E4	IEC 61810-1 EN 61810-1: 2015	TUV R 50197243
Anion Generator	Cixi Zhouxiang Heli Electrical Appliance Factory	HL-F18	DC 5V	IEC/EN 60335-2-65 IEC/EN 60335-1	TUV B 067061
Motor	GUANGDONG KEHN MOTOR CO., LTD	KH48F10ZF-01	DC 24V, Class B	IEC 60335-1 IEC 60335-2-23	Test with appliance
Thermostat	YANGZHOU BAOZHU ELECTRIC APPLIANCE CO LTD	TB11-BB1D	250VAC, 50/60Hz, 11A,90° C	EN 60730-1:2016+A1 EN IEC 60730-2-9:2019+A1	VDE 40056012
Thermal link	Zhongshan Longde Electric Co Ltd	RY122	250VAC, 10A, Tf: 122° C.	IEC 60691 EN 60691 : 2016	E 476383
PTC heater	Suzhou Ruixintong Electrical Appliances Co.,Ltd..	RXT	220-240V 800W	IEC 60335-1 IEC 60335-2-23	Test with appliance
Plastic enclosure	TIANJIN DAGU CHEMICAL CO LTD	DG-417	ABS,Min.thickness; 2.0mm	IEC 60335-1 IEC 60335-2-23	Tested with appliance
Display screen cover	FORMOSA IDEMITSU PETROCHEMICAL CORP	#2200+(f2), #2500+(f2)	PC,Min.thickness; 2.0mm	IEC 60335-1 IEC 60335-2-23	Tested with appliance
Insulation tape	SHANGHAI JINSHAN QIANFENG INSULATION MATERIAL CO LTD	6050, 6051	V-0; 130°C	IEC 60335-1 IEC 60335-2-23	UL E249751 + Tested with appliance

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Clause	Requirement - Test	Result - Remark	Verdict

Supplementary information:

[1)] Provided evidence ensures the agreed level of compliance. See OD-CB2039.

28.1	TABLE: Threaded part torque test			P
Threaded part identification:	**Diameter of thread (mm)**	**Column number (I, II, or III)**	**Applied torque (Nm)**	
Fixed enclosure	3.0	II	0.5	
Supplementary information:				

29.1	TABLE: Clearances						P
	Overvoltage category ....:		II				—
		Type of insulation:					
Rated impulse voltage (V):	**Min. cl (mm)**	**Basic (mm)**	**Supplementary (mm)**	**Reinforced (mm)**	**Functional (mm)**	**Verdict / Remark**	
330	0,2* / 0,5 / 0,8**	--	--	--	--	N/A	
500	0,2* / 0,5 / 0,8**	--	--	--	--	N/A	
800	0,2* / 0,5 / 0,8**	--	--	--	--	N/A	
1 500	**0,5** / 0,8** / 1,0***	--	--	--	>1.0mm	P	
2 500	**1.5**/2.0***	--	--	>2.0mm	--	P	
4 000	3.0/3.5***	--	--	--	--	N/A	
6 000	5,5 / 6,0***	--	--	--	--	N/A	
8 000	8,0 / 8,5***	--	--	--	--	N/A	
10 000	11,0 / 11,5***	--	--	--	--	N/A	

Supplementary information:

*) For tracks on printed circuit boards if pollution degree 1 and 2

**) For pollution degree 3

***) If the construction is affected by wear, distortion, movement of the parts or during assembly

29.2	TABLE: Creepage distances, basic, supplementary and reinforced insulation	P
Working voltage (V):	**Creepage distance (mm) Pollution degree**	

IEC 60335-2-23			
Clause	Requirement - Test	Result - Remark	Verdict

	1	2			3			Type of insulation			
		Material group			Material group						
		I	II	IIIa/IIIb	I	II	IIIa/IIIb*	B**	S**	R**	Verdict
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9		—	—	N/A
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9	—		—	N/A
≤50	0,36	1,2	1,7	2,4	3,0	3,4	3,8	—	—		N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4		--	--	N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4	--		--	N/A
125	0,56	1,5	2,1	3,0	3,8	4,2	**4,8**	--	--	>4.8	P
250	0,56	1,25	1,8	2,5	3,2	3,6	4,0		--	--	N/A
250	0,56	1,25	1,8	2,5	3,2	3,6	4,0	--		--	N/A
250	1,12	2,5	3,6	5,0	6,4	7,2	8,0	--	--		N/A
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3		—	—	N/A
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3	—		—	N/A
400	2,0	4,0	5,6	8,0	10,0	11,2	12,6	—	—		N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0		—	—	N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0	—		—	N/A
500	2,6	5,0	7,2	10,0	12,6	14,2	16,0	—	—		N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0		—	—	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	—		—	N/A
>630 and ≤800	3,6	6,4	9,0	12,6	16,0	18,0	20,0	—	—		N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5		—	—	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	—		—	N/A
>800 and ≤1000	4,8	8,0	11,2	16,0	20,0	22,0	25,0	—	—		N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0		—	—	N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	—		—	N/A
>1000 and ≤1250	6,4	10,0	14,2	20,0	25,0	28,0	32,0	—	—		N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0		—	—	N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	—		—	N/A
>1250 and ≤1600	8,4	12,6	18,0	25,0	32,0	36,0	40,0	—	—		N/A

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Clause	Requirement - Test	Result - Remark	Verdict

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

Supplementary information:

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

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

29.2	**TABLE: Creepage distances, functional insulation**	P

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Clause	Requirement - Test	Result - Remark	Verdict

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

Supplementary information:

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

30.1	**TABLE: Ball Pressure Test of Thermoplastics**		P
Allowed impression diameter (mm) ..... :		2.0mm	—
Object/ Part No./ Material	**Manufacturer/ trademark**	**Test temperature (°C)**	**Impression diameter (mm)**
Plastic enclosure	See table 24.1	75	1.3
PCB	See table 24.1	125	1.0

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Clause	Requirement - Test	Result - Remark	Verdict

Transformer Bobbin	See table 24.1	125	1.1
Negative ion generator	See table 24.1	125	1.2
Fan	See table 24.1	125	1.1
Display screen cover	See table 24.1	125	1.2
Supplementary information: choose the most unfavourable condition			

30.2	**TABLE: Resistance to heat and fire - Glow wire tests**							P
Object/ Part No./ Material	**Manufacturer / trademark**	**Glow wire test (GWT); (°C)**						**Verdict**
		550	**650**		**750**		**850**	
			te	**ti**	**te**	**ti**		
Plastic enclosure	See table 24.1	X No flame	--	--	--	--	--	Pass
Transformer Bobbin	See table 24.1	--	--	--	0s	0s	--	Pass
Negative ion generator	See table 24.1	--	--	--	0s	0s	--	Pass
Fan	See table 24.1	--	--	--	0s	0s	--	Pass
Display screen cover	See table 24.1	--	--	--	0s	0s	--	Pass
X-Capacitor	See table 24.1	--	--	--	0s	0s	--	Pass
Relay	See table 24.1	--	--	--	0s	0s	--	Pass
Object/ Part No./ Material	**Manufacturer / trademark**	**Glow-wire flammability index (GWFI), °C**				**GW ignition temp. (GWIT), °C**		**Verdict**
		550	**650**	**750**	**850**	**675**	**775**	
--	--	--	--	--	--	--	--	--
The test specimen passed the glow wire test (GWT) with no ignition [(te – ti) ≤ 2s] (Yes/No) :								Yes
If no, then surrounding parts passed the needle-flame test of annex E (Yes/No) :								No
The test specimen passed the test by virtue of most of the flaming material being withdrawn with the glow-wire (Yes/No)? :								Yes
Ignition of the specified layer placed underneath the test specimen (Yes/No) :								No
Supplementary information: - 550 °C GWT not relevant (or applicable) to parts of material classified at least HB40 or if relevant HBF - The GWIT pre-selection option, the 850 °C GWFI pre-selection option, and the 850 °C GWT are not relevant (or applicable) for attended appliances								

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Clause	Requirement - Test	Result - Remark	Verdict

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

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Clause	Requirement + Test	Result - Remark	Verdict

National Differences - Japan			
2	Replacement: Among the IEC and ISO standards listed in IEC 60335-1:2010, replace as follows: - ISO 2768-1 with JIS B 0405 (IDT) - IEC 60529:1989 with JIS C 0920:2003 (IDT) - IEC 61032:1997 with JIS C 0922:2002 (IDT) - IEC 60112:2003+Amd.1:2009 with JIS C 2134:2007 (IDT) - IEC 60227 with JIS C 3662 (MOD) - IEC 60245 with JIS C 3663 (MOD) - IEC 60085:2007 with JIS C 4003:2010 (MOD) - IEC 61058-1:2000+Amd.1:2001+Amd.2:2007 with JIS C 4526-1:2013 (MOD) - IEC 60384-14:2005 with JIS C 5101-14:2009 (IDT) - IEC 60065:2001+Amd.1:2005 with JIS C 6065:2013 (MOD) - IEC 60127 with JIS C 6575 (MOD) - IEC 60691 with JIS C 6691 (MOD) - IEC 60061-1 with JIS C 7709-1 (MOD) - IEC 60238 with JIS C 8280 (MOD) - IEC 60320-1 with JIS C 8283-1 (MOD) - IEC 60320-2-2 with JIS C 8283-2-2 (MOD) - IEC 60320-2-3 with JIS C 8283-2-3 (MOD) - IEC 60730-1:1999+Amd.1:2003+Amd.2:2007 with JIS C 9730-1:2010 (MOD) - IEC 60730-2-8:2000+Amd.1:2002 with JIS C 9730-2-8:2004 (MOD) - IEC 60730-2-10 with JIS C 9730-2-10 (IDT) - IEC 60068-2-2 with JIS C 60068-2-2:2010 (IDT) - IEC 60068-2-31 with JIS C 60068-2-31:1995 (IDT) - IEC 60068-2-75 with JIS C 60068-2-75:2004 (IDT) - IEC 60068-2-78 with JIS C 60068-2-78:2004 (IDT) - IEC 60664-1:2007 with JIS C 60664-1:2009 (IDT) - IEC 60664-3:2003 with JIS C 60664-3:2009 (IDT) - IEC 60664-4:2005 - IEC 60695-11-10 with JIS C 60695-11-10:2006 (IDT) - IEC 61000-4-2 with JIS C 61000-4-2:2012 (IDT) - IEC 61000-4-3 with JIS C 61000-4-3:2012 (IDT) - IEC 61000-4-4 with JIS C 61000-4-4:2007 (MOD)		N/A

Attachment No.1: Japanese National Deviations J60335-1(H27)			
Clause	Requirement + Test	Result - Remark	Verdict
	- IEC 61000-4-5 with JIS C 61000-4-5:2009 (MOD) - IEC 61000-4-6 with JIS C 61000-4-6:2006 (MOD) - IEC 61000-4-11 with JIS C 61000-4-11:2008 (IDT) - IEC 61000-4-34:2005 with JIS C 61000-4-34:2008 (IDT) - IEC 61558-1:2005 with JIS C 61558-1:2008 (MOD) - IEC 61558-2-6:2009 with JIS C 61558-2-6:2012 (MOD) - ISO 9772:2001 with JIS K 7241:2005 (IDT) - ISO 9773 with JIS K 7341:2006 (IDT)		
	Addition: Add the following. - JIS C 4908 (corresponding to IEC 60252- 1:2001, IEC 61048:1999 and IEC 61049:1991; MOD) - JIS C 8285 (corresponding to IEC 60309-1:1999+Amd.1:2005; MOD) - JIS C 8303 (corresponding to IEC/TR 60083; JIS original) - JIS C 8324 (corresponding to IEC60400:2008; MOD) - IEC 60061-3		N/A
	(Remark: Edition of each IEC standard shown in parentheses is according to the current edition of the JIS standard concerned as of 2016-01.)		N/A
	Deletion: Delete IEC/TR 60083, IEC 60598-1 and IEC 61770.		N/A
3.1.4	Addition: Add the following sentence at the end of the existing sentence. However, if no power input is assigned to the appliance, the rated power input for heating appliances and combined appliances is the power input measured when the appliance is supplied at rated voltage and operated under normal operation.		P
	Deletion: Delete the existing NOTE.		N/A
3.1.6	Addition: Add the following sentence at the end of the existing sentence. However, if no current is assigned to the appliance, the rated current is - for heating appliances, the current calculated from the rated power input and the rated voltage; - for motor-operated appliances and combined appliances, the current measured when the appliance is supplied at rated voltage and operated under normal		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	operation.		
	Deletion: Delete the existing NOTE.		N/A
3.3.6	Replacement: In the existing sentence, replace “class II constructions” with “class II constructions (basic insulation constructions if it is a class 0 appliance) ”.		N/A
3.3.7	Addition: Add the following paragraph after the existing paragraph. Class 0 appliances have either an enclosure of insulating material which may form a part or the whole of the basic insulation, or a metal enclosure which is separated from live parts by an appropriate insulation. If an appliance with an enclosure of insulating material has provision for earthing internal parts, it is considered to be a class I appliance or class 0I appliance.		N/A
	Deletion: Delete NOTE		N/A
3.3.8	Addition: Add the following paragraph after the existing paragraph. If appliances have a plug which is of two-pin type and equipped with an earthing lead, it is considered to be a class 0I appliance.		N/A
3.3.13	Replacement: In NOTE 2, replace “a class I appliance or class II appliance” with “a class 0I appliance, class I appliance or class II appliance”.		N/A
3.3.15A	Addition: Add the following new subclause after 3.3.15. 3.3.15A functional earthing earthing provided for other purpose than safety NOTE The term “earthing” in this standard means protective earthing unless specified specially, and excludes functional earthing.		N/A
3.7.1A	Addition: Add the following new subclause after 3.7.1. 3.7.1A heat sensing wire wire which is used as thermostat or thermal cut-out and which is able to adjust the heat (power consumption) by controlling the current flowing through heating wire. In any portion of the wire, the sensing wire is able to sense the temperature of the heating device inside the wire.		N/A
5.6	Addition: Add the following paragraph after the existing paragraph. If the adjusting means of the control is accessible without		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	the aid of a tool, this subclause applies whether the setting can be altered by hand or with the aid of a tool. If the adjusting means is not accessible without the aid of a tool and if the setting is not intended to be altered by the user, this subclause does not apply.		
	Deletion: Delete the existing NOTE 1.		N/A
5.8.1	Replacement: In the second paragraph, replace “a rated frequency range of 50 Hz to 60 Hz” with “a rated frequency range of 50 Hz to 60 Hz or two rated frequencies of 50 Hz and 60 Hz, for example, in a manner of 50 Hz/60 Hz”.		N/A
6.1	Addition: Add the following paragraph after the first paragraph. Class 0 appliances shall have the rated voltage of 150 V or less and be of indoor-use.		N/A
7.1	Replacement: Replace the second dash with the following: - symbol for nature of supply, unless the supply is of two-wire system of single phase and the rated frequency is marked;		P
	Addition: Before NOTE 1, add new dash as follows: - rated frequency, if the appliance is for exclusive use for 50 Hz or 60 Hz.		N/A
	Addition: Add the following paragraph after NOTE 4. If components have an independent marking, the marking of the appliance and that of the components is to be such that there can be no doubt with regard to the marking of the appliance itself.		P
	Deletion: Delete the existing NOTE 3.		N/A
7.3	Replacement: In the example of NOTE 3, replace “230 V/400 V” with “230 V/400 V 3 ~”.		N/A
	Addition: Add the following paragraph before the last paragraph. The marking of rated frequency is not needed to separate by a hyphen or an oblique stroke.		N/A
7.12	Addition: Add the following after the existing second paragraph. If the class 0I appliance having a plug is one of the following a) to c), the warning of the following purport shall		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	be stated in the instructions. WARNING - There is risk of electric shock if this appliance is used without earthing. a) appliances generating the leakage current exceeding the limit of leakage current specified for class 0I appliances in 13.2, when the leakage current was measured under the state eqquipped the filter for interference suppression in accordance with 13.2; b) for the minimum clearance corresponding to the rated impulse voltage of 1 500 V, specified in Table 16 of 29.1, appliances do not comply with the value shown in the parrenthes which applies for class 01 appliances; and c) appliances of which a surge protective device connected between the live parts and the accessible metal parts, except appliances intended for the installation by a professional.		
	Replacement: In the fourth paragraph, replace “by persons (including children) with reduced physical, sensor or mental capabilities, or lack of experience and knowledge,” with “by persons (including children) who are required assistance,”		N/A
7.12.5	Addition: Add the following new dash before the last paragraph. - For class 0I appliances equipped with an external earthig terminal and with type X attachment, if the earthing conductor is not provided by packing together with the appliance (except earthing conductor connected by an electrician), the instructions shall contain the following: Information of the cross-sectional area of the earthing conductor		N/A
7.12.8	Deletion: Delete the first paragraph.		N/A
	Addition: Add the following NOTE after the existing last paragraph. NOTE The requirement on the maximum inlet water pressure and the minimum inlet water pressure of the appliances connected to the water mains (the first paragraph of the corresponding international standard) was deleted.		N/A
7.16	Replacement: In the first paragraph, replace “a replaceable thermal link or fuse link” with “a thermal link or fuse link which is intended its replacement”.		N/A
8.1.1	Addition:		N/A

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	Add the following paragraph after the first paragraph. For screw-type fuses and screw-type miniature circuit breakers that are detachable without the aid of a tool, this applies for the state without detaching of those.		
	Deletion: Delete the existing NOTE.		N/A
	Addition: Add the following paragraphs after the existing last paragraph. Lampholers for lamps shall be checked in accordance with the following. - E14 lampholders shall be designed so that the live parts are not accessible when it is supplied during insertion of the cap of lamp. - E11, E12, E17, E26 and E39 lampholders shall be designed so that the live parts are not accessible after inserted the cap of lamp completely. Compliance is checked by the following. - For E14 lampholders, the gauge of standard sheet 7006-61 specified in IEC 60061-3 applies. - For E11, E12, E17, E26 and E39 lampholders, the test finger shown as test probe B in JIS C 0922 applies.		N/A
8.1.2	Replacement: At the end of the first paragraph, replace “socket-outlets” with “socket-outlets and connectors of cord sets”.		N/A
8.1.4	Replacement: In the first dash, replace “the part is supplied at safety extra-low voltage, provided that” with; the part is supplied at safety extra-low voltage or, if the appliance is class 0 appliance, by an isolating transformer complying with the electric strength test for reinforced insulation of 16.3, provided that		N/A
8.1.5	Addition: Add the following sentence at the end of the first paragraph. However, the power supply terminal part is excluded.		N/A
10.1	Addition: Add the following paragraph below Table 1. The allowable deviation of the rated power input of appliances, which a PTC heating element is used as heating device, shall be ±15 %, regardless of the rated values.		N/A
10.2	Addition: Add the following paragraph below Table 2.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	The allowable deviation of the rated current of appliances, which a PTC heating element is used as heating device, shall be ±15 %, regardless of the rated values.		
11.4	Addition: Add the following NOTE. NOTE For heating appliances, which the power input is not proportional to the square of the voltage, refer to 5.13.		N/A
11.8	Addition: In 1/3 of Table 3, add "[k]" at the end of "Rubber, polychloroprene or polyvinyl chloride insulation of internal and external winding, including supply cords:". *(Concretely, the 6th column of table)*		N/A
	Replacement: In 1/3 of Table 3, replace "- B22, E26 and E27" with "- B22 and E26". *(Concretely, the 11th column of table)*		N/A
	Replacement: In the column for temperature rise of 1/3 of Table 3, replace the value of "55", which corresponds to "- other lampholders and starter holders for fluorescent lamps" in the left column, with "[d]". *(Concretely, the 11th column of table)*		N/A
	Addition: In the first column of 3/3 of Table 3, add the following paragraphs before the existing NOTE 1. If other materials than those mentioned in the table are used, they are not to be subjected to temperatures in excess of their thermal capabilities as determined by ageing tests. The values in the table are based on an ambient temperature not normally exceeding 25 ˚C but occasionally reaching 35 ˚C. However, the temperature rise values specified are based on 25 ˚C. The temperature of the terminals of switches is measured if the switch is tested in accordance with Annex H.		N/A
	Deletion: In the first column of 3/3 of Table 3, delete the existing NOTE 1, NOTE 2 and NOTE 3.		N/A
	Replacement: In the last column of 3/3 of Table 3, replace the existing "[f]" with the following. [f] For thermoplastic materials, the temperature rise has to be determined in order that the tests of 30.1 can be carried out. For materials that the applicable limit is specially not specified in the table, if those comply with "1(1)ロ(ハ) of Appendix 4 of Interpretation of Ministerial		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Ordinance establishing Technical Requirements for Electrical Appliances and Materials (20130605, shokyoku No. 3)", those are considered to be the material complying with the temperature rise limit.		
	Addition: In the last column of 3/3 of Table 3, add the following at the end. [k] The values apply to the cords and wiring which comply with the applicable relevant IEC standard. For other cords and wiring, if those comply with "1(1)ロ(ハ) of Appendix 4 of Interpretation of Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials (20130605, shokyoku No. 3)", those are considered to be the material complying with the temperature rise limit.		N/A
13.1	Addition: Add the following NOTE below the fourth paragraph. NOTE For heating appliances, which the power input is not proportional to the square of the voltage, refer to 5.13.		P
	Addition: Add the following sentence at the end of the last paragraph. However, for class 0 appliances, the appliance is supplied at the rated voltage, and the test of 13.2 is carried out under the state eqquipped with the filter for interference suppression.		N/A
13.2	Replacement: Replace the existing first paragraph with the following. The leakage current is measured by means of the circuit described in Figure 4 of IEC 60990. However, for class 0I appliances and class I appliances, the appliances may be checked that the current flowing through the earthed conductor does not exceed the limit, by using an ammeter of low-impedance, which has capability of measuring of the true RMS of the leakage current at the commercial frequency.		N/A
	Replacement: In the eighth paragraph, replace the eighth dash with "- for class 0I appliances (if having a filter for interference suppression, under the state where the filter was removed) 0,5 mA".		N/A
	Addition: In the eighth paragraph, add the following new dash after the existing third dash.		N/A

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	- for class 0I appliances equipped with filter for interference suppression 1,0 mA		
13.3	Addition: In NOTE 1, add the following sentence at the end of the existing sentence. However, the test is carried out without removing the surge protective device connected to accessible part.		P
16.2	Replacement: Replace the existing second paragraph with “The test voltage is 1,06 times rated voltage.”		P
16.3	Replacement: In the last sentence of the third paragraph, replace “class 0 appliances and class I appliances” with “class 0 appliances, class 0I appliances and class I appliances”:		N/A
17	Replacement: In the third paragraph, replace “safety extra- low voltage circuits” with “safety extra-low voltage circuits (for class 0 appliances, the circuits isolated by an isolating transformer complying with 8.1.4 are included)”.		N/A
19.3	Addition: Change the existing NOTE as NOTE 1, and add the following below that. NOTE 2 For heating appliances, which the power input is not proportional to the square of the voltage, refer to 5.13.		N/A
19.7	Replacement: In the last sentence of the third paragraph, replace “of class P2 of IEC 60252-1” with “capacitors of class P2 of IEC 60252-1 or capacitors with a built-in safety device or safety mechanism of JIS C 4908”.		N/A
19.11.3	Addition: Add the following paragraph after the existing paragraph. The compliance criteria applied for these tests are those detailed in 19.13.		P
	Deletion: Delete the existing NOTE.		N/A
19.11.4.4	Replacement: In the second paragraph, replace “class I appliances” with “class 0I appliances and class I appliances”.		N/A
19.12	Replacement: In the first paragraph, replace “a miniature fuse-link complying with IEC 60127” with “a miniature fuse-link complying with IEC 60127 or a fuse complying with Appendix 3 of Interpretation of Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials (20130605, shokyoku No. 3)”.		N/A
	Addition: In the third dash, add the following new item.		N/A

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	for the relevant period or for 4 min, whichever is the shorter, for fuse-links without the marking of quick-acting or time-lag.		
	Addition: Add the following NOTE 4 after NOTE 3. NOTE 4 If the fuses have special characteristics, the characteristics should be taken into account.		N/A
19.14	Addition: Add the following NOTE 1 after the third paragraph. NOTE 1 The following are the examples: - relays for power switch; and - starting-relays for capacitor induction motors.		N/A
	Modification: Change the existing NOTE as NOTE 2.		N/A
19.15A	Addition: Add the following new subclause after 19.15. 19.15A For heating appliances having rectifiers in parallel connection which are equipped in the power supply part, for adjusting the power consumption, the appliance shall not show any abnormality under the state where one of rectifiers was open-circuited. Compliance is checked by the following; - one rectifier shall have a rated capacity not less than the current of the main circuit, and rectifiers in parallel connection shall be of same specifications; and - when the heating test of Clause 11 is carried out under the state where one of rectifiers in parallel connection was open-circuited, the appliance shall comply with the requirements of Clause 11.		N/A
21.2	Replacement: Replace the second paragraph with the following. Compliance is checked by subjecting the insulation to the following test, unless the thickness of supplementary insulation is at least 1 mm and that of the reinforced insulation is at least 2 mm, or in case of class 0 appliance, unless the thickness of enclosure of synthetic resin used as basic insulation is at least 0,3 mm.		P
	Replacement: In the third paragraph, replace the existing first sentence with the following. For the supplementary insulation or the reinforced insulation of class II appliances, the insulation is raised to the temperature measured during the test of Clause 11.		N/A

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22.3	Replacement: In the first sentence of the first paragraph, replace “with pins” with “with pins (including flat blades)”.		N/A
	Addition: At the end of the last paragraph, add the following. However, the torque test of 0,4 Nm does not apply for flat-blade plugs.		N/A
22.16	Addition: Add the following paragraph between the fifth paragraph and NOTE. If a flat cord without sheath is used, the number of recoil operation by the reel is reduced to 2 000 times. In this case, not more than 20 % of the strands of the conductor shall be broken.		N/A
22.27	Addition: At the end of the first paragraph, add the following. However, this subclause does not apply to class 0 appliances.		N/A
22.31	Addition: Add the following paragraph before the last paragraph. For the part of basic insulation, if a wire is connected by soldering, the wire shall be soldered after making mechanical connection, for example, by passing through it into a hole or by entangling it.		N/A
22.39	Addition: Add the following paragraph after the existing first paragraph. Lampholders for fluorescent lamps specified in JIS C 8324 except GX53 shall be used only for the connection of fluorescent lamps. However, this excludes other lamps than fluorescent lamps; - if the lamp is not a detachable one as defined in 3.6.2 and complies with this standard; or - if the lamp complies with the applicable relevant standard.		N/A
22.42	Addition: At the end of the first paragraph, add the following sentence. However, for class 0 appliances, protective impedance may consist of only one class Y1 capacitor in JIS C 5101-14, and in this case, the capacitor is not short-circuited.		N/A
22.44	Modification: Modify the existing NOTE as NOTE 1.		N/A
	Addition: Add the following after the existing last paragraph.		N/A

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	This requirement does not apply to appliances which are intended for use by children normally. NOTE 2 Kiddie rides (JIS C 9335-2-82) is an example of such appliances.		
22.47	Replacement: Replace the whole with “This subclause does not apply.”		N/A
22.48	Replacement: Replace the whole with “This subclause does not apply.”		N/A
22.52	Replacement: Replace the existing first paragraph with the following. Output-outlets and appliance outlets on other than class I appliances, which are accessible to the user, shall be of which the connection of class I appliance is not possible.		N/A
22.52A	Addition: Add the following new subclause after 22.52. 22.52A Surge protective devices shall not be used for connection between the live parts and the accessible metal parts of class 0I appliances, except appliances which are intended for installation by a professional. Compliance is checked by inspection.		N/A
23.3	Replacement: In NOTE 1, replace “IEC 60227 or IEC 60245” with the following; JIS C 3662 series, JIS C 3663 series, or “Appendix 1 of Interpretation of Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials (20130605, shokyoku No. 3)”		N/A
23.5	Replacement: In the third paragraph, replace “IEC 60227 or IEC 60245” with the following. IEC 60227 or IEC 60245 or of cords complying with “Appendix 1 of Interpretation of Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials (20130605, shokyoku No. 3),”		N/A
	Addition: Add the following new paragraph after NOTE 1. For class II construction, the requirements for supplementary insulation and reinforced insulation apply except that the sheath of a cord complying with JIS C 3662 series or JIS C 3663 series or of a cord complying with “Appendix 1 of Interpretation of Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials (20130605, shokyoku No. 3)”		N/A

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	provides supplementary insulation.		
	Deletion: Delete the existing NOTE 2.		N/A
23.7	Addition: Add the following NOTE after the existing last paragraph. NOTE For conductors for functional earthing, use of a conductor identified by the colour combination green/yellow is not required.		N/A
23.10	Addition: At the end of the first paragraph, add the following sentence. However, this requirement does not apply for the internal wiring of class 0 appliances and the internal wiring connected with SELV circuits.		N/A
24	Addition: For plugs of supply cords, add the following. For appliances using a plug based on "Appendix 4 of Interpretation of Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials (20130605, shokyoku No. 3), the plug of supply cord shall comply with the requirements specified in Appendixes revised by the METI Notices dated 2014-09-18 and 2015-01-16. Plugs shall comply with the following: *a.* The insulation material of plug surface that faces with the surface of outlet and that is between blades of plug shall be of PTI of 400 or better, which is specified in JIS C2134:2007 (corresponding to IEC 60112:2003, IDT). *b.* Insulation material holding the blades shall comply with the requirement of the test specified in JIS C60695-2-11:2004 (corresponding to IEC 60695-2-11:2000, IDT) or JIS C60695-2-12:2013 (corresponding to IEC 60695-2-12:2010, IDT), when it is conducted at 750 ˚C. However, this does not apply if the material is of GWIT of 775 ˚C or better, which is specified in JIS C60695-2-13:2013 (corresponding to IEC 60695-2-13:2010, IDT). If the issue date of the certificate of DENAN conformity assessment for plug is 2015-09-17 or before, it is not considered to be a sufficient evidence. If the date is 2015-09-18 or after, the certificate is considered to be a sufficient evidence. If a test report prepared by the certificate holder of the certificate of DENAN conformity assessment is available, compliance may be checked by reviewing the contents of report. If no sufficient evidence is available, compliance is check		N/A

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	by tests.		
24.1	Addition: At the end of the first paragraph, add the following sentence. This excludes the components; - that are complying with “Interpretation of Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials (20130605, shokyoku No. 3)”; and - that are used in accordance with the ratings marked on the component. Even this case, subclauses from 24.1.1 to 24.1.9 apply.		P
	Addition: Add the following new paragraphs between NOTE 2 and NOTE 3. Unless otherwise specified, the requirements of Clause 29 of this standard apply between live parts of components and accessible parts of the appliance, Unless otherwise specified, the requirements of 30.2 of this standard apply to parts of non- metallic material in components including parts of non-metallic material supporting current-carrying connections inside components. Components that have been previously tested and shown to comply with the resistance to fire requirements in the relevant standard for the component need not be retested provided that - the severity specified in the component standard is not less than the severity specified in 30.2 of this standard, and - unless the preselection alternative is used, the test report for the component states whether it complied with the relevant standard for the component with or without flame. Flames existing for a cumulative time not exceeding 2 s during the test are ignored. If the above two conditions are not satisfied, the component is tested as part of the appliance. There are two levels of severity specified for appliances for which 30.2.3 is applicable. Components which have not been previously tested and shown to comply with the resistance to fire requirements in the relevant standard for the component are tested according to the requirements of 30.2 of this standard.		P

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	Deletion: Delete the existing NOTE 3 and NOTE 4.		P
	Replacement: In the paragraph before the last paragraph, replace "IEC/TR 60083" with "JIS C 8303", and "IEC 60320-1" with "JIS C 8283-1, JIS C 8285".		P
24.1.2	Addition: Add the following sentence at the end of the existing paragraph. However, class 0 appliances are not required to comply with Annex G if the appliance complies with the requirements of this standard.		P
24.1.3	Addition: Add the following new paragraph after the first paragraph. The declared number of operating cycles is only applicable for switches required for compliance with this standard.		N/A
	Deletion: Delete the existing NOTE.		N/A
24.1.8	Replacement: In the second sentence, replace "for the purposes of Clause 19" with "defined in Subclause 3.7.8".		N/A
24.4	Replacement: In the first paragraph, replace "IEC/TR 60083" with "JIS C 8303".		N/A
24.7	Deletion: Delete the existing first paragraph.		N/A
24.8	Addition: Add the following new dash after the first dash. - the capacitors are a capacitor with a built-in safety device or a capacitor with safety mechanism, which are according to JIS C 4908;		N/A
	Addition: By modifying the existing NOTE as NOTE 1, add the following NOTE 2 after NOTE 1. NOTE 2 This metallic or ceramic enclosure means the case (inside of the enclosure) which is equipped in other part than the enclosure touchable by a test probe B of JIS C 0922. It is considered that, even if adjacent non-metallic parts inside the case are within 50 mm of the outer surface of the capacitor, the case will prevent the diffusion of flame or molten material.		N/A
24.8A	Addition: Add the following new subclause after 3.7.1. 24.8A The heat sensing wire of appliances incorporated a heat		N/A

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	sensing wire shall not show remarkable change of the operation temperature in normal use. Compliance is checked by applying Annex JA.		
25.3	Addition: Add the following after the existing second dash. If appliances of which the current flowing through the power supply terminals is 10 A or more have a supply lead (limited to those of stranded conductor), the supply lead shall comply with one of the following; □ a supply lead is accommodated in the appliance or in a suitable compartment equipped for the appliance; □ a supply lead is equipped with a bar-shaped terminal which is crimped at the tip of conductor, and is connectable with plug-in connectors; or □ the instructions for use or installation specifies the box (including outlet box) having appropriate space to connect the lead conductor to the supply mains.		N/A
25.4	Addition: Add the following new paragraph after Table 10. In addition to those complying with Table 10, those complying with the dimensions specified in "Supplementary Table 1 and Supplementary Table 5 of Appendix 2 of Interpretation of Ministerial Ordinance establishing Technical requirements for Electrical Appliances and Materials (20130605, shokyoku No. 3)" are considered that those comply with this clause.		N/A
25.5	Addition: Add the following NOTE after the existing last paragraph. NOTE Earthing conductor not integrated in a supply cord is not considered to be supply cord. However, this subclause is considered to be applicable also to the earthing conductor of class 0I appliance drawing out an earthing lead conductor. And, the earthing conductor of class 0I appliance equipped with an external earthing terminal is considered to be type X attachment, except those connected by an electrician.		N/A
25.7	Addition: In the first paragraph, add the following new dash after the existing last dash. - cords complying with "Appendix 1 of Interpretation of Ministerial Ordinance establishing Technical requirements for Electrical Appliances and Materials (20130605, shokyoku No. 3)" However, flat cords without sheath shall not be used for; □ other appliances than class 0 appliance; or		N/A

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	class 0 appliances for floor-exclusive- use.		
25.8	Replacement: Replace the existing first paragraph with the following. Except supply cords complying with “Appendix 1 of Interpretation of Ministerial Ordinance establishing Technical requirements for Electrical Appliances and Materials (20130605, shokyoku No. 3)”, conductors of supply cords shall have a nominal cross- sectional area of not less than that shown in Table 11. For class 0I appliances which use a two-pin type plug equipped with an earthing lead conductor, the requirements for supply cords apply. Earthing conductor of other class 0I appliances shall comply with “Paragraph 4 of Article 17 of Interpretation of Technical Requirements for Electric Facilities”.		N/A
	Addition: To the existing item a in Table 11, add the following sentence. However, in this case, except tinsel cords, the plug shall be equipped with a fuse which has a rated current of 3 A or less and a rated breaking capacity of 500 A or more, in its inside..		N/A
	Addition: Add the following between Table 11 and the last paragraph. For cords complying with “Appendix 1 of Interpretation of Ministerial Ordinance establishing Technical requirements for Electrical Appliances and Materials (20130605, shokyoku No. 3)”, the following applies. a) Allowable current at the ambient temperature of 30°C is specified in the following. Allowable current for cords is specified in Table 11A.		N/A
	Table 11A – Allowable current for cords		N/A

cross-sectional area mm^2	number of strands /diameter of strand number/mm	allowable current A			
		Upper limit of temperature for use of electric insulation			
		60℃	75℃	80℃	90℃
0.75	30/0.18	7	8	9	10
1.25	50/0.18	12	14	15	17
2.0	37/0.26	17	20	22	24
3.5	45/0.32	23	28	29	32
5.5	70/0.32	35	42	45	49

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2) Allowable current for cabtire cables (limited to those of which the upper limit of temperature for use of electric insulation is 60 ˚C), is specified in Table 11B. — N/A

cross-sectional area mm^2	number of strands /diameter of strand number/mm	allowable current A			
		single core	two cores	three cores	four and five cores
0.75	30/0.18	14	12	10	
1.25	50/0.18	19	16	14	13
2.0	37/0.26	25	22	19	17
3.5	45/0.32	37	32	28	25
5.5	70/0.32	49	41	36	32
8.0	50/0.45	62	51	44	39
14	88/0.45	88	71	62	55
22	7/20/0.45 a)	115	95	83	74
30	7/27/0.45 a)	140	100	98	89
38	7/34/0.45 a)	165	130	110	100

NOTE Normally, the number of cable core does not include conductor for neutral, conductor for earthing and conductor for control circuits.

a) 7/n/0.45 means composite stranded cable, which were stranded seven strands. Here, each of seven strands is compsited of the strands of the number of n and of the diameter of 0.45 mm.

3) Allowable current for insulated cables (limited to those of which the upper limit of temperature for use of electric insulation is 60 ˚C), is specified in Table 11C. — N/A

Table 11C – Allowable current of insulated wire
(those of which the upper limit of temperature for use of electric insulation is 60 ˚C) — N/A

conductors			all owable current A	
solid conductor, or stranded conductor	cross-se tional area mm2	num er of strands/diameter of strand n mber/ mm	copper conductors	aluminium conductors
solid conuctor	--	1.0	16	12
		1.2	19	15
		1.6	27	21
		2.0	35	27
		2.6	48	37
		3.2	62	48
		4.0	81	63
		5.0	107	83
stranded conductor	0.9	7/0.4	17	13
	1.25	7/0.45	19	15
	2	7/0.6	27	21
	3.5	7/0.8	37	29
	5.5	7/1.0	49	38
	8	7/1.2	61	48
	14	7/1.6	88	69
	22	7/2.0	115	90
	30	7/2.3	139	108

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		38	7/2.6	162	126	
	4) For 2) and 3), the allowable current for cables having the upper limit of temperature for use of electric insulation of other than 60°C shall be the value which was multiplied the allowable current and the correction coefficient for allowable current specified in Table 11D, according to the upper limit of temperature for use of electric insulation. The value of allowable current shall be rounded up if 8 or more and rounded down if less than 8, after first digit from the decimal point.					N/A
	Table 11D - Correction coefficient for cables of the upper limit of other than 60°C					N/A
	Upper limit of temperature for use of electric insulation	Correction coefficient for allowable current				
	75℃	1.22				
	80℃	1.29				
	90℃	1.41				
	b) The allowable current at the ambient temperature of 40°C shall be the value which was multiplied the allowable current and the correction coefficient for allowable current specified in Table 11E, according to the upper limit of temperature for use of electric insulation. The value of allowable current shall be rounded up if 8 or more and rounded down if less than 8, after first digit from the decimal point.					N/A
	Table 11E - Correction coefficient at ambient temperature of 40°C					N/A
	Upper limit of temperature for use of electric insulation	Correction coefficient for allowable current				
	60℃	0.82				
	75℃	1.08				
	80℃	1.15				
	90℃	1.29				
	c) The allowable current for insulated cables that are distributed during the construction of conduit tubes shall be the value which was multiplied the allowable current and the correction coefficient for allowable current specified in Table 11E. The value of allowable current shall be rounded up if 8 or more and rounded down if less than 8, after first digit from the decimal point.					N/A
	Table 11F - Correction coefficient for insulated cables distributed during the construction of conduit tubes					N/A
	Number of cables inside the sane tube	Correction coefficient for allowable current				
	3 or less	0.70				
	4	0.63				
	5 or 6	0.56				
	d) For cords or sheathed flexible cables (cabtire cables), if the cross-sectional area is not specified in Table 11A and Table 11B, the allowable current shall be the values calculated by the linear interpolation between points of the allowable current value for each cross-sectional area.					N/A
25.10	Addition: Add the following paragraph after the existing first					N/A

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	paragraph. If an earthing conductor is attached to the class 0I appliance, the conductor connected with the earthing terminal shall have a sheath of the colour combination green/yellow.		
25.13	Replacement: In the first sentence of the first paragraph, replace “the sheath” with “the covering and sheath”.		N/A
	(*Remark: For the part, the marking of ND is not provided in JIS C 9335-1. However, added by understanding that ths might be intentional modification for interpreting the English term "sheath".)*		N/A
	Replacement: In the second sentence of the first paragraph, replace “Unless the enclosure at the inlet opening is insulating material,” with; Except where the opening is of well-rounded like for cord reels and does not give stress to the supply cord, unless the enclosure at the inlet opening is insulating material,		N/A
25.14	Replacement: In the first paragraph, replace “Appliances provided with a supply cord and that are moved while in operation” with; Appliances provided with a supply cord and that are moved while in operation, and portable appliances with a flat cord without sheath and that are not used by placing on same place under the state of normal use		N/A
	(Remark: “Not used by placing on same place under the state of normal use” is interpreted as “not moved to other place even if it is the state that the appliance is not powered.)		N/A
	Addition: Add the following paragraph after the first paragraph. This does not apply to appliances with automatic cord reels that are tested by 22.16 instead.		N/A
	Deletion: Delete the existing NOTE 1.		N/A
	Addition: Add the following sentence at the end of the existing sixth paragraph. However, if the appliance is not moved while in operation and if the appliance uses a flat cord without sheath, the flexing number of 2 000 times at the rate of flexing of 60 per minute applies.		N/A
25.15	Addition: Add the following paragraph at the end of this subclause. Cord anchorage is not required for; - the earthing lead conductor of class 0I appliances which draw out an earthing lead conductor from the		N/A

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	inside of appliance; and - the earthing conductor of class 0I appliances equipped with an earthing terminal.		
25.20	Addition: In the first paragraph, add the following sentence before the last sentence. However, appliances that use a flat cord without sheath, i.e., class 0 appliances, are excluded.		N/A
25.21	Replacement: In the first paragraph, replace “The space for the connection of supply cords having type X attachment, or for the connection of fixed wiring, shall be constructed” with; Except the construction of class 0I appliance drawing out an earthing lead conductor from the inside of appliance or the construction of class 0I appliance equipped with an external earting terminal, the space for the connection of supply cords having type X attachment, or for the connection of fixed wiring, shall be constructed		N/A
25.22	Addition: In the first paragraph, add the following new dash after the first dash. - not be magnet-type inlet, except the case allowed by the relevant part 2.		N/A
	Addition: In the first paragraph, add the following dash at the end. - be constructed, if it is an appliance inlet complying with JIS C 8283-1, so that no mechanical stress is given to the soldered part of terminal when inserting and pulling out the connector. This excludes the case where the fixation of the appliance inlet does not rely on soldering.		N/A
25.23	Addition: At the end of the first dash, add the following. However, Table 11 does not apply to the interconnection cord if satisfying the following; - that the current carried by the conductor is less than 6 A; and - that the interconnection cord complies with the requirements for the insulation of the conductor of the interconnection cord during the tests of Clause 11 and Clause 17.		N/A
25.25	Replacement: In the second sentence of the first paragraph, replace “listed in IEC/TR 60083” with “specified in 6(1)ニ(ホ)a of Appendix 4 of Interpretation of Ministerial Ordinance establishing Technical Requirements for Electrical		N/A

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	Appliances and Materials (20130605, shokyoku No. 3)".		
26.4	Replacement: Replace the existing NOTE with; NOTE Reshaping of the conductor before its introduction into the terminal, twisting a stranded conductor to consolidate the end, or use of a seaming-terminal by the truss screw shown in Figure B.1 of JIS C 8303 is allowed.		N/A
26.5	Addition: Add the following paragraph after the third paragraph. The test is also applied to earthing conductors.		N/A
	Deletion: Delete the existing NOTE.		N/A
	Replacement In the first sentence of the first paragraph, replace "conductors" with "any of conductors".		N/A
	Replacement: Replace Table 13 with the following:		N/A

Rated current of appliance A	Nominal cross-sectionl area mm^2	
	Flexible coeds	Cable for fixed wiring
S3	0.5 to 0.75	1 to 2.5
>3 and S6	0.75 to 1	1 to 2.5
>6 and S10	1 to 1.5	1 to 2.5
>10 and S16	1.5 to 2.5	1.5 to 4
>16 and S25	2.5 to 4	2.5 to 6
>25 and S32	4 to 6	4 to 10
>32 and S50	6 to 10	6 to 16
>50 and S63	10 to 16	10 to 25

26.7	Addition: At the end of the first paragraph, add the following: However, earthing conductor of class 0I appliances equipped with an external earthing terminal is excluded.		N/A
26.11A	Addition: Add the following new subclause after 26.11. 26.11A Class 0I appliances shall be equipped with a protective earthing terminal in the easily visible section of the enclosure, or an earthing lead conductor. Compliance is checked by inspection and by manual test.		N/A
27.1	Addition: Add the following NOTE 3 after the third paragraph. NOTE 3 Appliances may have connection measures for functional earthig.		N/A

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27.2	Replacement: In the first paragraph, replace “earthing terminals” with “earthing terminals intended for connection of an external conductor”.		N/A
	Replacement: In NOTE 1, replace “For other constructions,” with “For other constructions (for example, the case where a round-type or Y-type crimped terminal is used and it is secured by the head of terminal screw),”		N/A
27.3	Addition: Add the following paragraph after the second paragraph. This requirement applies also to a class 0I appliance which draws out an earthing lead conductor from a plug.		N/A
29.1	Replacement: In the first paragraph, replace the second sentence with the following. However, if the construction is such that the distances could be affected by wear, by distortion, by movement of the parts or during assembly, the impulse voltage test is not applicable for the clearances for rated impulse voltages of 1 500 V and above. For such construction, except lacquered conductors of windings, basic insulation of class 0 appliances, and between the live parts and the accessible metal parts earthed of class 0I appliances, the values for clearance specified in Table 16 are increased by 0,5 mm.		N/A
29.1 Table 15	Addition: Add the following column into Table 15. >300 and S600 | 2500 | 4000 | 6000		N/A
29.1 Table 16	Replacement: In Table 16, replace the column for 1 500 V with the following. 1 500 | 0,5 [c] (1,5) [e]		N/A
	Addition: Add the following into the bottom column of Table 16. [e] The value in the parenthesises applies to: - the basic insulation, if class 0 appliance; and - between the live parts and the earthed accessible metal parts, if class 0I appliance.		N/A
29.1.1	Replacement: Replace the second paragraph with; The clearance at the terminals of tubular sheathed heating elements (sheath heaters) may be reduced to 1,0 mm if the microenvironment is pollution degree 1 and if the value required of clearance exceeds 1,0 mm.		N/A

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29.1.4	Replacement: Replace the fifth paragraph with; The clearance between surfaces of PTC heating elements may be reduced to 1 mm if the value required of clearance exceeds 1,0 mm.		N/A
29.1.5	Replacement: In the first paragraph, replace the existing first dash with; - Table 16 based on the rated impulse voltage in accordance with the rated voltage;		N/A
	Addition: Add the following NOTE 1 after the first dash in the first paragraph. NOTE 1 Clearances for intermediate values of Table 16 may be determined by interpolation, if higher overvoltage than rated impulse voltages is generated as mentioned in NOTE 2 of Table 15.		N/A
	Deletion: Delete the existing NOTE 1 after the third dash.		N/A
29.2.1	Addition: In Table 17, add the following new paragraph before NOTE 1. For working voltage > 50 V and Š 630 V, if the voltage is not specified in the table, the values of creepage distances may be found by interpolation.		N/A
	Deletion: In Table 17, delete the existing NOTE 4.		N/A
29.2.2	Replacement: In the first paragraph, replace “IEC 60664-4” with “JIS C 60664-4 (if a frequency exceeds 30 kHz)”.		N/A
	Addition: Add the following sentence at the end of the first paragraph. However, NOTE 1 of Table 17 does not apply.		N/A
	Deletion: Delete the existing NOTE.		N/A
29.2.3	Replacement: In the first paragraph, replace “IEC 60664-4” with “JIS C 60664-4 (if a frequency exceeds 30 kHz)”.		N/A
	Addition: Add the following sentence at the end of the first paragraph. However, NOTE 1 of Table 17 does not apply.		N/A
	Deletion: Delete the existing NOTE.		N/A
29.2.4	Replacement: In Table 18, replace the existing NOTE 1, NOTE 2, NOTE		N/A

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	3 and NOTE 4 with the following. For PTC heating elements, the creepage distances over the surface of the PTC material need not be greater than the associated clearance for working voltages less than 250 V and for pollution degrees 1 and 2. However, the creepage distances between terminations are those specified in the table. For glass, ceramics and other inorganic insulating materials that do not track, creepage distances need not be greater than the associated clearance. For tracks on printed wiring boards under pollution degree 1 and pollution degree 2 conditions, the values specified in Table F.4 of JIS C 60664-1 apply. For voltages less than 100 V, the values must not be less than those specified for 100 V. For working voltages > 10 V and Š 630 V, if the voltage is not specified in the table, the values of creepage distances may be found by interpolation.		
	Deletion: In Table 18, delete the existing NOTE 1, NOTE 2, NOTE 3 and NOTE 4.		N/A
30	Addition: Add the following NOTE. NOTE Selection and sequence of the tests specified in this clause are shown with figures in Annex O.		N/A
Figure 3	Addition: By deleting N in “L1, L2, L3, N supply voltage with neutral”, add the following. N: neutral of star connection and earth of delta connection		N/A
Figure 4	Addition: By deleting N in “L1, L2, L3, N Supply voltage with neutral”, add the following. N: neutral of star connection and earth of delta connection		N/A
Annex B	Addition: Add the following paragraphs between the existing paragraph and Clause 3. For separable supply units, this annex applies also to the supply unit. This annex does not apply to battery charger to which JIS C 9335-2-29 (see Bibliography)) applies.		N/A
	Deletion: Delete the existing NOTE.		N/A
Annex B 8.2	Replacement: In the last sentence, replace “double insulation or reinforced insulation” with “double insulation or reinforced		N/A

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	insulation (if class 0 appliances, basic insulation)"		
Annex B 30.2	Replacement: In the second sentence, repalce "30.2.2" with "the relevant part 2".		N/A
Annex G 29	Addition: Add the following paragraph after the first paragraph. The values stated for pollution degree 2 are applicable.		N/A
	Deletion: Delete the existing NOTE.		N/A
Annex P	Addition: At the end of NOTE, add the following. In Japan, normally this annex does not apply.		N/A
Annex R R.2.2.1	Replacement: In the second paragraph, replace "the source code" with "the source code or documents".		N/A
Annex R R.2.2.2	Replacement: In the second paragraph, replace "the source code" with "the source code or documents".		N/A
Annex R R.2.2.3	Replacement: In the second paragraph, replace "the source code" with "the source code or documents".		N/A
Annex R R.2.2.4	Addition: Add the following after the first paragraph. In the case where other measures than those specified as acceptable measures in Table R.1 and Table R.2 apply, it is acceptable if the measures is proved that dealing of the fault/error conditions which are identified by the measures are possible.		N/A
	Replacement: In the last paragraph, replace "the source code" with "the source code or documents".		N/A
Annex R Table R.1	Replacement: For 5.1, 6.1, 6.2 and 7.2 which are shown as VOID, replace with the following.		N/A

5.1 Data	Stuck at	Word protection with single bit redundancy	H.2.19.8.2
6.1 Data	Hamming distance 3	Word protection with multi- bit redundancy, or CRC-single word, or transfer redundancy, or protocol test	H.2.19.8.1 H.2.19.4.1 H.2.18.2.2 H.2.18.14
6.2 Addressing	Wrong address	Word protection with multi-bit redundancy including the address, or CRC-single word, including the address, or transfer redundancy, or protocol test	H.2.19.8.1 H.2.19.4.1 H.2.18.2.2 H.2.18.14
7.1 Digital I/O	Fault conditions specified in 19.11.2	Plausibility check	H.2.18.13

Annex R	Replacement:		N/A

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Table R.2	Replace 6.2 with the following.					
	6.2 Addressing	Wrong address and multiple addressing	CRC-doubleword,including the address, or full bus redundancy of data and address, or comp aris on of redundant communication channels by either -reciprocal comparison -in dependent hardware comparator	H.2.19.4.2 H.2.18.1.1 H.2.18.15 H.2.18.3		N/A
Annex R R.2.2.5	Replacement: In the second paragraph, replace “the source code” with “the source code or documents“.					N/A
Annex R R.2.2.6	Replacement: In the second paragraph, replace “the source code” with “the source code or documents“.					N/A
Annex R R.2.2.7	Replacement: In the second paragraph, replace “the source code” with “the source code or documents“.					N/A
Annex R R.2.2.8	Replacement: In the second paragraph, replace “the source code” with “the source code or documents“.					N/A
Annex R R.2.2.9	Replacement: In the second paragraph, replace “the source code” with “the source code or documents“.					N/A
Annex R R.3.2.3.1	Addition: Add the following new paragraph after NOTE 2. The module design shall specify: ● function(s), ● interfaces to other modules, ● data.					N/A
	Deletion: Delete the existing NOTE 3.					N/A
Annex JA	Addition: Add new Annex JA as follows. Annex JA (normative) Test method for Heat Sensing Wires Appliances which use a heat sensing wire are subjected to the following tests. For heat sensing wires divided into 10 pieces of equal length, the dispersion of the operating temperature measured of each specimen shall be within the allowable tolerance specified in Table JA.1. Table JA.1 – Allowable tolerance of operating temperature					N/A

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Clause	Requirement + Test	Result - Remark	Verdict

Mean of operating temperature(℃)	Allowable tolerance(℃)
Those equal to or less than 120	±7
Those exceeding 120	±10

Measurement method of the operating temperature of the heat sensing wires is specified in Table JA.2.

Table JA.2 – Measurement method of operating temperature of heat sensing

N/A

Heat sensing system	Measurement method
System which the heat sensing strands are short-circuited by melting of the insulation between the heat sensing strands, or which the resistance between the hear sensing strands decreases remarkably by the melting	For the test specimens of heat sensing wires, cut the whole length of heat sensing wire evenly into 10 pieces so that each has a length of 20 cm, except the terminal treatment parts at both ends. And, mount the specimen to the device shown in Figure JA.A. Then, to the specimen, supply at the voltage equal to the rated voltage of the cuircuit which the heat sensing wire is connected and at the current equal to the rated current of the cuircuit connected Moreover, under this operating state ,raise the temperature of the specimen of heat sensing wire at a rate of 1℃ per minute of the heat sensing wire. However, if heat sensing wires cause error in the operating temperature by cutting, not cut the heat sensing wire. And, set up a specimen of the specified length in a thermostatic chamber, and measure.
System which utilizes change of electrical characteristics (resistance, capacitance, impedance, etc.) caused by the temperature of the insulation between the heat sensing strands, or which utilizes change of electrical characteristics caused by the temperature of the heat sensing strand itself	1) Divide the whole length of heat sensing wire evenly into 10 pieces, place each specimen into a thermostatic chamber of the temperature equal to ±2℃ of the nominal operating temperature of the heat sensing wire for 1h, and then measure the electrical characteristics in the chamber. 2) Take out a specimen that shows a characteristics value most close to the average of 10 values measured during the procedure of 1). Maintain the specimen in a thermostatic chamber at the nominal operating temperature of the heat sensing wire plus (15±2℃)and also minus(-15±2℃)each for 1 h, and then measure the electrical characteristic in the chamber. 3) Prepare a graph showing the relation between the temperature and the electrical characteristic value as shown in Figure JA.2, according to the results of 1) and 2). And , convert the deviation of the electrical characteristic Value into that of the temperature as of follows: 4) –(a, b) between- 15℃ and the mean, for the electeic characteristic value being lower than the mean.

.NOTE Impedance measurement with a, c, is recommended.

N/A

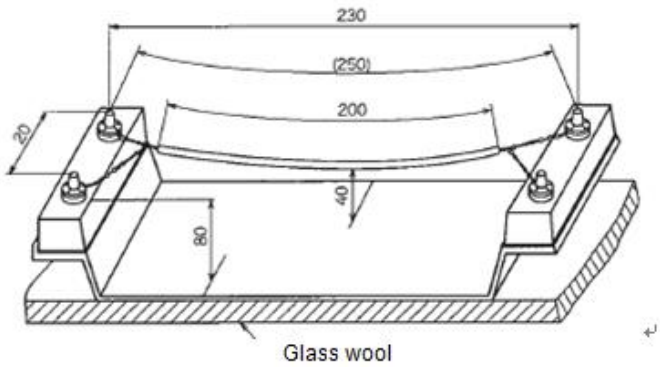

Figure JA.1-Test stand

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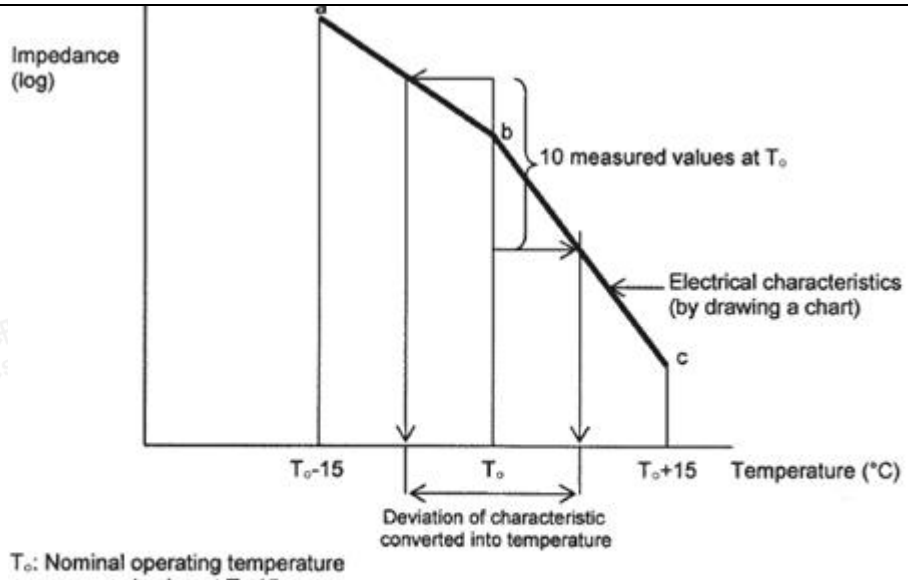
Clause	Requirement + Test	Result - Remark	Verdict

	 T_o: Nominal operating temperature a: measured value at T_o-15 b: mean value of measurement of 10 times c: measured value at T_o+15 Figure JA.2 – Temperature and electrical characteristics		N/A
Bibliography	Replacement: Among the IEC standards listed in IEC 60335- 1:2010, replace as follows: - IEC 60364 with JIS C 0364 (MOD) - IEC 60998-2-1 with JIS C 2814-2-1 (MOD) - IEC 60998-2-2 with JIS C 2814-2-2 (MOD) - IEC 60034-1 with JIS C 4034-1 (MOD) - IEC 60950-1 with JIS C 6950-1 (MOD) - IEC 61029 with JIS C 9029 (MOD) - IEC 60335-2-29 with JIS C 9335-2-29 (MOD) - IEC 60730 with JIS C 9730 (MOD) - IEC 60745 with JIS C 9745 (MOD) - IEC 60721-2-1 with JIS C 60721-2-1 (MOD) - IEC 61000-3-2 with JIS C 61000-3-2 (MOD) - IEC 60601 with JIS T 0601 (MOD)		N/A
	Addition: Add the following. - JIS C 8105-1 (corresponding to IEC 60598-1; MOD)		N/A

Attachment No.2: Japanese National Deviations J60335-2-23(H29)			
Clause	Requirement + Test	Result - Remark	Verdict
6.1	Replace first dashed sentence with the following. – hairdryers, curling irons, curling combs, facial saunas and other steam-producing or spray-producing appliances shall be Class 0, class II or class III. However, fixed hairdryers intended to be permanently connected to fixed wiring, helmet-type hairdryers for hairdressers and steam-producing or spray-producing appliances for hairdressers may be class I;		P
	Add the following sentence to the end of this sub-clause. -Stationary appliances with metal enclosure shall be Class 0I, Class I, Class II or Class III.		N/A
7.12	Replace second dashed sentence with the following. -It is not apply		N/A
22.32	Replace the first paragraph with the following. Supplementary insulation and reinforced insulation in class II curling irons and basic insulation in class 0 curling irons shall be resistant to aging.		N/A
	Replace last paragraph with the following. The samples shall show no cracks and shall withstand the electric strength test of 16.3 for supplementary insulation and basic insulation for class 0 appliances.		N/A
22.36	Replace this sub-clause with the following. For class 0I and class I appliances, other than hand dryers and face dryers, metal parts that could be in contact with skin or hair in normal use shall be separated from live parts by double insulation or reinforced insulation and shall not be earthed.		N/A
25.14	Replace the last paragraph with the following. Unless incorporating a swivel connection, hand-held appliances are additionally tested while mounted on an apparatus similar to that of Figure 8 with the supply cord hanging vertically and loaded with a force of 5 N.		N/A

Attachment No.3:

Photo Document

Details of: Overview

Details of: Overview

Attachment No.3:

Photo Document

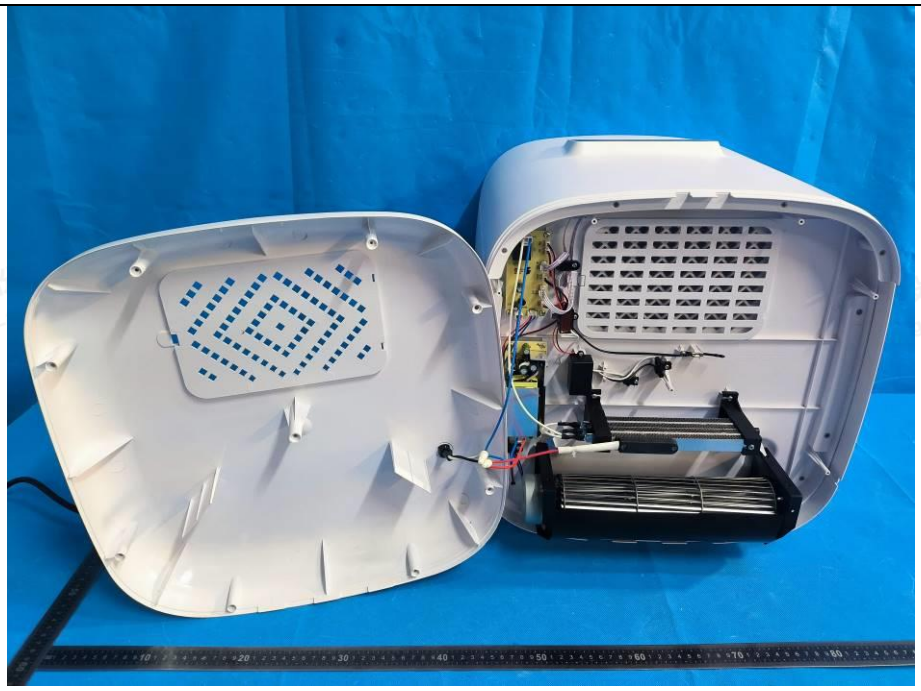
Details of: Internal view

Details of: Internal view

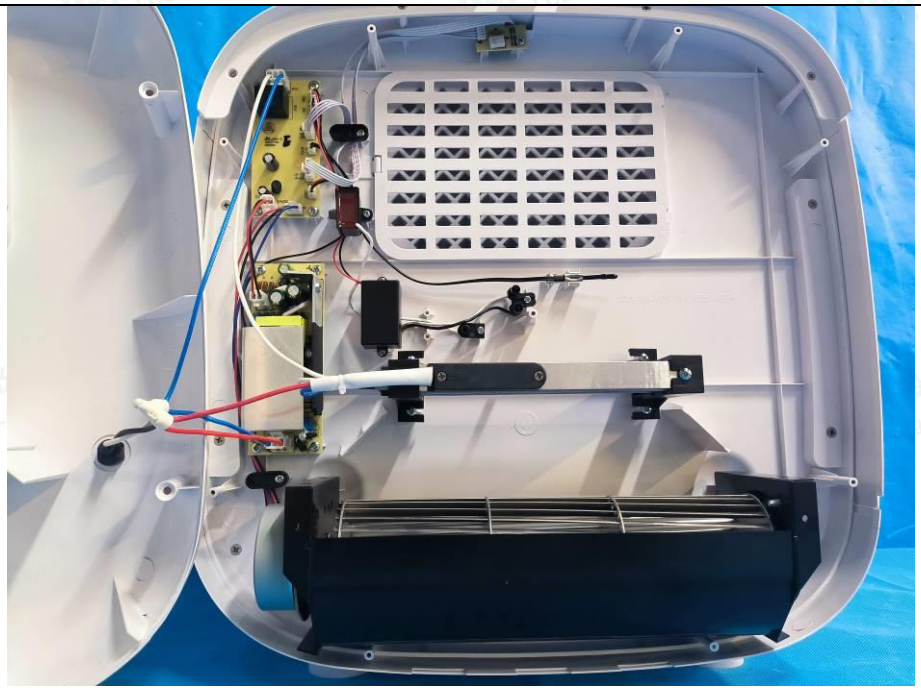
Attachment No.3:

Photo Document

Details of: Internal view



Details of: Internal view



----End of test report---