

TEST REPORT

IEC 60335-2-75

Household and similar electrical appliances - Safety

Part 2-75: Particular requirements for commercial dispensing appliances and Vending Machine

Report Number..... : CTK20240620002LVD

Tested by (name + signature)..... : Jack Zhou *Jack Zhou*

Audit by (name + signature) : Carr Lin *Carr Lin*

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Testing Laboratory..... : Guangzhou Certitek Testing Services Co., Ltd.

Testing location/ address..... : Room703/7F, Development Building, Tian An Hi-Tech Ecological Park, No.555 North Road Panyu Avenue, Panyu District, Guangzhou, 511400, China

Applicant's name : Guangzhou Micron Vending Technology Co., Ltd.

Address..... : No.1, Tiantai 1st Road, Huangpu District, Guangzhou, Guangdong, China

Test specification:

Standard : IEC 60335-2-75:2012+A1:2015+A2:2018 in conjunction with IEC 60335-1:2020

Test procedure..... : --

Non-standard test method..... : N/A

Test Report Form No...... : IEC60335_2_75M

Test Report Form(s) Originator.... : Certitek

Master TRF : Dated 2023-12

Test item description..... : Vending Machine

Trade Mark..... : 

Manufacturer's name..... : Guangzhou Micron Vending Technology Co., Ltd.

Manufacturer's address..... : No.1, Tiantai 1st Road, Huangpu District, Guangzhou, Guangdong, China

Factory's name..... : Guangzhou Micron Vending Technology Co., Ltd.

Factory's address..... : No.1, Tiantai 1st Road, Huangpu District, Guangzhou, Guangdong, China

Model/Type reference..... : WM800, WM500, WM22-CWGZ, WM22-W, WM22-AL, WM5-W, WM10-W, WM700, WM0-W

Ratings..... : 220-240V~, 50/60Hz, , Class I
WM800 (230W), WM500(150W), WM22-CWGZ(105W), WM22-W(100W), WM22-AL(85W), WM5-W(80W), WM10-W(80W), WM700(60W), WM0-W(50W)

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

1) CENELEC deviations, 20 pages.

2) Photo attachment, 1 pages.

Summary of testing:

1. The submitted samples were tested and found to compliance with requirements of the standard EN 60335-2-75:2004+A1:2005+A11:2006+A2:2008+A12:2010 in conjunction with EN 60335-1:2012+A11:2014+A13:2017+A14:2019+A1:2019+A2:2019+A15:2021.
2. The product has been tested and complied with the standard EN 62233: 2008 for EMF.

Tests performed (name of test and test clause):

1. WM800 is selected as representative model. Other models are covered models.
2. Full safety tests were carried out on model WM800. The cover model and the main check model are the same except for the naming method, power and appearance, and the difference does not affect the safety performance.
3. Chapter 7,8,10,22 and 29 tests are performed on covered models.

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

The EUROPEAN GROUP DIFFERENCES were considered.

☒ **The product fulfils the requirements of EN 60335-2-75:2004+A1:2005+A11:2006+A2:2008+A12:2010 in conjunction with EN 60335-1:2012+A11:2014+A13:2017+A14:2019+A1:2019+A2:2019+A15:2021.**

Copy of marking plate

Vending Machine

Model: WM800

Rated Voltage:220-240V~

Rated Frequency:50/60Hz

Rated power Input:230W

Guangzhou Micron Vending Technology Co., Ltd.

No.1, Tiantai 1st Road, Huangpu District, Guangzhou, Guangdong, China

Importer:

Address:



Test item particulars :	
Classification of installation and use	Stationary appliance
Supply Connection	Power cord with plug
Possible test case verdicts:	
- test case does not apply to the test object	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement	F (Fail)
Testing :	
Date of receipt of test item	2024-06-14
Date (s) of performance of tests	2024-06-14 to 2024-06-28
General remarks:	
<p>“(See Enclosure #)” refers to additional information appended to the report.</p> <p>“(See appended table)” refers to a table appended to the report.</p> <p>Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.</p>	
General product information:	
<p>1.The appliance covered in this report is Vending Machine.</p> <p>2.The appliance is of class I for the protection against electric shock.</p>	

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
5	GENERAL CONDITIONS FOR THE TESTS		--
	Tests performed according to clause 5, e.g. nature of supply, sequence of testing, etc.		P
5.2	Note: Three samples used for test of 15.102		N/A
5.6	Controls, switching devices or other parts adjusted to most unfavourable settings (IEC 60335-2-75)		P
	- in user area		P
	- in maintenance area		P
5.9	When alternative software is made available by the appliance manufacturer, the appliance is tested with the software that gives the most unfavourable results (IEC 60335-2-75)		N/A
5.10	Appliances installed in accordance with instructions (IEC 60335-2-75)		P
	If the instructions state that the appliance may be installed together with other appliances, the effect of this combination is taken into account (IEC 60335-2-75)		N/A
5.101	Appliances connected to water mains (temperature $15^{\circ}\text{C} \pm 5^{\circ}\text{C}$) (IEC 60335-2-75)		N/A
	Appliances filled with water (temperature $15^{\circ}\text{C} \pm 5^{\circ}\text{C}$) (IEC 60335-2-75)		N/A
	Appliances intended to cool water (temperature $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$) (IEC 60335-2-75)		N/A
5.102	Instruction for maintenance used (IEC 60335-2-75)		P
	Access key used (IEC 60335-2-75)		P
5.103	Test probe 18 of IEC 61032 applied in user area (IEC 60335-2-75)		P
5.104	Appliances of the professional and supervised types tested as heating appliances even if they incorporate a motor (IEC 60335-2-75)		N/A
6	CLASSIFICATION		--
6.1	Protection against electric shock: Class I, II, III (IEC 60335-2-75)	Class I	P
6.2	Protection against harmful ingress of water		N/A
	Appliances intended for outdoor use shall be at least IPX4 (IEC 60335-2-75)	IPX0	N/A
	Appliances that may be cleaned by water jets, or installed where water jets are liable to be used, shall be at least IPX5 (IEC 60335-2-75)		N/A
7	MARKING AND INSTRUCTIONS		--
7.1	Rated voltage or voltage range (V)	220-240V	P
	Symbol for nature of supply, or	~	P
	Rated frequency (Hz)	50/60Hz	P

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Rated power input (W), or..... :	230W	P
	Rated current (A)		N/A
	Manufacturer's or responsible vendor's name, trademark or identification mark	See marking plate	P
	Model or type reference	See marking plate	P
	Symbol IEC 60417-5172, for class II appliances		N/A
	IP number, other than IPX0	IPX0	N/A
	Symbol IEC 60417-5180, for class III appliances, unless		N/A
	the appliance is operated by batteries only		N/A
	Symbol IEC 60417-5036, for the enclosure of electrically-operated water valves in external hose-sets for connection of an appliance to the water mains, if the working voltage exceeds extra-low voltage		N/A
	Rated pressure in MPa (IEC 60335-2-75)		N/A
	Maximum permissible water pressure in MPa for appliances intended to be connected to the water mains (IEC 60335-2-75)		N/A
	Appliance intended to be filled by hand has means that indicates the required level for correct operation (IEC 60335-2-75)		N/A
	Appliance incorporating socket outlet, voltage, nature of the supply and current or power output marked in vicinity of the socket outlet (IEC 60335-2-75)		N/A
	Appliance intended to be partially immersed in water for cleaning is marked with the maximum level of immersion and with the substance of the following:"Do not immerse beyond this level" (IEC 60335-2-75)		N/A
7.2	Warning for stationary appliances for multiple supply		N/A
	Warning placed in vicinity of terminal cover		N/A
7.3	Range of rated values marked with the lower and upper limits separated by a hyphen	220-240V	P
	Different rated values marked with the values separated by an oblique stroke	50/60Hz	P
	The requirement also applies when the adjustment has to be made by the maintenance person (IEC 60335-2-75)		P
7.4	Appliances adjustable for different rated voltages, the voltage setting is clearly discernible		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Requirement met if frequent changes are not required and the rated voltage to which the appliance is to be adjusted is determined from a wiring diagram		N/A
7.5	Appliances with more than one rated voltage or one or more rated voltage ranges, marked with rated input or rated current for each rated voltage or range, unless		N/A
	the power input is related to the arithmetic mean value of the rated voltage range		N/A
	Relation between marking for upper and lower limits of rated power input or rated current and voltage is clear		N/A
7.6	Correct symbols used		P
	Symbol for nature of supply placed next to rated voltage		P
	Symbol for class II appliances placed unlikely to be confused with other marking		N/A
	Units of physical quantities and their symbols according to international standardized system		P
7.7	Connection diagram fixed to appliances to be connected to more than two supply conductors and appliances for multiple supply, unless		N/A
	correct mode of connection is obvious		N/A
7.8	Except for type Z attachment, terminals for connection to the supply mains indicated as follows:		--
	- marking of terminals exclusively for the neutral conductor (letter N)		P
	- marking of protective earthing terminals (symbol IEC 60417-5019)		P
	- marking not placed on removable parts		P
	Terminals for equipotential bonding indicated by symbol IEC 60417-5021 (2002-10) (IEC 60335-2-75)		N/A
	Symbol not placed on screws, removable washers or other parts that can be removed when conductors are being connected (IEC 60335-2-75)		P
7.9	Marking or placing of switches which may cause a hazard		P
7.10	Indications of switches on stationary appliances and controls on all appliances by use of figures, letters or other visual means..... :		N/A
	This applies also to switches which are part of a control		N/A
	If figures are used, the off position indicated by the figure 0		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	The figure 0 indicates only OFF position, unless no confusion with the OFF position		N/A
7.11	Indication for direction of adjustment of controls		N/A
7.12	Instructions for safe use provided		P
	Details concerning precautions during user maintenance		P
	The instructions state that:		--
	- the appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction		P
	- children being supervised not to play with the appliance		P
	For a part of class III construction supplied from a detachable power supply unit, the instructions state that the appliance is only to be used with the unit provided		N/A
	Instructions for class III appliances state that it must only be supplied at SELV, unless		N/A
	it is a battery-operated appliance, the battery being charged outside the appliance		N/A
7.12.1	Sufficient details for installation supplied		P
	For an appliance intended to be permanently connected to the water mains and not connected by a hose-set, this is stated		N/A
	The installation instructions for appliances intended to be connected to the water mains specify the means of connection and draw attention to any national rules that may be applicable (IEC 60335-2-75)		N/A
	The installation instructions state if appliance is suitable for outdoor use (IEC 60335-2-75)		N/A
	The installation instructions state the maximum and minimum ambient temperatures for correct operation (IEC 60335-2-75)		P
	For appliances that are not at least IPX5, the instructions state that the appliance is not suitable for installation in an area where a water jet could be used (IEC 60335-2-75)		P
	The installation instructions state the maximum tilt of appliance for safe operation (IEC 60335-2-75)		P
	The installation instructions for appliances of the professional type state that the appliance is only to be installed in locations where its use and maintenance is restricted to trained personnel (IEC 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	The installation instructions for appliances of the supervised type state that the appliance is only to be installed in locations where it can be overseen by trained personnel (IEC 60335-2-75)		N/A
	The installation instructions for class I appliances of the professional type that are intended to be permanently connected to fixed wiring, and have a leakage current that may exceed 10 mA, state that the installation of a residual current device (RCD) having a rated residual operating current not exceeding 30 mA is advisable (IEC 60335-2-75)		N/A
7.12.101	If it is necessary to take special precautions during maintenance operations, details of these are supplied. Instructions for maintenance state how to gain access to maintenance area, including how to use the access key and the override key (IEC 60335-2-75)		p
	Instructions do not include instructions on how to gain access to a service area (IEC 60335-2-75)		N/A
7.12.101.1	Instructions for maintenance includes instructions for descaling, disinfecting, cleaning and details for flushing and removal of any residual recommended cleaners, sterilizers or descalers (IEC 60335-2-75)		N/A
	If the appliance is not at least IPX5, the instructions for maintenance state that the appliance must not be cleaned by a water jet (IEC 60335-2-75)		N/A
	The instructions for maintenance for appliances incorporating an appliance inlet, and intended to be partially or completely immersed in water for cleaning, state that the connector must be removed before the appliance is cleaned and that the appliance inlet must be dried before the appliance is used again (IEC 60335-2-75)		N/A
7.12.101.2	A suitable warning is given in instructions for maintenance when using override key (IEC 60335-2-75)		N/A
7.12.101.3	Instructions for maintenance having list of accessories that may be used with the appliance (IEC 60335-2-75)		N/A
7.12.101.4	Instructions for maintenance state ambient temperatures and gives details concerning freezing (IEC 60335-2-75)		P
7.12.101.5	Instructions for maintenance for appliances containing pressurized gas give details concerning the prevention of freezing or how to ensure safe operation if freezing occurs (IEC 60335-2-75)		N/A
7.12.101.6	Instructions for maintenance specify suitable types of food and how to ensure hygienic operation (IEC 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
7.12.101.7	The instructions for maintenance for appliances intended for dispensing potentially hazardous food, when the safety of the food depends upon the temperature and duration of storage, include details for the safe handling of the food (IEC 60335-2-75)		N/A
7.12.102	Instructions state that access to the service area is restricted to persons having safety/hygiene knowledge and practical experience of the appliance (IEC 60335-2-75)		P
7.12.2	Stationary appliances not fitted with means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III, the instructions state that means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules		N/A
7.12.3	Insulation of the fixed wiring in contact with parts exceeding 50 K during clause 11; instructions state that the fixed wiring must be protected		N/A
7.12.4	Instructions for built-in appliances:		--
	- dimensions of space		N/A
	- dimensions and position of supporting and fixing		N/A
	- minimum distances between parts and surrounding structure		N/A
	- minimum dimensions of ventilating openings and arrangement		N/A
	- connection to supply mains and interconnection of separate components		N/A
	- allow disconnection of the appliance after installation, by accessible plug or a switch in the fixed wiring, unless		N/A
	a switch complying with 24.3		N/A
7.12.5	Replacement cord instructions, type X attachment with a specially prepared cord		N/A
	Replacement cord instructions, type Y attachment		P
	Replacement cord instructions, type Z attachment		N/A
7.12.6	Caution in the instructions for appliances incorporating a non-self-resetting thermal cut-out that is reset by disconnection of the supply mains, if this cut-out is required to comply with the standard		N/A
7.12.7	Instructions for fixed appliances stating how the appliance is to be fixed		P
7.12.8	Instructions for appliances connected to the water mains:		N/A
	- max. inlet water pressure (Pa)..... :		N/A
	- min. inlet water pressure, if necessary (Pa)..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Instructions concerning new and old hose-sets for appliances connected to the water mains by detachable hose-sets		N/A
7.12.9	Instructions specified in 7.12 and from 7.12.1 to 7.12.8 appear together before any other instructions supplied with the appliance		P
	These instructions may be supplied with appliance separately from any functional use booklet		P
	They may follow the description of the appliance that identifies parts, or follow the drawings/sketches		P
	In addition, instructions are also available in an alternative format such as on a website or on request from the user in a format such as a DVD		P
	In addition, instructions are also available in an alternative format such as on a website or in a format such as a DVD.....:		P
7.13	Instructions and other texts in an official language	English	P
7.14	Marking clearly legible and durable, rubbing test as specified		P
7.15	Markings on a main part		P
	Marking clearly discernible from the outside, if necessary after removal of a cover		N/A
	For portable appliances, cover can be removed or opened without a tool		N/A
	For stationary appliances, name, trademark or identification mark and model or type reference visible after installation		P
	For fixed appliances, name, trademark or identification mark and model or type reference visible after installation according to the instructions		N/A
	Indications for switches and controls placed on or near the components. Marking not on parts which can be positioned or repositioned in such a way that the marking is misleading		P
7.16	Marking of a possible replaceable thermal link or fuse link clearly visible with regard to replacing the link		N/A
8	PROTECTION AGAINST ACCESS TO LIVE PARTS		--
8.1	Adequate protection against accidental contact with live parts		P
8.1.1	Requirement applies for all positions, detachable parts removed		P
	Lamps behind a detachable cover not removed, if conditions met		N/A
	Insertion or removal of lamps, protection against contact with live parts of the lamp cap		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Use of test probe B of IEC 61032, with a force not exceeding 1 N: no contact with live parts		P
	Use of test probe B of IEC 61032 through openings, with a force of 20N: no contact with live parts		P
8.1.2	Use of test probe 13 of IEC 61032, with a force not exceeding 1 N, through openings in class 0 appliances and class II appliances/constructions: no contact with live parts		P
	Test probe 13 also applied through openings in earthed metal enclosures having a non-conductive coating: no contact with live parts		P
8.1.3	For appliances other than class II, use of test probe 41 of IEC 61032, with a force not exceeding 1 N: no contact with live parts of visible glowing heating elements		N/A
8.1.4	Accessible part not considered live if:		--
	- safety extra-low a.c. voltage: peak value not exceeding 42.4 V		N/A
	- safety extra-low d.c. voltage: not exceeding 42.4 V		N/A
	- or separated from live parts by protective impedance		N/A
	If protective impedance: d.c. current not exceeding 2 mA, and		N/A
	a.c. peak value not exceeding 0.7 mA		N/A
	- for peak values over 42.4 V up to and including 450 V, capacitance not exceeding 0,1 μ F		N/A
	- for peak values over 450 V up to and including 15 kV, discharge not exceeding 45 μ C		N/A
	- for peak values over 15kV, the energy in the discharge not exceeding 350 mJ		N/A
8.1.5	Live parts protected at least by basic insulation before installation or assembly:		N/A
	- built-in appliances		N/A
	- fixed appliances		P
	- appliances delivered in separate units		N/A
8.2	Class II appliances and constructions constructed so that there is adequate protection against accidental contact with basic insulation and metal parts separated from live parts by basic insulation only		P
	Only possible to touch parts separated from live parts by double or reinforced insulation		P
9	STARTING OF MOTOR-OPERATED APPLIANCES		--
	Not applicable (IEC 60335-2-75)		N/A
10	POWER INPUT AND CURRENT		--

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
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
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated power input is related to the arithmetic mean value		P
10.2	Current at normal operating temperature, rated voltage and normal operation not deviating from rated current by more than shown in table 2..... :	(see appended table)	N/A
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated current is related to the arithmetic mean value of the range		N/A
11	HEATING		--
11.1	No excessive temperatures in normal use		P
11.2	Appliances normally fixed to the floor, and those having a mass greater than 40 kg and not provided with casters or rollers, are installed in accordance with the instructions (IEC 60335-2-75)		N/A
	Other appliances, except fixed appliances, are placed on the floor as near to the walls as possible (IEC 60335-2-75)		P
11.3	Temperature rises, other than of windings, determined by thermocouples		P
	Temperature rises of windings determined by resistance method, unless		N/A
	the windings are non-uniform or it is difficult to make the necessary connections		P
11.4	Heating appliances operated under normal operation at 1.15 times rated power input (W) :		N/A
	If the temperature rise limits are exceeded in appliances incorporating motors, transformers or electronic circuits, and if the power input is lower than the rated power input, the test is repeated with the appliance supplied at 1,06 times the rated voltage.....: (IEC 60335-2-75)		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)..... :	1,06 x 240 V = 254,4V	P
11.6	Combined appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage (V)..... :		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
11.7	The appliance is operated under normal operation until steady conditions are established, the appliance being refilled when necessary (IEC 60335-2-75)		P
11.8	Temperature rises monitored continuously and not exceeding the values in table 3	(see appended table)	P
	If the temperature rise of a motor winding exceeds the value of table 3, or		N/A
	if there is doubt with regard to classification of insulation,		N/A
	tests of Annex C are carried out		N/A
	Sealing compound does not flow out		P
	Protective devices do not operate, except		P
	components in protective electronic circuits tested for the number of cycles specified in 24.1.4		N/A
	Temperature rise of the surfaces in user area does not exceed limits for handles, knobs, grips and parts held for short periods only (IEC 60335-2-75)		P
	Temperature rise limits of motors, transformers and components of electronic circuits, including parts directly influenced by them, exceeded when appliance operated at 1,15 times the rated power input (IEC 60335-2-75)		N/A
11.101	Appliances incorporating refrigerating equipment with motor-compressors that do not comply with IEC 60335-2-34, tested at the following ambient temperatures (IEC 60335-2-75):		N/A
	•32 °C for temperate countries (IEC 60335-2-75)		N/A
	•43 °C for tropical countries (IEC 60335-2-75)		N/A
	Other parts of the appliance operated to produce the most unfavourable conditions in the refrigerating system (IEC 60335-2-75)		N/A
	Temperature of windings and enclosure of motor-compressors does not exceed (IEC 60335-2-75):		N/A
	•140 °C for windings with synthetic insulation (IEC 60335-2-75)		N/A
	•130 °C for windings with cellulosic insulation (IEC 60335-2-75)		N/A
	•150 °C for external enclosures (IEC 60335-2-75)		N/A
13	LEAKAGE CURRENT AND ELECTRIC STRENGTH AT OPERATING TEMPERATURE		--
13.1	Leakage current not excessive and electric strength adequate		P
	Heating appliances operated at 1.15 times the rated power input (W)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Motor-operated appliances and combined appliances supplied at 1.06 times the rated voltage (V)	1,06 x 240 V = 254,4V	P
	Protective impedance and radio interference filters disconnected before carrying out the tests		N/A
13.2	For class 0, class II and class III appliances, leakage current measured by means of the circuit described in figure 4 of IEC 60990		N/A
	For other appliances, a low impedance ammeter may be used		P
	Leakage current measurements	(see appended table)	P
13.3	The appliance is disconnected from the supply		P
	Electric strength tests according to table 4	(see appended table)	P
	No breakdown during the tests		P
14	TRANSIENT OVERVOLTAGES		--
	Appliances withstand the transient over-voltages to which they may be subjected		N/A
	Clearances having a value less than specified in table 16 subjected to an impulse voltage test, the test voltage specified in table 6	(see appended table)	N/A
	No flashover during the test, unless		N/A
	of functional insulation if the appliance complies with clause 19 with the clearance short-circuited		N/A
15	MOISTURE RESISTANCE		--
15.1	Enclosure provides the degree of moisture protection according to classification of the appliance	IPX0	N/A
	Compliance checked as specified in 15.1.1, taking into account 15.1.2, followed by the electric strength test of 16.3		N/A
	No trace of water on insulation which can result in a reduction of clearances or creepage distances below values specified in clause 29		N/A
15.1.1	Appliances, other than IPX0, subjected to tests as specified in IEC 60529	IPX0	N/A
	Water valves containing live parts in external hoses for connection of an appliance to the water mains tested as specified for IPX7 appliances		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliances of the professional type classified IPX3 or lower, and intended to be placed on a kitchen floor, are subjected to a test in which water under pressure is indirectly splashed onto the appliance. The splash apparatus is shown in Figure 101. The bowl is placed on the floor and the water pressure adjusted so that the water splashes to a height of 150 mm above the bottom of the bowl. The apparatus is moved around the appliance in order to splash it from all directions for a total of 5 min (IEC 60335-2-75)		N/A
15.1.2	Hand-held appliance turned continuously through the most unfavourable positions during the test		N/A
	Built-in appliances installed according to the instructions		N/A
	Appliances placed or used on the floor or table placed on a horizontal unperforated support		N/A
	Appliances normally fixed to a wall and appliances with pins for insertion into socket-outlets are mounted on a wooden board		N/A
	For IPX3 appliances, the base of wall mounted appliances is placed at the same level as the pivot axis of the oscillating tube		N/A
	For IPX4 appliances, the horizontal centre line of the appliance is aligned with the pivot axis of the oscillating tube, and		N/A
	for appliances normally used on the floor or table, the movement is limited to two times 90° for a period of 5 min, the support being placed at the level of the pivot axis of the oscillating tube		N/A
	Wall-mounted appliances, take into account the distance to the floor stated in the instructions		N/A
	Appliances normally fixed to a ceiling are mounted underneath a horizontal unperforated support, the pivot axis of the oscillating tube located at the level of the underside of the support, and		N/A
	for IPX4 appliances, the movement of the tube is limited to two times 90° from the vertical for a period of 5 min		N/A
	Appliances with type X attachment fitted with a flexible cord as described		N/A
	Detachable parts subjected to the relevant treatment with the main part		N/A
	However, if a part has to be removed for user maintenance and a tool is needed, this part is not removed		N/A
15.2	Spillage of liquids does not affect the electrical insulation (IEC 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Electrical insulation not affected by cleaning, disinfecting, descaling and similar operations (IEC 60335-2-75)		N/A
	Compliance is checked by the tests of 15.2.101 to 15.2.113 (IEC 60335-2-75)		N/A
	Water for tests contains approximately 1 % NaCl (IEC 60335-2-75)		N/A
	Appliances with type X attachment, except those having a specially prepared cord, are fitted with the lightest permissible type of flexible cord of the smallest cross-sectional area specified in Table 11 (IEC 60335-2-75)		N/A
	Appliance incorporating an appliance inlet tested with or without a connector, whichever resulted in the most unfavourable condition (IEC 60335-2-75)		N/A
	Appliance operated under standby mode before each test , and containers connected to the water mains pre-filled with saline solution (IEC 60335-2-75)		N/A
	After each overfilling or application of liquid, appliance withstands electric strength test of 16.3 (IEC 60335-2-75)		N/A
	No trace of liquid or solids on insulation that can result in a reduction of clearances and creepage distances below values specified in 29. All residues are then removed and the appliance is dried (IEC 60335-2-75)		N/A
	Detachable parts in user area removed or placed in the most unfavourable position (IEC 60335-2-75)		N/A
	Detachable parts in the maintenance area placed in their normal position following a maintenance operation (IEC 60335-2-75)		N/A
15.2.101	Containers for powdered or granulated ingredients or products filled with dry granulated sugar ignoring any level indication and an additional quantity equal to 15 % of the total capacity of the container, poured in steadily over 1 min (IEC 60335-2-75) (I) :		N/A
	Containers intended to be filled outside the appliance replaced without removing any excess sugar from the outside of the container, and lids replaced after overfilling (IEC 60335-2-75)		N/A
15.2.102	Manually filled liquid containers filled with saline solution and an additional quantity equal to 15 % of the total capacity of each container or 0,25 l, the greater of the two, poured in steadily over 1 min (IEC 60335-2-75) (I)		N/A
15.2.103	Outlets of liquid mixing containers blocked and containers filled with saline solution and an additional quantity equal to 15 % of total capacity of each container or 0,25 l, the greater of the two, poured in steadily over 15 s (IEC 60335-2-75) (I) :		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
15.2.104	Drains for liquid waste containers blocked and containers filled with saline solution, and an additional quantity equal to 15 % of total capacity of each container or 0,25 l, the greater of the two, poured in steadily over 15 s (IEC 60335-2-75) (I) :		N/A
15.2.105	Drain taps of containers used during maintenance operations adjusted, in turn, to most unfavourable position, appliance supplied at rated voltage, operated under normal operation until flow of saline solution stabilized (IEC 60335-2-75)		N/A
15.2.106	Failure of the inlet valve of appliances connected to the water mains simulated. (IEC 60335-2-75)		N/A
	Water allowed to flow 1 min after first evidence of overflow , except when the inflow stops automatically (IEC 60335-2-75)		N/A
15.2.107	Appliances dispensing liquid into serving container tested by rapidly pouring 0,5 l of saline solution over the surface where container is filled, transported and removed by user (IEC 60335-2-75)		N/A
15.2.108	Appliances with accessible openings other than appliances of the professional type and appliances of the supervised type tested by slowly pouring 0,25 l of saline solution into each opening (IEC 60335-2-75)		N/A
	Solution projected towards the opening when the opening is in a vertical surface (IEC 60335-2-75)		N/A
15.2.109	Appliances with external surfaces on which it is possible to place a vessel, tested by rapidly pouring 0,5 l of saline solution over the surface (IEC 60335-2-75)		N/A
	The quantity of saline solution increased to 5 l for appliances of the professional type when their highest surface was lower than 1,5 m (IEC 60335-2-75)		N/A
	For professional espresso coffee machines, the amount of water increased to 5 l only when the highest surface after installation is lower than 1,2 m (IEC 60335-2-75)		N/A
15.2.110	Appliances delivering pre-packed products tested to simulate leakage from package over any area where the package is stored or transported (IEC 60335-2-75)		N/A
	Liquid leakage simulated by rapidly pouring a quantity of saline solution, equal in volume to the largest pre-packed product that can be delivered from the appliance, over the area (IEC 60335-2-75) (I) :		N/A
	Leakage from dry products simulated by rapidly pouring a quantity of dry granulated sugar, equal in volume to the largest pre-packed product that can be delivered from the appliance, over the area (IEC 60335-2-75) (I) :		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
15.2.111	Maintenance operations involving the use of liquids carried out three times (IEC 60335-2-75)		N/A
15.2.112	Parts liable to be cleaned wiped with a sponge approximately 150 mm x 75 mm x 50 mm saturated with saline solution, and sponge applied approximately 10 s to each surface without appreciable force (IEC 60335-2-75)		N/A
15.2.113	Appliances subject to descaling, descaled 10 times and operated under standby mode in accordance with the instructions for maintenance (IEC 60335-2-75)		N/A
15.3	Appliances proof against humid conditions		P
	Checked by test Cab: Damp heat steady state in IEC 60068-2-78		P
	Detachable parts removed and subjected, if necessary, to the humidity test with the main part		N/A
	Humidity test for 48 h in a humidity cabinet		P
	Reassembly of those parts that may have been removed		N/A
	The appliance withstands the tests of clause 16		P
	NOTE 101 If it is not possible to place the appliance in the humidity cabinet, electrical parts are tested separately (IEC 60335-2-75)		P
15.101	Appliances having a tap that provides water for filling or cleaning constructed so that the water cannot come into contact with live parts or affect electrical insulation (IEC 60335-2-75)		N/A
	Appliance connected to water mains, and pressure adjusted to maximum water pressure marked on the appliance (IEC 60335-2-75)..... :		N/A
	Tiltable and movable parts, including lids, placed in the most unfavourable position (IEC 60335-2-75)		N/A
	Tap fully opened for 1 min with swivel outlets adjusted to direct the water in the most unfavourable direction (IEC 60335-2-75)		N/A
	Appliance withstands the electric strength test of 16.3 (IEC 60335-2-75)		N/A
15.102	Adequate protection against effects of immersion provided on appliances intended to be partially or completely immersed in water for cleaning (IEC 60335-2-75)		N/A
	Following tests conducted on three additional appliances (IEC 60335-2-75)		N/A
	Appliance operated under normal operation at 1,15 times rated power input until the thermostat operates for the first time (IEC 60335-2-75)		N/A
	Appliances without a thermostat operated until steady conditions established (IEC 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliance disconnected from supply with any appliance connector withdrawn and completely immersed in water containing approximately 1 % NaCl with a temperature between 10 °C & 25 °C (IEC 60335-2-75) (°C)		N/A
	If marked with the maximum level of immersion, appliance immersed 50 mm deeper than the this level (IEC 60335-2-75)		N/A
	After 1 h, appliance removed from the saline solution, dried, and subjected to leakage current test of 16.2 for a total of 5 times (IEC 60335-2-75)		N/A
	Appliance withstands the electric strength test of 16.3 at a voltage specified in Table 4 (IEC 60335-2-75)		N/A
	There is no trace of liquid on insulation that could result in a reduction of clearances and creepage distances below the values specified in Clause 29 after the appliance with the highest leakage current was immersed in water 5 times and dismantled for examination (IEC 60335-2-75)		N/A
	The remaining two appliances operated under normal operation at 1,15 times rated power input for 240 h, and after disconnected from the supply, immersed again for 1 h (IEC 60335-2-75)		N/A
	The two samples dried and subjected to the electric strength test of 16.3 at the voltage specified in Table 4 (IEC 60335-2-75)		N/A
	No trace of liquid on insulation that could result in reduction of clearances and creepage distances below values in Clause 29 (IEC 60335-2-75)		N/A
16	LEAKAGE CURRENT AND ELECTRIC STRENGTH		--
16.1	Leakage current not excessive and electric strength adequate		P
	Protective impedance disconnected from live parts before carrying out the tests		N/A
	Tests carried out at room temperature and not connected to the supply		P
16.2	Single-phase appliances: test voltage 1.06 times rated voltage (V)	1,06 x 240 V = 254,4V	P
	Three-phase appliances: test voltage 1.06 times rated voltage divided by $\sqrt{3}$ (V)		N/A
	Leakage current measurements	(see appended table)	P
	Limit values doubled if:		--
	- all controls have an off position in all poles, or		N/A
	- the appliance has no control other than a thermal cut-out, or		N/A
	- all thermostats, temperature limiters and energy regulators do not have an off position, or		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	- the appliance has radio interference filters		N/A
	With the radio interference filters disconnected, the leakage current do not exceed limits specified :	(see appended table)	N/A
16.3	Electric strength tests according to table 7 :	(see appended table)	P
	Test voltage applied between the supply cord and inlet bushing and cord guard and cord anchorage as specified :	(see appended table)	P
	No breakdown during the tests		P
17	OVERLOAD PROTECTION OF TRANSFORMERS AND ASSOCIATED CIRCUITS		--
	No excessive temperatures in transformer or associated circuits in event of short-circuits likely to occur in normal use..... :		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) :		N/A
	Basic insulation is not short-circuited		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		N/A
	Temperature of the winding not exceeding the value specified in table 8		N/A
	However, limits do not apply to fail-safe transformers complying with sub-clause 15.5 of IEC 61558-1		N/A
18	ENDURANCE		--
	Not applicable (IEC 60335-2-75)		N/A
19	ABNORMAL OPERATION		--
19.1	The risk of fire, mechanical damage or electric shock under abnormal or careless operation obviated		P
	Electronic circuits so designed and applied that a fault will not render the appliance unsafe :	(see appended table)	P
	Appliances incorporating heating elements subjected to the tests of 19.2 and 19.3, and		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		N/A
	if applicable, to the test of 19.5		N/A
	Appliances incorporating PTC heating elements are also subjected to the test of 19.6		N/A
	Appliances incorporating motors subjected to the tests of 19.7 to 19.10, as applicable		P

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliances incorporating electronic circuits subjected to the tests of 19.11 and 19.12, as applicable		P
	Appliances incorporating contactors or relays subjected to the test of 19.14, being carried out before the tests of 19.11		N/A
	Appliances incorporating voltage selector switches subjected to the test of 19.15		N/A
	Unless otherwise specified, the tests are continued until a non-self-resetting thermal cut-out operates, or		N/A
	until steady conditions are established		P
	If a heating element or intentionally weak part becomes open-circuited, the relevant test is repeated on a second sample		N/A
	Appliances subjected to the tests of 19.101 and 19.102, if applicable (IEC 60335-2-75)		P
	Detachable parts in user area removed or placed in the most unfavourable position (IEC 60335-2-75)		P
	Detachable parts in the maintenance are placed in their normal position following a maintenance operation (IEC 60335-2-75)		P
	Containers filled to the most unfavourable level (IEC 60335-2-75)		N/A
	Appliances provided with control limiting the pressure during tests of Clause 11 subjected to the tests of 19.4 with the control inoperative (IEC 60335-2-75)		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)..... :		N/A
19.3	Test of 19.2 repeated; test voltage (V), power input of 1.24 times rated power input (W)..... :		N/A
19.4	Test conditions as in clause 11, any control limiting the temperature during tests of clause 11 short-circuited		N/A
19.5	Test of 19.4 repeated on Class 0I and I appliances with tubular sheathed or embedded heating elements. No short-circuiting, but one end of the element connected to the sheath		N/A
	The test repeated with reversed polarity and the other end of the heating element connected to the sheath		N/A
	The test is not carried out on appliances intended to be permanently connected to fixed wiring and on appliances where an all-pole disconnection occurs during the test of 19.4		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
19.6	Appliances with PTC heating elements tested at rated voltage, establishing steady conditions		N/A
	The working voltage of the PTC heating element is increased by 5% and the appliance is operated until steady conditions are re-established. The voltage is then increased in similar steps until 1.5 times working voltage or until the PTC heating element ruptures (V)		N/A
19.7	Stalling test by locking the rotor if the locked rotor torque is smaller than the full load torque, or		P
	locking moving parts of other appliances		P
	Locked rotor, capacitors open-circuited one at a time		N/A
	Test repeated with capacitors short-circuited one at a time, unless		N/A
	capacitor is of class P2 of IEC 60252-1		N/A
	Appliances with timer or programmer supplied with rated voltage for each of the tests, for a period equal to the maximum period allowed		N/A
	Other appliances supplied with rated voltage for a period as specified		P
	Winding temperatures not exceeding values specified in table 8	(see appended table)	P
	Appliance operated under the most unfavourable dispensing cycle for the motor (IEC 60335-2-75)		P
19.8	Multi-phase motors operated at rated voltage with one phase disconnected		N/A
19.9	Running overload test on appliances incorporating motors intended to be remotely or automatically controlled or liable to be operated continuously		N/A
	Motor-operated and combined appliances for which 30.2.3 is applicable and that use overload protective devices relying on electronic circuits to protect the motor windings, are also subjected to the test		N/A
	Winding temperatures not exceeding values as specified	(see appended table)	N/A
19.10	Series motor operated at 1.3 times rated voltage for 1 min (V)		N/A
	During the test, parts not being ejected from the appliance		N/A
19.11	Electronic circuits, compliance checked by evaluation of the fault conditions specified in 19.11.2 for all circuits or parts of circuits, unless	For parts of circuits	P
	they comply with the conditions specified in 19.11.1		P

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliances incorporating an electronic circuit that relies upon a programmable component to function correctly, subjected to the test of 19.11.4.8, unless		N/A
	restarting does not result in a hazard		N/A
	Appliances having a device with an off position obtained by electronic disconnection, or a device placing the appliance in a stand-by mode, subjected to the tests of 19.11.4		N/A
	If the safety of the appliance under any of the fault conditions depends on the operation of a miniature fuse-link complying with IEC 60127, the test of 19.12 is carried out		P
	During and after each test the following is checked:		--
	- the temperature of the windings do not exceed the values specified in table 8		P
	- the appliance complies with the conditions specified in 19.13		P
	- any current flowing through protective impedance not exceeding the limits specified in 8.1.4		N/A
	If a conductor of a printed board becomes open-circuited, the appliance is considered to have withstood the particular test, provided both of the following conditions are met:		--
	- the base material of the printed circuit board withstands the test of Annex E		N/A
	- any loosened conductor does not reduce clearance or creepage distances between live parts and accessible metal parts below the values specified in clause 29		P
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:		P
	- 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		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		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		N/A
	b) open circuit at the terminals of any component		P
	c) short circuit of capacitors, unless		N/A
	they comply with IEC 60384-14		P

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	d) short circuit of any two terminals of an electronic component, other than integrated circuits		P
	This fault condition is not applied between the two circuits of an optocoupler		N/A
	e) failure of triacs in the diode mode		P
	f) failure of microprocessors and integrated circuits		P
	g) failure of an electronic power switching device		N/A
	Each low power circuit is short-circuited by connecting the low-power point to the pole of the supply source from which the measurements were made		P
	The fault conditions are simulated until steady conditions are established (IEC 60335-2-75)		P
19.11.3	If the appliance incorporates a protective electronic circuit which operates to ensure compliance with clause 19, the relevant test is repeated with a single fault simulated, as indicated in a) to g) of 19.11.2		N/A
19.11.4	Appliances having a device with an off position obtained by electronic disconnection, or		N/A
	a device that can be placed in the stand-by mode,		N/A
	subjected to the tests of 19.11.4.1 to 19.11.4.7, the device being set in the off position or in the stand-by mode		N/A
	Appliances incorporating a protective electronic circuit subjected to the tests of 19.11.4.1 to 19.11.4.7, the tests being carried out after the protective electronic circuit has operated, except that		N/A
	appliances operated for 30 s or 5 min during the test of 19.7 are not subjected to the tests for electromagnetic phenomena.		N/A
	Surge protective devices disconnected, unless		N/A
	They incorporate spark gaps		N/A
19.11.4.1	The appliance is subjected to electrostatic discharges in accordance with IEC 61000-4-2, test level 4		N/A
19.11.4.2	The appliance is subjected to radiated fields in accordance with IEC 61000-4-3, test level 3		N/A
19.11.4.3	The appliance is subjected to fast transient bursts in accordance with IEC 61000-4-4, test level 3 or 4 as specified		N/A
19.11.4.4	The power supply terminals of the appliance subjected to voltage surges in accordance with IEC 61000-4-5, test level 3 or 4 as specified		N/A
	Earthed heating elements in class I appliances disconnected		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
19.11.4.5	The appliance is subjected to injected currents in accordance with IEC 61000-4-6, test level 3		N/A
19.11.4.6	Appliances having a rated current not exceeding 16 A are subjected to the Class 3 voltage dips and interruptions in accordance with IEC 61000-4-11		N/A
	Appliances having a rated current exceeding 16 A are subjected to the Class 3 voltage dips and interruptions in accordance with IEC 61000-4-34		N/A
19.11.4.7	The appliance is subjected to mains signals in accordance with IEC 61000-4-13, test level class 2		N/A
19.11.4.8	The appliance is supplied at rated voltage and operated under normal operation. After 60s the power supply is reduced to a level such that the appliance ceases to respond or parts controlled by the programmable component cease to operate		N/A
	The appliance continues to operate normally, or		N/A
	requires a manual operation to restart		N/A
19.12	If the safety of the appliance for any of the fault conditions specified in 19.11.2 depends on the operation of a miniature fuse-link complying with IEC 60127, the test is repeated, measuring the current flowing through the fuse-link; measured current (A); rated current of the fuse-link (A) :		P
19.13	During the tests the appliance does not emit flames, molten metal, poisonous or ignitable gas in hazardous amounts		P
	Temperature rises not exceeding the values shown in table 9..... :	(see appended table)	P
	Compliance with clause 8 not impaired		P
	If the appliance can still be operated it complies with 20.2		N/A
	Insulation, other than of class III appliances or class III constructions that do not contain live parts, withstands the electric strength test of 16.3, the test voltage as specified in table 4:		P
	- basic insulation (V) :	1000 V	P
	- supplementary insulation (V) :	1750 V	P
	- reinforced insulation (V)..... :	3000 V	P
	After operation or interruption of a control, clearances and creepage distances across the functional insulation withstand the electric strength test of 16.3, the test voltage being twice the working voltage		P
	The appliance does not undergo a dangerous malfunction, and		P
	no failure of protective electronic circuits, if the appliance is still operable		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliances tested with an electronic switch in the off position, or in the stand-by mode:		--
	- do not become operational, or		N/A
	- if they become operational, do not result in a dangerous malfunction during or after the tests of 19.11.4		N/A
	If the appliance contains lids or doors that are controlled by one or more interlocks, one of the interlocks may be released provided that:		N/A
	- the lid or door does not move automatically to an open position when the interlock is released, and		N/A
	- the appliance does not start after the cycle in which the interlock was released		N/A
	During the tests, molten plastic is not emitted (IEC 60335-2-75)		P
	Liquid having a temperature above 80 °C, steam or solid objects not emitted from unexpected places in a way likely to cause injury to persons (IEC 60335-2-75)		N/A
	After the tests, compliance with 15.1 and 15.2 is not impaired (IEC 60335-2-75)		P
19.14	Appliances operated under the conditions of clause 11, any contactor or relay contact operating under the conditions of clause 11 being short-circuited		N/A
	For a relay or contactor with more than one contact, all contacts are short-circuited at the same time		N/A
	A relay or contactor operating only to ensure the appliance is energized for normal use is not short-circuited		P
	If more than one relay or contactor operates in clause 11, they are short-circuited in turn		N/A
19.15	For appliances with a mains voltage selector switch, the switch is set to the lowest rated voltage position and the highest value of rated voltage is applied		N/A
19.101	Appliance supplied at rated voltage and operated under normal operation, and any fault condition or unexpected operation likely to occur during use of the appliance introduced (IEC 60335-2-75)		P
19.102	Appliances incorporating a thermal cut-out of the capillary type tested as specified in 19.4 with the capillary tube ruptured (IEC 60335-2-75)		N/A
20	STABILITY AND MECHANICAL HAZARDS		--
20.1	Appliances having adequate stability	Stationary appliance	N/A
	The appliance is tested with doors, lids and similar parts in the maintenance area placed in the normal position of use (IEC 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	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		N/A
	Possible heating test in overturned position; temperature rise does not exceed values shown in table 9		N/A
	The test is repeated with doors, lids and similar parts in the maintenance area placed in the most unfavourable position, however, the appliance is only tilted to an angle of 5° (IEC 60335-2-75)		N/A
20.2	Moving parts adequately arranged or enclosed as to provide protection against personal injury		P
	Protective enclosures, guards and similar parts are non-detachable, and		P
	have adequate mechanical strength		P
	Enclosures that can be opened by overriding an interlock are considered to be detachable parts		N/A
	Self-resetting thermal cut-outs and overcurrent protective devices not causing a hazard by unexpected closure		N/A
	Not possible to touch dangerous moving parts with the test probe described		P
	Covers over moving parts having a kinetic energy exceeding 4 J are interlocked so that it is only possible to remove them when the parts are stationary, unless they are only removable with the aid of a tool (IEC 60335-2-75)		N/A
21	MECHANICAL STRENGTH		--
21.1	Appliance has adequate mechanical strength and is constructed as to withstand rough handling		P
	Checked by applying 3 blows to every point of the enclosure like to be weak, in accordance with test Ehb of IEC 60068-2-75, spring hammer test, with an impact energy of 0,5 J	(see appended table)	P
	The appliance shows no damage impairing compliance with this standard, and		P
	compliance with 8.1, 15.1 and clause 29 not impaired		P
	If doubt, supplementary or reinforced insulation subjected to the electric strength test of 16.3		N/A
	If necessary, repetition of groups of three blows on a new sample		N/A
	Impact energy of 0,5 J applied in maintenance area (IEC 60335-2-75)		P
	Impact energy of 1,0 J applied in user area (IEC 60335-2-75)		P

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
21.2	Accessible parts of solid insulation having strength to prevent penetration by sharp implements		P
	Test not applicable if the thickness of supplementary insulation is at least 1 mm and reinforced insulation at least 2 mm		P
	The insulation is tested as specified, and does withstand the electric strength test of 16.3		N/A
22	CONSTRUCTION		--
22.1	Appliance marked with the first numeral of the IP system, relevant requirements of IEC 60529 are fulfilled	IPX0	N/A
22.2	Stationary appliance: means to ensure all-pole disconnection from the supply being provided:		--
	- a supply cord fitted with a plug, or		P
	- a switch complying with 24.3, or		N/A
	- a statement in the instruction sheet that a disconnection incorporated in the fixed wiring is to be provided, or		N/A
	- an appliance inlet		N/A
	Singe-pole switches and single-pole protective devices for the disconnection of heating elements in single-phase, permanently connected class 01 and class I appliances, connected to the phase conductor		N/A
22.3	Appliance provided with pins: no undue strain on socket-outlets		N/A
	Applied torque not exceeding 0.25 Nm		N/A
	Pull force of 50N to each pin after the appliance has being placed in the heating cabinet; when cooled to room temperature the pins are not displaced by more than 1mm		N/A
	Each pin subjected to a torque of 0.4Nm; the pins are not rotating, unless		N/A
	rotating does not impair compliance with this standard		N/A
22.4	Appliance for heating liquids and appliance causing undue vibration not provided with pins for insertion into socket-outlets		N/A
22.5	No risk of electric shock when touching the pins of the plug, for appliances having a capacitor with rated capacitance exceeding 0,1μF, the appliance being disconnected from the supply at the instant of voltage peak		P
	Voltage not exceeding 34 V (V) :	5,1V	P
22.6	Electrical insulation not affected by condensing water or leaking liquid		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Electrical insulation of Class II appliances not affected if a hose ruptures or seal leaks		N/A
	In case of doubt, test as described		N/A
22.7	Adequate safeguards against the risk of excessive pressure in appliances containing liquid or gases or having steam-producing devices		N/A
	Pressure relief devices constructed such that they cannot be rendered inoperative or set to a higher pressure without the aid of a tool available only to the manufacturer (IEC 60335-2-75)		N/A
	Appliances incorporating pressurized systems subjected to the following test (IEC 60335-2-75)		N/A
	All pressure regulating devices rendered inoperative and the system filled with water (IEC 60335-2-75)		N/A
	The pressure raised hydraulically until the pressure relief device operates (IEC 60335-2-75)		N/A
	Pressure does not exceed 1,2 times rated pressure and the appliance is capable of further use (IEC 60335-2-75)		N/A
	Pressure relief device rendered inoperative, and pressure raised until twice the rated pressure and maintained for 5 min (IEC 60335-2-75)		N/A
	No rupture and no permanent deformation (IEC 60335-2-75)		N/A
	An intentionally weak part may rupture after the pressure has attained 1,5 times the rated pressure as long as it does not give rise to a hazard (IEC 60335-2-75)		N/A
	The weak part replaced and test repeated, and the rupture occurred in the same way (IEC 60335-2-75)		N/A
	Appliance withstands the electric strength test of 16.3 (IEC 60335-2-75)		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		N/A
22.9	Insulation, internal wiring, windings, commutators and slip rings not exposed to oil, grease or similar substances, unless		P
	the substance has adequate insulating properties		N/A
22.10	Not possible to reset voltage-maintained non-self-resetting thermal cut-outs by the operation of an automatic switching device incorporated within the appliance, if:		N/A
	- a non-self-resetting thermal cut-out is required by the standard, and		N/A
	- a voltage maintained non-self-resetting thermal cut-out is used to meet it		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Non-self-resetting thermal motor protectors have a trip-free action, unless		N/A
	they are voltage maintained		N/A
	Reset buttons of non-self-resetting controls so located or protected that accidental resetting is unlikely		N/A
22.11	Reliable fixing of non-detachable parts that provide the necessary degree of protection against electric shock, moisture or contact with moving parts		P
	Obvious locked position of snap-in devices used for fixing such parts		N/A
	No deterioration of the fixing properties of snap-in devices used in parts that are likely to be removed during installation or servicing		P
	Tests as described	Enclosure: Push: 50 N, Pull: 50 N	P
22.12	Handles, knobs etc. fixed in a reliable manner		P
	Fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible		P
	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied		N/A
	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied		P
22.13	Unlikely that handles, when gripped as in normal use, make the operator's hand touch parts having a temperature rise exceeding the value specified for handles which are held for short periods only		N/A
22.14	No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance		P
	No exposed pointed ends of self-tapping screws or other fasteners, likely to be touched by the user in normal use or during user maintenance		P
	Requirement applied in the maintenance area to parts liable to be touched during maintenance operations (IEC 60335-2-75)		P
22.15	Storage hooks and the like for flexible cords smooth and well rounded		N/A
22.16	Automatic cord reels cause no undue abrasion or damage to the sheath of the flexible cord, no breakage of conductors strands and no undue wear of contacts		N/A
	Cord reel tested with 6000 operations, as specified		N/A
	Electric strength test of 16.3, voltage of 1000 V applied		N/A
22.17	Spacers not removable from the outside by hand or by means of a screwdriver or a spanner		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
22.18	Current-carrying parts and other metal parts resistant to corrosion		P
22.19	Driving belts not relied upon to provide the required level of insulation, unless		N/A
	constructed to prevent inappropriate replacement		N/A
22.20	Direct contact between live parts and thermal insulation effectively prevented, unless		N/A
	material used is non-corrosive, non-hygroscopic and non-combustible		N/A
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless		P
	impregnated		N/A
	This requirement does not apply to magnesium oxide and mineral ceramic fibres used for the electrical insulation of heating elements		N/A
22.22	Appliances not containing asbestos		P
22.23	Oils containing polychlorinated biphenyl (PCB) not used		P
22.24	Bare heating elements, except in class III appliances or class III constructions that do not contain live parts, adequately supported		N/A
	In case of rupture, the heating conductor is unlikely to come in contact with accessible metal parts		N/A
22.25	Sagging heating conductors, except in class III appliances or class III constructions that do not contain live parts, cannot come into contact with accessible metal parts		N/A
22.26	For class III constructions the insulation between parts operating at safety extra-low voltage and other live parts complies with the requirements for double or reinforced insulation		P
22.27	Parts connected by protective impedance separated by double or reinforced insulation		N/A
22.28	Metal parts of Class II appliances conductively connected to gas pipes or in contact with water, separated from live parts by double or reinforced insulation		N/A
22.29	Class II appliances permanently connected to fixed wiring so constructed that the required degree of access to live parts is maintained after installation		N/A
22.30	Parts serving as supplementary or reinforced insulation fixed so that they cannot be removed without being seriously damaged, or		P
	so constructed that they cannot be replaced in an incorrect position, and so that if they are omitted, the appliance is rendered inoperable or manifestly incomplete		P

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
22.31	Neither clearances nor creepage distances over supplementary and reinforced insulation reduced below values specified in clause 29 as a result of wear		P
	Neither clearances nor creepage distances between live parts and accessible parts reduced below values for supplementary insulation if wires, screws etc. become loose		P
22.32	Supplementary and reinforced insulation constructed or protected against pollution so that clearances or creepage distances are not reduced below the values in clause 29		P
	Supplementary insulation of natural or synthetic rubber resistant to ageing, or arranged and dimensioned so that creepage distances are not reduced below values specified in 29.2		N/A
	Ceramic material not tightly sintered, similar materials or beads alone not used as supplementary or reinforced insulation		N/A
	Insulating material in which heating conductors are embedded is considered to be basic insulation, not reinforced insulation		N/A
	Oxygen bomb test at 70 °C for 96 h and 16 h at room temperature		N/A
22.33	Conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts are not in direct contact with live parts		N/A
	Electrodes not used for heating liquids		N/A
	For class II constructions, conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts, not in direct contact with basic or reinforced insulation, unless		N/A
	the reinforced insulation consists of at least 3 layers		N/A
	For class II constructions, conductive liquids which are in contact with live parts, not in direct contact with reinforced insulation, unless		N/A
	the reinforced insulation consists of at least 3 layers		N/A
	An air layer not used as basic or supplementary insulation in a double insulation system if likely to be bridged by leaking liquid		N/A
	Ingredients and products have not direct contact with live parts or for class II constructions, with basic insulation (IEC 60335-2-75)		N/A
22.34	Shafts of operating knobs, handles, levers etc. not live, unless		N/A
	the shaft is not accessible when the part is removed		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
22.35	For other than class III constructions, handles, levers and knobs, held or actuated in normal use, not becoming live in the event of a failure of basic insulation		P
	Such parts being of metal, and their shafts or fixings are likely to become live in the event of a failure of basic insulation, are either adequately covered by insulation material or their accessible parts are separated from their shafts or fixings by supplementary insulation		N/A
	This requirement does not apply to handles, levers and knobs on stationary appliances, other than those of electrical components, provided they are reliably connected to an earthing terminal or earthing contact, or separated from live parts by earthed metal		N/A
	Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation		N/A
22.36	For appliances other than class III, handles continuously held in the hand in normal use so constructed that when gripped as in normal use, the operators hand is not likely to touch metal parts, unless		N/A
	they are separated from live parts by double or reinforced insulation		N/A
22.37	Capacitors in Class II appliances not connected to accessible metal parts and their casings, if of metal, separated from accessible metal parts by supplementary insulation, unless		N/A
	the capacitors comply with 22.42		N/A
22.38	Capacitors not connected between the contacts of a thermal cut-out		P
22.39	Lamp holders used only for the connection of lamps		N/A
22.40	Motor-operated appliances and combined appliances intended to be moved while in operation, or having accessible moving parts, fitted with a switch to control the motor. The actuating member of the switch being easily visible and accessible		N/A
	If the appliance cannot operate continuously, automatically or remotely without giving rise to a hazard, appliances for remote operation being fitted with a switch for stopping the operation. The actuating member of the switch being easily visible and accessible		N/A
22.41	No components, other than lamps, containing mercury		P

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
22.42	Protective impedance consisting of at least two separate components		N/A
	Values specified in 8.1.4 not exceeded if any one of the components are short-circuited or open-circuited		N/A
	Resistors checked by the test of 14.1 a) in IEC 60065		N/A
	Capacitors checked by the tests for class Y capacitors in IEC 60384-14		N/A
22.43	Appliances adjustable for different voltages, accidental changing of the setting of the voltage unlikely to occur		N/A
22.44	Appliances not having an enclosure that is shaped or decorated like a toy		P
22.45	When air is used as reinforced insulation, clearances not reduced below the values specified in 29.1.3 due to deformation as a result of an external force applied to the enclosure		P
22.46	For programmable protective electronic circuits used to ensure compliance with the standard, the software contains measures to control the fault/error conditions in table R.1		N/A
	Software that contains measures to control the fault/error conditions specified in table R.2 is to be specified in parts 2 for particular constructions or to address specific hazards		N/A
	These requirements are not applicable to software used for functional purpose or compliance with clause 11		N/A
22.47	Appliances connected to the water mains withstand the water pressure expected in normal use		N/A
	No leakage from any part, including any inlet water hose		N/A
22.48	Appliances connected to the water mains constructed to prevent backsiphonage of non-potable water		N/A
22.49	For remote operation, the duration of operation is to be set before the appliance can be started, unless		N/A
	the appliance switches off automatically or can operate continuously without hazard		N/A
22.50	Controls incorporated in the appliance take priority over controls actuated by remote operation		N/A
22.51	There is a control on the appliance manually adjusted to the setting for remote operation before the appliance can be operated in this mode		N/A
	There is a visual indication showing that the appliance is adjusted for remote operation		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	These requirements not necessary on appliances that can operate as follows, without giving rise to a hazard:		N/A
	- continuously, or		N/A
	- automatically, or		N/A
	- remotely		N/A
22.52	Socket-outlets on appliances accessible to the user in accordance with the socket-outlet system used in the country in which the appliance is sold		N/A
22.53	Class II appliances and class III appliances that incorporate functionally earthed parts have at least double insulation or reinforced insulation between live parts and the functionally earthed parts		N/A
22.54	Button cells and batteries designated R1 not accessible without the aid of a tool, unless		N/A
	the cover of their compartment can only be opened after at least two independent movements have been applied simultaneously		N/A
22.55	Devices operated to stop the intended function of the appliance, if any, are distinguished from other manual devices by means of shape, size, surface texture or position		P
	The requirement concerning position does not preclude use of a push on push off switch		N/A
	An indication when the device has been operated is given by:		P
	-tactile feedback from the actuator or from the appliance, or		N/A
	-reduction in heat output; or		N/A
	-audible and visible feedback		P
22.56	Detachable power supply part provided with the part of class III construction		N/A
22.57	The properties of non-metallic materials with do not degrade from exposure to UV-C radiation, as specified in annex T		N/A
	This requirement does not apply to glass, ceramics or similar materials		N/A
22.101	It is not possible to render an interlock inoperative without using an override key (IEC 60335-2-75)		N/A
	Appliance examined, subjected to manual test, and IEC 61032 test probe B applied (IEC 60335-2-75)		N/A
22.102	Access to service area is not possible using only the access key for maintenance area (IEC 60335-2-75)		P
	Appliance examined and subjected to manual tests (IEC 60335-2-75)		P
22.103	Appliance constructed so that scalding by steam is prevented when a lid is opened (IEC 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Tests of Clause 19 conducted (IEC 60335-2-75)		N/A
22.104	Appliance constructed so that dispensed products cannot be contaminated by substances such as lubricants and debris (IEC 60335-2-75)		N/A
22.105	Appliance constructed so that it is not possible to inadvertently open draw off taps and drain valves or withdraw drain plugs (IEC 60335-2-75)		N/A
22.106	Coin boxes and containers for other payment means positioned or protected so that overfilling cannot cause hazard (IEC 60335-2-75)	Scan to pay	N/A
22.107	Appliances intended to be connected to water mains constructed for a water pressure not less than 0,6 MPa (IEC 60335-2-75)		N/A
22.108	Moisture, grease and products used in appliance do not accumulate so that clearance and creepage distances are affected (IEC 60335-2-75)		P
22.109	Warning lights against a hazard coloured red only (IEC 60335-2-75)		N/A
22.110	Pressurized container's lid cannot be removed while the pressure within the container is excessive, and means provided to release the pressure to a value such that the lid can be removed without risk (IEC 60335-2-75)		N/A
	Appliance operated as specified in Clause 11 until pressure regulator operates for the first time (IEC 60335-2-75)		N/A
	Appliance disconnected from the supply and pressure decreased to 4 kPa (IEC 60335-2-75)		N/A
	It is not possible to remove the lid upon application of a 100 N force to the most unfavourable point where the lid or its handle can be gripped (IEC 60335-2-75)		N/A
	There is no hazardous displacement of the lid when it is released after internal pressure is gradually reduced while maintaining the 100 N force (IEC 60335-2-75)		N/A
	The test is not carried out on appliances when the lid is secured by screw clamps or other devices that ensure that the pressure is automatically reduced in a controlled manner before the lid can be removed (IEC 60335-2-75)		N/A
22.111	Means provided to prevent the dispensing of food when it has been adversely affected by storage or process temperatures in an appliance dispensing potentially hazardous food (IEC 60335-2-75)		N/A
22.112	Surfaces of food areas and splash areas are cleanable, and unwanted matter can be removed (IEC 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Food areas can be disinfected when necessary as verified by operating the appliance as in normal use, and cleaning and disinfecting it according to the instructions for maintenance (IEC 60335-2-75)		N/A
22.113	Non-food areas that are not adequately separated from food areas of appliances that dispense food are constructed so that the retention of moisture or unwanted matter, and the ingress of vermin, is prevented (IEC 60335-2-75)		N/A
	When this is unavoidable, the surfaces of the non-food areas are cleanable in accordance with 22.112 (IEC 60335-2-75)		N/A
23	INTERNAL WIRING		--
23.1	Wireways smooth and free from sharp edges		P
	Wires protected against contact with burrs, cooling fins etc.		P
	Wire holes in metal well-rounded or provided with bushings		P
	Wiring effectively prevented from coming into contact with moving parts		P
23.2	Beads etc. on live wires cannot change their position, and are not resting on sharp edges		N/A
	Beads inside flexible metal conduits contained within an insulating sleeve		N/A
23.3	Electrical connections and internal conductors movable relatively to each other not exposed to undue stress		N/A
	The requirement also applies to maintenance operations (IEC 60335-2-75)		N/A
	Flexible metallic tubes not causing damage to insulation of conductors		N/A
	Open-coil springs not used		N/A
	Adequate insulating lining provided inside a coiled spring, the turns of which touch one another		N/A
	No damage after 200 000 flexings for conductors flexed during normal use, or (IEC 60335-2-75)		N/A
	10 000 flexings for conductors flexed during maintenance operations (IEC 60335-2-75)		N/A
	Electric strength test of 16.3, 1000 V between live parts and accessible metal parts		N/A
	Not more than 10% of the strands of any conductor broken, and		N/A
	not more than 30% for wiring supplying circuits that consume no more than 15W		N/A
23.4	Bare internal wiring sufficiently rigid and fixed		P

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
23.5	The insulation of internal wiring subjected to the supply mains voltage withstanding the electrical stress likely to occur in normal use		P
	Basic insulation electrically equivalent to the basic insulation of cords complying with IEC 60227 or IEC 60245, or		P
	no breakdown when a voltage of 2000 V is applied for 15 min between the conductor and metal foil wrapped around the insulation		P
23.6	Sleeving used as supplementary insulation on internal wiring retained in position by clamping at both ends, or		P
	be such that it can only be removed by breaking or cutting		P
23.7	The colour combination green/yellow only used for earthing conductors		P
23.8	Aluminium wires not used for internal wiring		P
23.9	Stranded conductors not consolidated by soldering where they are subjected to contact pressure, unless		P
	the contact pressure is provided by spring terminals		N/A
23.10	The insulation and sheath of internal wiring, incorporated in external hoses for the connection of an appliance to the water mains, at least equivalent to that of light polyvinyl chloride sheathed flexible cord (60227 IEC 52)		N/A
23.101	Anchorage for internal wiring that can easily be replaced are constructed and located as follows (IEC 60335-2-75):		P
	- wiring cannot touch the clamping screws of the anchorage if these screws are accessible, except when separated from accessible metal parts by supplementary insulation (IEC 60335-2-75)		N/A
	- wiring is not clamped by a metal screw bearing directly on the wiring (IEC 60335-2-75)		P
	- for Class I appliances, the anchorages are of insulating material or are provided with insulating lining, except when failure of the insulation of the wiring does not make accessible metal parts live (IEC 60335-2-75)		P
	- anchorages of class II appliances are of insulating material, or when made of metal, insulated from accessible metal parts by supplementary insulation (IEC 60335-2-75)		N/A
23.102	Internal wiring accessible in the maintenance area and is moved during normal operation complies with 25.13, 25.14, 25.15 and 25.21 as verified by relevant tests (IEC 60335-2-75)		P
24	COMPONENTS		--

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
24.1	Components comply with safety requirements in relevant IEC standards		P
	List of components..... :	(see appended table)	P
	Motors not required to comply with IEC 60034-1, they are tested as part of the appliance		P
	Relays tested as part of the appliance, or		P
	alternatively acc. To IEC 60730-1, and meeting the additional requirements in IEC 60335-1		N/A
	The requirements of Clause 29 apply between live parts of components and accessible parts of the appliance		P
	Components can comply with the requirements for clearances and creepage distances for functional insulation in the relevant component standard		P
	30.2 of this standard apply to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections		P
	Components that have not been previously tested to comply with the IEC standard for the relevant component are tested according to the requirements of 30.2		P
	Components that have been previously tested to comply with the resistance to fire requirements in the IEC standard for the relevant component need not be retested provided the specified conditions are met		N/A
	If these conditions are not satisfied, the component is tested as part of the appliance.		P
	Power electronic converter circuits not required to comply with IEC 62477-1, they are tested as part of the appliance		P
	If components have not been tested and found to comply with relevant IEC standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9		P
	For components mentioned in 24.1.1 to 24.1.9 no additional tests specified in the relevant component standard are necessary other than those specified in 24.1.1 to 24.1.9		P
	Components not tested and found to comply with relevant IEC standard and components not marked or not used in accordance with its marking, tested under the conditions occurring in the appliance		P

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Lampholders and starterholders that have not being tested and found to comply with the relevant IEC standard, tested as a part of the appliance and additionally according to the gauging and interchangeability requirements of the relevant IEC standard		N/A
	No additional tests specified for nationally standardized plugs such as those detailed in IEC/TR 60083 or connectors complying with the standard sheets of IEC 60320-1 and IEC 60309		P
24.1.1	Capacitors likely to be permanently subjected to the supply voltage and used for radio interference suppression or for voltage dividing, complying with IEC 60384-14		P
	If the capacitors have to be tested, they are tested according to Annex F		N/A
24.1.2	Safety isolating transformers complying with IEC 61558-2-6		N/A
	If they have to be tested, they are tested according to Annex G		N/A
24.1.3	Switches complying with IEC 61058-1, the number of cycles of operation being at least 10 000		P
	If they have to be tested, they are tested according to Annex H		N/A
	If the switch operates a relay or contactor, the complete switching system is subjected to the test		N/A
	If the switch only operates a motor 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		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		N/A
	- temperature limiters: 1 000		N/A
	- self-resetting thermal cut-outs: 300		N/A
	- voltage maintained non-self-resetting thermal cut-outs: 1 000		N/A
	- other non-self-resetting thermal cut-outs: 30		N/A
	- timers: 3 000		N/A
	- energy regulators: 10 000		N/A
	The number of cycles for controls operating during clause 11 need not be declared, if the appliance meets the requirements of this standard when they are short-circuited		N/A
	Thermal motor protectors are tested in combination with their motor under the conditions specified in Annex D		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	For water valves containing live parts and that are incorporated in external hoses for connection of an appliance to the water mains, the degree of protection declared for subclause 6.5.2 of IEC 60730-2-8 is IPX7		N/A
24.1.5	Appliance couplers complying with IEC 60320-1		--
	However, for appliances classified higher than IPX0, the appliance couplers complying with IEC 60320-2-3		N/A
	Interconnection couplers complying with IEC 60320-2-2		N/A
	For appliance couplers incorporating thermostats, thermal cut-outs or fuses in the connector, IEC 60320-1 is applicable except that (IEC 60335-2-75)		N/A
	– the earthing contact of the connector is allowed to be accessible, provided that this contact is not likely to be gripped during insertion or withdrawal of the connector; (IEC 60335-2-75)		N/A
	– the temperature required for the test of Clause 18 is that measured on the pins of the appliance inlet during the heating test of Clause 11 of this standard; (IEC 60335-2-75)		N/A
	– the breaking-capacity test of Clause 19 is carried out using the inlet of the appliance; (IEC 60335-2-75)		N/A
	– the temperature rise of current-carrying parts specified in Clause 21 is not determined (IEC 60335-2-75)		N/A
24.1.6	Small lamp holders similar to E10 lampholders complying with IEC 60238, the requirements for E10 lampholders being applicable		N/A
24.1.7	For remote operation of the appliance via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is IEC 62151		N/A
24.1.8	The relevant standard for thermal links is IEC 60691		N/A
	Thermal links not complying with IEC 60691 are considered to be an intentionally weak part for the purposes of Clause 19		N/A
24.1.9	Contactors and relays, other than motor starting relays, tested as part of the appliance		N/A
	They are also tested in accordance with Clause 17 of IEC 60730-1, the number of cycles of operations in 24.1.4 selected according to the contactor or relay function in the appliance..... :		N/A
24.2	Appliances not fitted with:		P
	- switches or automatic controls in flexible cords		P

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	- devices causing the protective device in the fixed wiring to operate in the event of a fault in the appliance		P
	- thermal cut-outs that can be reset by soldering, unless		P
	the solder has a melting point of at least 230 °C		N/A
	Switches and automatic controls operating at safety extra-low voltage fitted in interconnection cords in maintenance area (IEC 60335-2-75)		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		P
24.4	Plugs and socket-outlets for extra-low voltage circuits and heating elements, not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1 or with connectors and appliance inlets complying with the standard sheets of IEC 60320-1		N/A
24.5	Capacitors in auxiliary windings of motors marked with their rated voltage and capacitance, and used accordingly		N/A
	Voltage across capacitors in series with a motor winding does not exceed 1,1 times rated voltage, when the appliance is supplied at 1,1 times rated voltage under minimum load		N/A
24.6	Working voltage of motors connected to the supply mains and having basic insulation that is inadequate for the rated voltage of the appliance, not exceeding 42 V		N/A
	In addition, the motors comply with the requirements of Annex I		N/A
24.7	Detachable hose-sets for connection of appliances to the water mains comply with IEC 61770		N/A
	They are supplied with the appliance		N/A
	Appliances intended to be permanently connected to the water mains not connected by a detachable hose-set		N/A
24.8	Motor running capacitors in appliances for which 30.2.3 is applicable and that are permanently connected in series with a motor winding, not causing a hazard in event of a failure		N/A
	One or more of the following conditions are to be met:		--
	- the capacitors are of class P2 according to IEC 60252-1		N/A
	- the capacitors are housed within a metallic or ceramic enclosure		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- the distance of separation of the outer surface to adjacent non-metallic parts exceeds 50 mm		N/A
	- adjacent non-metallic parts within 50 mm withstand the needle-flame test of Annex E		N/A
	- adjacent non-metallic parts within 50 mm classified as at least V-1 according to IEC 60695-11-10		N/A
24.101	Connecting devices of interconnection cords identified when they are interchangeable and can result in a hazard (IEC 60335-2-75)		N/A
24.102	Interlock switches comply with IEC 61058-1 as far as is reasonable and ensure all-pole disconnection (IEC 60335-2-75)		N/A
	Single-pole disconnection permitted for protection against mechanical hazards (IEC 60335-2-75)		N/A
	Switch tested in accordance with the relevant clauses of IEC 61058-1 (IEC 60335-2-75)		N/A
	Number of cycles of operation for the test of Clause 17 is 10 000 (IEC 60335-2-75)		N/A
	100 000 cycles of operation for a switch operating once per delivery (IEC 60335-2-75)		N/A
24.103	Thermal cut-outs incorporated for compliance with Clause 19 are not self-resetting. They have a trip-free mechanism when they disconnect heating elements or motors the unexpected starting of which may cause a hazard to the user or maintenance person (IEC 60335-2-75)		N/A
25	SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS		--
25.1	Appliance not intended for permanent connection to fixed wiring, means for connection to the supply:		--
	- supply cord fitted with a plug,		P
	- an appliance inlet having at least the same degree of protection against moisture as required for the appliance, or		N/A
	- pins for insertion into socket-outlets		N/A
25.2	Appliance not provided with more than one means of connection to the supply mains		N/A
	Stationary appliance for multiple supply may be provided with more than one means of connection, provided electric strength test of 1250 V for 1 min between each means of connection causes no breakdown		N/A
25.3	Appliance intended to be permanently connected to fixed wiring provided with one of the following means for connection to the supply mains:		N/A
	- a set of terminals allowing the connection of a flexible cord		N/A
	- a fitted supply cord		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- a set of supply leads accommodated in a suitable compartment		N/A
	- a set of terminals for the connection of cables of fixed wiring, cross-sectional areas specified in 26.6, and the appliance allows the connection of the supply conductors after the appliance has been fixed to its support		N/A
	- a set of terminals and cable entries, conduit entries, knock-outs or glands, allowing connection of appropriate types of cable or conduit, and the appliance allows the connection of the supply conductors after the appliance has been fixed to its support		N/A
	For a fixed appliance constructed so that parts can be removed to facilitate easy installation, this requirement is met if it is possible to connect the fixed wiring without difficulty after a part of the appliance has been fixed to its support		N/A
25.4	Cable and conduit entries, rated current of appliance not exceeding 16 A, dimension according to table 10 (mm)..... :		N/A
	Introduction of conduit or cable does not reduce clearances or creepage distances below values specified in clause 29		N/A
25.5	Method for assembling the supply cord to the appliance:		--
	- type X attachment		N/A
	- type Y attachment		P
	- type Z attachment, if allowed in relevant part 2		N/A
	Type X attachment, other than those with a specially prepared cord, not used for flat twin tinsel cords		N/A
	For multi-phase appliances supplied with a supply cord and that are intended to be permanently connected to fixed wiring, the supply cord is assembled to the appliance by type Y attachment		N/A
25.6	Plugs fitted with only one flexible cord		P
25.7	Supply cords, other than for class III appliances, being one of the following types:		--
	- rubber sheathed (at least 60245 IEC 53)		N/A
	- polychloroprene sheathed (at least 60245 IEC 57)		N/A
	- cross-linked polyvinyl chloride sheathed (at least 60245 IEC 88)		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"> light polyvinyl chloride sheathed cord (60227 IEC 52), for appliances not exceeding 3 kg 		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	<ul style="list-style-type: none"> ordinary polyvinyl chloride sheathed cord (60227 IEC 53), for other appliances 		P
	- heat resistant polyvinyl chloride sheathed. Not used for type X attachment other than specially prepared cords		N/A
	<ul style="list-style-type: none"> heat-resistant light polyvinyl chloride sheathed cord (60227 IEC 56), for appliances not exceeding 3 kg 		N/A
	<ul style="list-style-type: none"> heat-resistant polyvinyl chloride sheathed cord (60227 IEC 57), for other appliances 		N/A
	Supply cords for class III appliances adequately insulated		N/A
	Test with 500 V for 2 min for supply cords of class III appliances that contain live parts		N/A
	Supply cords of appliances intended for outdoor use are polychloroprene sheathed and not lighter than ordinary polychloroprene sheathed cord (code designation 60245 IEC 57) (IEC 60335-2-75)		N/A
25.8	Nominal cross-sectional area of supply cords not less than table 11; rated current (A); cross-sectional area (mm ²)		P
25.9	Supply cords not in contact with sharp points or edges		P
25.10	Supply cord of class I appliances have a green/yellow core for earthing		P
	In multi-phase appliances, the colour of the neutral conductor of the supply cord is blue.		N/A
	Where additional neutral conductors are provided in the supply cord:		N/A
	- other colours may be used for these additional neutral conductors;		N/A
	- all of the neutral conductors and line conductors are identified by marking using the alpha numeric notation specified in IEC 60445		N/A
	- the supply cord is fitted to the appliance		N/A
25.11	Conductors of supply cords not consolidated by soldering where they are subject to contact pressure, unless		P
	the contact pressure is provided by spring terminals		N/A
25.12	Insulation of the supply cord not damaged when moulding the cord to part of the enclosure		N/A
25.13	Inlet openings so constructed as to prevent damage to the supply cord		P
	If the enclosure at the inlet opening is not of insulating material, a non-detachable lining or bushing complying with 29.3 for supplementary insulation provided		P

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Clause	Requirement + Test	Result - Remark	Verdict
	If unsheathed supply cord, a similar additional bushing or lining is required, unless the appliance is		N/A
	class 0, or		N/A
	a class III appliance not containing live parts		N/A
25.14	Supply cords moved while in operation adequately protected against excessive flexing		N/A
	Flexing test, as described:		N/A
	- applied force (N)		N/A
	- number of flexings		N/A
	The test does not result in:		N/A
	- short-circuit between the conductors, such that the current exceeds a value of twice the rated current		N/A
	- breakage of more than 10% of the strands of any conductor		N/A
	- separation of the conductor from its terminal		N/A
	- loosening of any cord guard		N/A
	- damage to the cord or the cord guard		N/A
	- broken strands piercing the insulation and becoming accessible		N/A
25.15	For appliances with supply cord and appliances to be permanently connected to fixed wiring by a flexible cord, conductors of the supply cord relieved from strain, twisting and abrasion by use of cord anchorage		P
	The cord cannot be pushed into the appliance to such an extent that the cord or internal parts of the appliance can be damaged		P
	Pull and torque test of supply cord, values shown in table 12: mass (kg); pull (N); torque (not on automatic cord reel) (Nm)	100N 0.35Nm	P
	Cord not damaged and max. 2 mm displacement of the cord		P
	Test conducted on internal wiring using the following test parameters; pull force 30 N, torque 0,1 Nm, and push force 30 N (IEC 60335-2-75)		P
25.16	Cord anchorages for type X attachments constructed and located so that:		--
	- replacement of the cord is easily possible		N/A
	- it is clear how the relief from strain and the prevention of twisting are obtained		N/A
	- they are suitable for different types of supply cord		N/A
	- cord cannot touch the clamping screws of cord anchorage if these screws are accessible, unless		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	they are separated from accessible metal parts by supplementary insulation		N/A
	- the cord is not clamped by a metal screw which bears directly on the cord		N/A
	- at least one part of the cord anchorage securely fixed to the appliance, unless		N/A
	it is part of a specially prepared cord		N/A
	- screws which have to be operated when replacing the cord do not fix any other component, unless		N/A
	the appliance becomes inoperative or incomplete or the parts cannot be removed without a tool		N/A
	- if labyrinths can be bypassed the test of 25.15 is nevertheless withstood		N/A
	- for class 0, 0I and I appliances they are of insulating material or are provided with an insulating lining, unless		N/A
	failure of the insulation of the cord does not make accessible metal parts live		N/A
	- for class II appliances they are of insulating material, or		N/A
	if of metal, they are insulated from accessible metal parts by supplementary insulation		N/A
	After the test of 25.15, under the conditions specified, the conductors have not moved by more than 1 mm in the terminals		N/A
25.17	Adequate cord anchorages for type Y and Z attachment, test with the cord supplied with the appliance		P
25.18	Cord anchorages only accessible with the aid of a tool, or		N/A
	Constructed so that the cord can only be fitted with the aid of a tool		N/A
25.19	Type X attachment, glands not used as cord anchorage in portable appliances		N/A
	Tying the cord into a knot or tying the cord with string not used		N/A
25.20	The insulated conductors of the supply cord for type Y and Z attachment additionally insulated from accessible metal parts		N/A
25.21	Space for supply cord for type X attachment or for connection of fixed wiring constructed:		--
	- to permit checking of conductors with respect to correct positioning and connection before fitting any cover		N/A
	- so there is no risk of damage to the conductors or their insulation when fitting the cover		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- for portable appliances, so that the uninsulated end of a conductor, if it becomes free from the terminal, prevented from contact with accessible metal parts		N/A
	2 N test to the conductor for portable appliances; no contact with accessible metal parts		N/A
25.22	Appliance inlets:		--
	- live parts not accessible during insertion or removal		N/A
	Requirement not applicable to appliance inlets complying with IEC 60320-1		N/A
	- connector can be inserted without difficulty		N/A
	- the appliance is not supported by the connector		N/A
	- not for cold conditions if temp. rise of external metal parts exceeds 75 K during clause 11, unless		N/A
	the supply cord is unlikely to touch such metal parts		N/A
25.23	Interconnection cords comply with the requirements for the supply cord, except that:		N/A
	- the cross-sectional area of the conductors is determined on the basis of the maximum current during clause 11		N/A
	- the thickness of the insulation may be reduced		N/A
	If necessary, electric strength test of 16.3		N/A
25.24	Interconnection cords not detachable without the aid of a tool if compliance with this standard is impaired when they are disconnected		N/A
25.25	Dimensions of pins that are inserted into socket-outlets compatible with the dimensions of the relevant socket-outlet.		N/A
	Dimensions of pins and engagement face in accordance with the dimensions of the relevant plug in IEC/TR 60083		N/A
26	TERMINALS FOR EXTERNAL CONDUCTORS		--
26.1	Appliances provided with terminals or equally effective devices for connection of external conductors		P
	Terminals only accessible after removal of a non-detachable cover, except		P
	for class III appliances that do not contain live parts		N/A
	Earthing terminals may be accessible if a tool is required to make the connections and means are provided to clamp the wire independently from its connection		N/A

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

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Clause	Requirement + Test	Result - Remark	Verdict
	for class II constructions, between live parts and metal parts separated from accessible metal parts by supplementary insulation only		N/A
26.6	Terminals for type X attachment and for connection of cables of fixed wiring suitable for connection of conductors with cross-sectional area according to table 13; rated current (A); nominal cross-sectional area (mm ²)		N/A
	If a specially prepared cord is used, terminals need only be suitable for that cord		N/A
26.7	Terminals for type X attachment, except in class III appliances not containing live parts, accessible after removal of a cover or part of the enclosure		N/A
26.8	Terminals for the connection of fixed wiring, including the earthing terminal, located close to each other		N/A
26.9	Terminals of the pillar type constructed and located as specified		N/A
26.10	Terminals with screw clamping and screwless terminals not used for flat twin tinsel cords, unless		P
	conductors ends fitted with means suitable for screw terminals		N/A
	Pull test of 5 N to the connection		N/A
26.11	For type Y and Z attachment, soldered, welded, crimped or similar connections may be used		P
	For Class II appliances, the conductor so positioned or fixed that reliance is not placed on soldering, welding or crimping alone		N/A
	If soldering, welding or crimping alone used, barriers provided so that clearances and creepage distances between live parts and other metal parts are not reduced below the values for supplementary insulation if the conductor becomes free		N/A
27	PROVISION FOR EARTHING		--
27.1	Accessible metal parts of Class 0I and I appliances permanently and reliably connected to an earthing terminal or earthing contact of the appliance inlet		P
	Earthing terminals and earthing contacts not connected to the neutral terminal		P
	Class 0, II and III appliances have no provision for earthing		N/A
	Safety extra-low voltage circuits not earthed, unless		N/A
	protective extra-low voltage circuits		N/A
27.2	Clamping means of earthing terminals adequately secured against accidental loosening		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Terminals for the connection of external equipotential bonding conductors allow connection of conductors of 2.5 to 6 mm ² , and		N/A
	do not provide earthing continuity between different parts of the appliance, and		N/A
	conductors cannot be loosened without the aid of a tool		P
	Stationary Class I appliances of professional type installed in kitchens incorporate a terminal for connection of an external equipotential bonding conductor (IEC 60335-2-75)		N/A
	The terminal is connected to all accessible metal parts and allows connection of a conductor having a nominal cross-sectional area of 2,5 mm ² to 10 mm ² (IEC 60335-2-75)		P
	Conductor is located so that it can be connected after installation of the appliance (IEC 60335-2-75)		N/A
27.3	For a detachable part having an earth connection and being plugged into another part of the appliance, the earth connection is made before and separated after current-carrying connections when removing the part		N/A
	For appliances with supply cords, current-carrying conductors become taut before earthing conductor, if the cord slips out of the cord anchorage		P
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		P
	Parts providing earthing continuity, other than parts of a metal frame or enclosure, have adequate resistance to corrosion		P
	If of steel, these parts provided with an electroplated coating with a thickness at least 5 µm		N/A
	Adequate protection against rusting of parts of coated or uncoated steel, only intended to provide or transmit contact pressure		P
	In the body of the earthing terminal is a part of a frame or enclosure of aluminium or aluminium alloys, precautions taken to avoid risk of corrosion		N/A
27.5	Low resistance of connection between earthing terminal and earthed metal parts		P
	This requirement does not apply to connections providing earthing continuity in the protective extra-low voltage circuit, provided the clearances of basic insulation are based on the rated voltage of the appliance		N/A
	Resistance not exceeding 0,1 Ω at the specified low-resistance test (Ω) :	0,005Ω	P

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Clause	Requirement + Test	Result - Remark	Verdict
27.6	The printed conductors of printed circuit boards not used to provide earthing continuity in hand-held appliances.		N/A
	They may be used to provide earthing continuity in other appliances if at least two tracks are used with independent soldering points and the appliance complies with 27.5 for each circuit		N/A
28	SCREWS AND CONNECTIONS		--
28.1	Fixings, electrical connections and connections providing earthing continuity withstand mechanical stresses		P
	Screws not of soft metal liable to creep, such as zinc or aluminium		P
	Diameter of screws of insulating material min. 3 mm		N/A
	Screws of insulating material not used for any electrical connections or connections providing earthing continuity		N/A
	Screws used for electrical connections or connections providing earthing continuity screwed into metal		P
	Screws not of insulating material if their replacement by a metal screw can impair supplementary or reinforced insulation		P
	For type X attachment, screws to be removed for replacement of supply cord or for user maintenance, not of insulating material if their replacement by a metal screw impairs basic insulation		N/A
	For screws and nuts; torque-test as specified in table 14	(see appended table)	P
	Screws which may be removed during maintenance operations (IEC 60335-2-75)		P
	Screws likely to be tightened during maintenance operations (IEC 60335-2-75)		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		P
	there is resiliency in the metallic parts to compensate for shrinkage or distortion of the insulating material		N/A
	This requirement does not apply to electrical connections in circuits of appliances for which:		--
	<ul style="list-style-type: none"> 30.2.2 is applicable and that carry a current not exceeding 0,5 A 		N/A
	<ul style="list-style-type: none"> 30.2.3 is applicable and that carry a current not exceeding 0,2 A 		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
28.3	Space-threaded (sheet metal) screws only used for electrical connections if they clamp the parts together		N/A
	Thread-cutting (self-tapping) screws and thread rolling screws only used for electrical connections if they generate a full form standard machine screw thread		N/A
	Thread-cutting (self-tapping) screws not used if they are likely to be operated by the user or installer		N/A
	Thread-cutting, thread rolling and space threaded screws may be used in connections providing earthing continuity provided it is not necessary to disturb the connection:		N/A
	- in normal use,		N/A
	- during user maintenance,		N/A
	- when replacing a supply cord having a type X attachment, or		N/A
	- during installation		N/A
	At least two screws being used for each connection providing earthing continuity, unless		N/A
	the screw forms a thread having a length of at least half the diameter of the screw		N/A
	Screws operated by maintenance person (IEC 60335-2-75)		P
28.4	Screws and nuts that make mechanical connection secured against loosening if they also make electrical connections or connections providing earthing continuity		P
	This requirement does not apply to screws in the earthing circuit if at least two screws are used, or		N/A
	if an alternative earthing circuit is provided		N/A
	Rivets for electrical connections or connections providing earthing continuity secured against loosening if the connections are subjected to torsion		N/A
29	CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION		--
	Clearances, creepage distances and solid insulation withstand electrical stress		P
	For coatings used on printed circuits boards to protect the microenvironment (Type 1) or to provide basic insulation (Type 2), Annex J applies..... :		N/A
	The microenvironment is pollution degree 1 under type 1 protection		N/A
	For type 2 protection, the spacing between the conductors before the protection is applied is not less than the values specified in Table 1 of IEC 60664-3		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	These values apply to functional, basic, supplementary and reinforced insulation		N/A
29.1	Clearances not less than the values specified in table 16, taking into account the rated impulse voltage for the overvoltage categories of table 15, unless.....	(see appended table)	P
	for basic insulation and functional insulation they comply with the impulse voltage test of clause 14		P
	However, if the distances are affected by wear, distortion, movement of the parts or during assembly, the clearances for rated impulse voltages of 1500V and above are increased by 0,5 mm and the impulse voltage test is not applicable		N/A
	Impulse voltage test is not applicable:		--
	- when the microenvironment is pollution degree 3, or		P
	- for basic insulation of class 0 and class 01 appliances		N/A
	Appliances are in overvoltage category II		P
	A force of 2 N is applied to bare conductors, other than heating elements		P
	A force of 30 N is applied to accessible surfaces		P
29.1.1	Clearances of basic insulation withstand the overvoltages, taking into account the rated impulse voltage		P
	The values of table 16 or the impulse voltage test of clause 14 are applicable	(see appended table)	P
	Clearance at the terminals of tubular sheathed heating elements may be reduced to 1,0 mm if the microenvironment is pollution degree 1		N/A
	Lacquered conductors of windings considered to be bare conductors		P
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)	P
	For double insulation, with no intermediate conductive part between basic and supplementary insulation, clearances are measured between live parts and the accessible surface, and the insulation system is treated as reinforced insulation		P
29.1.4	Clearances for functional insulation are the largest values determined from:		--
	- table 16 based on the rated impulse voltage	(see appended table)	P
	- table F.7a in IEC 60664-1, frequency not exceeding 30 kHz		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- clause 4 of IEC 60664-4, frequency exceeding 30 kHz		N/A
	If values of table 16 are largest, the impulse voltage test of clause 14 may be applied instead, unless		N/A
	the microenvironment is pollution degree 3, or		P
	the distances can be affected by wear, distortion, movement of the parts or during assembly		P
	However, clearances are not specified if the appliance complies with clause 19 with the functional insulation short-circuited		N/A
	Lacquered conductors of windings considered to be bare conductors		P
	However, clearances at crossover points are not measured		P
	Clearance between surfaces of PTC heating elements may be reduced to 1mm		N/A
29.1.5	Appliances having higher working voltages than rated voltage, clearances for basic insulation are the largest values determined from:		--
	- table 16 based on the rated impulse voltage		N/A
	- table F.7a in IEC 60664-1, frequency not exceeding 30 kHz		N/A
	- clause 4 of IEC 60664-4, frequency exceeding 30 kHz		N/A
	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1 or Clause 4 of IEC 60664-4, the clearances of supplementary insulation are not less than those specified for basic insulation		N/A
	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1, the clearances of reinforced insulation dimensioned as specified in Table F.7a are to withstand 160% of the withstand voltage required for basic insulation		N/A
	If clearances for basic insulation are selected from Clause 4 of IEC 60664-4, the clearances of reinforced insulation are twice the value required for basic insulation		N/A
	If the secondary winding of a step-down transformer is earthed, or if there is an earthed screen between the primary and secondary windings, clearances of basic insulation on the secondary side not less than those specified in table 16, but using the next lower step for rated impulse voltage		N/A
	Circuits supplied with a voltage lower than rated voltage, clearances of functional insulation are based on the working voltage used as the rated voltage in table 15		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
29.2	Creepage distances not less than those appropriate for the working voltage, taking into account the material group and the pollution degree	(see appended table)	P
	Pollution degree 2 applies, unless		N/A
	- precautions taken to protect the insulation; pollution degree 1		N/A
	- insulation subjected to conductive pollution; pollution degree 3		P
	A force of 2 N is applied to bare conductors, other than heating elements		P
	A force of 30 N is applied to accessible surfaces		P
	In a double insulation system, the working voltage for both the basic and supplementary insulation is taken as the working voltage across the complete double insulation system		P
	Pollution degree 3 applied for microenvironment, except when it is unlikely to be exposed to pollution during normal use due to (IEC 60335-2-75):		P
	- condensation produced by the appliance (IEC 60335-2-75) ;		P
	- use of liquids and solids, such as ingredients, products or cleaning agents (IEC 60335-2-75)		P
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		N/A
	Except for pollution degree 1, corresponding creepage distance not less than the minimum specified for the clearance in table 16, if the clearance has been checked according to the test of clause 14.....		N/A
29.2.2	Creepage distances of supplementary insulation at least those specified for basic insulation in table 17, or	(see appended table)	P
	Table 2 of IEC 60664-4, as applicable.....		N/A
29.2.3	Creepage distances of reinforced insulation at least double those specified for basic insulation in table 17, or	(see appended table)	P
	Table 2 of IEC 60664-4, as applicable.....		N/A
29.2.4	Creepage distances of functional insulation not less than specified in table 18	(see appended table)	P

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Clause	Requirement + Test	Result - Remark	Verdict
	However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from table 2 of IEC 60664-4, these values being used if exceeding the values in table 18		N/A
	Creepage distances may be reduced if the appliance complies with clause 19 with the functional insulation short-circuited		N/A
29.3	Supplementary and reinforced insulation have adequate thickness, or a sufficient number of layers, to withstand the electrical stresses		P
	Compliance checked:		--
	- by measurement, in accordance with 29.3.1, or		P
	- by an electric strength test in accordance with 29.3.2, or		N/A
	- by an assessment of the thermal quality of the material combined with an electric strength test, in accordance with 29.3.3, and		N/A
	for accessible parts of reinforced insulation consisting of a single layer, by measurement in accordance with 29.3.4, or		N/A
	- as specified in subclause 6.3 of IEC 60664-4 for insulation that is subjected to any periodic voltage having a frequency exceeding 30 kHz		N/A
29.3.1	Supplementary insulation have a thickness of at least 1 mm		P
	Reinforced insulation have a thickness of at least 2 mm		P
29.3.2	Each layer of material withstand the electric strength test of 16.3 for supplementary insulation		N/A
	Supplementary insulation consist of at least 2 layers		N/A
	Reinforced insulation consist of at least 3 layers		N/A
29.3.3	The insulation is subjected to the dry heat test Bb of IEC 60068-2-2, followed by		N/A
	the electric strength test of 16.3		N/A
	If the temperature rise during the tests of clause 19 does not exceed the value specified in table 3, the test of IEC 60068-2-2 is not carried out		N/A
29.3.4	Thickness of accessible parts of reinforced insulation consisting of a single layer not less than specified in table 19		N/A
30	RESISTANCE TO HEAT AND FIRE		--
30.1	External parts of non-metallic material,		P
	parts supporting live parts, and		P

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Clause	Requirement + Test	Result - Remark	Verdict
	parts of thermoplastic material providing supplementary or reinforced insulation		P
	sufficiently resistant to heat		P
	Ball-pressure test according to IEC 60695-10-2		P
	External parts tested at 40 °C plus the maximum temperature rise determined during the test of clause 11, or at 75 °C, whichever is the higher; temperature (°C)	(see appended table)	P
	Parts supporting live parts tested at 40°C plus the maximum temperature rise determined during the test of clause 11, or at 125 °C, whichever is the higher; temperature (°C)	(see appended table)	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)	P
30.2	Parts of non-metallic material resistant to ignition and spread of fire		P
	This requirement does not apply to:		--
	parts having a mass not exceeding 0,5 g, provided the cumulative effect is unlikely to propagate flames that originate inside the appliance by propagating flames from one part to another, or		N/A
	decorative trims, knobs and other parts unlikely to be ignited or to propagate flames that originate inside the appliance		N/A
	Compliance checked by the test of 30.2.1, and in addition:		P
	- for attended appliances, 30.2.2 applies		N/A
	- for unattended appliances, 30.2.3 applies		P
	For appliances for remote operation, 30.2.3 applies		N/A
	For base material of printed circuit boards, 30.2.4 applies		P
30.2.1	Parts of non-metallic material subjected to the glow-wire test of IEC 60695-2-11 at 550 °C		P
	However, test not carried out if the material is classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 550 °C, or		N/A
	the material is classified at least HB40 according to IEC 60695-11-10		N/A
	Parts for which the glow-wire test cannot be carried out need to meet the requirements in ISO 9772 for material classified HBF		N/A
30.2.2	Appliances operated while attended, parts of non-metallic material supporting current-carrying connections, and		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	parts of non-metallic material within a distance of 3mm of such connections,		N/A
	subjected to the glow-wire test of IEC 60695-2-11		N/A
	The test severity is:		--
	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation		N/A
	- 650 °C, for other connections		N/A
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	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:		N/A
	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation		N/A
	- 650 °C, for other connections		N/A
	The glow-wire test is also not carried out on small parts. These parts are to:		N/A
	- comprise material having a glow-wire flammability index of at least 750 °C, or 650 °C as appropriate, or		N/A
	- comply with the needle-flame test of Annex E, or		N/A
	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
	Glow-wire test not applicable to conditions as specified		N/A
30.2.3	Appliances operated while unattended, tested as specified in 30.2.3.1 and 30.2.3.2		P
	The tests are not applicable to conditions as specified		P
30.2.3.1	Parts of non-metallic material supporting connections carrying a current exceeding 0,2 A during normal operation, and		P
	parts of non-metallic material, other than small parts, within a distance of 3 mm,		P
	subjected to the glow-wire test of IEC 60695-2-11 with a test severity of 850 °C		P
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	The glow-wire test is not carried out on parts of material classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 850 °C		P
30.2.3.2	Parts of non-metallic material supporting connections, and		P
	parts of non-metallic material within a distance of 3mm,		P

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Clause	Requirement + Test	Result - Remark	Verdict
	subjected to glow-wire test of IEC 60695-2-11		P
	The test severity is:		--
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation		P
	- 650 °C, for other connections		N/A
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	However, the glow-wire test of 750 °C or 650 °C as appropriate, is not carried out on parts of material fulfilling both or either of the following classifications:		--
	- a glow-wire ignition temperature according to IEC 60695-2-13 of at least:		N/A
	<ul style="list-style-type: none"> 775 °C, for connections carrying a current exceeding 0,2 A during normal operation 		N/A
	<ul style="list-style-type: none"> 675 °C, for other connections 		N/A
	- a glow-wire flammability index according to IEC 60695-2-12 of at least:		--
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation		N/A
	- 650 °C, for other connections		N/A
	The glow-wire test is also not carried out on small parts. These parts are to:		--
	- comprise material having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A
	- comprise material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- comply with the needle-flame test of Annex E, or		N/A
	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
	The consequential needle-flame test of Annex E applied to non-metallic parts that encroach within the vertical cylinder placed above the centre of the connection zone and on top of the non-metallic parts supporting current-carrying connections, and parts of non-metallic material within a distance of 3 mm of such connections if these parts are those:		--
	- parts that withstood the glow-wire test of IEC 60695-2-11 of 750 °C or 650 °C as appropriate, but produce a flame that persist longer than 2 s, or		N/A
	- parts that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- small parts, that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- small parts for which the needle-flame test of Annex E was applied, or		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- small parts for which a material classification of V-0 or V-1 was applied		N/A
	However, the consequential needle-flame test is not carried out on non-metallic parts, including small parts, within the cylinder that are:		--
	- parts having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A
	- parts comprising material classified as V-0 or V-1 according to IEC 60695-11-10, or		N/A
	- parts shielded by a flame barrier that meets the needle-flame test of Annex E or that comprises material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
30.2.4	Base material of printed circuit boards subjected to the needle-flame test of Annex E		P
	Test not applicable to conditions as specified..... :		P
31	RESISTANCE TO RUSTING		--
	Relevant ferrous parts adequately protected against rusting		P
	Tests specified in part 2 when necessary		N/A
32	RADIATION, TOXICITY AND SIMILAR HAZARDS		--
	Appliance does not emit harmful radiation or present a toxic or similar hazard due to their operation in normal use		P
	Compliance is checked by the limits or tests specified in part 2, if relevant		N/A
A	ANNEX A (INFORMATIVE) ROUTINE TESTS		--
	Description of routine tests to be carried out by the manufacturer		N/A
AA	ANNEX AA (NORMATIVE) AGEING TEST FOR ELASTOMERIC PARTS (IEC 60335-2-75)		--
	The aging test on elastomeric parts conducted by measuring their hardness and mass before and after immersion in water at elevated temperature		N/A
	Tests conducted on at least three samples of each part		N/A
	Sample selection and test procedure as specified in ISO 1817 with the following modifications		N/A
4	Test liquids		N/A
	Test carried out with water		N/A
5	Test pieces		N/A
5.4	Conditioning of test pieces		N/A
	Test pieces conditioned at 23 °C ± 2 °C and the relative humidity of (50 ± 5) %		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6	Immersion in the test liquid		N/A
6.1	Temperature		N/A
	Water heated to a temperature of $75(^{+5}/_0)^{\circ}\text{C}$ within 1 h with the test pieces immersed and maintained at this value (water at $75(^{+5}/_0)^{\circ}\text{C}$ added to compensate for evaporation)		N/A
6.2	Duration		N/A
	Test pieces immersed for a total period of $48(^{+1}/_0)\text{h}$		N/A
	Test pieces are then immediately immersed in fresh water maintained at ambient temperature, and the pieces immersed for $45\text{ min} \pm 15\text{ min}$.		N/A
	Test pieces dried with blotting paper after removal from water		N/A
7	Procedure		N/A
7.2	Change in mass		N/A
	Increase in mass does not exceed 10 % of the value determined before immersion (g)..... :		N/A
7.6	Change in hardness		N/A
	Micro-test for hardness applied		N/A
	Hardness is not changed by more than 8 IRHD, no sticky surface; no visible crack, to the naked eye, and no other deterioration (IRHD) :		N/A
B	ANNEX B (NORMATIVE) APPLIANCES POWERED BY RECHARGEABLE BATTERIES		--
	The following modifications to this standard are applicable for appliances powered by batteries that are recharged in the appliance		N/A
	This annex does not apply to battery chargers		N/A
3.1.9	Appliance operated under the following conditions:		--
	- the appliance, supplied by its fully charged battery, operated as specified in relevant part 2		N/A
	- the battery is charged, the battery being initially discharged to such an extent that the appliance cannot operate		N/A
	-if possible, the appliance is supplied from the supply mains through its battery charger, the battery being initially discharged to such an extent that the appliance cannot operate. The appliance is operated as specified in relevant part 2		N/A
	- if the appliance incorporates inductive coupling between two parts that are detachable from each other, the appliance is supplied from the supply mains with the detachable part removed		N/A
3.6.2	Part to be removed in order to discard the battery is not considered to be detachable		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.B.101	Appliances supplied from the supply mains tested as specified for motor-operated appliances		N/A
7.1	Battery compartment for batteries intended to be replaced by the user, marked with battery voltage and polarity of the terminals		N/A
	The positive terminal indicated by symbol IEC 60417-5005 and the negative terminal by symbol IEC 60417-5006		N/A
7.6	Symbols 60417-5005 and IEC 60417-5006		N/A
7.12	The instructions give information regarding charging		N/A
	The instructions for appliances incorporating batteries intended to be replaced by the user includes required information		N/A
	Details about how to remove batteries containing materials hazardous to the environment given		N/A
7.15	Markings placed on the part of the appliance connected to the supply mains		N/A
8.2	Appliances having batteries that according to the instruction may be replaced by the user need only have basic insulation between live parts and the inner surface of the battery compartment		N/A
	If the appliance can be operated without batteries, double or reinforced insulation required		N/A
11.7	The battery is charged for the period stated in the instructions or 24 h..... :		N/A
19.1	Appliances subjected to tests of 19.B.101, 19.B.102 and 19.B.103		N/A
19.10	Not applicable		N/A
19.B.101	Appliances supplied at rated voltage for 168 h, the battery being continually charged		N/A
19.B.102	For appliances having batteries that can be removed without the aid of a tool, short-circuit of the terminals of the battery, the battery being fully charged,		N/A
19.B.103	Appliances having batteries replaceable by the user supplied at rated voltage under normal operation with the battery removed or in any position allowed by the construction		N/A
21.B.101	Appliances having pins for insertion into socket-outlets have adequate mechanical strength		N/A
	Part of the appliance incorporating the pins subjected to the free fall test, procedure 2, of IEC 60068-2-31, the number of falls being:		--
	- 100, if the mass of the part does not exceed 250 g (g)..... :		N/A
	- 50, if the mass of the part exceeds 250 g..... :		N/A

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

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Clause	Requirement + Test	Result - Remark	Verdict
	However, for printed circuit boards, the duration of burning not exceeding 15 s		P
F	ANNEX F (NORMATIVE) CAPACITORS		--
	Capacitors likely to be permanently subjected to the supply voltage, and used for radio interference suppression or voltage dividing, comply with the following clauses of IEC 60384-14, with the following modifications:		--
1.5	Terms and definitions		N/A
1.5.3	Class X capacitors tested according to subclass X2		N/A
1.5.4	This subclause is applicable		N/A
1.6	Marking		--
	Items a) and b) are applicable		N/A
3.4	Approval testing		--
3.4.3.2	Table 3 is applicable as described		N/A
4.1	Visual examination and check of dimensions		--
	This subclause is applicable		N/A
4.2	Electrical tests		N/A
4.2.1	This subclause is applicable		N/A
4.2.5	This subclause is applicable		N/A
4.2.5.2	Only table 11 is applicable		N/A
	Values for test A apply		N/A
	However, for capacitors in heating appliances the values for test B or C apply		N/A
4.12	Damp heat, steady state		--
	This subclause is applicable		N/A
	Only insulation resistance and voltage proof are checked		N/A
4.13	Impulse voltage		--
	This subclause is applicable		N/A
4.14	Endurance		--
	Subclauses 4.14.1, 4.14.3, 4.14.4 and 4.14.7 are applicable		N/A
4.14.7	Only insulation resistance and voltage proof are checked		N/A
	No visible damage		N/A
4.17	Passive flammability test		--
	This subclause is applicable		N/A
4.18	Active flammability test		--
	This subclause is applicable		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G	ANNEX G (NORMATIVE) SAFETY ISOLATING TRANSFORMERS		--
	The following modifications to this standard are applicable for safety isolating transformers:		--
7	Marking and instructions		--
7.1	Transformers for specific use marked with:		--
	-name, trademark or identification mark of the manufacturer or responsible vendor		N/A
	-model or type reference		N/A
17	Overload protection of transformers and associated circuits		--
	Fail-safe transformers comply with subclause 15.5 of IEC 61558-1		N/A
22	Construction		--
	Subclauses 19.1 and 19.1.2 of IEC 61558-2-6 are applicable		N/A
29	Clearances, creepage distances and solid insulation		--
29.1, 29.2, 29.3	The distances specified in items 2a, 2c and 3 in table 13 of IEC 61558-1 apply		N/A
	For insulated winding wires complying with subclause 19.12.3 of IEC 61558-1 there are no requirements for clearances or creepage distances		N/A
	For windings providing reinforced insulation, the distance specified in item 2c of table 13 of IEC 61558-1 is not assessed		N/A
	For safety isolating transformers subjected to periodic voltages with a frequency exceeding 30 kHz, the clearances, creepage distances and solid insulation values specified in IEC 60664-4 are applicable, if greater than the values specified in items 2a, 2c and 3 in table 13 of IEC 61558-1		N/A
H	ANNEX H (NORMATIVE) SWITCHES		--
	Switches comply with the following clauses of IEC 61058-1, as modified below:		--
	The tests of IEC 61058-1 carried out under the conditions occurring in the appliance		N/A
	Before being tested, switches are operated 20 times without load		N/A
8	Marking and documentation		--
	Switches are not required to be marked		N/A
	However, a switch that can be tested separately from the appliance marked with the manufacturer's name or trade mark and the type reference		N/A
13	Mechanism		--
	The tests may be carried out on a separate sample		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
15	Insulation resistance and dielectric strength		--
15.1	Not applicable		N/A
15.2	Not applicable		N/A
15.3	Applicable for full disconnection and micro-disconnection		N/A
17	Endurance		--
	Compliance is checked on three separate appliances or switches		N/A
	For 17.2.4.4, the number of cycles declared according to 7.1.4 is 10 000, unless		N/A
	otherwise specified in 24.1.3 of the relevant part 2 of IEC 60335		N/A
	Switches for operation under no load and which can be operated only by a tool, and		N/A
	switches operated by hand that are interlocked so that they cannot be operated under load,		N/A
	are not subjected to the tests		N/A
	However, switches without this interlock are subjected to the test of 17.2.4.4 for 100 cycles of operation		N/A
	Subclauses 17.2.2 and 17.2.5.2 not applicable		N/A
	The ambient temperature during the test is that occurring in the appliance during the test of Clause 11 in IEC 60335-1		N/A
	The temperature rise of the terminals not more than 30 K above the temperature rise measured in clause 11 of IEC 60335-1 (K).....		N/A
20	Clearances, creepage distances, solid insulation and coatings of rigid printed board assemblies		--
	This clause is applicable to clearances and creepage distances for functional insulation, across full disconnection and micro-disconnection, as stated in table 24		N/A
I	ANNEX I (NORMATIVE) MOTORS HAVING BASIC INSULATION THAT IS INADEQUATE FOR THE RATED VOLTAGE OF THE APPLIANCE		--
	The following modifications to this standard are applicable for motors having basic insulation that is inadequate for the rated voltage of the appliance:		--
8	Protection against access to live parts		--
8.1	Metal parts of the motor are considered to be bare live parts		P
11	Heating		--
11.3	The temperature rise of the body of the motor is determined instead of the temperature rise of the windings		P

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Clause	Requirement + Test	Result - Remark	Verdict
11.8	The temperature rise of the body of the motor, where in contact with insulating material, not exceeding values in table 3 for the relevant insulating material		P
16	Leakage current and electric strength		--
16.3	Insulation between live parts of the motor and its other metal parts is not subjected to the test		P
19	Abnormal operation		--
19.1	The tests of 19.7 to 19.9 are not carried out		P
19.1.101	Appliance operated at rated voltage with each of the following fault conditions:		--
	- short circuit of the terminals of the motor, including any capacitor incorporated in the motor circuit		P
	- short circuit of each diode of the rectifier		P
	- open circuit of the supply to the motor		P
	- open circuit of any parallel resistor, the motor being in operation		P
	Only one fault simulated at a time, the tests carried out consecutively		P
22	Construction		--
22.1.101	For class I appliances incorporating a motor supplied by a rectifier circuit, the d.c. circuit being insulated from accessible parts of the appliance by double or reinforced insulation		P
	Compliance checked by the tests specified for double and reinforced insulation		P
J	ANNEX J (NORMATIVE) COATED PRINTED CIRCUIT BOARDS		--
	Testing of protective coatings of printed circuit boards carried out in accordance with IEC 60664-3 with the following modifications:		--
5.7	Conditioning of the test specimens		--
	When production samples are used, three samples of the printed circuit board are tested		N/A
5.7.1	Cold		--
	The test is carried out at -25 °C		N/A
5.7.3	Rapid change of temperature		--
	Severity 1 is specified		N/A
5.9	Additional tests		--
	This subclause is not applicable		N/A
K	ANNEX K (NORMATIVE) OVERVOLTAGE CATEGORIES		--
	The information on overvoltage categories is extracted from IEC 60664-1		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Overvoltage category is a numeral defining a transient overvoltage condition		P
	Equipment of overvoltage category IV is for use at the origin of the installation		N/A
	Equipment of overvoltage category III is equipment in fixed installations and for cases where the reliability and the availability of the equipment is subject to special requirements		N/A
	Equipment of overvoltage category II is energy consuming equipment to be supplied from the fixed installation		P
	If such equipment is subjected to special requirements with regard to reliability and availability, overvoltage category III applies		N/A
	Equipment of overvoltage category I is equipment for connection to circuits in which measures are taken to limit transient overvoltages to an appropriate low level		N/A
L	ANNEX L (INFORMATIVE) GUIDANCE FOR THE MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES		--
	Information for the determination of clearances and creepage distances		P
M	ANNEX M (NORMATIVE) POLLUTION DEGREE		--
	The information on pollution degrees is extracted from IEC 60664-1		P
	Pollution		--
	The microenvironment determines the effect of pollution on the insulation, taking into account the macroenvironment		P
	Means may be provided to reduce pollution at the insulation by effective enclosures or similar		P
	Minimum clearances specified where pollution may be present in the microenvironment		P
	Degrees of pollution in the microenvironment		--
	For evaluating creepage distances, the following degrees of pollution in the microenvironment are established:		--
	- pollution degree 1: no pollution or only dry, non-conductive pollution occurs. The pollution has no influence		N/A
	- pollution degree 2: only non-conductive pollution occurs, except that occasionally a temporary conductivity caused by condensation is to be expected		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- pollution degree 3: conductive pollution occurs or dry non-conductive pollution occurs that becomes conductive due to condensation that is to be expected		P
	- pollution degree 4: the pollution generates persistent conductivity caused by conductive dust or by rain or snow		N/A
N	ANNEX N (NORMATIVE) PROOF TRACKING TEST		--
	The proof tracking test is carried out in accordance with IEC 60112 with the following modifications:		--
7	Test apparatus		--
7.3	Test solutions		--
	Test solution A is used		P
10	Determination of proof tracking index (PTI)		--
10.1	Procedure		--
	The proof voltage is 100V, 175V, 400V or 600V... :	175 V	P
	The test is carried out on five specimens		P
	In case of doubt, additional test with proof voltage reduced by 25V, the number of drops increased to 100		N/A
10.2	Report		--
	The report states if the PTI value was based on a test using 100 drops with a test voltage of (PTI-25) V		N/A
O	ANNEX O (INFORMATIVE) SELECTION AND SEQUENCE OF THE TESTS OF CLAUSE 30		--
	Description of tests for determination of resistance to heat and fire		P
P	ANNEX P (INFORMATIVE) GUIDANCE FOR THE APPLICATION OF THIS STANDARD TO APPLIANCES USED IN WARM DAMP EQUABLE CLIMATES		--
	Modifications applicable for class 0 and 01 appliances having a rated voltage exceeding 150V, intended to be used in countries having a warm damp equable climate and that are marked WDaE		--
	Modifications may also be applied to class 1 appliances having a rated voltage exceeding 150V, intended to be used in countries having a warm damp equable climate and that are marked WdaE, if liable to be connected to a supply mains that excludes the protective earthing conductor		--
5.7	The ambient temperature for the tests of clauses 11 and 13 is 40 +3/0 °C		N/A
7.1	The appliance marked with the letters WDaE		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
7.12	The instructions state that the appliance is to be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA		N/A
	The instructions state that the appliance is considered to be suitable for use in countries having a warm damp equable climate, but may also be used in other countries		N/A
11.8	The values of Table 3 are reduced by 15 K		N/A
13.2	The leakage current for class I appliances not exceeding 0,5 mA		N/A
15.3	The value of t is 37 °C		N/A
16.2	The leakage current for class I appliances not exceeding 0,5 mA (mA):		N/A
19.13	The leakage current test of 16.2 is applied in addition to the electric strength test of 16.3		N/A
Q	ANNEX Q (INFORMATIVE) SEQUENCE OF TESTS FOR THE EVALUATION OF ELECTRONIC CIRCUITS		--
	Description of tests for appliances incorporating electronic circuits		P
R	ANNEX R (NORMATIVE) SOFTWARE EVALUATION		--
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2 validated in accordance with the requirements of this annex		N/A
R.1	Programmable electronic circuits using software		--
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2 constructed so that the software does not impair compliance with the requirements of this standard		N/A
R.2	Requirements for the architecture		--
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2 use measures to control and avoid software-related faults/errors in safety-related data and safety-related segments of the software		N/A
R.2.1.1	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.2 have one of the following structures:		--
	- single channel with periodic self-test and monitoring		N/A
	- dual channel (homogenous) with comparison		N/A
	- dual channel (diverse) with comparison		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 have one of the following structures:		--
	- single channel with functional test		N/A
	- single channel with periodic self-test		N/A
	- dual channel without comparison		N/A
R.2.2	Measures to control faults/errors		--
R.2.2.1	When redundant memory with comparison is provided on two areas of the same component, the data in one area is stored in a different format from that in the other area		N/A
R.2.2.2	Programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.2 and that use dual channel structures with comparison, have additional fault/error detection means for any fault/errors not detected by the comparison		N/A
R.2.2.3	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, means are provided for the recognition and control of errors in transmissions to external safety-related data paths		N/A
R.2.2.4	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, the programmable electronic circuits incorporate measures to address the fault/errors in safety-related segments and data indicated in table R.1 and R.2 as appropriate		N/A
R.2.2.5	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, detection of a fault/error occur before compliance with clause 19 is impaired		N/A
R.2.2.6	The software is referenced to relevant parts of the operating sequence and the associated hardware functions		N/A
R.2.2.7	Labels used for memory locations are unique		N/A
R.2.2.8	The software is protected from user alteration of safety-related segments and data		N/A
R.2.2.9	Software and safety-related hardware under its control is initialized and terminates before compliance with clause 19 is impaired		N/A
R.3	Measures to avoid errors		--
R.3.1	General		--

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in table R.1 or R.2, the following measures to avoid systematic fault in the software are applied		N/A
	Software that incorporates measures used to control the fault/error conditions specified in table R.2 is inherently acceptable for software required to control the fault/error conditions specified in table R.1		N/A
R.3.2	Specification		--
R.3.2.1	Software safety requirements:	Software Id:	N/A
	The specification of the software safety requirements includes the descriptions listed		N/A
R.3.2.2	Software architecture		--
R.3.2.2.1	The specification of the software architecture includes the aspects listed - techniques and measures to control software faults/errors (refer to R.2.2); - interactions between hardware and software; - partitioning into modules and their allocation to the specified safety functions; - hierarchy and call structure of the modules (control flow); - interrupt handling; - data flow and restrictions on data access; - architecture and storage of data; - time-based dependencies of sequences and data	Document ref. No:	N/A
R.3.2.2.2	The architecture specification is validated against the specification of the software safety requirements by static analysis		N/A
R.3.2.3	Module design and coding		--
R.3.2.3.1	Based on the architecture design, software is suitably refined into modules		N/A
	Software module design and coding is implemented in a way that is traceable to the software architecture and requirements		N/A
R.3.2.3.2	Software code is structured		N/A
R.3.2.3.3	Coded software is validated against the module specification by static analysis		N/A
	The module specification is validated against the architecture specification by static analysis		N/A
R.3.3.3	Software validation		--
	The software is validated with reference to the requirements of the software safety requirements specification		N/A
	Compliance is checked by simulation of:		--
	- input signals present during normal operation		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	- anticipated occurrences		N/A
	- undesired conditions requiring system action		N/A

TABLE R.1^e – GENERAL FAULT/ERROR CONDITIONS

Component ^a	Fault/error	Acceptable measures ^{b, c}	Definitions	Document reference for applied measure	Document reference for applied test	Verdict
1 CPU 1.1 Registers	Stuck at	Functional test, or periodic self-test using either: - static memory test, or - word protection with single bit redundancy	H.2.16.5 H.2.16.6 H.2.19.6 H.2.19.8.2			N/A
1.2 VOID						N/A
1.3 Programme counter	Stuck at	Functional test, or Periodic self-test, or Independent time-slot monitoring, or Logical monitoring of the programme sequence	H.2.16.5 H.2.16.6 H.2.18.10.4 H.2.18.10.2			N/A
2 Interrupt handling and execution	No interrupt or too frequent interrupt	Functional test, or time-slot monitoring	H.2.16.5 H.2.18.10.4			N/A
3 Clock	Wrong frequency (for quartz synchronized clock: harmonics/ sub-harmonics only)	Frequency monitoring, or time slot monitoring	H.2.18.10.1 H.2.18.10.4			N/A

IEC 60335-2-75						
Clause	Requirement + Test		Result - Remark			Verdict
4. Memory						N/A
4.1 Invariable memory	All single bit faults	Periodic modified checksum, or multiple checksum, or word protection with single bit redundancy	H.2.19.3.1 H.2.19.3.2 H.2.19.8.2			N/A
4.2 Variable memory	DC fault	Periodic static memory test, or word protection with single bit redundancy	H.2.19.6 H.2.19.8.2			N/A
4.3 Addressing (relevant to variable and invariable memory)	Stuck at	Word protection with single bit redundancy including the address	H.2.19.8.2			N/A
5 Internal data path	Stuck at	Word protection with single bit redundancy	H.2.19.8.2			N/A
5.1 VOID						N/A
5.2 Addressing	Wrong address	Word protection with single bit redundancy including the address	H.2.19.8.2			N/A
6 External communicat ion	Hamming distance 3	Word protection with multi-bit redundancy, or CRC – single work, or Transfer redundancy, or Protocol test	H.2.19.8.1 H.2.19.4.1 H.2.18.2.2 H.2.18.14			N/A
6.1 VOID						N/A
6.2 VOID						N/A
6.3 Timing	Wrong point in time Wrong sequence	Time-slot monitoring, or scheduled transmission Time-slot and logical monitoring, or comparison of redundant communication channels by either: - reciprocal comparison - independent hardware comparator Logical monitoring, or time-slot monitoring, or Scheduled transmission	H.2.18.10.4 H.2.18.18 H.2.18.10.3 H.2.18.15 H.2.18.3 H.2.18.10.2 H.2.18.10.4 H.2.18.18			N/A

IEC 60335-2-75						
Clause	Requirement + Test			Result - Remark		Verdict
7 Input/output periphery	Fault conditions specified in 19.11.2	Plausibility check	H.2.18.13			N/A
7.1 VOID						N/A
7.2 Analog I/O						N/A
7.2.1 A/D and D/A- converter	Fault conditions specified in 19.11.2	Plausibility check	H.2.18.13			N/A
7.2.2 Analog multiplexer	Wrong addressing	Plausibility check	H.2.18.13			N/A
8 VOID						N/A
9 Custom chips ^d e.g. ASIC, GAL, gate array	Any output outside the static and dynamic functional specification	Periodic self-test	H.2.16.6			N/A
<p>NOTE A Stuck-at fault model denotes a fault model representing an open circuit or a non-varying signal level. A DC fault model denotes a stuck-at fault model incorporating short circuit between signal lines.</p> <p>a) For fault/error assessment, some components are divided into their sub-functions. b) For each sub-function in the table, the Table R.2 measure will cover the software fault/error. c) Where more than one measure is given for a sub-function, these are alternatives. d) To be divided as necessary by the manufacturer into sub-functions. e) Table R.1 is applied according to the requirements of R.1 to R.2.2.9 inclusive.</p>						

S	ANNEX S (NORMATIVE) BATTERY OPERATED APPLIANCES POWERED BY BATTERIES THAT ARE NON-RECHARGEABLE OR NOT RECHARGED IN THE APPLIANCE			--	
	The following modifications to this standard are applicable for battery-operated appliances where the batteries are either non-rechargeable (primary batteries), or				N/A
	rechargeable batteries (secondary batteries) that are not recharged in the appliance				N/A
5.8.1	If the supply terminals for the connection of the battery have no indication of polarity, the more unfavourable polarity is applied				N/A
5.S.101	Appliances intended for use with a battery box are tested with the battery box supplied with the appliance or with the battery box recommended in the instructions				N/A
5.S.102	Appliances are tested as motor-operated appliances.				N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
7.1	Appliances marked with the battery voltage (V) and the polarity of the terminals, unless		N/A
	the polarity is irrelevant		N/A
	Appliances also marked with:		N/A
	– name, trade mark or identification mark of the manufacturer or responsible vendor.....		N/A
	– model or type reference		N/A
	– IP number according to degree of protection against ingress of water, other than IPX0 ..		N/A
	– type reference of battery or batteries.....		N/A
	If relevant, the positive terminal is indicated by the symbol IEC 60417-5005 and the negative terminal by the symbol IEC 60417-5006		N/A
	If appliances use more than one battery, they are marked to indicate correct polarity connection of the batteries		N/A
7.6	Additional symbols		N/A
7.12	The instructions contain the following, as applicable:		N/A
	– the types of batteries that may be used....		N/A
	– how to remove and insert the batteries		N/A
	– non-rechargeable batteries are not to be recharged		N/A
	– rechargeable batteries are to be removed from the appliance before being charged		N/A
	– different types of batteries or new and used batteries are not to be mixed		N/A
	– batteries are to be inserted with the correct polarity		N/A
	– exhausted batteries are to be removed from the appliance and safely disposed of		N/A
	– if the appliance is to be stored unused for a long period, the batteries are removed		N/A
	– the supply terminals are not to be short-circuited		N/A
11.5	Appliances are supplied with the most unfavourable supply voltage between		N/A
	– 0,55 and 1,0 times the battery voltage, if the appliance can be used with non-rechargeable batteries		N/A
	– 0,75 and 1,0 times battery voltage, if the appliance is designed for use with rechargeable batteries only		N/A
	The values specified in Table S.101 for the internal resistance per cell of the battery is taken into account		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
19.1	The tests are carried out with the battery fully charged unless otherwise specified		N/A
19.13	The battery does not rupture or ignite		N/A
19.S.101	Appliances are supplied with the voltage specified in 11.5. The supply terminals having an indication of polarity are connected to the opposite polarity, unless		N/A
	such a connection is unlikely to occur due to the construction of the appliance		N/A
19.S.102	For appliances with provision for multiple batteries, one or more of the batteries are reversed and the appliance is operated, if reversal of batteries is allowed by the construction		N/A
25.5	The flexible leads or flexible cord used to connect an external battery or battery box in is connected to the appliance by a type X attachment		N/A
25.13	This requirement is not applicable to the flexible leads or flexible cord connecting external batteries or a battery box with an appliance		N/A
25.S.101	Appliances have suitable means for connection of the battery. If the type of battery is marked on the appliance, the means of connection is suitable for this type of battery		N/A
26.5	Terminal devices in an appliance for the connection of the flexible leads or flexible cord connecting an external battery or battery box are so located or shielded that there is no risk of accidental connection between supply terminals		N/A
30.2.3.2	There is no battery in the area of the vertical cylinder used for the consequential needle flame test, unless		N/A
	the battery is shielded by a barrier that meets the needle flame test of Annex E, or		N/A
	that comprises material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
T	ANNEX T(NORMATIVE) UV-C RADIATION EFFECT ON NON-METALLIC MATERIALS		N/A
	Requirements for non-metallic materials subject to direct or reflected UV-C radiation exposure and whose mechanical and electrical properties are relied upon for compliance with the		N/A
	Does not apply to glass, ceramic and similar materials		N/A
	Tested as specified in ISO 4892-1 and ISO 4892-2,with the following modifications:		N/A
	Modifications to ISO 4892-1:		N/A
5.1.6	The UV-C emitter is a low pressure mercury lamp with a quartz envelope having a continuous spectral irradiance of 10 W/m ² at 254nm		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Subclause 5.1.6.1 and Table 1 are not applicable		N/A
5.2.4	The black-panel temperature shall be 63°C +/-3°C		N/A
5.3.1	Humidification of the chamber air is specified in part 2 when necessary		N/A
9	This clause is not applicable		N/A
	Modifications to ISO 4892-2:		N/A
7.1	At least three test specimens are tested		N/A
	Ten samples of internal wiring is tested		N/A
7.2	The specimens are attached to the specimen holders such that they are not subject to any stress		N/A
7.3	Apparatus prepared as specified		N/A
	The test specimens and ,if used, the irradiance-measuring instrument are exposed for 1000h		N/A
7.4	If used, a radiometer is mounted and calibrated such that it measures the irradiance at the exposed surface of the test specimen		N/A
7.5	Material properties and test methods for parts providing mechanical support or impact resistance as specified in Table T.1		N/A
	Material properties and test methods for electrical insulation of internal wiring as specified in Table T.2		N/A
	This clause is not applicable		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60335_2_75M EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

Household and similar electrical appliances – Safety
Part 2-75: Particular requirements for commercial dispensing appliances and Vending Machine

Differences according to: EN 60335-2-75:2004+A1:2005+A11:2006+A2:2008+A12:2010 in conjunction with EN 603351:2012+A11:2014+A13:2017+A14:2019+A1:2019+A2:2019+A15:2021
EN 62233:2008

Attachment Form No.: EU_GD_IEC60335_2_75M

Attachment Originator: Certitek

Master Attachment: 2023-12

EN 62233:2008			
Clause	Requirement + Test	Result - Remark	Verdict
EMF - ELECTROMAGNETICS FIELDS			
	The tested product also complies with the requirements of EN 62233:2008		—
	Limit100%	Measured max. : 2,769%	P

CENELEC COMMON MODIFICATIONS

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
1	It also applies to commercial espresso-coffee machines that can also be heated by gas (see annex ZAA) (EN 60335-2-75)		N/A
6.1	Delete "class 0" and "class 01"		N/A
7.1	Single-phase appliances to be connected to the supply mains: 230 V covered		P
	Multi-phase appliances to be connected to the supply mains: 400 V covered		N/A
7.10	Devices used to start/stop operational functions of the appliance distinguished from other manual devices by means of shape, size, surface texture, position, etc.		P
	An indication that the device has been operated is given by:		--
	• a tactile feedback, or		N/A
	• an audible and visual feedback		P
7.12	The instructions include the substance of the following:		--
	- this appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved		P
	- children shall not play with the appliance		P
	- cleaning and user maintenance shall not be made by children without supervision		P
7.12.Z1	The specific instructions related to the safe operation of this appliance is collated together in the front section of the user instructions		P
	The height of the characters, measured on the capital letters, is at least 3 mm		P
	These instructions are also available in an alternative format, e.g. on a website		P
7.12.101.Z1	The instructions for maintenance for appliances intended for storage and dispensing potentially hazardous food, when the safety of the food depends upon the temperature of the appliance, shall include details for safe loading of the food. (EN 60335-2-75)		N/A
	NOTE This instruction is not required for appliances (EN 60335-2-75)		N/A
	- which do not dispense food (EN 60335-2-75),		N/A
	- Which dispense food in sealed containers such as cans and bottles? (EN 60335-2-75)		N/A
7.12.Z101	The instructions shall state that access to the service area should only be permitted to persons having knowledge and practical experience of the appliance, in particular as far as safety and hygiene are concerned. (EN 60335-2-75)		P
7.12.Z102	The instructions for maintenance shall include a statement about the acoustical noise emitted by the appliance, depending on the level as specified below. When relevant, the statement shall use the dual-number form of declaration defined in EN ISO 4871, including the value of uncertainty. (EN 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
7.12.Z102.1	If the A-weighted sound pressure level determined in accordance with annex ZBB is below 70 dB, no value need be given, but the instructions shall state that the A-weighted sound pressure level is below 70 dB. (EN 60335-2-75)		N/A
7.12.Z102.2	If the A-weighted sound pressure level determined in accordance with annex ZBB is above 70 dB, the instructions shall state the value in the following form (EN 60335-2-75):		N/A
	A-weighted sound pressure level (dB), uncertainty (dB) (EN 60335-2-75).....:		N/A
7.12.Z102.3	If the A-weighted sound pressure level determined in accordance with annex ZBB is above 85 dB, the instructions shall state the values of the sound pressure level and the sound power level in the following form (EN 60335-2-75):		N/A
	A-weighted sound pressure level (dB), uncertainty (dB) (EN 60335-2-75).....:		N/A
	A-weighted sound power level (dB), uncertainty (dB) (EN 60335-2-75).....:		N/A
8.1.1	Also test probe 18 of EN 61032 is applied		P
	The appliance being in every possible position during the test		P
	The force on the probe in the straight position is increased to 10 N when probe 18 is used		P
	When using test probe 18 the appliance is fully assembled as in normal use without any parts removed, and		P
	parts intended to be removed for user maintenance are also not removed		P
8.2	Compliance is checked by applying the test probes of EN 61032		P
	For built-in appliances and fixed appliances, the test probe B and probe 18 of EN 61032 are applied only after installation		N/A
11.8	Footnotes to "External enclosure of motor-operated appliances" to be taken into account		P
15.1.2	Appliances with an automatic cord reel tested with the cord in the most unfavourable position so that the reeling of the wet cord may affect electrical insulation during operation, the cord not being dried before reeling		N/A
15.2.109	Espresso coffee machines of the professional type amount of water increased to 5 l only if highest surface after installation is lower than 1,2 m (EN 60335-2-75/A11)		N/A
20.2	When using the test probe similar to test probe B with a circular stop face, the accessories and detachable covers are removed		P
	Test probe 18 applied with a force of 2,5N on the appliance fully assembled		P
22.Z101	Appliances for dispensing potentially hazardous food incorporate device which automatically prevents dispensing food if storage or process temperature reaches value having an adverse influence on food (EN 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
22.Z102	Surfaces of food areas be cleanable surfaces and if necessary be capable of being disinfected (EN 60335-2-75)		N/A
	NOTE Food area comprises surfaces in contact with food and surfaces that the food may contact during preparation of product (EN 60335-2-75)		N/A
	Compliance checked by inspection after having operated, cleaned and disinfected appliance in accordance with instructions for maintenance (EN 60335-2-75)		N/A
22.Z103	Surfaces of splash areas be cleanable surfaces (EN 60335-2-75)		N/A
	NOTE Splash area comprises surfaces on which part of food may splash or flow during normal use without it becoming part of product (EN 60335-2-75)		N/A
	Compliance checked by inspection after having operated and cleaned appliance in accordance with instructions for maintenance (EN 60335-2-75)		N/A
22.Z104	Non-food areas not adequately separated from food areas so constructed that retention of moisture, ingress and harbourage of vermin and soils prevented (EN 60335-2-75)		N/A
	When unavoidable, surfaces of non-food areas be cleanable surfaces (EN 60335-2-75)		N/A
	NOTE 1 Non-food areas are areas other than food areas and splash areas. (EN 60335-2-75)		N/A
	NOTE 2 This requirement does not apply to appliances (EN 60335-2-75):		--
	- which do not dispense food (EN 60335-2-75),		N/A
	- Which dispense food in sealed containers such as cans and bottles? (EN 60335-2-75)		N/A
22.Z105	Appliances so constructed that hygiene hazards that identified by hygiene risk assessment prevented (EN 60335-2-75)		N/A
24.1	Components comply with the safety requirements specified in the relevant standards as far as they reasonably apply		N/A
	The requirements of Clause 29 of this standard apply between live parts of components and accessible parts of the appliance.		P
	The requirements of 30.2 of this standard apply to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections inside components		P
	Components that have not been previously tested or do not comply with the standard for the relevant component are tested according to the requirements of 30.2		N/A
	Components that have been previously tested and shown to comply with the resistance to fire requirements in the standard for the relevant component need not be retested provided that:		--

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	- the severity specified in the component standard is not less than the severity specified in 30.2, and		N/A
	- the test report for the component states whether it complied with the standard for the relevant component with or without flame, flames not exceeding 2 s during the test are ignored		N/A
	Unless components have been previously tested and found to comply with the relevant standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9		N/A
	For components mentioned in 24.1.1 to 24.1.9, no additional tests specified in the relevant standard for the component are necessary other than those specified in 24.1.1 to 24.1.9		N/A
	Components that have not been separately tested and found to comply with the relevant standard, and		N/A
	components that are not marked or not used in accordance with their marking,		N/A
	are tested in accordance with the conditions occurring in the appliance, the number of samples being that required by the relevant standard		N/A
	Lamp holders and starter holders that have not been previously tested and found to comply with the relevant standard are tested as a part of the appliance and additionally comply with the gauging and interchangeability requirements of the relevant standard under the conditions occurring in the appliance		N/A
	Where the relevant standard specifies these gauging and interchangeability requirements at elevated temperatures, the temperatures measured during the tests of Clause 11 are used		N/A
	Plugs and socket-outlets and other connecting devices of interconnection cords are not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1, or		N/A
	with connectors and appliance inlets complying with the standard sheets of IEC 60320-1,		N/A
	if direct supply to these parts from the supply mains gives rise to a hazard		N/A
24.1.7	If the remote operation of the appliance is via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is EN 41003		N/A
	Compliance with Clause 8 of this standard is not impaired by connecting the appliance to a device covered by EN 41003		N/A
24.7	Hose-sets do not need to be supplied with the appliance (EN 60335-2-75/A12)		N/A
24.Z1	For motor running capacitors (IEC 60252-1 type P2) with a metallic enclosure having an overpressure fuse the flame testing of internal plastic parts supporting current carrying connections as required in 30.2.2 and 30.2.3.1 is not necessary		N/A
25.6	Supply cords of single-phase portable appliances having a rated current not exceeding 16 A, fitted with a plug complying with the following standard sheets of IEC/TR 60083:		--
	- for Class I appliances: standard sheet C2b, C3b or C4		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	- for Class II appliances: standard sheet C5 or C6		N/A
25.7	Rubber sheathed cords (60245 IEC 53) are not suitable for appliances intended to be used outdoors or when they are liable to be exposed to significant amount of ultraviolet radiation		N/A
	Halogen-free thermoplastic compound sheathed supply cords have properties at least those of:		--
	<ul style="list-style-type: none"> halogen-free thermoplastic compound sheathed cords (H03Z1Z1H2-F or H03Z1Z1-F), for appliances having a mass not exceeding 3 kg 		N/A
	<ul style="list-style-type: none"> halogen-free thermoplastic compound sheathed cords (H05Z1Z1H2-F or H05Z1Z1-F), for other appliances 		N/A
	Cross-linked halogen-free compound sheathed supply cords have properties at least those of cross-linked halogen-free compound sheathed cords (H07ZZ-F)		N/A
26.11	Conductors connected by soldering are not considered to be positioned or fixed so that reliance is not placed upon the soldering alone to maintain them in position unless they are held in place near the terminals independently of the solder		P
29.3.Z1	Appliance constructed so that if there is a possibility of damaging the insulation during installation, the insulation withstands the scratch and penetration test of 21.2		N/A
32	Compliance regarding electromagnetic fields is checked according to EN 62233		N/A
Annex I, 19.I.101	The appliance is supplied at rated voltage and operated under normal operation with each of the fault conditions specified		P
	The duration of the test is as specified in 19.7		P

ZA	ANNEX ZA (NORMATIVE) SPECIAL NATIONAL CONDITIONS	
	Norway	—
19.5	The test is also applicable to appliances intended to be permanently connected to fixed wiring	N/A
	Norway	—
22.2	The second paragraph of this subclause, dealing with single-phase, permanently connected class I appliances having heating elements, is not applicable due to the supply system	N/A
	All CENELEC countries	—
25.6 and 25.25	Information concerning National plug and socket-outlets is available from the CENELEC website. Normative national requirements concerning plug and socket-outlets are shown in the relevant National standard	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Ireland and United Kingdom		—
25.8	In the table, the lines for 10 A and 16 A are replaced by:		—
	> 10 and ≤ 13 1,25		N/A
	> 13 and ≤ 16 1,5		N/A
ZB	ANNEX ZB (INFORMATIVE) A-DEVIATIONS		—
	Ireland		—
25.6	These regulations apply to all plugs for domestic use at a voltage of not less than 200 V and in general allow only plugs complying with I.S. 401:1997, or equivalent, to be fitted to domestic appliances		N/A
	United Kingdom		—
25.6	These regulations apply to all plugs for domestic use at a voltage of not less than 200 V and in general allow only plugs to BS 1363 to be fitted to domestic appliances. It also allows plugs to BS 4573 and EN 50075 to be fitted to shavers and toothbrushes		N/A
ZC	ANNEX ZC (NORMATIVE) NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS		—
	A list of referenced documents in this standard		P
ZD	ANNEX ZD (INFORMATIVE) IEC and CENELEC CODE DESIGNATIONS FOR FLEXIBLE CORDS		—
	A table with IEC and CENELEC code designations for flexible cords		P
ZE	ANNEX ZE (INFORMATIVE) SPECIFIC ADDITIONAL REQUIREMENTS FOR APPLIANCES AND MACHINES INTENDED FOR COMMERCIAL USE		—
7.1	Business name and full address of the manufacturer and, where applicable, his authorized representative		N/A
	Model or type reference		N/A
	Serial number, if any		N/A
	Production year		N/A
	Designation of the appliance.....		N/A
7.12	Instructions provided with the appliance so that the appliance can be used safely		N/A
	The instructions contain at least the following information:		—

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Clause	Requirement + Test	Result - Remark	Verdict
	- the business name and full address of the manufacturer and, where applicable, his authorized representative		N/A
	- model or type reference of the appliance as marked on the appliance itself, except for the serial number		N/A
	- the designation of the appliance together with its explanation in case it is given by a combination of letters and/or numbers		N/A
	- the general description of the appliance, when needed due to the complexity of the appliance		N/A
	- specific precautions if required during installation, operation, adjusting, user maintenance, cleaning, repairing or moving		N/A
	- when needed drawings, diagrams, descriptions and explanations necessary for the safe use and user maintenance of the appliance		N/A
	- the possible reasonably foreseeable misuse and, whenever relevant, a warning against the effects it may have on the safe use of the appliance		N/A
	The words "Original instructions" appear on the language version(s) verified by the manufacturer or by the authorized representative		N/A
	When a translation of the original instructions has been provided by a person introducing the appliance on the market; the meaning of the sentence "Translation of the original instructions" appear in the relevant instructions delivered with the appliance		N/A
	The instructions for maintenance/service to be done by specialized personnel, mandated by the manufacturer or the authorized representative may be supplied in only one Community language which the specialized personnel understand		N/A
	The instructions indicate the type and frequency of inspections and maintenance required for safe operation including the preventive maintenance measures		N/A
7.12.ZE1	If needed for specific appliances, the following information to be given:		—
	<ul style="list-style-type: none"> on use, transportation, assembly, dismantling when out of service, testing or foreseeable breakdowns, if these operations have consequences on stability of the appliance in order to avoid overturning, falling or uncontrolled movements of the appliance or of its component parts 		N/A
	<ul style="list-style-type: none"> on how to maintain adequate mechanical stability when in use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance 		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	<ul style="list-style-type: none"> on the protective measures to be taken by the user, including, where appropriate, the personal protective equipment to be provided 		N/A
	<ul style="list-style-type: none"> on the operating method to be followed in the event of accident or breakdown; if a blockage is likely to occur the operating method to safely unblock the appliance 		N/A
	<ul style="list-style-type: none"> on the specifications on the spare parts to be used, when these affect the health and safety of the operator 		N/A
	<ul style="list-style-type: none"> on airborne noise emissions, determined and declared in accordance with the relevant Part 2, which includes: 		—
	- the A-weighted emission sound pressure level at workstations, where this exceeds 70 dB(A)..... ;		N/A
	- where this level does not exceed 70 dB(A), this fact is indicated		N/A
	- the peak C-weighted instantaneous sound pressure value at workstations, where this exceeds 63 Pa (130 dB in relation to 20 µPa)		N/A
	- the A-weighted sound power level emitted by the machinery, where the A-weighted emission sound pressure level at workstations exceeds 80 dB(A)		N/A
7.12.ZE2	The instructions includes a warning to disconnect the appliance from its power source during service and when replacing parts		N/A
	If the removal of the plug is foreseen, it is clearly indicated that the removal of the plug has to be such that an operator can check from any of the points to which he has access that the plug remains removed		N/A
	If this is not possible, due to the construction of the appliance or its installation, a disconnection with a locking system in the isolated position is provided		N/A
19.11.4.8	The appliance continues to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage fluctuation occurred, or		N/A
	a manual operation is required to restart it		N/A
20.1	Appliances and their components and fittings have adequate mechanical stability during transportation, assembly, dismantling and any other action involving the appliance		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
20.2	Dangerous moving transmission parts safeguarded either by design or guards		N/A
	When guards are used, they are fixed guards, interlocking movable guards or protective devices		N/A
	Moving parts directly involved in the function of the appliance which cannot be made completely inaccessible fitted with:		N/A
	- fixed guards or interlocking movable guards preventing access to those sections of the parts that are not used in the work, and		N/A
	- adjustable guards restricting access to those sections of the moving parts where access is necessary		N/A
	Interlocking movable guards used where frequent access is required		N/A
21.1	Appliances and their components and fittings have adequate mechanical strength and is constructed to withstand such rough handling that may be expected in normal use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance		N/A
22.ZE.1	For appliances provided with a seat, the seat gives adequate stability		N/A
	The distance between the seat and the control devices capable of being adapted to the operator		N/A
22.ZE.2	For appliances provided with separate devices for the start and the stop functions, the stop function is unambiguously identifiable and does always override the start function		N/A
	For appliances provided with one device performing the start and the stop function, the stop function is unambiguously identifiable and does always override the start function		N/A
22.ZE.3	Appliances designed in such a way that incorrect mounting is avoided, if this can lead to an unsafe situation		N/A
	If this is not possible, information on the correct mounting is given directly on the part and/or the enclosure		N/A
22.ZE.4	Where the weight, size or shape prevents appliances from being moved manually, they are fitted with attachments for lifting gear, or		N/A
	so designed that they can be fitted with such attachments, or		N/A
	be shaped in such a way that standard lifting gear can easily be used		N/A
	Appliances to be moved manually are constructed or equipped so that they can be moved easily and safely		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
22.ZE.5	The fixing systems of fixed guards which prevent access to dangerous moving transmission parts only removable with the use of tools		N/A
	If such guards have to be removed by the user for routine cleaning or maintenance their fixing systems remain attached to the fixed guards or to the machine after removal		N/A
	Where possible, guards are incapable of remaining in place without their fixings		N/A
	This does not apply if, after removal of the screws, or if the component is incorrectly repositioned, the appliance becomes inoperative		N/A
	Movable guards are interlocked		N/A
	The interlocking devices prevent the start of hazardous appliance functions until the guards are fixed in their position, and give a stop command whenever they are no longer closed		N/A
	Where it is possible for an operator to reach the danger zone before the risk due to hazardous appliance functions has ceased, movable guards associated with a guard locking device in addition to an interlocking device that:		—
	- prevents the start of hazardous appliance functions until the guard is closed and locked, and		N/A
	- keeps the guard closed and locked until the risk of injury from the hazardous appliance functions has ceased		N/A
	Interlocking movable guards remain attached to the appliance when open, and		N/A
	they are designed and constructed in such a way that they can be adjusted only by means of an intentional action		N/A
22.ZE.6	Interlocking movable guards designed in such a way that the absence or failure of one of their components prevents starting or stops the hazardous appliance functions		N/A
	The guard is opened to the extent needed to cause the interlocking to operate and is then closed, the number of operations being defined in the specific Part 2 :		N/A
	After this test any defect that may be expected in normal use is applied to the interlock system, including interruption of the supply, only one defect being simulated at a time		N/A
	After these tests the interlock system is fit for further use		N/A
22.ZE.7	Adjustable guards restricting access to areas of the moving parts strictly necessary for the work are:		—
	- adjustable manually or automatically, depending on the type of work involved, and		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	- readily adjustable without the use of tools		N/A
22.ZE.8	In case of interruption, re-establishment after an interruption or fluctuation in whatever manner of the power supply, the appliance does not restart		N/A
	However, automatic restarting of the operation is allowed if the appliance may continue to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage interruption or fluctuation occurred		N/A
22.ZE.9	Appliances fitted with means to isolate them from all energy sources		N/A
	Such isolators are clearly identified, and		N/A
	they are capable of being locked if reconnection endanger persons		N/A
	After the energy source is disconnected, it is possible to dissipate any energy remaining or stored in the circuits of the appliance without risk to persons		N/A
ZF	ANNEX ZF (INFORMATIVE) CRITERIA APPLIED FOR THE ALLOCATION OF PRODUCTS COVERED BY STANDARDS IN THE EN 60335 SERIES UNDER LVD OR MD		—
	List of standards under CENELEC/TC61 with the allocation under the LVD (Low Voltage Directive) or the MD (Machinery Directive) :	LVD	P
ZG	ANNEX ZG (NORMATIVE) UV APPLIANCES		—
	The following modifications to this standard apply to appliances having UV emitters		N/A
	This annex is not applicable to appliances covered by the scopes of IEC 60335-2-27, IEC 60335-2-59 or IEC 60335-2-109		N/A
7.12.ZG	The instructions for appliances incorporating UVC emitters include the substance of the following: WARNING — This appliance contains a UV emitter. Do not stare at the light source		N/A
32	For appliances incorporating UV emitters the manufacturer delivers a declaration providing evidence that the plastic material exposed to the radiation is UV resistant		N/A
ZZ	ANNEX ZZ (INFORMATIVE) COVERAGE OF ESSENTIAL REQUIREMENTS OF EC DIRECTIVES		—
	Description of the relation between this European standard and the LVD (Low Voltage Directive, 2006/95/EC) and the MD (Machinery Directive, 2006/42/EC)	LVD	P

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
ZAA	ANNEX ZAA (NORMATIVE) (EN 60335-2-75) COMMERCIAL ELECTRIC ESPRESSO-COFFEE MACHINES THAT CAN ALSO BE HEATED BY GAS		—
1	This annex applies to gas-heated part of commercial electric espresso-coffee machines with nominal heat input not exceeding 3,5 kW, which incorporate an atmospheric injection burner and a steam or superheated water generator with max. rated pressure of 0,3 MPa (3 bar) and max. capacity of 35 litres (EN 60335-2-75)		N/A
5.4	When testing gas-heated part of appliance, influence of electric part taken into account (EN 60335-2-75)		N/A
6.Z201	Appliances classified in accordance with EN 437 with respect to test gases, test pressures and appliance categories (EN 60335-2-75)		N/A
6.Z202	Appliances of type A in accordance with CEN Report CR 1749 with respect to method of evacuation of products of combustion (EN 60335-2-75)		N/A
7.1	- type of gas and pressure or pressure couple for which appliance adjusted (EN 60335-2-75);		N/A
	- category. When more than one category specified, each of these categories indicated with respect to appropriate countries of destination (EN 60335-2-75);		N/A
	- nominal heat input. (EN 60335-2-75)		N/A
	Appliance marked with substance of following warning (EN 60335-2-75):		N/A
	WARNING: This appliance is to be installed in accordance with the national regulations and only in a correctly ventilated location. (EN 60335-2-75)		N/A
7.12	Instructions state type of gas and pressure or pressure couple for which appliance adjusted (EN 60335-2-75)		N/A
7.12.1	The installation instructions shall contain the substance of the following warnings (EN 60335-2-75):		--
	WARNING : Before installation, take care that the conditions of the local gas distribution (type and pressure of gas) are compatible with the adjustment of the appliance. (EN 60335-2-75)		N/A
	WARNING : This appliance must be installed and connected in accordance with the national regulations. Special attention is to be paid to the regulations with regard to ventilation. (EN 60335-2-75)		N/A
	The installation instructions shall include information with regard to (EN 60335-2-75):		--
	- connection of appliance to gas supply (EN 60335-2-75),		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	- national regulations regarding installation and ventilation of country where appliance installed (EN 60335-2-75),		N/A
	- fixing of appliance, if applicable (EN 60335-2-75),		N/A
	- minimum distances between appliance and adjacent walls, if applicable (EN 60335-2-75),		N/A
	- required values of pressure in accordance with Wobbe number of gas used (EN 60335-2-75),		N/A
	- adjusting devices, in particular the type and the characteristics of the gas pressure regulator, if any. (EN 60335-2-75)		N/A
	Installation instructions include all necessary information with regard to conversion from gas of one group or family to gas of another group or another family (EN 60335-2-75)		N/A
	They also include details for adjusting appliance to different distribution pressures (EN 60335-2-75)		N/A
7.Z201	Gas taps marked with (EN 60335-2-75):		--
	- disc for "off" (EN 60335-2-75)		N/A
	- star for "ignition" (EN 60335-2-75)		N/A
	- large stylized flame for "burner full on" (EN 60335-2-75)		N/A
	- small stylized flame for "reduced rate" (EN 60335-2-75)		N/A
	NOTE Marking not required provided that incorrect manipulation not possible (EN 60335-2-75)		N/A
7.Z202	Injectors marked with appropriate means of identification (EN 60335-2-75)		N/A
19.1	Burners of gas espresso-coffee machines subjected to test of 19.Z201 (EN 60335-2-75)		N/A
19.Z201	Appliance adjusted for one of reference gases corresponding to category specified. Test carried out using reference gas and corresponding injector (EN 60335-2-75)		N/A
	Appliances with several identical burners, test only carried out on one burner of each type (EN 60335-2-75)		N/A
	Gas ignited at injector provided that this is possible without dismantling major part of appliance, and also at burner head if combustion is maintained under these conditions. Test carried out for 15 min at nominal heat input (EN 60335-2-75)		N/A
	If combustion cannot be maintained at injector, pressure reduced until combustion can be maintained. It is not reduced below min. pressure specified. (EN 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	If combustion still cannot be maintained, test is carried out with gas rate adjuster set at reduced rate position. (EN 60335-2-75)		N/A
	Burner show no deterioration other than that associated with gas combustion (EN 60335-2-75)		N/A
22.Z201	Operations necessary for conversion from gas of one group or family to gas of another group or another family, and for adapting to different distribution pressures of gas, in accordance with requirements given in clause 22.Z201.1 to 22.Z201.3 for different categories. Possible to carry out these operations without having to disconnect appliance from gas supply (EN 60335-2-75)		N/A
	Parts necessary for conversion available from manufacturer (EN 60335-2-75)		N/A
22.Z201.1	Category I (EN 60335-2-75)		N/A
22.Z201.1.1	Categories I_{2H} , I_{2L} , I_{2E} , I_{2E+} : No adjustment of appliance (EN 60335-2-75)		N/A
22.Z201.1.2	Category $I_{3B/P}$: No adjustment of appliance (EN 60335-2-75)		N/A
22.Z201.1.3	Category I_{3+} (EN 60335-2-75):		N/A
	- replacement of injectors or restrictors but only to convert from one pressure couple to another, for example from 28 mbar/37 mbar to 50 mbar/67 mbar (EN 60335-2-75);		N/A
	- adjustment of the primary air to convert from one pressure couple to another. (EN 60335-2-75)		N/A
22.Z201.1.4	Category I_{3P} (EN 60335-2-75):		N/A
	- for changing gas: no adjustment of appliance; (EN 60335-2-75);		N/A
	- for changing pressure: replacement of injectors, adjustment of gas rate and adjustment of primary air. (EN 60335-2-75)		N/A
22.Z201.2	Category II (EN 60335-2-75)		N/A
22.Z201.2.1	Categories of appliances designed for use with gases of the first and second families (EN 60335-2-75):		N/A
	- replacement of injectors or restrictors (EN 60335-2-75);		N/A
	- adjustment of the gas rate, for gases of the first family (EN 60335-2-75);		N/A
	- adjustment of primary air (EN 60335-2-75);		N/A
	- rendering modulating governor inoperative (EN 60335-2-75);		N/A
	- rendering gas rate adjuster inoperative for gases of the second family. (EN 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	These operations only acceptable when converting from gas of first family to gas of second family and vice versa (EN 60335-2-75)		N/A
22.Z201.2.2	Categories of appliances designed for use with gases of the second and third families (EN 60335-2-75):		N/A
	- replacement of injectors or restrictors (EN 60335-2-75);		N/A
	- adjustment of primary air (EN 60335-2-75);		N/A
	- rendering modulating governor inoperative (EN 60335-2-75);		N/A
	- rendering gas rate adjuster inoperative for gases of second family. (EN 60335-2-75)		N/A
	These operations are only acceptable (EN 60335-2-75):		N/A
	- when converting from gas of one family to gas of another family (EN 60335-2-75),		N/A
	- when converting from butane/propane pressure couple to another, for example, 28 mbar/37 mbar to 50 mbar/67 mbar. (EN 60335-2-75)		N/A
	When converting from one gas to another within pressure couple of third family, only primary air is allowed to be adjusted (EN 60335-2-75)		N/A
22.Z201.3	Category III (EN 60335-2-75):		N/A
	- replacement of injectors or restrictors (EN 60335-2-75);		N/A
	- adjustment of gas rate, for gases of first family (EN 60335-2-75);		N/A
	- adjustment of primary air (EN 60335-2-75);		N/A
	- adjustment of modulating governor (EN 60335-2-75);		N/A
	- rendering gas rate adjusters inoperative, for gases of the third family (EN 60335-2-75);		N/A
	- rendering modulating governor inoperative. (EN 60335-2-75)		N/A
	These operations are only acceptable (EN 60335-2-75):		--
	- when converting from gas of one family to gas of another family (EN 60335-2-75),		N/A
	- when converting from butane/propane pressure couple to another couple. (EN 60335-2-75)		N/A
	When converting from one gas to another within pressure couple of third family, only primary air is allowed to be adjusted (EN 60335-2-75)		N/A
22.Z202	Means of connection of appliance to gas supply easily accessible. They located so that sufficient space provided for tightening tool (EN 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Except for appliances of category I3, inlet connections have thread which complies with ISO 228-1 or have compression fitting. In first case, end of inlet connection is sufficiently flat in order to accommodate seal. (EN 60335-2-75)		N/A
	Pipe incorporating inlet connection is rigidly fixed to appliance (EN 60335-2-75)		N/A
22.Z203	Holes for screws and other fastening means for assembling appliance not end in cavities containing gas (EN 60335-2-75)		N/A
	Tightness of gas circuit ensured by means of metal to metal joints or joints with seals, for example washes, O-rings or gaskets. Products which seal thread only allowed to be used for parts which not disassembled during user maintenance, for example gas taps and injectors. Solder having melting point lower than 450 ° C, glues and resins not used to ensure tightness of gas circuit. (EN 60335-2-75)		N/A
22.Z204	Appliances constructed so that under normal working conditions, sufficient air provided for combustion. Passage for combustion products so constructed that it cannot be obstructed (EN 60335-2-75)		N/A
	Cross-sectional area of passage for air towards combustion chamber, and cross-sectional area of passage for combustion products, are not adjustable (EN 60335-2-75)		N/A
22.Z205	Possible to visually check ignition and operation of burner (EN 60335-2-75)		N/A
	NOTE Necessary to open shutter to see burner (EN 60335-2-75)		N/A
22.Z206	Gas taps mounted so that they protected against dirt and that their strength, operation, handling and accessibility not affected by actuation during normal use. They installed in position for easy access for their replacement and maintenance. (EN 60335-2-75)		N/A
	Gas tap levers so constructed that they cannot be incorrectly fitted and protected against accidental movement. When they act by rotation, opening direction be anti-clockwise. (EN 60335-2-75)		N/A
22.Z207	Cross-sections of flame ports are not adjustable (EN 60335-2-75)		N/A
	Removable burner, its position well defined. Easy to position it correctly and impossible to position it incorrectly (EN 60335-2-75)		N/A
	Primary air adjusters shall not be incorporated in appliances of categories I2H, I2L, I2E, I2E+ and I3P (EN 60335-2-75)		N/A
	NOTE Primary air adjusters incorporated in other appliances (EN 60335-2-75)		N/A
	Possible to adjust primary air adjusters by means of tool (EN 60335-2-75)		N/A
	Possible to lock adjuster in position which is appropriate for gas used (EN 60335-2-75)		N/A
	Air inlets of primary air adjusters protected so that accidental blockage prevented (EN 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
22.Z208	Appliances of categories I2H, I2L, I2E, I2E+, I3B/P, I3+, I3P, II2H3B/P, II2H3+, II2H3P, II2E3B/P, II2E3+, II2E3P, II2E+3B/P, II2E+3+ and II2E+3P are not fitted with gas rate adjusters with continuous adjustment. However, (EN 60335-2-75)		N/A
	it is allowed to set gas rate adjuster at reduced rates for appliances of categories II2H3B/P, II2H3+, II2H3P, II2E3B/P, II2E3+, II2E3P, II2E+3B/P, II2E+3+ and II2E+3P when using second family gases. This also applies to appliances of category I2E+ which also of category II2E+3+ (EN 60335-2-75)		N/A
	For appliances of categories II1a2E and II1a2H, gas rate adjusters fitted. However (EN 60335-2-75),		N/A
	if these appliances supplied with second family gas, any continuous adjustment of nominal flow rate prevented, adjustment of reduced flow rate being allowed. (EN 60335-2-75)		N/A
	For appliances of category III, possible to lock gas rate adjuster in fully open position when appliance supplied with third family gases (EN 60335-2-75)		N/A
	Gas rate adjusters constructed to prevent accidental adjustment by user. Possible to lock them after adjustment. (EN 60335-2-75)		N/A
24.Z201	Flame supervision devices so constructed that, in event of failure of one of its essential operating components, gas supply to burner shut off automatically (EN 60335-2-75)		N/A
	Compliance checked under conditions of EN 437 (EN 60335-2-75)		N/A
	Ignition and extinction delays not exceed 20 s and 60 s respectively. However, (EN 60335-2-75)		N/A
	in case of direct ignition with flame supervision device using electrical means, these delays not exceed 5 s. (EN 60335-2-75)		N/A
24.Z202	Ignition devices ensure safe and fast ignition (EN 60335-2-75)		N/A
	Components of ignition device constructed to avoid damage or accidental displacement during use (EN 60335-2-75)		N/A
	Respective positions of ignition device and burner are well defined (EN 60335-2-75)		N/A
25.Z201	Nominal heat input		N/A
	Heat input obtained at normal test pressure is equal to nominal heat input with tolerance of $\pm 5\%$. However, (EN 60335-2-75)		N/A
	for appliances using liquefied petroleum gas with pressure from 3 kPa to 3,7 kPa (30 mbar to 37 mbar), the tolerance is $+ 5\% - 10\%$. (EN 60335-2-75)		N/A
	Measurements made under conditions specified in EN 437, after appliance operated for 10 min at its max. gas rate, any thermostat being rendered inoperative (EN 60335-2-75)		N/A
	The nominal heat input Q_n , expressed in kW, is given as specified (EN 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	To check heat input of appliance, each of the reference gases of appliance category is used successively in accordance with EN 437 (EN 60335-2-75)		N/A
	Tests carried out at pressures indicated by manufacturer in accordance with provisions of table 6 of EN 437 (EN 60335-2-75)		N/A
	With appliance fitted with each of prescribed injectors, heat input measured for each of the reference gases at appropriate normal test pressures in accordance with provisions of table 6 of EN 437 (EN 60335-2-75)		N/A
25.Z202	Tightness of the gas circuit and escape of unburnt gas		N/A
25.Z202.1	Gas circuit e gas-tight (EN 60335-2-75)		N/A
	Test carried out as specified (EN 60335-2-75)		N/A
	At end of test, escape not exceed 140 cm ³ /h, whichever number of components mounted in parallel or in series on appliance (EN 60335-2-75)		N/A
25.Z202.2	No escape of unburnt gas between injector and burner head (EN 60335-2-75)		N/A
	Compliance checked by following test carried out with reference gas at nominal heat input. When air adjustment takes place by sealing inside body of mixer, test carried out by placing adjuster in position of max. closure. Any primary air adjuster placed in its position of max. closure (EN 60335-2-75),		N/A
	- either at lowest rate which can be obtained during cycling of thermostat, if appliance is fitted with such a device, or (EN 60335-2-75),		N/A
	- at lowest rate capable of maintaining combustion at burner head if provision is made for appliance to operate at a reduced rate by adjusting controls, whether or not there is marked reduced-rate position. (EN 60335-2-75)		N/A
	Gas detector used to search for any escape between injector outlet and burner parts. Concentration of gas in air is determined with precision of 0,005 % (EN 60335-2-75)		N/A
25.Z203	Combustion (EN 60335-2-75)		N/A
	Volume content of carbon monoxide (CO) in air and water vapour free products of combustion not exceed (EN 60335-2-75):		--
	- 0,10 % when appliance supplied with reference gas under normal or special conditions described below (EN 60335-2-75);		N/A
	- 0,20 % when appliance supplied with incomplete combustion limit gas. (EN 60335-2-75)		N/A
	Test carried out as specified (EN 60335-2-75)		N/A
	Carbon monoxide (CO) measured by means of instruments that allow CO content to be detected, starting from 5 x 10 ⁻⁶ parts in volume (EN 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	CO measuring instruments not influenced by presence of carbon dioxide (CO ₂) in combustion products (EN 60335-2-75)		N/A
	CO ₂ is to be determined by means of instruments that allow measurements with less than 2 % relative error to be carried out (EN 60335-2-75)		N/A
25.Z204	Ignition, cross-lighting and flame stability (EN 60335-2-75)		N/A
	Ignition and cross-lighting are rapid and smooth. Flames are stable. Slight tendency to flame lift at moment of ignition allowed but flames are stable 60 s after ignition. (EN 60335-2-75)		N/A
	Test as specified which carried out at cold and at operating temperatures (EN 60335-2-75)		N/A
	Under these conditions, ignition of burner and cross-lighting of its different parts occur correctly (EN 60335-2-75)		N/A
	Test repeated at modulated min. heat input and then with the gas tap set for reduced heat input (EN 60335-2-75)		N/A
25.Z205	Flame breakaway (EN 60335-2-75)		N/A
	Flame breakaway not allowed. However (EN 60335-2-75),		N/A
	during ignition stage, slight tendency to breakaway is tolerated. (EN 60335-2-75)		N/A
	Test as specified by following test which carried out at cold (EN 60335-2-75)		N/A
	Adjust burner for reference gas corresponding to each category to which appliance belongs, in order to obtain nominal heat input (EN 60335-2-75)		N/A
	Replace each reference gas with corresponding flame lift limit gas, increasing supply gas pressure to maximum value specified in Table 6 of EN 437 (EN 60335-2-75)		N/A
25.Z206	Flame backfire (EN 60335-2-75)		N/A
	Flame backfire towards nozzle not allowed (EN 60335-2-75)		N/A
	Test as specified by following test which carried out at cold (EN 60335 2 75)		N/A
	Adjust burner for reference gas corresponding to each category to which appliance belongs, in order to obtain nominal heat input (EN 60335-2-75)		N/A
	Replace each reference gas with corresponding flame backfiring limit gas, decreasing supply gas pressure to min. value specified in Table 6 of EN 437 (EN 60335-2-75)		N/A
ZBB	ANNEX ZBB (NORMATIVE) (EN 60335-2-75) MEASUREMENT OF ACOUSTICAL NOISE		

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
	Sound pressure level measured in accordance with EN ISO 11201 (EN 60335-2-75)		N/A
	Sound power level measured in accordance with EN ISO 3744, or (EN 60335-2-75)		N/A
	with EN ISO 3743-1 if suitable hard-walled test room available (EN 60335-2-75)		N/A
	Tests carried out with appliance placed on hard floor of test room as in normal use (EN 60335-2-75)		N/A
	Appliance supplied at rated voltage and operated under most unfavourable conditions of normal use (EN 60335-2-75)		N/A

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict

10.1	TABLE: Power input deviation					P
Input deviation of/at:	P rated (W)	P measured (W)	ΔP (%)	Required ΔP (%)	Remark	
WM800	230	221,3	-3,7	+20	230V,50Hz	
WM800	230	224,7	-2,3	+20	230V,60Hz	
WM500	150	147,2	-1,8	+20	230V,50Hz	
WM500	150	153,4	+2,2	+20	230V,60Hz	
WM22-CWGZ	105	99,8	-4,9	+20	230V,50Hz	
WM22-CWGZ	105	102,3	+2,1	+20	230V,60Hz	
WM22-W	100	95,6	-4,4	+20	230V,50Hz	
WM22-W	100	97,2	-2,8	+20	230V,60Hz	
WM22-AL	85	80,1	-6,1	+20	230V,50Hz	
WM22-AL	85	83,3	+2,0	+20	230V,60Hz	
WM5-W	80	83,1	+3,8	+20	230V,50Hz	
WM5-W	80	85,3	+6,6	+20	230V,60Hz	
WM10-W	80	78,2	-2,2	+20	230V,50Hz	
WM10-W	80	82,5	+3,1	+20	230V,60Hz	
WM700	60	64,6	+7,6	+20	230V,50Hz	
WM700	60	66,1	+10,1	+20	230V,60Hz	
WM0-W	50	44,3	-11,4	+20	230V,50Hz	
WM0-W	50	45,9	-8,2	+20	230V,60Hz	
Supplementary information:						

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

11.8	TABLE: Heating test			P
	Test voltage (V)..... :	1,06 x 240 V = 254,4V		—
	Ambient (°C)..... :	t1 (°C)23,1 t2 (°C)23,2		—
Thermocouple locations		Max. temperature rise measured, ΔT (K)	Max. temperature rise limit, ΔT (K)	
Internal wire		11,5	50	
Surface of switch		5,6	60	
Ambient of switch		7,4	30	

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
Power supply cord	8,3	50	
Surface of capacitor	15,3	50	
PCB(power board)	14,6	120/Clause 30	
DC Motor	9,6	65	
Shell	4,3	60	
Wall of test corner	2,1	60	
Floor of test corner	2,3	60	
Supplementary information:			

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

13.2	TABLE: Leakage current		P
	Heating appliances: 1.15 x rated input (W)....:	--	—
	Motor-operated and combined appliances: 1.06 x rated voltage (V):	1,06 x 240 V = 254,4V	—
Leakage current between		I (mA)	Max. allowed I (mA)
L/N and Insulating material		0,013	0,25
L/N and earthed parts		0,024	3,5
Supplementary information:			

13.3	TABLE: Dielectric strength			P
Test voltage applied between:		Test potential applied (V)	Breakdown / flashover (Yes/No)	
L/N to earthed parts		1000	No	
Intermediate metal parts and insulating materials		1750	No	
L/N to insulating materials		3000	No	
Supplementary information:				

14	TABLE: Transient overvoltages					N/A
----	-------------------------------	--	--	--	--	-----

IEC 60335-2-75					
Clause	Requirement + Test			Result - Remark	Verdict
Clearance between:	CI (mm)	Required CI (mm)	Rated impulse voltage (V)	Impulse test voltage (V)	Flashover (Yes/No)
--	--	--	--	--	--
Supplementary information:					

16.2	TABLE: Leakage current			P
	Single phase appliances: 1.06 x rated voltage (V).....:	1,06 x 240 V = 254,4V		—
	Three phase appliances 1.06 x rated voltage divided by $\sqrt{3}$ (V).....:	--		—
Leakage current between			I (mA)	Max. allowed I (mA)
Live parts and Insulating material			0,018	0,25
Live parts and earthed parts			0,033	3,5
Supplementary information:				

16.3	TABLE: Dielectric strength			P
Test voltage applied between:		Test potential applied (V)	Breakdown / flashover (Yes/No)	
Live parts and earthed parts		1250	No	
Intermediate metal parts and insulating materials		1750	No	
Live parts and insulating materials		3000	No	
Supplementary information:				

17	TABLE: Overload protection (24V)			N/A
Thermocouple locations		Max. temperature rise measured, Δ T (K)	Max. temperature rise limit, Δ T (K)	
--		--	--	
Supplementary information:				

17	TABLE: Overload protection, resistance method						N/A
	Test voltage (V).....:			--		—	
	Ambient, t1 (°C)			--		—	
	Ambient, t2 (°C)			--		—	
Temperature of winding		R1 (Ω)	R2 (Ω)	Δ T (K)	T (°C)	Max. T (°C)	
--		--	--	--	--	--	
Supplementary information:							

IEC 60335-2-75							
Clause	Requirement + Test			Result - Remark			Verdict
19	Abnormal operation conditions						P
Operational characteristics		YES/NO		Operational conditions			
Are there electronic circuits to control the appliance operation?		YES		--			
Are there “off” or “stand-by” position?		No		--			
The unintended operation of the appliance results in dangerous malfunction?		No		--			
Sub-clause	Operating conditions description	Test results description	PEC description	EMP 19.11.4	Software type required	19.11.3 PEC	Final result
19.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.7	Worked at 230 V, Lock the motor	No any hazard	N/A	N/A	N/A	N/A	P
19.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.11.2	Worked at 230 V	Refer to 19.11.2 for detail.	N/A	N/A	N/A	N/A	P
19.11.4.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.101	Worked at 230 V, pay system incorrect loading	No any hazard	N/A	N/A	N/A	N/A	P
Supplementary information:							

19.7	TABLE: Abnormal operation, locked rotor/moving parts						P
	Test voltage (V)		230			—	
	Ambient, t1 (°C)		23,4			—	
	Ambient, t2 (°C)		23,4			—	
Temperature of winding		R1 (Ω)	R2 (Ω)	Δ T (K)	T (°C)	Max. T (°C)	
Winding of DC Motor		--	--	--	87,7	200	
Supplementary information:							

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict

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

19.13	TABLE: Abnormal operation, temperature rises		N/A
Thermocouple locations		Max. temperature rise measured, Δ T (K)	Max. temperature rise limit, Δ T (K)
Wall of test corner		23,7	150
Floor of test corner		24,5	150
Power supply cord		33,8	150
Supplementary information:			

21.1	TABLE: Impact resistance			P
Impacts per surface		Surface tested	Impact energy (J)	Comments
Three blows		In maintenance area	0,5	No damage
Three blows		In user area(Metal enclosure)	1,0	No damage
Supplementary information:				

24.1	TABLE: Components information					P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity1)	
Plug	Shun De Tian Ju Electrical Co Ltd	TJ-003	AC 250 V, 16 A	DIN VDE 0620-2-1	VDE* / 40007971	
Power supply cord	Shun De Tian Ju Electrical Co Ltd	H05VV-F	3X 1,5 mm²	DIN EN 50525-2-11 (VDE 0285-525-2-11)	VDE* / 40007540	
DC motor	Dongguan bushing motor coltd	17HD40005-22B	24VDC	IEC 60335-1 IEC60335-2-75	Test with appliance	
Transformer	Zhongshan Yingxing Electronic	YXEI411100 220Y	Input:230VAC Output:12VDC 0,20A	EN61558-2-6 EN61558-1	TUV 1703984700 1	
Power supply	TDK-Lambda Americas Inc.	THR400-X	AC 200 - 240 V Class: I	EN60950-1	VDE 40018568	
Power supply	Eltek Inc.	V2500A	AC 200 - 240 V Class: I	EN60950-1	VDE 40002093	

IEC 60335-2-75					
Clause	Requirement + Test			Result - Remark	Verdict
X capacitor 1	Foshan Shunde Beijiao Hua Da Electric Industrial Co., Ltd.	HD MKP	0,22μF, 275VAC, X2, 40/105/21	IEC/EN 60384-14	VDE 40027182
X capacitor 2	Miflex S.A.	WXPC	0,22μF, 275VAC, X2, 40/085/21	IEC/EN 60384-14	VDE 094633
Y capacitor	Shanghai Sanyue Electronic Co. Ltd.	CTJ1	220pF/470 pF Y2 250VAC	IEC/EN 60384-14	VDE 116738
Internal wire	HARVESTER ELECTRIC WIRE AND PRODUCTS MFG CO LTD	1015	600V 105°C 18AWG	UL 758 IEC 60335-1 IEC 60335-2-75	UL E348809 Test with appliance
Internal wire	Zhejiang Yueqing Xingda Electronics Wire & Cable Co.,Ltd.	1015	22AWG/20AWG/18AWG VW-1, T105°C, 600V	UL 758 IEC 60335-1 IEC 60335-2-75	UL E187208 Test with appliance
Internal wire	SHANG HAI ROUSHENG WIRE AND CABLE CO.,LTD	1015	20AWG, 600V	IEC 60335-1 IEC 60335-2-75	Test with appliance
Switch	Zhejiang Zhongxun Electronics Co., Ltd.	KCD4	16A 250V T85	IEC 61058-1	VDE 40024955
PCB 1	KINGBOARD LAMINATES HOLDINGS LTD	KB-6150	V-0, 130°C	IEC 60335-1 IEC 60335-2-75	UL E123995 Test with appliance
PCB 2	Leuchtek Electronics(Zhejiang) Co.,Ltd.	SZ-8016	V-0	IEC 60335-1	UL E199273* Test with appliance
Closed-end connector	HEAVY POWER CO.,LTD	CE2	105°C,300V	IEC 60335-1 IEC 60335-2-75	UL E113650 Test with appliance
Quick connector	XIN SHENG TERMINAL MFG LTD	70225/710-BS/704-BS/704A	Suitable for wire sized#AWG16-22	IEC 60335-1 IEC 60335-2-75	UL E177315 Test with appliance
- alternative	DONGGUAN JIAN HUI METAL PLASTIC PARTS CO.,LTD	B250022/B250031/B250552	Suitable for wire sized#AWG16-22	IEC 60335-1 IEC 60335-2-75	UL E207921 Test with appliance
Terminal block	Connectwell Industries Pvt. Ltd.	CTS2.5UN	800V 24A 0.5-2.5mm ²	EN60947-7-1	VDE 40011042
Plastic connection boxes	Ningbo lejin yongxing chemical co. Ltd.	HI-121H	ABS	IEC 60335-1 IEC 60335-2-75	Test with appliance

Supplementary information:

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

IEC 60335-2-75			
Clause	Requirement + Test	Result - Remark	Verdict
28.1	TABLE: Threaded part torque test		P
Threaded part identification	Diameter of thread (mm)	Column number (I, II, or III)	Applied torque (Nm)
Enclosure screw	4,0	II	1,2
Earthing screw	4,0	II	1,2
Screw on PCB	3.1	II	0,6
Supplementary information:			

29.1	TABLE: Clearances					P
	Overvoltage category : II					—
		Type of insulation:				
Rated impulse voltage (V):	Min. cl (mm)	Basic (mm)	Supplementary (mm)	Reinforced (mm)	Functional (mm)	Verdict / Remark
330	0,2* / 0,5 / 0,8**	--	--	--	--	N/A
500	0,2* / 0,5 / 0,8**	--	--	--	--	N/A
800	0,2* / 0,5 / 0,8**	--	--	--	--	N/A
1 500	0,5 / 0,8** / 1,0***	--	--	--	--	N/A
2 500	1,5 / 2,0***	>2,8	>2,8	--	>2,8	P
4 000	3,0 / 3,5***	--	--	>4,5	--	P
6 000	5,5 / 6,0***	--	--	--	--	N/A
8 000	8,0 / 8,5***	--	--	--	--	N/A
10 000	11,0 / 11,5***	--	--	--	--	N/A
Supplementary information:						
*) For tracks on printed circuit boards if pollution degree 1 and 2						
**) For pollution degree 3						
***) If the construction is affected by wear, distortion, movement of the parts or during assembly						

29.2	TABLE: Creepage distances, basic, supplementary and reinforced insulation										P
Working voltage (V)	Creepage distance (mm)										
	Pollution degree										
	1	2			3			Type of insulation			
		Material group			Material group						
		I	II	IIIa/IIIb	I	II	IIIa/IIIb*	B**	S**	R**	Verdict
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9		—	—	N/A
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9	—		—	N/A

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Clause	Requirement + Test							Result - Remark			Verdict
≤50	0,36	1,2	1,7	2,4	3,0	3,4	3,8	—	—		N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4		—	—	N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4	—		—	N/A
125	0,56	1,5	2,1	3,0	3,8	4,2	4,8	—	—		N/A
250	0,56	1,25	1,8	2,5	3,2	3,6	<u>4,0</u>	>5,2	—	—	P
250	0,56	1,25	1,8	2,5	3,2	3,6	<u>4,0</u>	—	>5,2	—	P
250	1,12	2,5	3,6	5,0	6,4	7,2	<u>8,0</u>	—	—	>10,4	P
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3		—	—	N/A
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3	—		—	N/A
400	2,0	4,0	5,6	8,0	10,0	11,2	12,6	—	—		N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0		—	—	N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0	—		—	N/A
500	2,6	5,0	7,2	10,0	12,6	14,2	16,0	—	—		N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0		—	—	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	—		—	N/A
>630 and ≤800	3,6	6,4	9,0	12,6	16,0	18,0	20,0	—	—		N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5		—	—	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	—		—	N/A
>800 and ≤1000	4,8	8,0	11,2	16,0	20,0	22,0	25,0	—	—		N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0		—	—	N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	—		—	N/A
>1000 and ≤1250	6,4	10,0	14,2	20,0	25,0	28,0	32,0	—	—		N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0		—	—	N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	—		—	N/A
>1250 and ≤1600	8,4	12,6	18,0	25,0	32,0	36,0	40,0	—	—		N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0		—	—	N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	—		—	N/A
>1600 and ≤2000	11,2	16,0	22,0	32,0	40,0	44,0	50,0	—	—		N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0		—	—	N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	—		—	N/A
>2000 and ≤2500	15,0	20,0	28,0	40,0	50,0	56,0	64,0	—	—		N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0		—	—	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	—		—	N/A
>2500 and ≤3200	20,0	25,0	36,0	50,0	64,0	72,0	80,0	—	—		N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0		—	—	N/A

IEC 60335-2-75											
Clause	Requirement + Test							Result - Remark			Verdict
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	—		—	N/A
>3200 and ≤4000	25,0	32,0	44,0	64,0	80,0	90,0	100,0	—	—		N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0		—	—	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	—		—	N/A
>4000 and ≤5000	32,0	40,0	56,0	80,0	100,0	112,0	126,0	—	—		N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0		—	—	N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	—		—	N/A
>5000 and ≤6300	40,0	50,0	72,0	100,0	126,0	142,0	160,0	—	—		N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0		—	—	N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	—		—	N/A
>6300 and ≤8000	50,0	64,0	90,0	126,0	160,0	180,0	200,0	—	—		N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0		—	—	N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	—		—	N/A
>8000 and ≤10000	64,0	80,0	112,0	160,0	200,0	220,0	250,0	—	—		N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0		—	—	N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	—		—	N/A
>10000 and ≤12500	80,0	100,0	142,0	200,0	250,0	280,0	320,0	—	—		N/A
Supplementary information: *) Material group IIIb is allowed if the working voltage does not exceed 50 V **) B = Basic insulation, S = Supplementary insulation, R = Reinforced insulation											

29.2	TABLE: Creepage distances, functional insulation							P
Working voltage (V)	Creepage distance (mm)							
	Pollution degree							
	1	2			3			
		Material group			Material group			
		I	II	IIIa/IIIb	I	II	IIIa/IIIb*	Verdict / Remark
≤10	0,08	0,4	0,4	0,4	1,0	1,0	1,0	N/A
50	0,16	0,56	0,8	1,1	1,4	1,6	1,8	N/A
125	0,25	0,71	1,0	1,4	1,8	2,0	2,2	N/A
250	0,42	1,0	1,4	2,0	2,5	2,8	<u>3,2</u>	P (>4,5)
400	0,75	1,6	2,2	3,2	4,0	4,5	5,0	N/A
500	1,0	2,0	2,8	4,0	5,0	5,6	6,3	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	N/A

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Clause	Requirement + Test							Verdict
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	N/A
Supplementary information: *) Material group IIIb is allowed if the working voltage does not exceed 50 V								

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Clause	Requirement + Test	Result - Remark	Verdict
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30	TABLE: Resistance to heat and fire																			
Object/ part No.	Manufacturer/ trademark	Type/ model	Ball pressure test °C				Glow wire test (GWT) °C						Glow-wire flammability index (GWFI) °C				Glow- wire ignition temp. (GWIT) °C		Needle- flame test (NFT)	Verdict
			75	125	cl. 11 +40	cl. 19 +25	550	650		750		850	550	650	750	850	675	775		
								te	ti	te	ti									
Closed-end connector	See table 24.1	See table 24.1	N/A	N/A	N/A	N/A	N/A	N/ A	N/ A	P	P	P	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P
PCB 1	See table 24.1	See table 24.1	N/A	1,0 m	N/A	N/A	N/A	N/ A	N/ A	N/ A	N/ A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P	P
PCB 2	See table 24.1	See table 24.1	N/A	1,1 m	N/A	N/A	N/A	N/ A	N/ A	N/ A	N/ A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P	P
Terminal block	See table 24.1	See table 24.1	N/A	0,9 mm	N/A	N/A	N/A	N/ A	N/ A	P	P	P	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P
Plastic connection boxes	See table 24.1	See table 24.1	N/A	1,1 mm	N/A	N/A	N/A	N/ A	N/ A	P	P	P	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P
Quick connector	See table 24.1	See table 24.1	N/A	N/A	N/A	N/A	N/A	N/ A	N/ A	P	P	P	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P

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Clause	Requirement + Test	Result - Remark	Verdict
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Supplementary information:

- ¹⁾ Parts of material classified at least HB40 or if relevant HBF**
- ²⁾ Parts of material classified as V-0 or V-1**
- ³⁾ Flame persisting longer than 2 s (= $t_e - t_i$) need only be reported for unattended appliances**
- ⁴⁾ Surrounding parts subjected to the needle-flame test of annex E**
- ⁵⁾ Base material classified as V-0 or if relevant VTM-0**
- ⁶⁾ The GWIT pre-selection option, the 850 °C GWFI pre-selection option, and the 850 °C GWT are not applicable for attended appliances**

ANNEX: Photos of Products



Overview - model WM800



Internal view - model WM800

-- End of report --