

## TEST REPORT

<b>IEC 60335-2-60</b> <b>Household and similar electrical appliances – Safety –</b> <b>Part 2-60: Particular requirements for whirlpool baths and whirlpool spas</b>	
<b>Report Number</b> .....	<b>APP-190620-00006</b>
<b>Date of issue</b> .....	30 August 2019
<b>Total number of pages</b> .....	76
<b>Contact person</b> .....	SG Hlatshwayo 012 428-6059
<b>Applicant's name</b> .....	<b>Sprigg Investments 117 CC t/a Global Investments CC</b>
<b>Address</b> .....	15 CTI Business Park 69 Vasco Boulevard, Goodwood, Cape town, 7460
<b>Summary of test results</b> .....	The sample tested complied with the requirements of <b>SANS/IEC 60335-2-60:2009/2008</b> and <b>SANS/IEC 60335-1:2018/2016</b>
<b>Test specification:</b>	
<b>Standard</b> .....	SANS/IEC 60335-2-60:2009/2008 in conjunction with SANS/IEC 60335-1:2018/2016
<b>Test procedure</b> .....	SANAS Scheme
<b>Test Report Form(s) Originator</b> .....	IMQ S.p.A.
<b>Master TRF</b> .....	Dated 2019-06-14
<b>Date of receipt</b> .....	<b>2019-06-03</b>
<b>Test start date</b> .....	<b>2019-08-12</b>
<b>Test completion date</b> .....	<b>2019-08-30</b>
<b>Test item description</b> .....	<b>Ozone Spa Machine</b>
<b>Trade Mark</b> .....	Aqua Ozone
<b>Manufacturer</b> .....	Angelica Co
<b>Country of Origin</b> .....	Made in Taiwan
<b>Model/Type reference</b> .....	Elite
<b>Ratings</b> .....	220-240V~ 50Hz 400W 2.3A IPX4

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**T0066**

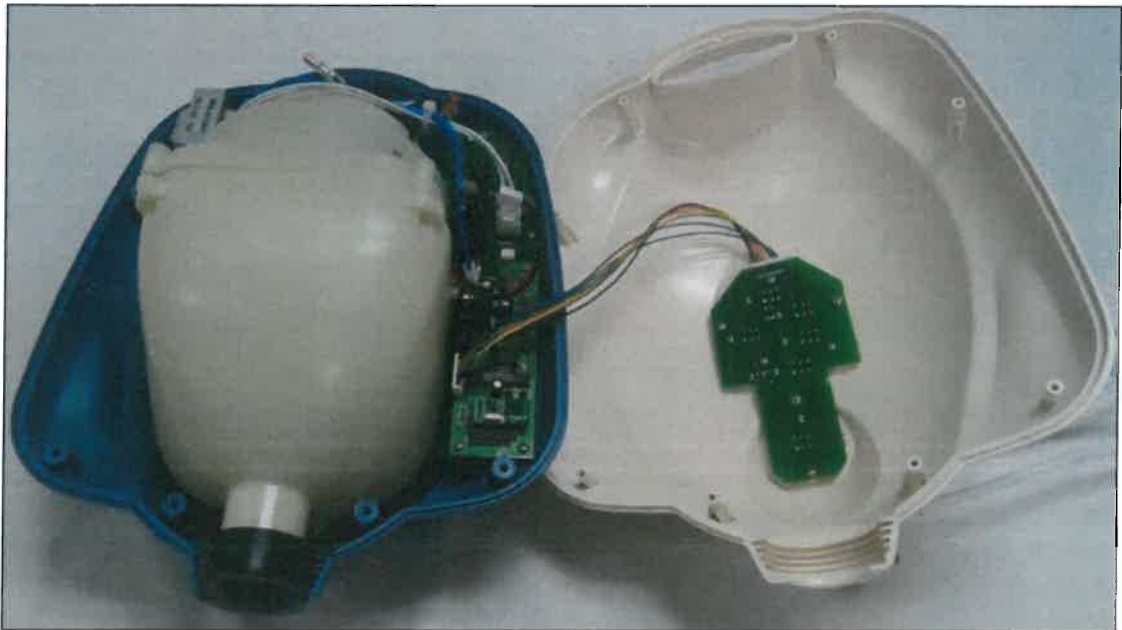
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**SAMPLE PICTURES**



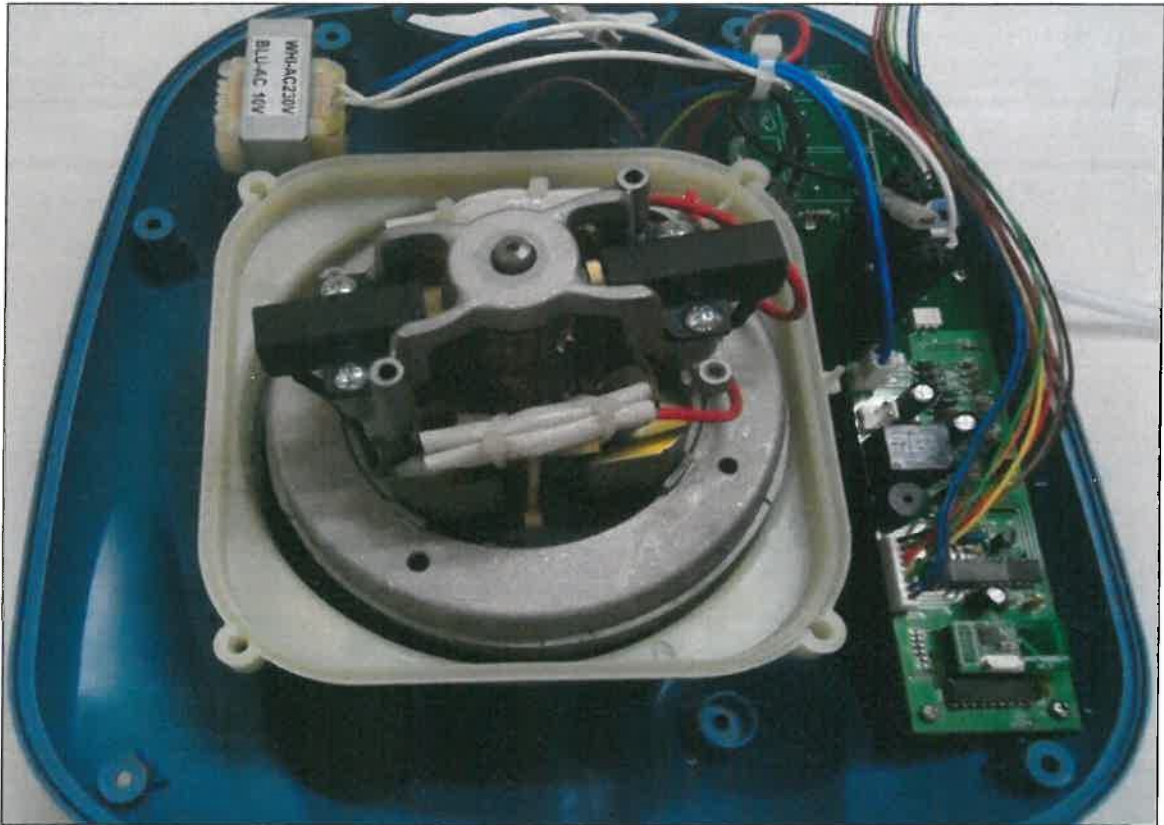
**Full view**



**Internal view 1**

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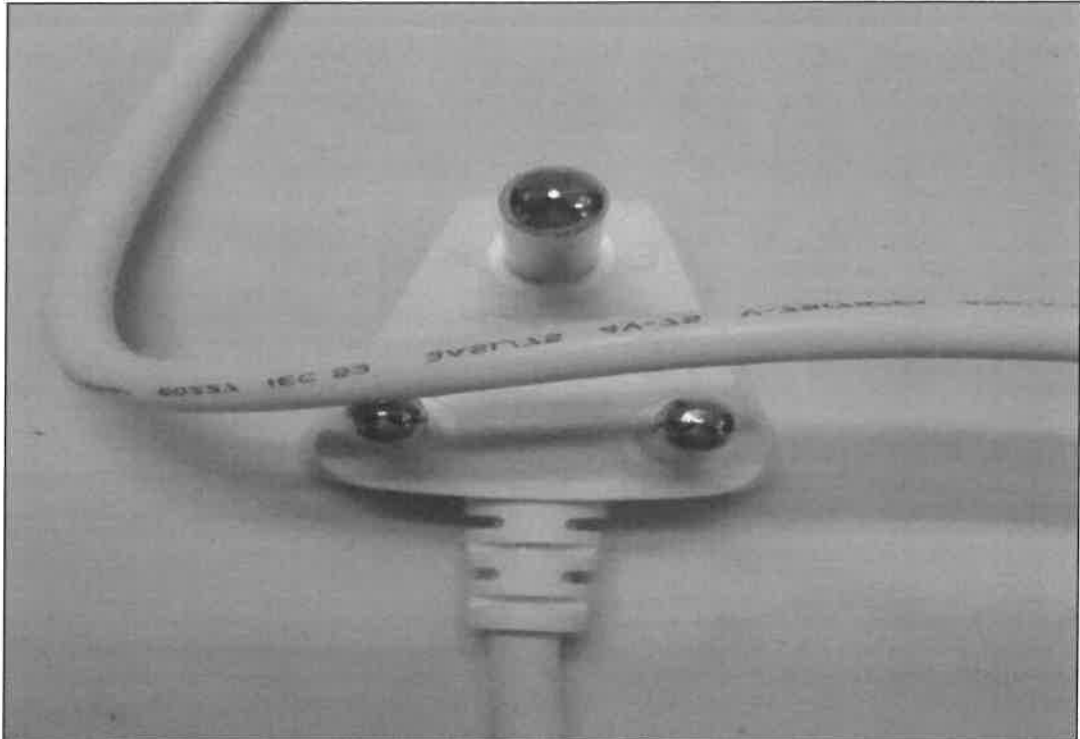


Internal view 2



Rating label

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Supply cord and plug

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<b>Test item particulars:</b>	
Classification of installation and use.....: Stationary appliance	
Supply Connection.....: Supply cord and plug	
.....:	
<b>Possible test case verdicts:</b>	
- test case does not apply to the test object ..... : N/A or N	
- test object does meet the requirement ..... : P (Pass)	
- test object does not meet the requirement ..... : F (Fail)	
<b>General remarks:</b>	
"(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 <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.	
<b>Manufacturer's Declaration per Sub-clause 4.2.5 of IEC 60335-1:</b>	
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.....:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
<b>When differences exist; they shall be identified in the General product information section.</b>	
Name and address of factory (ies)..... : N/A	
<b>General product information:</b>	
The sample was received in good working condition.	
<b>Note:</b> It was observed that even though the sample was classified as Class I, some of the testing requirements of a Class I product cannot be performed, such as Clause 27.5 as the earth terminal connects only to the PCB. Overall, the appliance has a well-insulated closure.	

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
<b>5</b>	<b>GENERAL CONDITIONS FOR THE TESTS</b>		
	Tests performed according to Clause 5, e.g. nature of supply, sequence of testing, etc.	Complied	P
5.7	If the tests are influenced by the temperature of the water, it is maintained at 40 °C (IEC 60335-2-60)	Not applicable	N/A
	Or at the maximum value allowed by the control (IEC 60335-2-60)	Not applicable	N/A
5.10	A class III construction part of the appliance is tested connected to its detachable power supply part taking into account the instructions provided with the appliance (IEC 60335-1/A2:2016)	Not applicable	N/A
<b>6</b>	<b>CLASSIFICATION</b>		
6.1	Protection against electric shock: Class 0, 0I, I, II, III..... :	Class I	P
	If an appliance consists of a part of class III construction and a detachable power supply part, the complete appliance is classified as a class I appliance or class II appliance in accordance with the classification applicable to its detachable power supply part (IEC 60335-1/A2:2016)	Not applicable	N/A
6.1	Portable appliances: protection against electric shock: Class II, III..... : (IEC 60335-2-60)	Not applicable	N/A
	Stationary appliances: protection against electric shock: Class I, II, III .....: (IEC 60335-2-60)	Class I	P
6.2	Protection against harmful ingress of water	IPX4	P
	Whirlpool bath and whirlpool spa appliances at least IPX5 (IEC 60335-2-60/A1)	Not applicable	N/A
	Other appliances at least IPX4 (IEC 60335-2-60/A1)	Complied	P
<b>7</b>	<b>MARKING AND INSTRUCTIONS</b>		
7.1	Rated voltage or voltage range (V)..... :	220-240V	P
	Symbol for nature of supply, or..... :	~	P
	Rated frequency (Hz)..... :	50Hz	P
	Rated power input (W), or..... :	400W	P
	Rated current (A) ..... :	2,3A	P

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	Manufacturer's or responsible vendor's name, trademark or identification mark .....	Aqua Zone	P
	Model or type reference .....	Elite	P
	Symbol IEC 60417-5172, for class II appliances	Not applicable	N/A
	IP number, other than IPX0 .....	IPX4	P
	Symbol IEC 60417-5180 (2003-02), for class III appliances, unless	Not applicable	N/A
	the appliance is operated by batteries only, or	Not applicable	N/A
	for appliances powered by rechargeable batteries recharged in the appliance (IEC 60335-1/A2:2016)	Not applicable	N/A
	Class II appliances and class III appliances incorporating a functional earth marked with the symbol IEC 60417-5018 (2011-07) (IEC 60335-1/A1)	Not applicable	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	Not applicable	N/A
7.2	Warning for stationary appliances for multiple supply	Not applicable	N/A
	Warning placed in vicinity of terminal cover	Not applicable	N/A
7.3	Range of rated values marked with the lower and upper limits separated by a hyphen	Complied	P
	Different rated values marked with the values separated by an oblique stroke	Not applicable	N/A
7.4	Appliance adjustable for different rated voltages or rated frequencies, the voltage or the frequency is clearly discernible (IEC 60335-1/A1)	Not applicable	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 (IEC 60335-1/A1)	Not applicable	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	Not applicable	N/A
	the power input is related to the arithmetic mean value of the rated voltage range	Complied	P

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	Relation between marking for upper and lower limits of rated power input or rated current and voltage is clear	Not applicable	N/A
7.6	Correct symbols used	Complied	P
	Symbol for nature of supply placed next to rated voltage	Complied	P
	Symbol for class II appliances placed unlikely to be confused with other marking	Not applicable	N/A
	Units of physical quantities and their symbols according to international standardized system	Complied	P
7.7	Connection diagram fixed to appliances to be connected to more than two supply conductors and appliances for multiple supply, unless	Not applicable	N/A
	correct mode of connection is obvious	Not applicable	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)	Complied	P
	- marking of protective earthing terminals (symbol IEC 60417-5019)	Complied	P
	- markings of functional earthing terminals (symbol IEC 60417-5018) (IEC 60335-1/A1)	Not applicable	N/A
	markings not placed on removable parts	Complied	P
7.9	Marking or placing of switches which may cause a hazard	Not applicable	N/A
7.10	Indications of switches on stationary appliances and controls on all appliances by use of figures, letters or other visual means..... :	Complied	P
	This applies also to switches which are part of a control	Not applicable	N/A
	If figures are used, the off position indicated by the figure 0	Complied	P
	<b>The figure 0 indicates only OFF position, unless no confusion with the OFF position</b>	Complied	P
7.11	Indication for direction of adjustment of controls	Complied	P
7.12	Instructions for safe use provided	Complied	P
	Details concerning precautions during user maintenance	Complied	P

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	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	Complied	P
	- children being supervised not to play with the appliance	Complied	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	Not applicable	N/A
	Instructions for class III appliances state that it must only be supplied at SELV, unless	Not applicable	N/A
	it is a battery-operated appliance, the battery being charged outside the appliance	Not applicable	N/A
	For appliances intended for use at altitudes exceeding 2 000 m, the maximum altitude of use shall be stated. (IEC 60335-1/A1)	Not applicable	N/A
	Instructions for appliances incorporating a functional earth (IEC 60335-1/A1)	Not applicable	N/A
	Instructions providing cleaning details and other maintenance (IEC 60335-2-60)	Not applicable	N/A
	Instructions for portable appliances states that no part of the appliance is to be located above the bath during use (IEC 60335-2-60)	Not applicable	N/A
	Instructions for whirlpool spas providing information concerning: (IEC 60335-2-60/A1)		
	- Maintenance of water purity, especially pH values and chlorine concentrations	Not applicable	N/A
	- Cleaning and disinfection	Not applicable	N/A
	- Use and installation of a cover	Not applicable	N/A
	- Disposal of water	Not applicable	N/A
	- Precaution to avoid damage due to water freezing	Not applicable	N/A
	- Precaution to avoid damage when the appliance is left empty for an extended period	Not applicable	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	the maximum altitude of use shall be stated. For appliances intended for use at altitudes exceeding 2 000 m, The instructions for appliances incorporating a functional earth shall state the substance of the following: This appliance incorporates an earth connection for functional purposes only	Not applicable	N/A
7.12.1	Sufficient details for installation supplied	Complied	P
	For an appliance intended to be permanently connected to the water mains and not connected by a hose-set, this is stated	Not applicable	N/A
	Instructions to adjust the appliance for operation at the required rated voltage or rated frequency (IEC 60335-1/A1)	Not applicable	N/A
	- parts containing live parts, except parts supplied with safety extra-low voltage not exceeding 12 V, must be inaccessible to a person in the bath (IEC 60335-2-60)	Not applicable	N/A
	- earthed appliances must be permanently connected to fixed wiring (IEC 60335-2-60)	Complied	P
	- parts incorporating electrical components, except remote control devices, must be located or fixed so that they cannot fall into the bath (IEC 60335-2-60)	Complied	P
	- the appliance should be supplied through a residual current device (RCD) with a rated tripping current not exceeding 30 mA (IEC 60335-2-60)	Complied	P
	Instruction giving details on how to follow the wiring rules (IEC 60335-2-60)	Not applicable	N/A
	Instructions ensuring that the installation is in the correct zone and that equipotential bonding is carried out (IEC 60335-2-60)	Not applicable	N/A
	Instructions for installation how to fix the appliance (IEC 60335-2-60)	Complied	P
	Installation instructions for whirlpool spas stating that: (IEC 60335-2-60)		
	- the floor has to be capable of supporting the expected load (IEC 60335-2-60/A1)	Not applicable	N/A
	- an adequate drainage system has to be provided to deal with overflow water (IEC 60335-2-60/A1)	Not applicable	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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	Not applicable	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	Not applicable	N/A
7.12.4	Instructions for built-in appliances:		
	- dimensions of space	Not applicable	N/A
	- dimensions and position of supporting and fixing	Not applicable	N/A
	- minimum distances between parts and surrounding structure	Not applicable	N/A
	- minimum dimensions of ventilating openings and arrangement	Not applicable	N/A
	- connection to supply mains and interconnection of separate components	Not applicable	N/A
	- allow disconnection of the appliance after installation, by accessible plug or a switch in the fixed wiring, unless	Not applicable	N/A
	a switch complying with 24.3	Not applicable	N/A
7.12.5	Replacement cord instructions, type X attachment with a specially prepared cord	Not applicable	N/A
	Replacement cord instructions, type Y attachment	Complied	P
	Replacement cord instructions, type Z attachment	Not applicable	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	Not applicable	N/A
7.12.7	Instructions for fixed appliances stating how the appliance is to be fixed	Complied	P
7.12.8	Instructions for appliances connected to the water mains:		
	- max. inlet water pressure (Pa).....: :	Not applicable	N/A
	- min. inlet water pressure, if necessary (Pa) .....: :	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	Instructions concerning new and old hose-sets for appliances connected to the water mains by detachable hose-sets	Not applicable	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 (IEC 60335-1/A2:2016)	Complied	P
	These instructions may be supplied with the appliance separately from any functional use booklet (IEC 60335-1/A2:2016)	Complied	
	They may follow the description of the appliance that identifies parts, or follow the drawings/sketches common to the languages of the instructions (IEC 60335-1/A2:2016)	Complied	P
	In addition, instructions are also available in an alternative format such as on a website or in a format such as a DVD.....: (IEC 60335-1/A2:2016)	Complied	P
7.13	Instructions and other texts in an official language	English	P
7.14	Marking clearly legible and durable, rubbing test as specified	Complied	P
	Signal words WARNING, CAUTION, DANGER in uppercase having a height as specified .....: (IEC 60335-1/A2:2016)	Not applicable	N/A
	Uppercase letter of the text explaining the signal word not smaller than 1,6 mm (IEC 60335-1/A2:2016)	Not applicable	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 (IEC 60335-1/A2:2016)	Not applicable	N/A
	contrasting colours are used (IEC 60335-1/A2:2016)	Not applicable	N/A
	Markings checked by inspection, measurement and rubbing test as specified (IEC 60335-1/A2:2016)	Complied	P
7.15	Markings on a main part	Complied	P
	Marking clearly discernible from the outside, if necessary after removal of a cover	Complied	P
	For portable appliances, cover can be removed or opened without a tool	Not applicable	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	For stationary appliances, name, trademark or identification mark and model or type reference visible after installation	Complied	P
	For fixed appliances, name, trademark or identification mark and model or type reference visible after installation according to the instructions	Not applicable	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	Complied	P
	The symbol IEC 60417-5018 (2011-07) shall be placed next to the symbol IEC 60417-5172 (2003-02) or the symbol IEC 60417-5180 (2003-02) as appropriate (IEC 60335-1/A1)	Not applicable	N/A
7.16	Marking of a possible replaceable thermal link or fuse link clearly visible with regard to replacing the link	Not applicable	N/A
<b>8</b>	<b>PROTECTION AGAINST ACCESS TO LIVE PARTS</b>		
8.1	Adequate protection against accidental contact with live parts	Complied	P
8.1.1	Requirement applies for all positions, detachable parts removed	Complied	P
	Lamps behind a detachable cover not removed, if conditions met	Not applicable	N/A
	Insertion or removal of lamps, protection against contact with live parts of the lamp cap	Not applicable	N/A
	Use of test probe B of IEC 61032, with a force not exceeding 1 N: no contact with live parts	Complied	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	Not applicable	N/A
	Test probe 13 also applied through openings in earthed metal enclosures having a non-conductive coating: no contact with live parts	Not applicable	N/A
8.1.3	For appliances other than class II, use of test probe 41 of IEC 61032, with a force not exceeding 1 N: no contact with live parts of visible glowing heating elements	Not applicable	N/A

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	For a single switching action obtained by a switching device, requirements as specified (IEC 60335-1/A2:2016)	Not applicable	N/A
	For appliances with a supply cord and without a switching device, the single switching action may be obtained by the withdrawal of the plug from a socket-outlet (IEC 60335-1/A2:2016)	Not applicable	N/A
8.1.4	Energized parts regarded as live parts (IEC 60335-2-60)	Not applicable	N/A
8.1.5	Live parts protected at least by basic insulation before installation or assembly:		
	- built-in appliances	Not applicable	N/A
	- fixed appliances	Complied	P
	- appliances delivered in separate units	Not applicable	N/A
8.2	Class II appliances and constructions constructed so that there is adequate protection against accidental contact with basic insulation and metal parts separated from live parts by basic insulation only	Not applicable	N/A
	Only possible to touch parts separated from live parts by double or reinforced insulation	Not applicable	N/A
<b>9</b>	<b>STARTING OF MOTOR-OPERATED APPLIANCES</b>		
	Requirements and tests are specified in part 2 when necessary	Not applicable	N/A
<b>10</b>	<b>POWER INPUT AND CURRENT</b>		
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 (IEC 60335-1/A1)	Not applicable	N/A
	Otherwise the power input is taken as the arithmetic mean value (IEC 60335-1/A1)	Not applicable	N/A
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless	Not applicable	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	the rated power input is related to the arithmetic mean value	Complied	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)	P
	If the current varies throughout the operating cycle and the maximum value of the current exceeds, by a factor greater than two, the arithmetic mean value of the current occurring during a representative period, then the current is the maximum value that is exceeded for more than 10 % of the representative period (IEC 60335-1/A1)	Not applicable	N/A
	Otherwise the current is taken as the arithmetic mean value (IEC 60335-1/A1)	Not applicable	N/A
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless	Not applicable	N/A
	the rated current is related to the arithmetic mean value of the range	Complied	P
<b>11</b>	<b>HEATING</b>		
11.1	No excessive temperatures in normal use	Complied	P
11.2	The appliance is held, placed or fixed in position as described .....	Complied	P
11.3	Temperature rises, other than of windings, determined by thermocouples	Complied	P
	Temperature rises of windings determined by resistance method, unless	Not applicable	N/A
	the windings are non-uniform or it is difficult to make the necessary connections	Complied	P
11.4	Heating appliances operated under normal operation at 1.15 times rated power input (W) .... :	Not applicable	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) .....	Complied	P
11.6	Combined appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage (V) .....	Not applicable	N/A
11.7	Operation duration corresponding to the most unfavourable conditions of normal use	Complied	P

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
11.8	Temperature rises monitored continuously and not exceeding the values in Table 3 .....	(see appended table)	
	If the temperature rise of a motor winding exceeds the value of Table 3, or	Not applicable	N/A
	if there is doubt with regard to classification of insulation,	Not applicable	N/A
	tests of Annex C are carried out	Not applicable	N/A
	Sealing compound does not flow out	Not applicable	N/A
	Protective devices do not operate, except	Not applicable	N/A
	components in protective electronic circuits tested for the number of cycles specified in 24.1.4	Not applicable	N/A
	In appliances incorporating heating element the water temperature at the inlet of the bath or spa not exceed 50 °C (IEC 60335-2-60/A1)	Not applicable	N/A
<b>13</b>	<b>LEAKAGE CURRENT AND ELECTRIC STRENGTH AT OPERATING TEMPERATURE</b>		
13.1	Leakage current not excessive and electric strength adequate	Complied	P
	Heating appliances operated at 1.15 times the rated power input (W) .....	Not applicable	N/A
	Motor-operated appliances and combined appliances supplied at 1.06 times the rated voltage (V) .....	Complied	P
	Protective impedance and radio interference filters disconnected before carrying out the tests	Not applicable	N/A
13.2	The leakage current is measured by means of the circuit described in Figure 4 of IEC 60990:1999 (IEC 60335-1/A2:2016)	Complied	P
	For class 0I appliances and class I appliances, except parts of class II construction, C may be replaced by a low impedance ammeter (IEC 60335-1/A2:2016)	Complied	P
	Leakage current measurements .....	(see appended table)	P
13.3	The appliance is disconnected from the supply	Complied	P
	Electric strength tests according to Table 4.....	(see appended table)	P
	No breakdown during the tests	Complied	P
<b>14</b>	<b>TRANSIENT OVERVOLTAGES</b>		

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliances withstand the transient over-voltages to which they may be subjected	Not applicable	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	Not applicable	N/A
	of functional insulation if the appliance complies with Clause 19 with the clearance short-circuited	Not applicable	N/A
<b>15</b>	<b>MOISTURE RESISTANCE</b>		
15.1	Enclosure provides the degree of moisture protection according to classification of the appliance	Complied	P
	Compliance checked as specified in 15.1.1, taking into account 15.1.2, followed by the electric strength test of 16.3	Complied	P
	No trace of water on insulation which can result in a reduction of clearances or creepage distances below values specified in Clause 29	Complied	P
	Traces of water on insulation in components operating at safety extra-low voltage not exceeding 12 V are ignored (IEC 60335-2-60)	Not applicable	N/A
15.1.1	Appliances, other than IPX0, subjected to tests as specified in IEC 60529 .....	Complied	P
	Water valves containing live parts in external hoses for connection of an appliance to the water mains tested as specified for IPX7 appliances	Not applicable	N/A
15.1.2	Hand-held appliance turned continuously through the most unfavourable positions during the test	Not applicable	N/A
	Built-in appliances installed according to the instructions	Not applicable	N/A
	Appliances placed or used on the floor or table placed on a horizontal unperforated support	Not applicable	N/A
	Appliances normally fixed to a wall and appliances with pins for insertion into socket-outlets are mounted on a wooden board	Complied	P
	For IPX3 appliances, the base of wall mounted appliances is placed at the same level as the pivot axis of the oscillating tube	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	For IPX4 appliances, the horizontal centre line of the appliance is aligned with the pivot axis of the oscillating tube, and	Complied	P
	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	Not applicable	N/A
	Wall-mounted appliances, take into account the distance to the floor stated in the instructions	Not applicable	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	Not applicable	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	Report No: EPT-190826-00019	P
	Appliances with type X attachment fitted with a flexible cord as described	Not applicable	N/A
	Detachable parts subjected to the relevant treatment with the main part	Not applicable	N/A
	However, if a part has to be removed for user maintenance and a tool is needed, this part is not removed	Not applicable	N/A
	Whirlpool bath and whirlpool spas are tested without side panels fitted unless they are integral part of the appliance (IEC 60335-2-60/A1)	Not applicable	N/A
15.2	Spillage of liquid does not affect the electrical insulation	Not applicable	N/A
	Appliances with type X attachment fitted with a flexible cord as described	Not applicable	N/A
	Appliances incorporating an appliance inlet tested with or without a connector, whichever is most unfavourable	Not applicable	N/A
	Detachable parts are removed	Not applicable	N/A
	Overfilling test with additional amount of water, over a period of 1 min (I)..... :	Not applicable	N/A
	The appliance withstands the electric strength test of 16.3	Not applicable	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	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
15.3	Appliances proof against humid conditions	Complied	P
	Checked by test Cab: Damp heat steady state in IEC 60068-2-78	Complied	P
	Detachable parts removed and subjected, if necessary, to the humidity test with the main part	Not applicable	N/A
	Humidity test for 48 h in a humidity cabinet	Complied	P
	Reassembly of those parts that may have been removed	Not applicable	N/A
	The appliance withstands the tests of Clause 16	Complied	P
<b>16</b>	<b>LEAKAGE CURRENT AND ELECTRIC STRENGTH</b>		
16.1	Leakage current not excessive and electric strength adequate	Complied	P
	Protective impedance disconnected from live parts before carrying out the tests	Complied	P
	Tests carried out at room temperature and not connected to the supply	Complied	P
16.2	Single-phase appliances: test voltage 1.06 times rated voltage (V) .....	Complied	P
	Three-phase appliances: test voltage 1.06 times rated voltage divided by $\sqrt{3}$ (V) .....	Not applicable	N/A
	Leakage current measurements .....	(see appended table)	P
	Limit values doubled if:		
	- all controls have an off position in all poles, or	Not applicable	N/A
	- the appliance has no control other than a thermal cut-out, or	Not applicable	N/A
	- all thermostats, temperature limiters and energy regulators do not have an OFF position, or	Not applicable	N/A
	- the appliance has radio interference filters	Not applicable	N/A
	With the radio interference filters disconnected, the leakage current does not exceed limits specified . :	(see appended table)	N/A
16.3	Electric strength tests according to Table 7..... :	(see appended table)	P
	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	Complied	P
<b>17</b>	<b>OVERLOAD PROTECTION OF TRANSFORMERS AND ASSOCIATED CIRCUITS</b>		

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	No excessive temperatures in transformer or associated circuits in event of short-circuits likely to occur in normal use .....	(see appended table)	N/A
	Appliance supplied with 1.06 or 0.94 times rated voltage under the most unfavourable short-circuit or overload likely to occur in normal use (V) .....	Not applicable	N/A
	Basic insulation is not short-circuited	Not applicable	N/A
	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	Not applicable	N/A
	Temperature of the winding not exceeding the value specified in Table 8	Not applicable	N/A
	However, limits do not apply to fail-safe transformers complying with Sub-clause 15.5 of IEC 61558-1	Not applicable	N/A
	Test repeated with chlorinator cells loaded so that the current is 95 % of the lowest current that causes a protective device to operate (IEC 60335-2-60/A1)	Not applicable	N/A
	Test is continued until steady conditions are established (IEC 60335-2-60/A1)	Not applicable	N/A
<b>18</b>	<b>ENDURANCE</b>		
	This clause of Part 1 is not applicable (IEC 60335-2-60)	Not applicable	N/A
<b>19</b>	<b>ABNORMAL OPERATION</b>		
19.1	The risk of fire, mechanical damage or electric shock under abnormal or careless operation obviated	Complied	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	Not applicable	N/A
	if the appliance also has a control that limit the temperature during clause 11 it is subjected to the test of 19.4, and	Not applicable	N/A
	if applicable, to the test of 19.5	Not applicable	N/A
	Appliances incorporating PTC heating elements are also subjected to the test of 19.6	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliances incorporating motors subjected to the tests of 19.7 to 19.10, as applicable	Complied	P
	Appliances incorporating electronic circuits subjected to the tests of 19.11 and 19.12, as applicable	Complied	P
	Appliances incorporating contactors or relays subjected to the test of 19.14, being carried out before the tests of 19.11	Complied	P
	Appliances incorporating voltage selector switches subjected to the test of 19.15	Not applicable	N/A
	Unless otherwise specified, the tests are continued until a non-self-resetting thermal cut-out operates, or	Complied	P
	until steady conditions are established	Not applicable	N/A
	If a heating element or intentionally weak part becomes open-circuited, the relevant test is repeated on a second sample	Not applicable	N/A
	If the control performs more than one function, only that aspect of the control under consideration is rendered inoperative. Other functions of the control may continue to operate normally (IEC 60335-1/A2:2016)	Not applicable	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)..... :	Not applicable	N/A
	Appliances in which water is circulated, bath or spa is filled and operated, after which it is switched off and the bath emptied (IEC 60335-2-60/A1)	Not applicable	N/A
	Heating elements are then switched on (IEC 60335-2-60)	Not applicable	N/A
	The pump being operated or at rest whichever more unfavourable (IEC.60335-2-60)	Not applicable	N/A
	Appliances in which air is circulated, air inlets and outlets are blocked (IEC 60335-2-60)	Not applicable	N/A
	Heating elements are then switched on (IEC 60335-2-60)	Not applicable	N/A
19.3	Test of 19.2 repeated; test voltage (V), power input of 1.24 times rated power input (W) ..... :	Not applicable	N/A
19.4	Test conditions as in Clause 11, any control limiting the temperature during tests of Clause 11 short-circuited	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
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	Not applicable	N/A
	The test repeated with reversed polarity and the other end of the heating element connected to the sheath	Not applicable	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	Not applicable	N/A
19.6	Appliances with PTC heating elements tested at rated voltage, establishing steady conditions	Not applicable	N/A
	The working voltage of the PTC heating element is increased by 5 % and the appliance is operated until steady conditions are re-established. The voltage is then increased in similar steps until 1.5 times working voltage or until the PTC heating element ruptures (V) .....	Not applicable	N/A
19.7	Stalling test by locking the rotor if the locked rotor torque is smaller than the full load torque, or	Not applicable	N/A
	locking moving parts of other appliances	Complied	P
	Locked rotor, capacitors open-circuited one at a time	Not applicable	N/A
	Test repeated with capacitors short-circuited one at a time, unless	Not applicable	N/A
	the capacitor is of class S2 or S3 of IEC 60252-1 (IEC 60335-1/A2:2016)	Not applicable	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 .....	Complied	P
	If the timer or programmer is an electronic type that operates to ensure compliance with the test before the maximum period under the conditions of Clause 11 is reached, it is considered to be a protective electronic circuit as well as a control that operates under the conditions of Clause 11 (IEC 60335-1/A1)	Complied	P
	Other appliances supplied with rated voltage for a period as specified .....	Not applicable	N
	Winding temperatures not exceeding values specified in Table 8 .....	(see appended table)	P

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
19.8	Multi-phase motors operated at rated voltage with one phase disconnected	Not applicable	N/A
19.9	Running overload test on appliances incorporating motors intended to be remotely or automatically controlled or liable to be operated continuously	Not applicable	N/A
	Motor-operated and combined appliances for which 30.2.3 is applicable and that use overload protective devices relying on electronic circuits to protect the motor windings, are also subjected to the test	Not applicable	N/A
	Winding temperatures not exceeding values as specified.....:	(see appended table)	P
19.10	Series motor operated at 1.3 times rated voltage for 1 min (V).....:	Not applicable	N/A
	During the test, parts not being ejected from the appliance	Not applicable	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	Complied	P
	they comply with the conditions specified in 19.11.1	Not applicable	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	Not applicable	N/A
	restarting does not result in a hazard	Not applicable	N/A
	Appliances having a device with an OFF position obtained by electronic disconnection, or a device placing the appliance in a stand-by mode, subjected to the tests of 19.11.4	Not applicable	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	Not applicable	N/A
	During and after each test the following is checked:		
	- the temperature of the windings does not exceed the values specified in Table 8	Not applicable	N/A
	- the appliance complies with the conditions specified in 19.13	Not applicable	N/A
	- any current flowing through protective impedance not exceeding the limits specified in 8.1.4	Not applicable	N/A

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IEC 60335-2-60			
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	Not applicable	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	Not applicable	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	Complied	P
	- 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	Complied	P
19.11.2	Fault conditions applied one at a time, the appliance operating under conditions specified in Clause 11, but supplied at rated voltage, duration of the tests as specified:		
	a) short circuit of functional insulation if clearances or creepage distances are less than the values specified in Clause 29	Not applicable	N/A
	b) open circuit at the terminals of any component	Complied	P
	c) short circuit of capacitors, unless	Complied	P
	they comply with IEC 60384-14	Not applicable	N/A
	d) short circuit of any two terminals of an electronic component, other than integrated circuits	Not applicable	N/A
	This fault condition is not applied between the two circuits of an optocoupler	Not applicable	N/A
	e) failure of triacs in the diode mode	Not applicable	N/A
	f) failure of microprocessors and integrated circuits	Not applicable	N/A
	g) failure of an electronic power switching device	Not applicable	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 (IEC 60335-1/A2:2016)	Not applicable	N/A
19.11.4	Appliances having a device with an OFF position obtained by electronic disconnection, or	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	a device that can be placed in the stand-by mode,	Not applicable	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	Not applicable	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	Not applicable	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	Not applicable	N/A
	Surge protective devices disconnected, unless	Not applicable	N/A
	they incorporate spark gaps	Not applicable	N/A
19.11.4.1	The appliance is subjected to electrostatic discharges in accordance with IEC 61000-4-2, test level 4	Not applicable	N/A
19.11.4.2	The appliance is subjected to radiated fields in accordance with IEC 61000-4-3, at frequency ranges specified (IEC 60335-1/A2:2016)	Not applicable	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	Not applicable	N/A
19.11.4.4	The power supply terminals of the appliance subjected to voltage surges in accordance with IEC 61000-4-5	Not applicable	N/A
	Earthed heating elements in class I appliances disconnected	Not applicable	N/A
19.11.4.5	The appliance is subjected to injected currents in accordance with IEC 61000-4-6, test level 3	Not applicable	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	Not applicable	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	Not applicable	N/A
19.11.4.7	The appliance is subjected to mains signals in accordance with IEC 61000-4-13, test level class 2	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
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	Not applicable	N/A
	The appliance continues to operate normally, or	Not applicable	N/A
	requires a manual operation to restart	Not applicable	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) .....	Not applicable	N/A
19.13	During the tests the appliance does not emit flames, molten metal, poisonous or ignitable gas in hazardous amounts	Complied	P
	Temperature rises not exceeding the values shown in Table 9 .....	(see appended table)	
	Compliance with Clause 8 not impaired	Complied	P
	If the appliance can still be operated it complies with 20.2	Complied	P
	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) .....	Complied	P
	- supplementary insulation (V) .....	Not applicable	N/A
	- reinforced insulation (V) .....	Complied	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	Not applicable	N/A
	The appliance does not undergo a dangerous malfunction, and	Not applicable	N/A
	no failure of protective electronic circuits, if the appliance is still operable	Not applicable	N/A
	Appliances tested with an electronic switch in the off position, or in the stand-by mode:		
	- do not become operational, or	Not applicable	N/A

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IEC 60335-2-60			
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	Not applicable	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	Not applicable	N/A
	- the appliance does not start after the cycle in which the interlock was released	Not applicable	N/A
	The temperature at the inlet of whirlpool bath that have provision for water heating and whirlpool spas not exceed 55 °C when measured in accordance with Clause 11 (IEC 60335-2-60/A1)	Not applicable	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	Complied	P
	For a relay or contactor with more than one contact, all contacts are short-circuited at the same time	Not applicable	N/A
	A relay or contactor operating only to ensure the appliance is energized for normal use is not short-circuited	Not applicable	N/A
	If more than one relay or contactor operates in Clause 11, they are short-circuited in turn	Not applicable	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	Not applicable	N/A
<b>20</b>	<b>STABILITY AND MECHANICAL HAZARDS</b>		
20.1	Appliances having adequate stability	Fixed appliances	N/A
	Tilting test through an angle of 10°, appliance placed on an inclined plane/horizontal support, not connected to the supply mains; appliance does not overturn	Not applicable	N/A
	Tilting test repeated on appliances with heating elements, angle of inclination increased to 15°	Not applicable	N/A
	Possible heating test in overturned position; temperature rise does not exceed values shown in table 9	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
20.2	Moving parts adequately arranged or enclosed as to provide protection against personal injury	Complied	P
	Protective enclosures, guards and similar parts are non-detachable, and	Complied	P
	have adequate mechanical strength	Complied	P
	Enclosures that can be opened by overriding an interlock are considered to be detachable parts	Not applicable	N/A
	Self-resetting thermal cut-outs and overcurrent protective devices not causing a hazard, by unexpected reclosure	Not applicable	N/A
	Not possible to touch dangerous moving parts with the test probe described	Complied	P
<b>21</b>	<b>MECHANICAL STRENGTH</b>		
21.1	Appliance has adequate mechanical strength and is constructed as to withstand rough handling	Complied	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	Complied	P
	The appliance shows no damage impairing compliance with this standard, and	Complied	P
	compliance with 8.1, 15.1 and Clause 29 not impaired	Complied	P
	If doubt, supplementary or reinforced insulation subjected to the electric strength test of 16.3	Not applicable	N/A
	If necessary, repetition of groups of three blows on a new sample	Not applicable	N/A
	Whirlpool spas are subjected to the impact test (IEC 60335-2-60/A1)	Not applicable	N/A
	The appliance has been maintained at a temperature of -10 °C for 24 h (IEC 60335-2-60/A1)	Not applicable	N/A
	For water containers that provide protection against access to live parts, the value of the impact energy is 1 J (IEC 60335-2-60/A1)	Not applicable	N/A
21.2	Accessible parts of solid insulation having strength to prevent penetration by sharp implements	Complied	P
	Test not applicable if the thickness of supplementary insulation is at least 1 mm and reinforced insulation at least 2 mm	>1mm	P

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	The insulation is tested as specified, and does withstand the electric strength test of 16.3	Not applicable	N/A
<b>22</b>	<b>CONSTRUCTION</b>		
22.1	Appliance marked with the first numeral of the IP system, relevant requirements of IEC 60529 are fulfilled	Not applicable	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	Not applicable	N/A
	- a switch complying with 24.3, or	Not applicable	N/A
	- a statement in the instruction sheet that a disconnection incorporated in the fixed wiring is to be provided, or	Not applicable	N/A
	- an appliance inlet	Not applicable	N/A
	Single-pole switches and single-pole protective devices for the disconnection of heating elements in single-phase, permanently connected class 0I and class I appliances, connected to the phase conductor	Not applicable	N/A
22.3	Appliance provided with pins: no undue strain on socket-outlets	Not applicable	N/A
	Applied torque not exceeding 0.25 Nm	Not applicable	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	Not applicable	N/A
	Each pin subjected to a torque of 0.4 Nm; the pins are not rotating, unless	Not applicable	N/A
	rotating does not impair compliance with this standard	Not applicable	N/A
22.4	Appliance for heating liquids and appliance causing undue vibration not provided with pins for insertion into socket-outlets	Not applicable	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 0,1µF, the appliance being disconnected from the supply at the instant of voltage peak (IEC 60335-1/A2:2016)	Not applicable	N/A
	Voltage not exceeding 34 V (V)..... :	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	If compliance relies on the operation of an electronic circuit, the electromagnetic phenomena tests of 19.11.4.3 and 19.11.4.4 are applied one at a time to the appliance (IEC 60335-1/A1)	Not applicable	N/A
	The discharge test is then repeated three times and for each test, the voltage shall not exceed 34V (IEC 60335-1/A1)	Not applicable	N/A
22.6	Electrical insulation not affected by condensing water or leaking liquid	Not applicable	N
	Electrical insulation of class II appliances not affected if a hose ruptures or seal leaks	Not applicable	N/A
	In case of doubt, test as described	Not applicable	N/A
22.7	Adequate safeguards against the risk of excessive pressure in appliances containing liquid or gases or having steam-producing devices	Not applicable	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	Not applicable	N/A
22.9	Insulation, internal wiring, windings, commutators and slip rings not exposed to oil, grease or similar substances, unless	Complied	P
	the substance has adequate insulating properties	Not applicable	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:	Not applicable	N/A
	- a non-self-resetting thermal cut-out is required by the standard, and	Not applicable	N/A
	- a voltage maintained non-self-resetting thermal cut-out is used to meet it	Not applicable	N/A
	Non-self-resetting thermal motor protectors have a trip-free action, unless		
	they are voltage maintained	Not applicable	N/A
	Reset buttons of non-self-resetting controls so located or protected that accidental resetting is unlikely	Not applicable	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	Complied	P

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	Obvious locked position of snap-in devices used for fixing such parts	Not applicable	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	Not applicable	N/A
	Tests as described	Complied	P
22.12	Handles, knobs etc. fixed in a reliable manner, if loosening result in a hazard (IEC 60335-1/A2:2016)	Not applicable	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 (IEC 60335-1/A2:2016)	Not applicable	N/A
	A choking hazard does not apply to appliances for commercial use (IEC 60335-1/A2:2016)	Not applicable	N/A
	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied	Not applicable	N/A
	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied	Not applicable	N/A
	If the part is removed and can be contained within the small parts cylinder, it is considered to be a choking hazard (IEC 60335-1/A2:2016)	Not applicable	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	Not applicable	N/A
22.14	No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance	Complied	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	Not applicable	N/A
22.15	Storage hooks and the like for flexible cords smooth and well rounded	Not applicable	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	Not applicable	N/A
	Cord reel tested with 6 000 operations, as specified	Not applicable	N/A
	Electric strength test of 16.3, voltage of 1 000 V applied	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
22.17	Spacers not removable from the outside by hand or by means of a screwdriver or a spanner	Not applicable	N/A
22.18	Current-carrying parts and other metal parts resistant to corrosion	Complied	P
22.19	Driving belts not relied upon to provide the required level of insulation, unless	Not applicable	N/A
	constructed to prevent inappropriate replacement	Not applicable	N/A
22.20	Direct contact between live parts and thermal insulation effectively prevented, unless	Complied	P
	material used is non-corrosive, non-hygroscopic and non-combustible	Not applicable	N/A
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless	Complied	P
	impregnated	Not applicable	N/A
	This requirement does not apply to magnesium oxide and mineral ceramic fibres used for the electrical insulation of heating elements	Not applicable	N/A
22.22	Appliances not containing asbestos	Complied	P
22.23	Oils containing polychlorinated biphenyl (PCB) not used	Complied	P
22.24	Bare heating elements, except in class III appliances or class III constructions that do not contain live parts, adequately supported	Not applicable	N/A
	In case of rupture, the heating conductor is unlikely to come in contact with accessible metal parts	Not applicable	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	Not applicable	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	Not applicable	N/A
22.27	Parts connected by protective impedance separated by double or reinforced insulation	Not applicable	N/A
22.28	Metal parts of class II appliances conductively connected to gas pipes or in contact with water, separated from live parts by double or reinforced insulation	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
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	Not applicable	N/A
22.30	Parts serving as supplementary or reinforced insulation fixed so that they cannot be removed without being seriously damaged, or	Complied	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	Complied	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	Complied	P
	Neither clearances nor creepage distances between live parts and accessible parts reduced below values for supplementary insulation if wires, screws etc. become loose	Not applicable	N/A
22.32	Supplementary and reinforced insulation constructed or protected against pollution so that clearances or creepage distances are not reduced below the values in Clause 29	Complied	P
	Supplementary insulation of natural or synthetic rubber resistant to ageing, or arranged and dimensioned so that creepage distances are not reduced below values specified in 29.2	Not applicable	N/A
	Ceramic material not tightly sintered, similar materials or beads alone not used as supplementary or reinforced insulation	Not applicable	N/A
	Insulating material in which heating conductors are embedded is considered to be basic insulation, not reinforced insulation	Not applicable	N/A
	Oxygen bomb test at 70 °C for 96 h and 16 h at room temperature	Not applicable	N/A
22.33	Conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact	Not applicable	N/A
	with unearthed accessible metal parts	Not applicable	N/A
	or unearthed metal parts that are separated from live parts by basic insulation only (IEC 60335-1/A1)	Not applicable	N/A
	are not in direct contact with live parts	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	Electrodes not used for heating liquids	Not applicable	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	Not applicable	N/A
	the reinforced insulation consists of at least 3 layers	Not applicable	N/A
	For class II constructions, conductive liquids which are in contact with live parts, not in direct contact with reinforced insulation, unless	Not applicable	N/A
	the reinforced insulation consists of at least 3 layers	Not applicable	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	Not applicable	N/A
	Conductive liquid in direct contact with live parts supplied at safety extra low voltage not exceeding 12 V (IEC 60335-2-60/A1)	Not applicable	N/A
	Components accessible to the user in the bath or spa supplied at safety extra-low voltage not exceeding 12 V (IEC 60335-2-60/A1)	Complied	P
22.34	Shafts of operating knobs, handles, levers etc. not live, unless	Not applicable	N/A
	the shaft is not accessible when the part is removed	Not applicable	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	Not applicable	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	Not applicable	N/A
	This requirement does not apply to handles, levers and knobs on stationary appliances,	Not applicable	N/A
	and cordless appliances (IEC 60335-1/A1)	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	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	Not applicable	N/A
	Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation	Not applicable	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	Not applicable	N/A
	they are separated from live parts by double or reinforced insulation	Not applicable	N/A
22.37	Capacitors in class II appliances not connected to accessible metal parts and their casings, if of metal, separated from accessible metal parts by supplementary insulation, unless	Not applicable	N/A
	the capacitors comply with 22.42	Not applicable	N/A
22.38	Capacitors not connected between the contacts of a thermal cut-out	Not applicable	N/A
22.39	Lampholders used only for the connection of lamps	Not applicable	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	Not applicable	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	Not applicable	N/A
22.41	No components, other than lamps, containing mercury	Complied	P
22.42	Protective impedance consisting of at least two separate components	Not applicable	N/A
	Values specified in 8.1.4 not exceeded if any one of the components are short-circuited or open-circuited	Not applicable	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Resistors checked by the test of 14.1 a) in IEC 60065	Not applicable	N/A
	Capacitors checked by the tests for class Y capacitors in IEC 60384-14	Not applicable	N/A
22.43	Appliances adjustable for different voltages, accidental changing of the setting of the voltage unlikely to occur	Not applicable	N/A
22.44	Appliances not having an enclosure that is shaped or decorated like a toy	Complied	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	Not applicable	N/A
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	Not applicable	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	Not applicable	N/A
	These requirements are not applicable to software used for functional purpose or compliance with Clause 11	Not applicable	N/A
22.47	Appliances connected to the water mains withstand the water pressure expected in normal use	Not applicable	N/A
	No leakage from any part, including any inlet water hose	Not applicable	N/A
22.48	Appliances connected to the water mains constructed to prevent backsiphonage of non-potable water	Not applicable	N/A
22.49	For remote operation, the duration of operation is to be set before the appliance can be started, unless	Not applicable	N/A
	the appliance switches off automatically or can operate continuously without hazard	Complied	P
22.50	Controls incorporated in the appliance take priority over controls actuated by remote operation	Complied	P
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	Complied	P

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	There is a visual indication showing that the appliance is adjusted for remote operation	Not applicable	N/A
	These requirements not necessary on appliances that can operate as follows, without giving rise to a hazard:		
	- continuously, or	Not applicable	N/A
	- automatically, or	Not applicable	N/A
	- remotely	Not applicable	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	Complied	P
22.53	Class II appliances and class III appliances that incorporate functionally earthed parts shall have at least double insulation or reinforced insulation between live parts and the functionally earthed parts (IEC 60335-1/A1)	Not applicable	N/A
22.54	Button cells and batteries designated R1 shall not be accessible without the aid of a tool unless the cover of their compartment can only be opened after at least two independent movements have been applied simultaneously (IEC 60335-1/A1)	Not applicable	N/A
22.55	There is a control on the appliance manually adjusted to the setting for remote operation before the appliance can be operated in this mode (IEC 60335-1/A2:2016)	Not applicable	N/A
	There is a visual indication showing that the appliance is adjusted for remote operation	Not applicable	N/A
	These requirements not necessary on appliances that can operate as follows, without giving rise to a hazard:		
	- continuously, or	Not applicable	N/A
	- automatically, or	Not applicable	N/A
	- remotely	Not applicable	N/A
22.56	Detachable power supply part provided with the part of class III construction	Not applicable	N/A
22.57	The properties of non-metallic materials do not degrade from exposure to UV-C radiation, as specified in Annex T	Not applicable	N/A
	This requirement does not apply to glass, ceramics or similar materials	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
22.101	Appliances in which air is circulated shall be constructed so that water cannot penetrate into the motor and come into contact with live parts or basic insulation (IEC 60335-2-60/A1)	Complied	P
	The overflow outlet of whirlpool baths and whirlpool spas is blocked and the bath or spa is filled until water overflows	Not applicable	N/A
	Non-return valves are rendered inoperative one at a time	Not applicable	N/A
	Separate appliances intended to be used with a conventional bath are placed on the floor	Not applicable	N/A
	except that portable mats are placed in a bath filled with water	Complied	P
	The mat is t raised to the most unfavourable position allowed by the construction of the appliance but to a height not exceeding 2 m	Complied	P
	Non-return valves are rendered inoperative one at a time	Not applicable	N/A
	After the test there shall be no trace of water on insulation that could result in a reduction of clearances and creepage distances below the values specified in Clause 29	Complied	P
22.102	Whirlpool baths constructed that the quantity of water which remains not exceed 0,5 l or 0,2 % of the capacity (IEC 60335-2-60/A1)	Not applicable	N/A
22.103	Whirlpool baths and whirlpool spas constructed that hair cannot be drawn into apertures (IEC 60335-2-60/A1)	Not applicable	N/A
	The appliance is filled as specified for normal operation	Not applicable	N/A
	A mass of 50 g of medium or fine natural human hair attached to a wooden rod having a diameter of 25 mm, the free length of hair being 400 mm	Not applicable	N/A
	The rod with sufficient length for the hair to reach the suction opening	Not applicable	N/A
	Hair is saturated for at least 2 min in the water	Not applicable	N/A
	The free end of the hair placed over the suction opening and	Not applicable	N/A
	the appliance operated while supplied at rated voltage	Not applicable	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Hair is moved from side to side for up to 2.5 min in an attempt to get it sucked completely into the opening	Not applicable	N/A
	The rod is pulled in order to withdraw the hair from the water and the pull force is measured with:	Not applicable	N/A
	– the rod pulled vertically	Not applicable	N/A
	– the rod pulled at an angle of approximately 40° to the vertical	Not applicable	N/A
	The force shall not exceed 20 N	Not applicable	N/A
	If the bath or spa is provided with a detachable cover for the suction opening	Not applicable	N/A
	the test is also carried out with the cover in place. During the test, the hair is used to sweep the cover in an attempt to displace it	Not applicable	N/A
22.104	Portable appliances shall be constructed to prevent a hazard resulting from objects penetrating the bottom surface (IEC 60335-2-60)	Not applicable	N/A
22.105	Whirlpool spas incorporating a water filtration system in order that the required level of water purity can be achieved (IEC 60335-2-60/A1)	Not applicable	N/A
<b>23</b>	<b>INTERNAL WIRING</b>		
23.1	Wireways smooth and free from sharp edges	Complied	P
	Wires protected against contact with burrs, cooling fins etc.	Not applicable	N/A
	Wire holes in metal well-rounded or provided with bushings	Not applicable	N/A
	Wiring effectively prevented from coming into contact with moving parts	Complied	P
23.2	Beads etc. on live wires cannot change their position, and are not resting on sharp edges	Not applicable	N/A
	Beads inside flexible metal conduits contained within an insulating sleeve	Not applicable	N/A
23.3	Electrical connections and internal conductors movable relatively to each other not exposed to undue stress	Complied	P
	Flexible metallic tubes not causing damage to insulation of conductors	Not applicable	N/A
	Open-coil springs not used	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	Adequate insulating lining provided inside a coiled spring, the turns of which touch one another	Not applicable	N/A
	No damage after 10 000 flexings for conductors flexed during normal use, or	Not applicable	N/A
	100 flexings for conductors flexed during user maintenance	Not applicable	N/A
	Electric strength test of 16.3, 1 000 V between live parts and accessible metal parts	Not applicable	N/A
	Not more than 10 % of the strands of any conductor broken, and	Not applicable	N/A
	not more than 30 % for wiring supplying circuits that consume no more than 15 W	Not applicable	N/A
23.4	Bare internal wiring sufficiently rigid and fixed	Not applicable	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	Complied	P
	Basic insulation electrically equivalent to the basic insulation of cords complying with IEC 60227 or IEC 60245, or	Not applicable	N/A
	no breakdown when a voltage of 2 000 V is applied for 15 min between the conductor and metal foil wrapped around the insulation	Complied	P
23.6	Sleeving used as supplementary insulation on internal wiring retained in position by clamping at both ends, or	Complied	P
	be such that it can only be removed by breaking or cutting	Not applicable	N/A
23.7	The colour combination green/yellow only used for earthing conductors	Complied	P
23.8	Aluminium wires not used for internal wiring	Complied	P
23.9	Stranded conductors not consolidated by soldering where they are subjected to contact pressure, unless	Not applicable	N/A
	the contact pressure is provided by spring terminals	Not applicable	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)	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
<b>24</b>	<b>COMPONENTS</b>		
24.1	Components comply with safety requirements in relevant IEC standards	Complied	P
	List of components..... :	(see appended table)	
	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	Not applicable	N/A
	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	Not applicable	N/A
	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	Complied	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	Not applicable	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	Not applicable	N/A
24.1.1	Capacitors likely to be permanently subjected to the supply voltage and used for radio interference suppression or for voltage dividing, complying with IEC 60384-14	Not applicable	N/A
	If the capacitors have to be tested, they are tested according to Annex F	Not applicable	N/A
24.1.2	Safety isolating transformers complying with IEC 61558-2-6	Not applicable	N/A
	If they have to be tested, they are tested according to Annex G	Not applicable	N/A
	The relevant standard for transformers in associated switch mode power supplies is Annex BB of IEC 61558-2-16. Clause 26 of IEC 61558-1 and Annex H of IEC 61558-1 are not applicable (IEC 60335-1/A1)	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
24.1.3	Switches complying with IEC 61058-1, the number of cycles of operation being at least 10 000	Not applicable	N/A
	If they have to be tested, they are tested according to Annex H	Not applicable	N/A
	If the switch operates a relay or contactor, the complete switching system is subjected to the test	Not applicable	N/A
	If the switch only operates a motor starting relay complying with IEC 60730-2-10 with the number of cycles of a least 10 000 as specified, the complete switching system need not be tested	Not applicable	N/A
24.1.4	Automatic controls complying with IEC 60730-1 with the relevant part 2. The number of cycles of operation being at least:		
	- thermostats: 10 000	Not applicable	N/A
	- temperature limiters: 1 000	Not applicable	N/A
	- self-resetting thermal cut-outs: 300	Not applicable	N/A
	- voltage maintained non-self-resetting thermal cut-outs: 1 000	Not applicable	N/A
	- other non-self-resetting thermal cut-outs: 30	Complied	P
	- timers: 3 000	Not applicable	N/A
	- energy regulators: 10 000	Not applicable	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	Not applicable	N/A
	Thermal motor protectors are tested in combination with their motor under the conditions specified in Annex D	Not applicable	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 Sub-clause 6.5.2 of IEC 60730-2-8 is IPX7	Not applicable	N/A
	Thermal cut-outs of the capillary type shall comply with the requirements for type 2.K controls in IEC 60730-2-9 (IEC 60335-1/A1)	Not applicable	N/A
24.1.5	Appliance couplers complying with IEC 60320-1	Not applicable	N/A
	However, for appliances classified higher than IPX0, the appliance couplers complying with IEC 60320-2-3	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	Interconnection couplers complying with IEC 60320-2-2	Not applicable	N/A
24.1.6	Small lampholders similar to E10 lampholders complying with IEC 60238, the requirements for E10 lampholders being applicable	Not 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	Not applicable	N/A
24.1.8	The relevant standard for thermal links is IEC 60691	Not applicable	N/A
	Thermal links not complying with IEC 60691 are considered to be an intentionally weak part for the purposes of Clause 19	Not applicable	N/A
24.1.9	Contactors and relays, other than motor starting relays, tested as part of the appliance	Not applicable	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 .....	Not applicable	N/A
24.2	Appliances not fitted with:		
	- switches, automatic controls or power supplies in flexible cords; (IEC 60335-1/A2:2016)	Complied	P
	- devices causing the protective device in the fixed wiring to operate in the event of a fault in the appliance;	Complied	P
	- thermal cut-outs that can be reset by soldering, unless	Complied	P
	the solder has a melting point of at least 230 °C	Not applicable	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	Not applicable	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	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
24.5	Capacitors in auxiliary windings of motors marked with their rated voltage and capacitance, and used accordingly	Not applicable	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	Not applicable	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	Not applicable	N/A
	In addition, the motors comply with the requirements of Annex I	Not applicable	N/A
24.7	Detachable hose-sets for connection of appliances to the water mains comply with IEC 61770	Not applicable	N/A
	They are supplied with the appliance	Not applicable	N/A
	Appliances intended to be permanently connected to the water mains not connected by a detachable hose-set	Not applicable	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	Not applicable	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; (IEC 60335-1/A2:2016)	Not applicable	N/A
	- the capacitors are housed within a metallic or ceramic enclosure;	Not applicable	N/A
	- the distance of separation of the outer surface to adjacent non-metallic parts exceeds 50 mm;	Not applicable	N/A
	- adjacent non-metallic parts within 50 mm withstand the needle-flame test of Annex E;	Not applicable	N/A
	- adjacent non-metallic parts within 50 mm classified as at least V-1 according to IEC 60695-11-10	Not applicable	N/A
24.101	Thermal cut-outs incorporated in appliances for compliance with 19.4 not self resetting (IEC 60335-2-60)	Not applicable	N/A
24.102	Class III appliances provided with a safety isolating transformer classified at least IPX4 (IEC 60335-2-60)	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
<b>25</b>	<b>SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS</b>		
25.1	Appliance not intended for permanent connection to fixed wiring, means for connection to the supply:		
	- supply cord fitted with a plug,	Complied	P
	the current rating and voltage rating of the plug being not less than the corresponding ratings of its associated appliance (IEC 60335-1/A1)	Complied	P
	- an appliance inlet having at least the same degree of protection against moisture as required for the appliance, or	Not applicable	N/A
	- pins for insertion into socket-outlets	Not applicable	N/A
	Class I appliances shall only be provided with means for permanent connection to fixed wiring (IEC 60335-2-60)	Not applicable	N/A
25.2	Appliance not provided with more than one means of connection to the supply mains	Complied	P
	Stationary appliance for multiple supply may be provided with more than one means of connection, provided electric strength test of 1 250 V for 1 min between each means of connection causes no breakdown	Not applicable	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	Not applicable	N/A
	- a fitted supply cord	Not applicable	N/A
	- a set of supply leads accommodated in a suitable compartment	Not applicable	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	Not applicable	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	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	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	Not applicable	N/A
25.4	Cable and conduit entries, rated current of appliance not exceeding 16 A, dimension according to table 10 (mm)..... :	Not applicable	N/A
	Introduction of conduit or cable does not reduce clearances or creepage distances below values specified in Clause 29	Not applicable	N/A
25.5	Method for assembling the supply cord to the appliance:		
	- type X attachment	Not applicable	N/A
	- type Y attachment	Complied	P
	- type Z attachment, if allowed in relevant part 2	Not applicable	N/A
	Type X attachment, other than those with a specially prepared cord, not used for flat twin tinsel cords	Not applicable	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	Not applicable	N/A
25.6	Plugs fitted with only one flexible cord	Complied	P
25.7	Supply cords, other than for class III appliances, being one of the following types:		
	- rubber sheathed (at least 60245 IEC 53)	Not applicable	N/A
	- polychloroprene sheathed (at least 60245 IEC 57)	Not applicable	N/A
	- cross-linked polyvinyl chloride sheathed (at least 60245 IEC 88)	Not applicable	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		
	<ul style="list-style-type: none"> <li>light polyvinyl chloride sheathed cord (60227 IEC 52), for appliances not exceeding 3 kg</li> </ul>	Complied	P
	<ul style="list-style-type: none"> <li>ordinary polyvinyl chloride sheathed cord (60227 IEC 53), for other appliances</li> </ul>	Not applicable	N/A
	- heat resistant polyvinyl chloride sheathed. Not used for type X attachment other than specially prepared cords		

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	<ul style="list-style-type: none"> <li>heat-resistant light polyvinyl chloride sheathed cord (60227 IEC 56), for appliances not exceeding 3 kg</li> </ul>	Not applicable	N/A
	<ul style="list-style-type: none"> <li>heat-resistant polyvinyl chloride sheathed cord (60227 IEC 57), for other appliances</li> </ul>	Not applicable	N/A
	- halogen-free, low smoke, thermoplastic insulated and sheathed (IEC 60335-1/A2:2016)		
	<ul style="list-style-type: none"> <li>Light duty halogen-free low smoke flexible cable (62821 IEC 101) for circular cable and (62821 IEC 101f) for flat cable</li> </ul>	Not applicable	N/A
	<ul style="list-style-type: none"> <li>Ordinary duty halogen-free low smoke flexible cable (62821 IEC 102) for circular cable and (62821 IEC 102f) for flat cable</li> </ul>	Not applicable	N/A
	Supply cords for class III appliances adequately insulated	Not applicable	N/A
	Test with 500 V for 2 min for supply cords of class III appliances that contain live parts	Not applicable	N/A
25.8	Nominal cross-sectional area of supply cords not less than Table 11; rated current (A); cross-sectional area (mm <sup>2</sup> ).....:	0,75 mm <sup>2</sup>	P
25.9	Supply cords not in contact with sharp points or edges	Complied	P
25.10	Supply cord of class I appliances have a green/yellow core for earthing	Complied	P
	In multi-phase appliances, the colour of the neutral conductor of the supply cord, if any, shall be blue (IEC 60335-1/A1)	Not applicable	N/A
	Where additional neutral conductors are provided in the supply cord: (IEC 60335-1/A2:2016)		
	- other colours may be used for these additional neutral conductors;	Not applicable	N/A
	- all of the neutral conductors and line conductors are identified by marking using the alpha numeric notation specified in IEC 60445	Not applicable	N/A
	- the supply cord is fitted to the appliance	Not applicable	N/A
25.11	Conductors of supply cords not consolidated by soldering where they are subject to contact pressure, unless	Not applicable	N/A
	the contact pressure is provided by spring terminals	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
25.12	Insulation of the supply cord not damaged when moulding the cord to part of the enclosure	Complied	P
25.13	Inlet openings so constructed as to prevent damage to the supply cord	Complied	P
	If it is not evident from the construction of the appliance that the supply cord can be introduced without risk of damage, a non-detachable lining or non-detachable bushing shall be provided that complies with 29.3 for supplementary insulation (IEC 60335-1/A1)	Not applicable	N/A
	If unsheathed supply cord, a similar additional bushing or lining is required, unless the appliance is	Not applicable	N/A
	class 0, or	Not applicable	N/A
	a class III appliance not containing live parts	Not applicable	N/A
25.14	Supply cords moved while in operation adequately protected against excessive flexing	Not applicable	N/A
	Flexing test, as described:		
	- applied force (N) .....	Not applicable	N/A
	- number of flexings .....	Not applicable	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	Not applicable	N/A
	- breakage of more than 10 % of the strands of any conductor	Not applicable	N/A
	- separation of the conductor from its terminal	Not applicable	N/A
	- loosening of any cord guard	Not applicable	N/A
	- damage to the cord or the cord guard	Not applicable	N/A
	- broken strands piercing the insulation and becoming accessible	Not applicable	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	Complied	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	Complied	P

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	Pull and torque test of supply cord, values shown in Table 12: mass (kg); pull (N); torque (not on automatic cord reel) (Nm) .....	4,25kg 100N, 0,35Nm	P
	Cord not damaged and max. 2 mm displacement of the cord	<1mm	P
25.16	Cord anchorages for type X attachments constructed and located so that:		
	- replacement of the cord is easily possible	Not applicable	N/A
	- it is clear how the relief from strain and the prevention of twisting are obtained	Not applicable	N/A
	- they are suitable for different types of supply cord	Not applicable	N/A
	- cord cannot touch the clamping screws of cord anchorage if these screws are accessible, unless	Not applicable	N/A
	they are separated from accessible metal parts by supplementary insulation	Not applicable	N/A
	- the cord is not clamped by a metal screw which bears directly on the cord	Not applicable	N/A
	- at least one part of the cord anchorage securely fixed to the appliance, unless	Not applicable	N/A
	it is part of a specially prepared cord	Not applicable	N/A
	- screws which have to be operated when replacing the cord do not fix any other component, unless	Not applicable	N/A
	the appliance becomes inoperative or incomplete or the parts cannot be removed without a tool	Not applicable	N/A
	- if labyrinths can be bypassed the test of 25.15 is nevertheless withstood	Not applicable	N/A
	- for class 0, 0I and I appliances they are of insulating material or are provided with an insulating lining, unless	Not applicable	N/A
	failure of the insulation of the cord does not make accessible metal parts live	Not applicable	N/A
	- for class II appliances they are of insulating material, or	Not applicable	N/A
	if of metal, they are insulated from accessible metal parts by supplementary insulation	Not applicable	N/A
	After the test of 25.15, under the conditions specified, the conductors have not moved by more than 1 mm in the terminals	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
25.17	Adequate cord anchorages for type Y and Z attachment, test with the cord supplied with the appliance	Complied	P
25.18	Cord anchorages only accessible with the aid of a tool, or	Complied	P
	Constructed so that the cord can only be fitted with the aid of a tool	Complied	P
25.19	Type X attachment, glands not used as cord anchorage in portable appliances	Not applicable	N/A
	Tying the cord into a knot or tying the cord with string not used	Not applicable	N/A
25.20	The insulated conductors of the supply cord for type Y and Z attachment additionally insulated from accessible metal parts	Complied	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	Not applicable	N/A
	- so there is no risk of damage to the conductors or their insulation when fitting the cover	Not applicable	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	Not applicable	N/A
	2 N test to the conductor for portable appliances; no contact with accessible metal parts	Not applicable	N/A
25.22	Appliance inlets:		
	- live parts not accessible during insertion or removal	Not applicable	N/A
	Requirement not applicable to appliance inlets complying with IEC 60320-1	Not applicable	N/A
	- connector can be inserted without difficulty	Not applicable	N/A
	- the appliance is not supported by the connector	Not applicable	N/A
	- not for cold conditions if temp. rise of external metal parts exceeds 75 K during Clause 11, unless	Not applicable	N/A
	the supply cord is unlikely to touch such metal parts	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
25.23	Interconnection cords comply with the requirements for the supply cord, except that:		
	- the cross-sectional area of the conductors is determined on the basis of the maximum current during Clause 11	Not applicable	N/A
	- the thickness of the insulation may be reduced	Not applicable	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 (IEC 60335-1/A2:2016)	Not applicable	N/A
	If necessary, electric strength test of 16.3	Not applicable	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	Not applicable	N/A
25.25	Dimensions of pins that are inserted into socket-outlets compatible with the dimensions of the relevant socket-outlet	Complied	P
	Dimensions of pins and engagement face in accordance with the dimensions of the relevant plug in IEC/TR 60083	Not applicable	N/A
<b>26</b>	<b>TERMINALS FOR EXTERNAL CONDUCTORS</b>		
26.1	Appliances provided with terminals or equally effective devices for connection of external conductors	Complied	P
	Terminals only accessible after removal of a non-detachable cover, except	Not applicable	N/A
	for class III appliances that do not contain live parts	Not applicable	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	Not applicable	N/A
26.2	Appliances with type X attachment and appliances for the connection of cables to fixed wiring provided with terminals in which connections are made by means of screws, nuts or similar devices, unless	Not applicable	N/A
	the connections are soldered	Not applicable	N/A
	Screws and nuts not used to fix any other component, except	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	internal conductors, if so arranged that they are unlikely to be displaced when fitting the supply conductors	Not applicable	N/A
	If soldered connections used, the conductor so positioned or fixed that reliance is not placed on soldering alone, unless	Not applicable	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	Not applicable	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	Not applicable	N/A
	Terminals fixed so that when the clamping means is tightened or loosened:		
	- the terminal does not become loose	Not applicable	N/A
	- internal wiring is not subjected to stress	Not applicable	N/A
	- neither clearances nor creepage distances are reduced below the values in clause 29	Not applicable	N/A
	Compliance checked by inspection and by the test of Sub-clause 9.6 of IEC 60999-1, the torque applied being equal to two-thirds of the torque specified (Nm)..... :	Not applicable	N/A
	No deep or sharp indentations of the conductors	Not applicable	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	Not applicable	N/A
	so constructed or placed that conductors prevented from slipping out when clamping screws or nuts are tightened	Not applicable	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	Not applicable	N/A
	Stranded conductor test, 8 mm insulation removed	Not applicable	N/A
	No contact between live parts and accessible metal parts and,	Not applicable	N/A

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IEC 60335-2-60			
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	Not applicable	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 (mm <sup>2</sup> ) .....	Not applicable	N/A
	If a specially prepared cord is used, terminals need only be suitable for that cord	Not applicable	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	Not applicable	N/A
26.8	Terminals for the connection of fixed wiring, including the earthing terminal, located close to each other	Not applicable	N/A
26.9	Terminals of the pillar type constructed and located as specified	Not applicable	N/A
26.10	Terminals with screw clamping and screwless terminals not used for flat twin tinsel cords, unless	Not applicable	N/A
	conductors ends fitted with means suitable for screw terminals	Not applicable	N/A
	Pull test of 5 N to the connection	Not applicable	N/A
26.11	For type Y and Z attachment, soldered, welded, crimped or similar connections may be used	Complied	P
	For class II appliances, the conductor so positioned or fixed that reliance is not placed on soldering, welding or crimping alone	Not applicable	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	Not applicable	N/A
<b>27</b>	<b>PROVISION FOR EARTHING</b>		
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	Complied	P
	Earthing terminals and earthing contacts not connected to the neutral terminal	Complied	P

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	Class 0, II and III appliances have no provision for earthing	Not applicable	N/A
	Class II appliances and class III appliances may incorporate an earth for functional purposes (IEC 60335-1/A1)	Not applicable	N/A
	Safety extra-low voltage circuits not earthed, unless	Not applicable	N/A
	protective extra-low voltage circuits	Not applicable	N/A
27.2	Clamping means of earthing terminals adequately secured against accidental loosening	Not applicable	N/A
	Terminals for the connection of external equipotential bonding conductors allow connection of conductors of 2.5 to 6 mm <sup>2</sup> , and	Not applicable	N/A
	do not provide earthing continuity between different parts of the appliance, and	Not applicable	N/A
	conductors cannot be loosened without the aid of a tool	Not applicable	N/A
	Class I appliances provided with a terminal for the connection of external equipotential bonding conductors (IEC 60335-2-60)	Not applicable	N/A
	These requirements are not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes (IEC 60335-1/A1)	Not applicable	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	Not applicable	N/A
	For appliances with supply cords, current-carrying conductors become taut before earthing conductor, if the cord slips out of the cord anchorage	Complied	P
	These requirements are not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes (IEC 60335-1/A1)	Not applicable	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	Not applicable	N/A
	Parts providing earthing continuity, other than parts of a metal frame or enclosure, have adequate resistance to corrosion	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	If of steel, these parts provided with an electroplated coating with a thickness at least 5 $\mu\text{m}$	Not applicable	N/A
	Adequate protection against rusting of parts of coated or uncoated steel, only intended to provide or transmit contact pressure	Not applicable	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	Not applicable	N/A
	These requirements are not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes (IEC 60335-1/A1)	Not applicable	N/A
27.5	Low resistance of connection between earthing terminal and earthed metal parts	Refer to note on page 5	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	Not applicable	N/A
	Resistance not exceeding 0,1 $\Omega$ at the specified low-resistance test ( $\Omega$ ) .....	Not applicable	N/A
	These requirements are not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes (IEC 60335-1/A1)	Not applicable	N/A
27.6	The printed conductors of printed circuit boards not used to provide earthing continuity in hand-held appliances.	Fixed appliance	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	Not applicable	N/A
	These requirements are not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes (IEC 60335-1/A1)	Not applicable	N/A
<b>28</b>	<b>SCREWS AND CONNECTIONS</b>		
28.1	Fixings, electrical connections and connections providing earthing continuity withstand mechanical stresses	Complied	P
	Screws not of soft metal liable to creep, such as zinc or aluminium	Complied	P
	Diameter of screws of insulating material min. 3 mm	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	Screws of insulating material not used for any electrical connections or connections providing earthing continuity	Not applicable	N/A
	Screws used for electrical connections or connections providing earthing continuity screwed into metal	Not applicable	N/A
	Screws not of insulating material if their replacement by a metal screw can impair supplementary or reinforced insulation	Not applicable	N/A
	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	Not applicable	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	Not applicable	N/A
	there is resiliency in the metallic parts to compensate for shrinkage or distortion of the insulating material	Not applicable	N/A
	This requirement does not apply to electrical connections in circuits of appliances for which:		
	<ul style="list-style-type: none"> <li>30.2.2 is applicable and that carry a current not exceeding 0,5 A</li> </ul>	Not applicable	N/A
	<ul style="list-style-type: none"> <li>30.2.3 is applicable and that carry a current not exceeding 0,2 A</li> </ul>	Not applicable	N/A
28.3	Space-threaded (sheet metal) screws only used for electrical connections if they clamp the parts together	Complied	P
	Thread-cutting (self-tapping) screws and thread rolling screws only used for electrical connections if they generate a full form standard machine screw thread	Not applicable	N/A
	Thread-cutting (self-tapping) screws not used if they are likely to be operated by the user or installer	Not applicable	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:		

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	- in normal use,	Not applicable	N/A
	- during user maintenance,	Not applicable	N/A
	- when replacing a supply cord having a type X attachment, or	Not applicable	N/A
	- during installation	Not applicable	N/A
	At least two screws being used for each connection providing earthing continuity, unless	Not applicable	N/A
	the screw forms a thread having a length of at least half the diameter of the screw	Not applicable	N/A
28.4	Screws and nuts that make mechanical connection secured against loosening if they also make electrical connections or connections providing earthing continuity	Complied	P
	This requirement does not apply to screws in the earthing circuit if at least two screws are used, or	Not applicable	N/A
	if an alternative earthing circuit is provided	Not applicable	N/A
	Rivets for electrical connections or connections providing earthing continuity secured against loosening if the connections are subjected to torsion	Not applicable	N/A
<b>29</b>	<b>CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION</b>		
	Clearances, creepage distances and solid insulation withstand electrical stress	Complied	P
	For coatings used on printed circuits boards to protect the microenvironment (type 1) or to provide basic insulation (type 2), Annex J applies .....	Not applicable	N/A
	The microenvironment is pollution degree 1 under type 1 protection	Not applicable	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	Not applicable	N/A
	These values apply to functional, basic, supplementary and reinforced insulation.....	Complied	P
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	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	However, if the distances are affected by wear, distortion, movement of the parts or during assembly, the clearances for rated impulse voltages of 1 500V and above are increased by 0,5 mm and the impulse voltage test is not applicable	Not applicable	N/A
	For appliances intended for use at altitudes exceeding 2 000 m, the clearances in Table 16 shall be increased according to the relevant multiplier values in Table A.2 of IEC 60664-1 (IEC 60335-1/A1)	Not applicable	N/A
	Impulse voltage test is not applicable:		
	- when the microenvironment is pollution degree 3, or		
	- for basic insulation of class 0 and class 0I appliances	Not applicable	N/A
	- or to appliances intended for use at altitudes exceeding 2 000 m (IEC 60335-1/A1)	Not applicable	N/A
	Appliances are in overvoltage category II	Complied	P
	A force of 2 N is applied to bare conductors, other than heating elements	Not applicable	N/A
	A force of 30 N is applied to accessible surfaces	Not applicable	N/A
29.1.1	Clearances of basic insulation withstand the overvoltages, taking into account the rated impulse voltage	Not applicable	N/A
	The values of Table 16 or the impulse voltage test of Clause 14 are applicable .....	(see appended table)	P
	Clearance at the terminals of tubular sheathed heating elements may be reduced to 1,0 mm if the microenvironment is pollution degree 1	Not applicable	N/A
	Lacquered conductors of windings considered to be bare conductors	Not applicable	N/A
29.1.2	Clearances of supplementary insulation not less than those specified for basic insulation in Table 16 .....	(see appended table)	P
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)	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	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	Not applicable	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)	N/A
	- Table F.7a in IEC 60664-1, frequency not exceeding 30 kHz	Not applicable	N/A
	- Clause 4 of IEC 60664-4, frequency exceeding 30 kHz	Not applicable	N/A
	If values of Table 16 are largest, the impulse voltage test of Clause 14 may be applied instead, unless	Not applicable	N/A
	the microenvironment is pollution degree 3, or	Not applicable	N/A
	the distances can be affected by wear, distortion, movement of the parts or during assembly	Not applicable	N/A
	However, clearances are not specified if the appliance complies with Clause 19 with the functional insulation short-circuited	Not applicable	N/A
	Lacquered conductors of windings considered to be bare conductors	Complied	P
	However, clearances at crossover points are not measured	Not applicable	N/A
	Clearance between surfaces of PTC heating elements may be reduced to 1 mm	Not applicable	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 .... :	Not applicable	N/A
	- Table F.7a in IEC 60664-1, frequency not exceeding 30 kHz	Not applicable	N/A
	- Clause 4 of IEC 60664-4, frequency exceeding 30 kHz	Not applicable	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	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1, the clearances of reinforced insulation dimensioned as specified in Table F.7a are to withstand 160 % of the withstand voltage required for basic insulation	Not applicable	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	Not applicable	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	Not applicable	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	Not applicable	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 3 applies, unless (IEC 60335-2-60)	Not applicable	N/A
	- precautions taken to protect the insulation; pollution degree 1	Not applicable	N/A
	- precautions taken to protect the insulation; pollution degree 2	Complied	P
	A force of 2 N is applied to bare conductors, other than heating elements	Not applicable	N/A
	A force of 30 N is applied to accessible surfaces	Not applicable	N/A
	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	Not applicable	N/A
29.2.1	Creepage distances of basic insulation not less than specified in Table 17.....:	(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 17.....:	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	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..... :	Not applicable	N/A
29.2.2	Creepage distances of supplementary insulation at least those specified for basic insulation in Table 17, or..... :	(see appended table)	P
	Table 2 of IEC 60664-4, as applicable ..... :	Not 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)	N/A
	Table 2 of IEC 60664-4, as applicable ..... :	Not applicable	N/A
29.2.4	Creepage distances of functional insulation not less than specified in Table 18..... :	(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 18..... :	Not applicable	N/A
	Creepage distances may be reduced if the appliance complies with Clause 19 with the functional insulation short-circuited	Not applicable	N/A
29.3	Supplementary and reinforced insulation have adequate thickness, or a sufficient number of layers, to withstand the electrical stresses	Complied	P
	Compliance checked:		
	- by measurement, in accordance with 29.3.1, or	Complied	P
	- by an electric strength test in accordance with 29.3.2, or	Not applicable	N/A
	- by an assessment of the thermal quality of the material combined with an electric strength test, in accordance with 29.3.3 for insulation, other than single layer internal wiring insulation (IEC 60335-1/A1)	Not applicable	N/A
	for accessible parts of reinforced insulation consisting of a single layer, by measurement in accordance with 29.3.4, or	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	- by an assessment of the thermal quality of the material according to 29.3.3 combined with an electric strength test in accordance with 23.5, for each single layer internal wiring insulation touching each other (IEC 60335-1/A1)	Not applicable	N/A
	- as specified in Sub-clause 6.3 of IEC 60664-4 for insulation that is subjected to any periodic voltage having a frequency exceeding 30 kHz	Not applicable	N/A
29.3.1	Supplementary insulation has a thickness of at least 1 mm	Complied	P
	Reinforced insulation has a thickness of at least 2mm	Not applicable	N/A
29.3.2	Each layer of material withstands the electric strength test of 16.3 for supplementary insulation	Not applicable	N/A
	Supplementary insulation consists of at least 2 layers	Not applicable	N/A
	Reinforced insulation consists of at least 3 layers	Not applicable	N/A
29.3.3	The insulation is subjected to the dry heat test Bb of IEC 60068-2-2, followed by	Not applicable	N/A
	the electric strength test of 16.3	Not applicable	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	Not applicable	N/A
29.3.4	Thickness of accessible parts of reinforced insulation consisting of a single layer not less than specified in Table 19 .....	Not applicable	N/A
<b>30</b>	<b>RESISTANCE TO HEAT AND FIRE</b>		
30.1	External parts of non-metallic material,	Complied	P
	parts supporting live parts, and	Complied	P
	parts of thermoplastic material providing supplementary or reinforced insulation	Complied	P
	sufficiently resistant to heat	Complied	P
	Ball-pressure test according to IEC 60695-10-2	Complied	P
	External parts tested at 40 °C plus the maximum temperature rise determined during the test of Clause 11, or at 75 °C, whichever is the higher; temperature (°C) .....	(see appended table)	P

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	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)	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)	N/A
30.2	Parts of non-metallic material resistant to ignition and spread of fire	Complied	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	Not applicable	N/A
	decorative trims, knobs and other parts unlikely to be ignited or to propagate flames that originate inside the appliance	Not applicable	N/A
	Compliance checked by the test of 30.2.1, and in addition:	Complied	P
	- for attended appliances, 30.2.2 applies	Not applicable	N/A
	- for unattended appliances, 30.2.3 applies	Not applicable	N/A
	For appliances for remote operation, 30.2.3 applies	Not applicable	N/A
	For base material of printed circuit boards, 30.2.4 applies	Not applicable	N/A
30.2.1	Parts of non-metallic material subjected to the glow-wire test of IEC 60695-2-11 at 550 °C	Complied	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	Not applicable	N/A
	the material is classified at least HB40 according to IEC 60695-11-10	Not applicable	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	Not applicable	N/A
30.2.2	Not applicable (IEC 60335-2-60)	Not applicable	N/A
30.2.3	Appliances operated while unattended, tested as specified in 30.2.3.1 and 30.2.3.2	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	The tests are not applicable to conditions as specified..... :	Not applicable	N/A
30.2.3.1	Parts of non-metallic material supporting connections carrying a current exceeding 0,2 A during normal operation, and	Not applicable	N/A
	parts of non-metallic material, other than small parts, within a distance of 3 mm,	Not applicable	N/A
	subjected to the glow-wire test of IEC 60695-2-11 with a test severity of 850 °C	Not applicable	N/A
	Glow-wire applied to an interposed shielding material, if relevant	Not applicable	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	Not applicable	N/A
30.2.3.2	Parts of non-metallic material supporting connections, and	Not applicable	N/A
	parts of non-metallic material within a distance of 3mm,	Not applicable	N/A
	subjected to glow-wire test of IEC 60695-2-11	Not applicable	N/A
	The test severity is:		
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation	Not applicable	N/A
	- 650 °C, for other connections	Not applicable	N/A
	Glow-wire applied to an interposed shielding material, if relevant	Not applicable	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:	Not applicable	N/A
	• 775 °C, for connections carrying a current exceeding 0,2 A during normal operation	Not applicable	N/A
	• 675 °C, for other connections	Not applicable	N/A
	- a glow-wire flammability index according to IEC 60695-2-12 of at least:	Not applicable	N/A
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation	Not applicable	N/A
	- 650 °C, for other connections	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	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	Not applicable	N/A
	- comprise material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or	Not applicable	N/A
	- comply with the needle-flame test of Annex E, or	Not applicable	N/A
	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10	Not applicable	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	Not applicable	N/A
	- parts that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or	Not applicable	N/A
	- small parts, that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or	Not applicable	N/A
	- small parts for which the needle-flame test of Annex E was applied, or	Not applicable	N/A
	- small parts for which a material classification of V-0 or V-1 was applied	Not applicable	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	Not applicable	N/A
	- parts comprising material classified as V-0 or V-1 according to IEC 60695-11-10, or	Not applicable	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	Not applicable	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
30.2.4	Base material of printed circuit boards subjected to the needle-flame test of Annex E	Not applicable	N/A
	Test not applicable to conditions as specified .....	Not applicable	N/A
<b>31</b>	<b>RESISTANCE TO RUSTING</b>		
	Relevant ferrous parts adequately protected against rusting	Complied	P
	Tests specified in part 2 when necessary	Not applicable	N/A
<b>32</b>	<b>RADIATION, TOXICITY AND SIMILAR HAZARDS</b>		
	Appliance does not emit harmful radiation or present a toxic or similar hazard due to their operation in normal use	Complied	P
	Compliance is checked by the limits or tests specified in part 2, if relevant	Not applicable	N/A
<b>A</b>	<b>ANNEX A (INFORMATIVE) ROUTINE TESTS</b>		N/A
<b>B</b>	<b>ANNEX B (NORMATIVE) APPLIANCES POWERED BY RECHARGEABLE BATTERIES</b>		N/A
<b>C</b>	<b>ANNEX C (NORMATIVE) AGEING TEST ON MOTORS</b>		N/A
<b>D</b>	<b>ANNEX D (NORMATIVE) THERMAL MOTOR PROTECTORS</b>		N/A
<b>E</b>	<b>ANNEX E (NORMATIVE) NEEDLE-FLAME TEST</b>		N/A
<b>F</b>	<b>ANNEX F (NORMATIVE) CAPACITORS</b>		N/A
<b>G</b>	<b>ANNEX G (NORMATIVE) SAFETY ISOLATING TRANSFORMERS</b>		N/A
<b>H</b>	<b>ANNEX H (NORMATIVE) SWITCHES</b>		N/A
<b>I</b>	<b>ANNEX I (NORMATIVE) MOTORS HAVING BASIC INSULATION THAT IS INADEQUATE FOR THE RATED VOLTAGE OF THE APPLIANCE</b>		N/A
<b>J</b>	<b>ANNEX J (NORMATIVE) COATED PRINTED CIRCUIT BOARDS</b>		N/A
<b>K</b>	<b>ANNEX K (NORMATIVE) OVERVOLTAGE CATEGORIES</b>		
	The information on overvoltage categories is extracted from IEC 60664-1	Complied	P

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	Overvoltage category is a numeral defining a transient overvoltage condition	Complied	P
	Equipment of overvoltage category IV is for use at the origin of the installation	Not applicable	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	Not applicable	N/A
	Equipment of overvoltage category II is energy consuming equipment to be supplied from the fixed installation	Complied	P
	If such equipment is subjected to special requirements with regard to reliability and availability, overvoltage category III applies	Not applicable	N/A
	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	Not applicable	N/A
<b>L</b>	<b>ANNEX L (INFORMATIVE) GUIDANCE FOR THE MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES</b>		
	Information for the determination of clearances and creepage distances	Complied	P
<b>M</b>	<b>ANNEX M (NORMATIVE) POLLUTION DEGREE</b>		
	The information on pollution degrees is extracted from IEC 60664-1	Complied	P
	Pollution		
	The microenvironment determines the effect of pollution on the insulation, taking into account the macroenvironment	Complied	P
	Means may be provided to reduce pollution at the insulation by effective enclosures or similar	Complied	P
	Minimum clearances specified where pollution may be present in the microenvironment	Complied	P
	Degrees of pollution in the microenvironment		
	For evaluating creepage distances, the following degrees of pollution in the microenvironment are established:		

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
	- pollution degree 1: no pollution or only dry, non-conductive pollution occurs. The pollution has no influence	Not applicable	N/A
	- pollution degree 2: only non-conductive pollution occurs, except that occasionally a temporary conductivity caused by condensation is to be expected	Complied	P
	- pollution degree 3: conductive pollution occurs or dry non-conductive pollution occurs that becomes conductive due to condensation that is to be expected	Not applicable	N/A
	- pollution degree 4: the pollution generates persistent conductivity caused by conductive dust or by rain or snow	Not applicable	N/A
<b>N</b>	<b>ANNEX N (NORMATIVE) PROOF TRACKING TEST</b>		N/A
<b>O</b>	<b>ANNEX O (INFORMATIVE) SELECTION AND SEQUENCE OF THE TESTS OF CLAUSE 30</b>		
	Description of tests for determination of resistance to heat and fire	Complied	P
<b>P</b>	<b>ANNEX P (INFORMATIVE) GUIDANCE FOR THE APPLICATION OF THIS STANDARD TO APPLIANCES USED IN WARM DAMP EQUABLE CLIMATES</b>		N/A
<b>Q</b>	<b>ANNEX Q (INFORMATIVE) SEQUENCE OF TESTS FOR THE EVALUATION OF ELECTRONIC CIRCUITS</b>		N/A
<b>R</b>	<b>ANNEX R (NORMATIVE) SOFTWARE EVALUATION</b>		N/A
<b>S</b>	<b>ANNEX S (NORMATIVE) BATTERY OPERATED APPLIANCES POWERED BY BATTERIES THAT ARE NON-RECHARGEABLE OR NOT RECHARGED IN THE APPLIANCE (IEC 60335-1/A1)</b>		N/A
<b>T</b>	<b>ANNEX T (NORMATIVE) (IEC 60335-1/A2:2016) UV-C RADIATION EFFECT ON NON-METALLIC MATERIALS</b>		N/A

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IEC 60335-2-60					
Clause	Requirement + Test			Result - Remark	Verdict
10.1	<b>TABLE: Power Input Deviation</b>				<b>P</b>
Input deviation of/at:	P rated (W)	P measured (W)	Δ P	Required Δ P	Remark
230V	400	340	-15%	+15% or 60W	P
Supplementary information:					

10.2	<b>TABLE: Current deviation</b>				<b>P</b>
Current deviation of/at:	I rated (A)	I measured (A)	Δ I	Required Δ I	Remark
230V	2,3	1,84	-20%	+15% or 0,30A	P
Supplementary information:					

11.8	<b>TABLE: Heating Test</b>			<b>P</b>
	Test voltage (V)..... :	254,4V		—
	Ambient (°C) ..... :	21,6		—
Thermocouple Locations		Max. temperature measured, (°C)	Max. temperature limit, (°C)	
Internal wire 1		11,2	50	
Internal wire 2		9,6	50	
Internal wire 3		8,7	50	
PCB		16,8	120	
PCB2		18,5	120	
Reset Switch		14,0	30	
Transformer		12,1	65	
Windings		60,4	65	
Relay		22,2	-	
Supply cord		16,7	50	
Cord sheath		8,2	35	
Internal enclosure for motor		1,2	Ref	
External enclosure		7,8	74	

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
Test wall		19,3	65
Supplementary information:			

11.8	TABLE: Heating test, resistance method					N/A
	Test voltage (V) .....					—
	Ambient, t <sub>1</sub> (°C) .....					—
	Ambient, t <sub>2</sub> (°C) .....					—
Temperature rise of winding	R <sub>1</sub> (Ω)	R <sub>2</sub> (Ω)	ΔT (K)	Max. dT (K)	Insulation class	
Supplementary information:						

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).....			254,4V
Leakage current between:			I (mA)	Max. allowed I (mA)
Live and accessible parts			0,15	3,5
Neutral and accessible parts			0,04	3,5
Supplementary information:				

13.3	TABLE: Dielectric strength		P
Test voltage applied between:		Test potential applied (V)	Breakdown / flashover (Yes/No)
Live and accessible parts over basic insulation		1000	No
Live and accessible parts over reinforced insulation		3000	No
Supplementary information:			

14	TABLE: Transient overvoltages	N/A
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IEC 60335-2-60					
Clause	Requirement + Test			Result - Remark	Verdict
<b>Clearance between:</b>	<b>cl (mm)</b>	<b>Required cl (mm)</b>	<b>Rated impulse voltage (V)</b>	<b>Impulse test voltage (V)</b>	<b>Flashover (Yes/No)</b>
Supplementary information:					

16.2	TABLE: Leakage current			P
	<b>Single phase appliances: 1.06 x rated voltage (V)..... :</b>		254,4V	—
	<b>Three phase appliances 1.06 x rated voltage divided by <math>\sqrt{3}</math> (V)..... :</b>		-	—
<b>Leakage current between:</b>			<b>I (mA)</b>	<b>Max. allowed I (mA)</b>
Live and accessible parts over reinforced insulation			0,013	3,5
Supplementary information:				

16.3	TABLE: Dielectric strength			P
<b>Test voltage applied between:</b>		<b>Test potential applied (V)</b>	<b>Breakdown / flashover (Yes/No)</b>	
Live and accessible parts over basic insulation		1250	No	
Live and accessible parts over reinforced insulation		3000	No	
Supplementary information:				

17	<b>TABLE: Overload protection</b>	N/A
17	<b>TABLE: Overload protection, resistance method</b>	N/A
19.7	<b>TABLE: Abnormal operation, locked rotor/moving parts</b>	N/A
19.9	<b>TABLE: Abnormal operation, running overload</b>	N/A

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict

19.13	TABLE: Abnormal operation, temperature rises		P
Thermocouple locations:		Max. temperature rise measured, 19.7 Δ T (K)	Max. temperature rise limit, Δ T (K)
Windings		97,0	200
Supplementary information:			

21.1	TABLE: Impact resistance			P
Impacts per surface	Surface tested	Impact energy (Nm)	Comments	
Three blows	Enclosure	0,5	No damage visible	
Supplementary information:				

24.1	TABLE: Critical components information					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
Plug	CY	CY-300	10A 250V		-	
Supply cord	I-SHENG	H05VV-F	3G 0.75mm	60227 IEC 53	VDE, KEMA-KEUR	
Thermal cut-out	KUOYU	88 SERIES	125/250VAC 10A 32V DC 50/60Hz	IEC 61058	TUV,RU	
Motor	-	AAF1903	400W	SANS 60335-1	Tested with appliance	
Transformer	-	-	WHI - 230VAC BLU-10VAC	SANS 60335-1	Tested with appliance	
Relay	HSIN DA	943-1C-12DS	12A 125VAC	SANS 60335-1	VDE,RU,CQC	
PCB 1	-	SPA-2.4G-A01	-	SANS 60335-1	Tested with appliance	
PCB 2	-	SPA-B-01	-	SANS 60335-1	Tested with appliance	
Supplementary information:						
<sup>1)</sup> Provided evidence ensures the agreed level of compliance. See OD-2039.						

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict

<b>28.1</b>	<b>TABLE: Threaded part torque test</b>			<b>P</b>
Threaded part identification:	Diameter of thread (mm)	Column number (I, II, or III)	Applied torque (Nm)	
For enclosure	4,03	II	1,2	
For live parts	2,32	II	0,4	
Supplementary information:				

<b>29.1</b>	<b>TABLE: Clearances</b>					<b>P</b>
	Overvoltage category .....				II	—
		Type of insulation:				
Rated impulse voltage (V):	Min. cl (mm)	Basic (mm)	Supplementary (mm)	Reinforced (mm)	Functional (mm)	Verdict / Remark
2 500	1,5 / 2,0	x	x	-	-	P
Supplementary information:						

<b>29.2</b>	<b>TABLE: Creepage distances, basic, supplementary and reinforced insulation</b>										<b>P</b>
Working voltage (V)	Creepage distance (mm)							Type of insulation			Verdict
	Pollution degree							B <sup>**</sup>	S <sup>**</sup>	R <sup>**</sup>	
	1	2			3						
		Material group			Material group						
		I	II	IIIa/IIIb	I	II	IIIa/IIIb <sup>*)</sup>	B <sup>**</sup>	S <sup>**</sup>	R <sup>**</sup>	Verdict
250	0,56	1,25	1,8	2,5	3,2	3,6	4,0	x	—	—	P
250	0,56	1,25	1,8	2,5	3,2	3,6	4,0	—	x	—	P
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											

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict
30.1	<b>TABLE: Ball Pressure Test of Thermoplastics</b>		P
Allowed impression diameter (mm) .....		2mm	—
Object/part No./material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)
External parts	-	75	1,08
Part supporting live parts	-	125	1,19
Supplementary information:			

30.2	<b>TABLE: Resistance to heat and fire – Glow-wire tests</b>							N/A
Object/part No./ material	Manufacturer/ trademark	Glow-wire test (GWT); (°C)						Verdict
		550	650		750		850	
			te	ti	te	ti		
Object/part No./ material	Manufacturer/ trademark	Glow-wire flammability index (GWFI), °C				GW ignition temp. (GWIT), °C		Verdict
		550	650	750	850	675	775	
		External parts	-	x				
The test specimen passed the glow-wire test (GWT) with no ignition [(te – ti) ≤ 2 s] (Yes/No).....:							Y	
If no, then surrounding parts passed the needle-flame test of Annex E (Yes/No).....:								
The test specimen passed the test by virtue of most of the flaming material being withdrawn with the glow-wire (Yes/No)? .....							Y	
Ignition of the specified layer placed underneath the test specimen (Yes/No).....:							Y	

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IEC 60335-2-60			
Clause	Requirement + Test	Result - Remark	Verdict

**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.


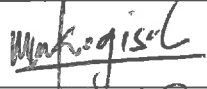

30.2/30.4	TABLE: Needle-flame test (NFT)		N/A
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## List of test equipment used:

Description	SABS/Serial no:	Uncertainty value	Calibration date	Actual used (Yes/No)
<i>Clock-Timer</i>	0904344	±1s	05-03-19	Yes
<i>Digital Multimeter</i>	91740497	±2LSD	20-11-18	Yes
<i>Digital Power Meter</i>	997447	±2x10 <sup>-3</sup> .U ±2x10 <sup>-3</sup> .I ±2x10 <sup>-3</sup> .W	27-06-19	Yes
<i>High Voltage tester</i>	TL002878	±0,02kV	07-03-19	Yes
<i>Measuring Network</i>	213756	±2x10 <sup>-3</sup> .U	15-11-18	Yes
<i>Temperature Logger</i>	0902147	±0,5	20-06-19	Yes
<i>Temperature Recorder</i>	S5P505172	±0,5%	26-06-19	Yes
<i>Vernier</i>	52862	±0,02mm	09-05-19	Yes
<i>Micrometer</i>	5002448	±0,02mm	09-05-19	Yes
<i>Chart Recorder</i>	91HA33826	±0,5	25-06-19	Yes

Tested and Approved by .....	MS Mkhize Technical Signatory	
Checked by .....	KM Legodi Candidate Test Officer	
Co-signed by.....	MM Mamabolo Manager	

\*\*\*END OF TEST REPORT\*\*\*

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