Test Report issued under the responsibility of:

DEKRA

TEST REPORT
IEC 60335-2-7, IEC 60335-2-11
Safety of household and similar electrical appliances
Part 2-7: Particular requirements for washing machines
Part 2-11: Particular requirements for tumble dryers

Report Number. ..... :	4300013.50
Date of issue ..... :	2023-03-02
Total number of pages ..... :	157 pages
Name of Testing Laboratory preparing the Report ..... :	DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch
Applicant's name ..... :	HISENSE HOME APPLIANCES GROUP CO., LTD.
Address ..... :	NO.8 Ronggang Road, Ronggui Street, Shunde District, Foshan City, Guangdong Province, China
Test specification:	
Standard ..... :	IEC 60335-2-7:2019, IEC 60335-2-11:2019 in conjunction with IEC 60335-1:2010/AMD1:2013, AMD2:2016
Test procedure ..... :	Type test
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	IEC60335_2_7&11I
Test Report Form(s) Originator .... :	VDE Prüf- und Zertifizierungsinstitut GmbH
Master TRF ..... :	Dated 2020-02-14

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.
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Test item description ..... :	Washer dryer
Trade Mark(s) ..... :	Hisense
Manufacturer ..... :	Same as applicant
Model/Type reference ..... :	WD3Q1042BB, WD3Q1042BS, WD3Q1042BT, WD3Q1042BW
Ratings ..... :	220 V~; 50 Hz; Washing: 10,0 kg; 1600 W; Drying: 6,0 kg; 1300 W; Class I; IPX4

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):

☒	**Testing Laboratory:**	DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch	
Testing location/ address.....:		Block A, No.3, Qiyun Road, Huangpu District, Guangzhou, Guangdong, China	
Tested by (name, function, signature).....:		Daisy Meng / Engineer	Daisy Meng
Approved by (name, function, signature)...:		Yan Zhou / Reviewer	Yan Zhou
☐	**Testing procedure: CTF Stage 1:**		
Testing location/ address.....:			
Tested by (name, function, signature).....:			
Approved by (name, function, signature)...:			
☐	**Testing procedure: CTF Stage 2:**		
Testing location/ address.....:			
Tested by (name + signature).....:			
Witnessed by (name, function, signature) .:			
Approved by (name, function, signature)...:			
☐	**Testing procedure: CTF Stage 3:**		
☐	**Testing procedure: CTF Stage 4:**		
Testing location/ address.....:			
Tested by (name, function, signature).....:			
Witnessed by (name, function, signature) .:			
Approved by (name, function, signature)...:			
Supervised by (name, function, signature) :			

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

Attachment 1: Photos (15 pages)

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
Full tests were performed on model WD3Q1042BW as representative model assembled with washing motor WDHX350FA, washing heater WACES5827 and drying heater DRGQ. Tests of clauses 10, 11, 13, 19, and 29 were performed on model WD3Q1042BW assembled with drying heater TCRGQ-02.	DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch Block A, No.3, Qiyun Road, Huangpu District, Guangzhou, Guangdong, China

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

Chile national difference had been considered.

Statement concerning the uncertainty of the measurement systems used for the tests

(may be required by the product standard or client)

☐ **Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:**

Procedure number, issue date and title:

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

☒ **Statement not required by the standard used for type testing**

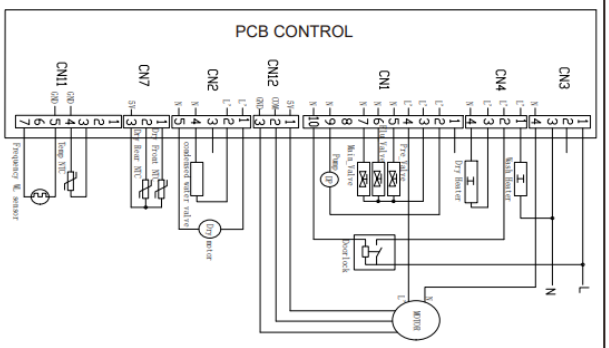
Copy of marking plate:

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

Hisense

LAVASECADORA DE ROPAS

Modelo	**WD3Q1042BT**
Capacidad de lavado	**10 kg**
Capacidad de secado	**6 kg**
Potencia nominal	**1600 W**
Potencia de secado	**1300 W**
Voltaje/Frecuencia	**220V~ / 50 Hz**
Dimension(A*P*A)	**595 mm × 540 mm × 845 mm**
Peso Neto	**58 kg**
Grado de protección	**IPX4**
No. de serie	
Mes de Producción	



HECHO EN CHINA

Remark:

1. The marking plates for other models are identical with above one except for model name.
2. When placing these products on the market, the importer and manufacturer should indicate on the products its name, and the postal address at which they can be contacted.

Test item particulars.....:	Washer dryer
Classification of installation and use.....:	Stationary appliance
Supply Connection.....:	Non-detachable power supply 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 .....:	2023-02-06
Date (s) of performance of tests.....:	2023-02-08 to 2023-02-15

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

Throughout this report a ☒ comma / ☐ point is used as the decimal separator.

This report will not be used for social proof function in China market.

The products tested comply with the standards of

IEC 60335-1:2010 (Fifth Edition) + A1:2013 + A2:2016

IEC 60335-2-7:2019 (Eighth Edition)

IEC 60335-2-11:2019 (Eighth Edition)

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

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

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

Name and address of factory (ies).....:	Hisense Refrigerator Co., Ltd. 8 Haixin Road, Nancun, Pingdu, Qingdao City, Shandong, P.R. China

General product information and other remarks:

The washer dryers are for household and indoor use only.
These models are in this report, which are identical with each other except for differences as bellowing listed:

Model name	External colours
WD3Q1042BT	Titanium grey
WD3Q1042BW	White
WD3Q1042BB	Black
WD3Q1042BS	Sliver

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
5	**GENERAL CONDITIONS FOR THE TESTS**		—
	Tests performed according to clause 5, e.g. nature of supply, sequence of testing, etc.		P
5.2	The relevant tests of 21.101, 21.102 and 22.104 are carried out on the same appliance as that used for the test of Clause 18. (IEC 60335-2-7)		P
5.3	Test of 15.101 is carried out before test of 15.3 (IEC 60335-2-7)		P
	Relevant tests of 21.101 and 21.102 are carried out before the test of Clause 18. The test of 22.104 is carried out after the test of Clause 18. (IEC 60335-2-7)		P
5.7	Doubt is considered to exist if the temperature of the water is within 6 K of the boiling point and the difference between the temperature rise of the relevant part and the limit specified does not exceed 25 K minus the room temperature. (IEC 60335-2-7)		N/A
6	**CLASSIFICATION**		—
6.1	Protection against electric shock: Class 0I, I, II, III ..... : (IEC 60335-2-7)	Class I	P
	For a class III construction with a detachable power supply part the appliance is classified according to the detachable power supply part		N/A
6.2	Protection against harmful ingress of water		P
	Appliances to be at least IPX4 (IEC 60335-2-7) (IEC 60335-2-11)	IPX4	P
7	**MARKING AND INSTRUCTIONS**		—
7.1	Rated voltage or voltage range (V)..... :	220 V	P
	Symbol for nature of supply, or..... :	~	P
	Rated frequency (Hz)..... :	50 Hz	P
	Rated power input (W), or..... :	Washing:1600 W; Drying: 1300 W	P
	Rated current (A) ..... :		N/A
	Manufacturer's or responsible vendor's name, trademark or identification mark ..... :	Hisense	P
	Model or type reference..... :	WD3Q1042BB, WD3Q1042BS, WD3Q1042BT, WD3Q1042BW	P
	Symbol IEC 60417-5172, for class II appliances		N/A
	IP number, other than IPX0 ..... :	IPX4	P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Symbol IEC 60417-5180, for class III appliances, unless		N/A
	the appliance is operated by batteries only, or		N/A
	for appliances powered by rechargeable batteries recharged in the appliance		N/A
	Symbol IEC 60417-5018, for class II and class III appliances incorporating a functional earth		N/A
	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
	Appliances without automatic water level control are marked with the maximum water level. (IEC 60335-2-7)		N/A
	Appliances not intended for connection to the hot water supply and not provided with heating elements are marked with the substance of the following: CAUTION: Do not connect to the hot water supply. (IEC 60335-2-7)		N/A
	Appliance is marked with symbol ISO 7000-0790 (2004-01) or with the substance of the following: Read the instructions (IEC 60335-2-11)		P
7.2	Warning for stationary appliances for multiple supply		N/A
	Warning placed in vicinity of terminal cover		N/A
7.3	Range of rated values marked with the lower and upper limits separated by a hyphen		N/A
	Different rated values marked with the values separated by an oblique stroke		N/A
7.4	Appliances adjustable for different rated voltages or rated frequencies, the voltage or the frequency setting is clearly discernible		N/A
	Requirement met if frequent changes are not required and the rated voltage or rated frequency to which the appliance is to be adjusted is determined from a wiring diagram		N/A
7.5	Appliances with more than one rated voltage or one or more rated voltage ranges, marked with rated input or rated current for each rated voltage or range, unless		N/A
	the power input or current are related to the arithmetic mean value of the rated voltage range		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Relation between marking for upper and lower limits of rated power input or rated current and voltage is clear		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)		N/A
	- marking of protective earthing terminals (symbol IEC 60417-5019)		P
	- marking of functional earthing terminals (symbol IEC 60417-5018)		N/A
	- marking not placed on removable parts		P
7.9	Marking or placing of switches which may cause a hazard		P
7.10	Indications of switches on stationary appliances and controls on all appliances by use of figures, letters or other visual means ..... :	Letters	P
	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
	The figure 0 indicates only OFF position, unless no confusion with the OFF position		N/A
	If the off position is only indicated by letters, the word "off" is used (IEC 60335-2-7) (IEC 60335-2-11)		P
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:		—

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	- 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
	For appliances for altitudes exceeding 2000 m, the maximum altitude is stated ..... :		N/A
	The instructions for appliances incorporating a functional earth states that the appliance incorporates an earth connection for functional purposes only		N/A
	- the maximum mass of dry cloth in kilograms to be used in the appliance. (IEC 60335-2-7)	10,0 kg	P
	- Appliance is intended to be used in household and similar applications (as per description) (IEC 60335-2-7)		P
	- if the use is limited, it must be described in the instructions (IEC 60335-2-7)		N/A
	- the maximum mass of dry textile material in kilograms to be used in the appliance; (IEC 60335-2-11)	6,0 kg	P
	- that the tumble dryer is not to be used if industrial chemicals have been used for cleaning (IEC 60335-2-11)		P
	- that the lint trap has to be cleaned frequently, if applicable; (IEC 60335-2-11)		N/A
	- that lint must not to be allowed to accumulate around the tumble dryer (not applicable for appliances intended to be vented to the exterior of the building); (IEC 60335-2-11)		N/A
	- that adequate ventilation has to be provided to avoid the back flow of gases into the room from appliances burning other fuels, including open fires. (IEC 60335-2-11)		P
	If symbol ISO 7000-0790 (2004-01) is used, its meaning is explained. (IEC 60335-2-11)		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Instructions include the substance of the following: (IEC 60335-2-11)		—
	- Do not dry unwashed items in the tumble dryer. (IEC 60335-2-11)		P
	- Items that have been soiled with substances such as cooking oil, acetone, alcohol, petrol, kerosene, spot removers, turpentine, waxes and wax removers should be washed in hot water with an extra amount of detergent before being dried in the tumble dryer. (IEC 60335-2-11)		P
	- Items such as foam rubber (latex foam), shower caps, waterproof textiles, rubber backed articles and clothes or pillows fitted with foam rubber pads should not be dried in the tumble dryer. (IEC 60335-2-11)		P
	- Fabric softeners, or similar products, should be used as specified by the fabric softener instructions. (IEC 60335-2-11)		P
	- Remove all objects from pockets such as lighters and matches. (IEC 60335-2-11)		P
	- Fill steam generators only with liquids specified by the manufacturer. (IEC 60335-2-11)		N/A
	WARNING: Never stop a tumble dryer before the end of the drying cycle unless all items are quickly removed and spread out so that the heat is dissipated. (IEC 60335-2-11)		P
	The instructions for appliances for which the air temperature exceeds 55 °C during the drying cycle, shall include the substance of the following warning: (IEC 60335-2-11)		—
	WARNING: The appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by a utility. (IEC 60335-2-11)		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
	If different rated voltages or different rated frequencies are marked, the instructions state what action to be taken to adjust the appliance		N/A
	For washing machines having ventilation openings in the base, the installation instructions state that the openings must not be obstructed by a carpet. (IEC 60335-2-7)		P
	The instructions shall state (IEC 60335-2-11):		—

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	- for appliances with ventilation openings in the base, instructions that a carpet must not obstruct the openings (IEC 60335-2-11)		P
	- that exhaust air must not be discharged into a flue which is used for exhausting fumes from appliances burning gas or other fuels. (IEC 60335-2-11)		N/A
	- that the appliance must not be installed behind a lockable door, a sliding door or a door with a hinge on the opposite side to that of the tumble dryer, in such a way that a full opening of the tumble dryer door is restricted. (IEC 60335-2-11)		P
	If the instructions state that the tumble dryer can be placed on top of a washing machine, they shall state which washing machines are suitable. (IEC 60335-2-11)		N/A
	Instructions are given for the assembly of the tumble dryer and washing machine. (IEC 60335-2-11)		N/A
	Instructions state how to obtain any fixing attachments required, unless they are supplied with the appliance. (IEC 60335-2-11)		N/A
7.12.2	Stationary appliances not fitted with means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III, the instructions state that means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules		N/A
7.12.3	Insulation of the fixed wiring in contact with parts exceeding 50 K during clause 11; instructions state that the fixed wiring must be protected		N/A
7.12.4	Instructions for built-in appliances:		—
	- dimensions of space		N/A
	- dimensions and position of supporting and fixing		N/A
	- minimum distances between parts and surrounding structure		N/A
	- minimum dimensions of ventilating openings and arrangement		N/A
	- 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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
7.12.5	Replacement cord instructions, type X attachment with a specially prepared cord		N/A
	Replacement cord instructions, type Y attachment		P
	Replacement cord instructions, type Z attachment		N/A
7.12.6	Caution in the instructions for appliances incorporating a non-self-resetting thermal cut-out that is reset by disconnection of the supply mains, if this cut-out is required to comply with the standard		N/A
7.12.7	Instructions for fixed appliances stating how the appliance is to be fixed		N/A
7.12.8	Instructions for appliances connected to the water mains:		—
	- max. inlet water pressure (Pa)..... :	1,0 MPa	P
	- min. inlet water pressure, if necessary (Pa) ..... :	0,1 MPa	P
	Instructions concerning new and old hose-sets for appliances connected to the water mains by detachable hose-sets		P
7.12.9	Instructions specified in 7.12 and from 7.12.1 to 7.12.8 appear together before any other instructions supplied with the appliance		P
	These instructions may be supplied with the appliance separately from any functional use booklet		P
	They may follow the description of the appliance that identifies parts, or follow the drawings/sketches		P
	In addition, instructions are also available in an alternative format such as on a website or on request from the user in a format such as a DVD		P
	In addition, instructions are also available in an alternative format such as on a website or in a format such as a DVD..... :	By service email	P
7.13	Instructions and other texts in an official language	Spanish	P
7.14	Markings clearly legible and durable:		—
	Signal words WARNING, CAUTION, DANGER in uppercase having a height as specified ..... :		N/A
	Uppercase letter of the text explaining the signal word not smaller than 1,6 mm ..... :		N/A
	Moulded in, engraved, or stamped markings either raised above or have a depth below the surface of at least 0,25 mm, unless		N/A
	contrasting colours are used		N/A
	Markings checked by inspection, measurement and rubbing test as specified		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Height of symbol ISO 7000-0790 (2004-01) ≥ 15 mm. (IEC 60335-2-11)		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
	The symbol IEC 60417-5018 placed next to the symbol IEC 60417-5172 or IEC 60417-5180		N/A
	Caution relating to connection to the hot water supply is on the appliance at its point of attachment to the water supply. (IEC 60335-2-7)		N/A
	Symbol ISO 7000-0790 (2004-01), or the marking “Read the instructions”, shall be readily visible when the appliance is installed as in normal use. (IEC 60335-2-11)		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
	Use of test probe B of IEC 61032, with a force not exceeding 1 N: no contact with live parts		P
	Use of test probe B of IEC 61032 through openings, with a force of 20 N: no contact with live parts		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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 or supporting parts		N/A
	For a single switching action obtained by a switching device, requirements as specified		N/A
	For appliances with a supply cord and without a switching device, the single switching action may be obtained by the withdrawal of the plug		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 μF		N/A
	- for peak values over 450 V up to and including 15 kV, discharge not exceeding 45 μC		N/A
	- for peak values over 15 kV, the energy in the discharge not exceeding 350 mJ		N/A
8.1.5	Live parts protected at least by basic insulation before installation or assembly:		—
	- built-in appliances		N/A
	- fixed appliances		N/A
	- appliances delivered in separate units		N/A
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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
9	**STARTING OF MOTOR-OPERATED APPLIANCES**		—
	Requirements and tests are specified in part 2 when necessary		N/A
10	**POWER INPUT AND CURRENT**		—
10.1	Power input at normal operating temperature, rated voltage and normal operation not deviating from rated power input by more than shown in table 1.. :	(see appended table)	P
	If the power input varies throughout the operating cycle and the maximum value of the power input exceeds, by a factor greater than two, the arithmetic mean value of the power input occurring during a representative period, the power input is the maximum value that is exceeded for more than 10 % of the representative period		N/A
	Otherwise the power input is the arithmetic mean value		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		N/A
	The selected representative period is the period, such as filling with water, washing, rinsing, water extraction, spinning or braking, during which the power input is the highest. (IEC 60335-2-7)		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 ..... :		N/A
	If the current varies throughout the operating cycle and the maximum value of the current exceeds, by a factor greater than two, the arithmetic mean value of the current occurring during a representative period, the current is the maximum value that is exceeded for more than 10 % of the representative period		N/A
	Otherwise the current is the arithmetic mean value		N/A
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated current is related to the arithmetic mean value of the range		N/A
	The selected representative period is the period, such as filling with water, washing, rinsing, water extraction, spinning or braking, during which the current is the highest. (IEC 60335-2-7)		N/A
11	**HEATING**		—

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
11.1	No excessive temperatures in normal use		P
11.2	The appliance is held, placed or fixed in position as described ..... :	In test corner	P
	Lint traps are cleaned and then 50 % of the area of the filter is blocked. (IEC 60335-2-11)		P
11.3	Temperature rises, other than of windings, determined by thermocouples		P
	Temperature rises of windings determined by resistance method, unless	Main motor, fan motor, water inlet valve and drain pump	P
	the windings are non-uniform or it is difficult to make the necessary connections		N/A
	Where the external accessible surfaces are suitably flat and access permits, then the test probe of Figure 101 is used to measure the temperature rises of external accessible surfaces specified in Table 101. (IEC 60335-2-7) (IEC 60335-2-11)		P
	Probe is applied as specified and measurement is performed after a contact period of 30 s. (IEC 60335-2-7) (IEC 60335-2-11)		P
	Probe is held in place using a laboratory stand clamp or similar device. (IEC 60335-2-7) (IEC 60335-2-11)		P
	Any measuring instrument giving the same results as the probe may be used. (IEC 60335-2-7) (IEC 60335-2-11)		P
11.4	Heating appliances operated under normal operation at 1,15 times rated power input (W) ..... :		N/A
11.5	Motor-operated appliances operated under normal operation at most unfavourable voltage between 0,94 and 1,06 times rated voltage (V) ..... :		N/A
11.6	Combined appliances operated under normal operation at most unfavourable voltage between 0,94 and 1,06 times rated voltage (V) ..... :	1,06 x 220 V = 233,2 V 0,94 x 220 V = 206,8 V	P
11.7	Appliances incorporating programmer are operated for three cycles with programme that results in highest temperature rises, with a rest period of 4 min between cycles (IEC 60335-2-7)		N/A
	Other appliances are operated for three cycles, with rest period of 4 min between cycles (IEC 60335-2-7)		P
	Each cycle consists of following operations for appliances (IEC 60335-2-7):		—
	- without means for water extraction and for washing machines with a hand-operated wringer, washing (IEC 60335-2-7)		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	- with single drum for washing and water extraction, washing followed by water extraction; (IEC 60335-2-7)		N/A
	- with separate drums for washing and water extraction that cannot used simultaneously, washing and water extraction separated by an additional 4 min rest period; (IEC 60335-2-7)		N/A
	- with separate drums for washing and water extraction that used simultaneously, washing together with water extraction so that operations terminate simultaneously; (IEC 60335-2-7)		N/A
	- with single drum for washing, water extraction and drying (IEC 60335-2-7):		—
	- that allow the same quantity of textile material to be washed and dried in the drum, washing followed by water extraction, followed by drying; (IEC 60335-2-7)		N/A
	- that, according to instructions, only allow a portion of washed textile material to be dried in the drum, washing followed by water extraction followed by two drying periods, with additional rest period of 4 min before each drying period. In this case only two cycles of operation are carried out (IEC 60335-2-7)		P
	For appliances incorporating a timer, the washing period, the water extraction period and the drying period are equal to the maximum period allowed by the timer (IEC 60335-2-7)		N/A
	Appliances without timer (IEC 60335-2-7):		—
	- duration of washing period (IEC 60335-2-7):		—
	- 6 min, for impeller washing machines, (IEC 60335-2-7)		N/A
	- 18 min, for agitator washing machines, (IEC 60335-2-7)		N/A
	- 25 min for drum washing machines, unless (IEC 60335-2-7)		N/A
	- longer period stated in instructions; (IEC 60335-2-7)		N/A
	- water extraction period has duration of 5 min. (IEC 60335-2-7)		N/A
	Rest period, including any braking time, has a duration of 4 min (IEC 60335-2-7)		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	After the specified sequence of operation, discharge pumps that are driven by a separate motor and switched on and off manually, are subjected to 3 operating periods separated by rest periods of 4 min. (IEC 60335-2-7)		N/A
	Each operating period is equal to 1,5 times the period necessary to empty the appliance when filled to maximum normal water level. Outlet of water discharge pipe is 900 mm above the floor (IEC 60335-2-7)		N/A
	Appliances incorporating a timer, a humidity sensing control or other time-limiting control are operated in cycles. Each cycle comprises an operating period with duration equal to the maximum time that can be provided by the control and a rest period of 4 min during which the appliance is reloaded. (IEC 60335-2-11)		P
	The test is ended if the temperature rise of any part does not exceed the value determined during the preceding cycle by more than 8 K. (IEC 60335-2-11)		P
	Appliances having a combined washing-drying cycle are operated with the drying programme resulting in the highest temperature rise. (IEC 60335-2-11)		P
	Appliances with a steam generator are operated with that steam mode resulting in the highest temperature rise. (IEC 60335-2-11)		N/A
	Other appliances are operated continuously until steady conditions are established. (IEC 60335-2-11)		N/A
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
	During the test, the temperature rises are monitored continuously for one cycle and do not exceed the values shown in Table 101. (IEC 60335-2-7)		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	During the test, the temperature rises are monitored continuously and do not exceed the values shown in Table 3 and Table 101. (IEC 60335-2-11)		P
	The temperature rises are measured with the door closed. (IEC 60335-2-11)		P
	The exhaust temperature of the air from the drum, measured at the first lint filter after the air passes the clothes load, must be measured for the purposes of 22.105. (IEC 60335-2-11)		P
13	**LEAKAGE CURRENT AND ELECTRIC STRENGTH AT OPERATING TEMPERATURE**		**—**
13.1	Leakage current not excessive and electric strength adequate		P
	Heating appliances operated at 1,15 times the rated power input (W) ..... :		N/A
	Motor-operated appliances and combined appliances supplied at 1,06 times the rated voltage (V) ..... :	1,06 x 220 V = 233,2 V	P
	Protective impedance and radio interference filters disconnected before carrying out the tests		P
13.2	The leakage current is measured by means of the circuit described in figure 4 of IEC 60990:1999		P
	For class 0I appliances and class I appliances, except parts of class II construction, C may be replaced by a low impedance ammeter		P
	Leakage current measurements ..... :	(see appended table)	P
	For stationary class I appliances, the leakage current does not exceed 3,5 mA, or 1 mA/kW of rated power input with a limit of 5 mA, whichever is greater. (IEC 60335-2-7, IEC 60335-2-11)		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 ..... :		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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
15	**MOISTURE RESISTANCE**		**—**
15.1	Enclosure provides the degree of moisture protection according to classification of the appliance		P
	Compliance checked as specified in 15.1.1, taking into account 15.1.2, followed by the electric strength test of 16.3		P
	No trace of water on insulation which can result in a reduction of clearances or creepage distances below values specified in clause 29		P
15.1.1	Appliances, other than IPX0, subjected to tests as specified in IEC 60529..... :	IPX4	P
	Water valves containing live parts in external hoses for connection of an appliance to the water mains tested as specified for IPX7 appliances		N/A
15.1.2	Hand-held appliance turned continuously through the most unfavourable positions during the test		N/A
	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		P
	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		P
	for appliances normally used on the floor or table, the movement is limited to two times 90° for a period of 5 min, the support being placed at the level of the pivot axis of the oscillating tube		P
	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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Detachable parts subjected to the relevant treatment with the main part		P
	However, if a part has to be removed for user maintenance and a tool is needed, this part is not removed		N/A
15.2	Spillage of liquid does not affect the electrical insulation even if an inlet valve fails to close (IEC 60335-2-7)		P
	Type X attachment, fitted of flexible cord of the smallest cross-sectional area specified in table 13. (IEC 60335-2-7)		N/A
	Compliance is checked by the test as described in 15.2. (IEC 60335-2-7) (IEC 60335-2-11)		P
	The appliance withstands the electric strength test of 16.3. (IEC 60335-2-7) (IEC 60335-2-11)		P
	No trace of water on insulation that could result in a reduction of clearances or creepage distances below values specified in clause 29 (IEC 60335-2-7) (IEC 60335-2-11)		P
15.3	Appliances proof against humid conditions		P
	Checked by test Cab: Damp heat steady state in IEC 60068-2-78		P
	Detachable parts removed and subjected, if necessary, to the humidity test with the main part		P
	Humidity test for 48 h in a humidity cabinet	25 ˚C, 93% R.H.	P
	Reassembly of those parts that may have been removed		P
	The appliance withstands the tests of clause 16		P
15.101	Appliances are constructed so that foaming does not affect electrical insulation. (IEC 60335-2-7)		P
	Compliance is checked by the test as described. (IEC 60335-2-7)		P
	Test is carried out immediately after that of 15.2. (IEC 60335-2-7)		P
	The appliance withstands the electric strength test of 16.3.		P
	The appliance is kept in a test room having a normal atmosphere for 24 h before being subjected to the test of 15.3. (IEC 60335-2-7)		P
16	**LEAKAGE CURRENT AND ELECTRIC STRENGTH**		—
16.1	Leakage current not excessive and electric strength adequate		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	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 220 V = 233,2 V	P
	Three-phase appliances: test voltage 1,06 times rated voltage divided by √3 (V) ..... :		N/A
	Leakage current measurements ..... :	(see appended table)	P
	Limit values doubled if:		—
	- all controls have an off position in all poles, or		N/A
	- the appliance has no control other than a thermal cut-out, or		N/A
	- all thermostats, temperature limiters and energy regulators do not have an off position, or		N/A
	- 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)	P
	Stationary class I appliances, leakage current not exceed 1 mA, or (IEC 60335-2-11)		P
	1 mA/kW rated power input with limit of 5 mA, whichever is higher. (IEC 60335-2-11)		P
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 ..... :	No transformer	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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	However, limits do not apply to fail-safe transformers complying with sub-clause 15.5 of IEC 61558-1		N/A
18	**ENDURANCE**		—
	Requirements and tests are specified in part 2 when necessary		P
18.101	Appliances are constructed in such a way that the lid or door interlock withstands the stresses to which it may be exposed in normal use (IEC 60335-2-7)		P
	Compliance is checked by the test as described. (IEC 60335-2-7)		P
	The lid or door is subjected to 10 000 cycles of opening and closing (IEC 60335-2-7)		P
	For appliances having a drying function, the number of cycles is 13 000 (IEC 60335-2-7)		P
	After the tests, compliance with the relevant requirements of 20.103 to 20.105 is not impaired. (IEC 60335-2-7)		P
18.102	The braking mechanism of appliances having a lid that can be opened during the water extraction period withstands the stresses to which it may be exposed in normal use (IEC 60335-2-7)		N/A
	Appliance is supplied at 1,06 rated voltage (IEC 60335-2-7)		N/A
	Compliance is checked by test as described. (IEC 60335-2-7)		N/A
	Test carried out 1 000 times, the textile material re-saturated with water at least every 250 times (IEC 60335-2-7)		N/A
	After the test, the appliance must be fit for further use and compliance with this standard will not be impaired. (IEC 60335-2-7)		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	Replaced by 19.101	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		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	if applicable, to the test of 19.5		P
	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
	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	OSM/HA 422	P
	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		P
	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		P
	For appliances incorporating a programmer or timer, the tests of 19.2 and 19.3 are replaced by the tests of 19.101 (IEC 60335-2-7)		P
	Test of 19.7 is not carried out on motor driving moving parts of oscillating agitator (IEC 60335-2-7)		N/A
	Appliances not intended for connection to the hot water supply and not provided with heating elements are also subjected to the test of 19.102. (IEC 60335-2-7)		N/A
	Instead of being subjected to the tests of 19.2 and 19.3, appliances are subjected to the tests of 19.101 and 19.102, as applicable. (IEC 60335-2-11)		P
	If operation without water is a more unfavourable condition for appliances connected to the water mains, the tests are carried out with the water valve closed. (IEC 60335-2-11)		P
	This valve is not closed after the appliance has started to operate. (IEC 60335-2-11)		N/A
	Steam generator is operated without water. (IEC 60335-2-11)		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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Restricted heat dissipation is obtained without water in the appliance or with just sufficient water to cover the heating elements, whichever is the more unfavourable. (IEC 60335-2-7)		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	Appliance is operated under conditions in clause 11 but with dry textile material. Controls that limit temperature during test of Clause 11 and all self-resetting thermal cut outs that protect heating elements are short circuited simultaneously. Test is terminated at the end of the maximum period allowed by timer (IEC 60335-2-11)		P
	For condensation type tumble dryers, the test is repeated, but with 75 % of the air outlet of condenser blocked. Test is then carried out again with the air outlet fully blocked (IEC 60335-2-11)		P
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		P
	The test repeated with reversed polarity and the other end of the heating element connected to the sheath		P
	The test is not carried out on appliances intended to be permanently connected to fixed wiring and on appliances where an all-pole disconnection occurs during the test of 19.4		N/A
19.6	Appliances with PTC heating elements tested at rated voltage, establishing steady conditions		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	No motor capacitor	N/A
	Test repeated with capacitors short-circuited one at a time, unless		N/A
	the capacitor is of class S2 or S3 of IEC 60252-1		N/A
	Appliances with timer or programmer supplied with rated voltage for each of the tests, for a period equal to the maximum period allowed ..... :	Programmer	P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	An electronic timer or programmer that operates to ensure compliance with the test before the maximum period under the conditions of clause 11 is reached, is a protective electronic circuit		N/A
	Other appliances supplied with rated voltage for a period as specified..... :		N/A
	Winding temperatures not exceeding values specified in table 8 ..... :	(see appended table)	P
	Appliances without a programmer or timer are operated for 5 min (IEC 60335-2-7)		N/A
19.8	Multi-phase motors operated at rated voltage with one phase disconnected	The main motor was protected by the protective electronic circuit.	P
19.9	Running overload test on appliances incorporating motors intended to be remotely or automatically controlled or liable to be operated continuously	The main motor was protected by the protective electronic circuit.	P
	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		P
	Winding temperatures not exceeding values as specified..... :	(see appended table)	P
	The running overload test is carried out on appliances that have overload protective devices incorporating electronic circuits to protect the windings of the drum motor. However, the test is not carried out if the protective device senses the winding temperature directly. (IEC 60335-2-7) (IEC 60335-2-11)		P
	Appliance is operated under the conditions of Clause 11 for one cycle. (IEC 60335-2-7)		P
	Load is then increased so that the current through the motor windings is raised by 10 %. (IEC 60335-2-7)		P
	Appliance is operated again for the same cycle, the supply voltage being maintained at its original value. (IEC 60335-2-7)		P
	Load is again increased and the test is repeated until the protective device incorporating the electronic circuit operates or the motor stalls. (IEC 60335-2-7)		P
19.10	Series motor operated at 1,3 times rated voltage for 1 min (V) ..... :	No such motor	N/A
	During the test, parts not being ejected from the appliance		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
19.11	Electronic circuits, compliance checked by evaluation of the fault conditions specified in 19.11.2 for all circuits or parts of circuits, unless		P
	they comply with the conditions specified in 19.11.1		N/A
	Appliances incorporating an electronic circuit that relies upon a programmable component to function correctly, subjected to the test of 19.11.4.8, unless	OSM/HA 401	N/A
	restarting does not result in a hazard		P
	Appliances having a device with an off position obtained by electronic disconnection, or a device placing the appliance in a stand-by mode, subjected to the tests of 19.11.4	OSM/HA 401	P
	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		N/A
	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		P
	- 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:		—
	- 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:		—

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	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		P
	they comply with IEC 60384-14		P
	d) short circuit of any two terminals of an electronic component, other than integrated circuits		P
	This fault condition is not applied between the two circuits of an optocoupler		P
	e) failure of triacs in the diode mode		P
	f) failure of microprocessors and integrated circuits		P
	g) failure of an electronic power switching device		P
	Each low power circuit is short-circuited by connecting the low-power point to the pole of the supply source from which the measurements were made		P
19.11.3	If the appliance incorporates a protective electronic circuit that operates to ensure compliance with clause 19, the appliance is tested as specified		P
19.11.4	Appliances having a device with an off position obtained by electronic disconnection, or		P
	a device that can be placed in the stand-by mode,		P
	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	No possible unsafe operation considering OSM/HA 401 Refer to subclause 20.104, 22.101. Only 19.11.4.2 and 19.11.4.5 were carried out.	P
	Appliances incorporating a protective electronic circuit subjected to the tests of 19.11.4.1 to 19.11.4.7, the tests being carried out after the protective electronic circuit has operated, except that		N/A
	appliances operated for 30 s or 5 min during the test of 19.7 are not subjected to the tests for electromagnetic phenomena.		N/A
	Surge protective devices disconnected, unless		N/A
	They incorporate spark gaps		N/A
19.11.4.1	The appliance is subjected to electrostatic discharges in accordance with IEC 61000-4-2, test level 4		N/A
19.11.4.2	The appliance is subjected to radiated fields in accordance with IEC 61000-4-3, at frequency ranges specified		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
19.11.4.3	The appliance is subjected to fast transient bursts in accordance with IEC 61000-4-4, test level 3 or 4 as specified		N/A
19.11.4.4	The power supply terminals of the appliance subjected to voltage surges in accordance with IEC 61000-4-5, test level 3 or 4 as specified		N/A
	An open circuit test voltage of 2 kV is applicable for the line-to-line coupling mode		N/A
	An open circuit test voltage of 4 kV is applicable for the line-to-earth coupling		N/A
	Earthed heating elements in class I appliances disconnected		N/A
19.11.4.5	The appliance is subjected to injected currents in accordance with IEC 61000-4-6, test level 3		P
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 60 s the power supply is reduced to a level such that the appliance ceases to respond or parts controlled by the programmable component cease to operate		N/A
	The appliance continues to operate normally, or		N/A
	requires a manual operation to restart		N/A
19.12	If the safety of the appliance for any of the fault conditions specified in 19.11.2 depends on the operation of a miniature fuse-link complying with IEC 60127, the test is repeated, measuring the current flowing through the fuse-link; measured current (A); rated current of the fuse-link (A) ..... :		N/A
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		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Insulation, other than of class III appliances or class III constructions that do not contain live parts, withstands the electric strength test of 16.3, the test voltage as specified in table 4:		—
	- basic insulation (V) ..... :	1000	P
	- supplementary insulation (V) ..... :	1750	P
	- reinforced insulation (V)..... :	3000	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
	Appliances tested with an electronic switch in the off position, or in the stand-by mode:		—
	- do not become operational, or		P
	- if they become operational, do not result in a dangerous malfunction during or after the tests of 19.11.4		N/A
	If the appliance contains lids or doors that are controlled by one or more interlocks, one of the interlocks may be released provided that:		—
	- the lid or door does not move automatically to an open position when the interlock is released, and		P
	- the appliance does not start after the cycle in which the interlock was released		P
	The textile material does not ignite and shows no charring or glowing. (IEC 60335-2-7) (IEC 60335-2-11)		P
	During the tests of 19.101 and 19.102, the temperature of the windings does not exceed the values specified in Table 8. (IEC 60335-2-7)		P
	The appliance complies with the appropriate requirements of 20.103 to 20.105 if it can still be operated. (IEC 60335-2-7)		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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	A relay or contactor operating only to ensure the appliance is energized for normal use is not short-circuited	OSM/HA 422	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 is supplied at rated voltage and operated under normal operation. Any fault condition or unexpected operation that is applied in normal use is introduced (IEC 60335-2-7)		P
	Examples of fault conditions and unexpected operations (IEC 60335-2-7):		—
	- programmer stopping in any position; (IEC 60335-2-7)		P
	- disconnection and reconnection of one or more phases of supply during any part of programme; (IEC 60335-2-7)		N/A
	- open-circuiting or short-circuiting of components; (IEC 60335-2-7)		P
	- failure of a magnetic valve; (IEC 60335-2-7)		P
	- failure or blocking mechanical parts of water-level switch. Fault condition not applied if (IEC 60335-2-7):		—
	- cross-sectional area of tube supplying air chamber is greater than 500 mm² with a minimum dimension of 10 mm, (IEC 60335-2-7)		N/A
	- outlet of chamber at least 20 mm above the highest water level, and (IEC 60335-2-7)		P
	- tube connecting air chamber to water-level switch fixed so that there is no likelihood of bending or pinching; (IEC 60335-2-7)		N/A
	- puncture of capillary tube of thermostat. (IEC 60335-2-7)		N/A
	- the steam generator is operating without water. (IEC 60335-2-7)		N/A
	If operation without water in appliance is a more unfavourable condition for starting any programme, tests with that programme carried out with water valve closed. This valve is not closed after programme started to operate. (IEC 60335-2-7)		N/A
	Appliance is operated under conditions in clause 11 but with dry textile material and drum belt removed. Duration of test is 90 min or (IEC 60335-2-11)		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	for the maximum period allowed by timer (IEC 60335-2-11)		N/A
	Air circulation is likely to prevented due to a fault condition, the test is repeated but with the drum belt in position and with air circulation stopped (IEC/ 60335-2-11)		P
	Care shall be taken to ensure that textile material is tumbling properly by reducing load if necessary (IEC 60335-2-11)		P
	If both these conditions likely to occur simultaneously, the tests are combined (IEC 60335-2-11)		P
19.102	Appliances not intended for connection to the hot water supply and not provided with heating elements are operated under the conditions of cl. 11, except that they are supplied at rated voltage and filled with water at a temperature of 65 °C ± 5 °C (IEC 60335-2-7)		N/A
	Appliances that permit test probe C of IEC 61032 to gain access to spaces containing live parts located below holes in the drum are tested for short circuit conditions. The short circuit is applied at the most unfavourable place between live parts and between live parts and other metal parts, if such a short circuit can be made by a pin having a diameter of approximately 1 mm and any length up to 50 mm. The appliance is operated as specified in Clause 11 but with dry textile material. (IEC 60335-2-11)		N/A
19.103	There is no risk of fire due to textile material coming into contact with a lamp cover. Compliance is checked as specified. (IEC 60335-2-11)		N/A
	Temperature rise of the cover does not exceed 150 K. (IEC 60335-2-11)		N/A
20	**STABILITY AND MECHANICAL HAZARDS**		**—**
20.1	Appliances having adequate stability		P
	Tilting test through an angle of 10°, appliance placed on an inclined plane/horizontal support, not connected to the supply mains; appliance does not overturn		P
	Tilting test repeated on appliances with heating elements, angle of inclination increased to 15°		P
	Possible heating test in overturned position; temperature rise does not exceed values shown in table 9		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliance is empty or filled as specified for normal operation, whichever is more unfavourable. (IEC 60335-2-7)		P
	Doors and lids are closed and any castors turned to the most unfavourable position. (IEC 60335-2-7)		P
	Test with the angle of inclination increased to 15 ° is not carried out. (IEC 60335-2-11)		P
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		P
	Not possible to touch dangerous moving parts with the test probe described		P
20.101	Drum washing machines that are loaded from the top through an opening with a hinged lid shall incorporate an interlock that de-energizes the motor before the lid opening exceeds 50 mm. (IEC 60335-2-7)		N/A
	If a removable or sliding lid is provided, the motor shall be de-energized as soon as the lid is removed or displaced and not possible to start motor unless the lid is in the closed position (IEC 60335-2-7)		N/A
	Interlock is constructed so that unexpected operation of the appliance is unlikely unless the lid is in the closed position (IEC 60335-2-7)		N/A
	Compliance checked by inspection, by measurement and by the following test: test probe B of IEC 61032 is applied in order to try and release any interlock that is needed to comply with the requirement. The interlock shall not release (IEC 60335-2-7)		N/A
	It is not possible to open door while appliance operating unless (IEC 60335-2-11)		P
	an interlock is provided that disconnects the motor before the door opening exceeds 75 mm. (IEC 60335-2-11)		N/A
	It is not possible to start the motor while the door opening exceeds 75 mm (IEC 60335-2-11)		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliance is supplied at rated voltage and operating under normal operation (IEC 60335-2-11)	Approved door interlock switch	N/A
	If means to prevent door opening incorporates a coil or similar component to lock the door in the closed position, the component is energized and de-energized 6000 times, six times a minute or (IEC 60335-2-11)		N/A
	at the rate imposed by the construction of appliance if this is lower. (IEC 60335-2-11)		N/A
	Locking means and its components fit for further use (IEC 60335-2-11)		N/A
	NOTE Door opened and closed during the test if this is necessary for the mechanical operation of the interlock (IEC 60335-2-11)		N/A
20.102	Appliances are not adversely affected by an unbalanced load (IEC 60335-2-7)		P
	If compliance relies on the operation of an electronic circuit, the test is repeated with the fault conditions in a) to g) of 19.11.2 applied one at a time to the electronic circuit. (IEC 60335-2-7)		P
	Appliance is tested as specified and after the test, the appliance is fit for further use (IEC 60335-2-7)		P
	For appliances with a door opening having a dimension exceeding 200 mm and a drum having a volume exceeding 60 dm^3, it must be possible to open the door from the inside with a force not exceeding 70 N. (IEC 60335-2-11)		N/A
	If the appliance is supplied with a decorative door, the test is carried out with this door closed. (IEC 60335-2-11)		N/A
20.103	Drum washing machines that are loaded from the front or from the top, the door or lid shall be interlocked so that the appliance can only be operated when the door or lid is in the closed position. (IEC 60335-2-7)		P
	Compliance checked by inspection, by measurement and by the following test: test probe B of IEC 61032 is applied in order to try and release any interlock that is needed to comply with the requirement. The interlock does not release. (IEC 60335-2-7)		P
	Appliances with horizontally hinged doors have adequate stability when the open door is subjected to a load. This requirement is not applicable to built-in appliances or fixed appliances. (IEC 60335-2-11)		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Compliance is checked by the test as specified that is carried out with the tumble dryer placed on a horizontal surface. (IEC 60335-2-11)		N/A
	Appliance does not tilt (IEC 60335-2-11)		N/A
	and the door and hinges shall not be damaged to such an extent that compliance with this standard is impaired. (IEC 60335-2-11)		N/A
20.104	It is not possible to open the lid or door of the appliance while the drum speed exceeds 60 r/min if the drum has a rotational kinetic energy exceeding 1 500 J, or (IEC 60335-2-7)		P
	a maximum peripheral speed exceeding (IEC 60335-2-7)		—
	- 20 m/s, for drums that rotate about the horizontal axis or an axis inclined up to and including 45° from the horizontal; (IEC 60335-2-7)		P
	- 40 m/s, for drums that rotate about the vertical axis (IEC 60335-2-7)		N/A
	Appliance is supplied at rated voltage and operated empty. (IEC 60335-2-7)		P
	The force determined during the test of 22.104 with the lid interlocked is applied to the lid or door in an attempt to open it. (IEC 60335-2-7)		P
	If compliance relies on the operation of an electronic circuit, the test is repeated under the following conditions applied separately: (IEC 60335-2-7) (IEC 60335-2-11)		—
	- the fault conditions in a) to g) of 19.11.2 applied one at a time to the electronic circuit; (IEC 60335-2-7) (IEC 60335-2-11)		P
	- the electromagnetic phenomena tests of 19.11.4.2 and 19.11.4.5 applied to the appliance. (IEC 60335-2-7) (IEC 60335-2-11)		P
	It is not possible to open the lid or door while the drum speed exceeds 60 r/min. (IEC 60335-2-7)		P
	If the appliance is loaded from the front and the door can be opened, the motor shall be de-energized before the opening exceeds 50 mm. (IEC 60335-2-7)		N/A
	If the electronic circuit is programmable, the software shall contain measures to control the fault/error conditions specified in Table R.1 and is evaluated in accordance with the relevant requirements of Annex R. (IEC 60335-2-7) (IEC 60335-2-11)		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	For appliances having a door on a vertical surface with an opening exceeding 200 mm and a drum having a volume exceeding 60 dm^3, it shall not be possible to start the drum motor after closing the door until a separate means which controls the movement of the drum is operated manually. (IEC 60335-2-11)		P
	Appliance is supplied at rated voltage, and the door is opened and then closed. (IEC 60335-2-11)		P
	Drum motor does not start. (IEC 60335-2-11)		P
20.105	Appliances have an automatic means for switching off the motor, or for reducing the drum speed to 60 r/min, when the lid or door is opened if the drum has a rotational kinetic energy not exceeding 1 500 J and a peripheral speed not exceeding (IEC 60335-2-7):		—
	- 20 m/s, for drums that rotate about the horizontal axis or an axis inclined up to and including 45° from the horizontal, (IEC 60335-2-7)		N/A
	- 40 m/s, for drums that rotate about the vertical axis. (IEC 60335-2-7)		N/A
	Compliance is checked as specified (IEC 60335-2-7)		N/A
	If compliance relies on the operation of an electronic circuit, the test is repeated under the following conditions applied separately: (IEC 60335-2-7)		—
	- the fault conditions in a) to g) of 19.11.2 applied one at a time to the electronic circuit; (IEC 60335-2-7)		N/A
	- the electromagnetic phenomena tests of 19.11.4.2 and 19.11.4.5 applied to the appliance. (IEC 60335-2-7)		N/A
	If the lid or door opens, the drum speed shall be no higher than 60 r/min within 7 s of opening the lid or door by 50 mm. (IEC 60335-2-7)		N/A
	If the appliance is loaded from the front, the motor shall become de-energized. (IEC 60335-2-7)		N/A
	If the electronic circuit is programmable, the software shall contain measures to control the fault/error conditions specified in Table R.1 and is evaluated in accordance with the relevant requirements of Annex R. (IEC 60335-2-7)		N/A
20.106	For appliances with a front opening door having an opening dimension exceeding 200 mm, and drum volume exceeding 60 dm^3, it shall not be possible to start or recommence the washing cycle until a separate means which controls the movement of the drum is operated manually, even after the door has been opened and closed again. (IEC 60335-2-7)	No exceeding 60 dm^3	N/A
	Appliance is supplied at rated voltage, and the door is opened and then closed. (IEC 60335-2-7)		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	If compliance relies on the operation of an electronic circuit, the test is repeated under the following conditions applied separately: (IEC 60335-2-7)		—
	- the fault conditions in a) to g) of 19.11.2 are applied one at a time to the electronic circuit; (IEC 60335-2-7)		N/A
	- the electromagnetic phenomena tests of 19.11.4.2 and 19.11.4.5 are applied to the appliance. (IEC 60335-2-7)		N/A
	Washing cycle does not start or recommence. (IEC 60335-2-7)		N/A
20.107	For appliances with a front opening door having an opening dimension exceeding 200 mm, and drum volume exceeding 60 dm^3, it shall be possible to open from the inside the closed door, when the appliance is not energized or in a standby mode, with a force not exceeding 70 N. (IEC 60335-2-7)	No exceeding 60 dm^3	N/A
	Compliance is checked as specified. (IEC 60335-2-7)		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		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
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	Plastic enclosure as supplementary and reinforced insulation: 2,1 mm	P
	The insulation is tested as specified, and does withstand the electric strength test of 16.3		N/A
21.101	Lids and doors have adequate mechanical strength (IEC 60335-2-7)		P
	Compliance is checked by the test of 21.101.1 for lids and 21.101.2 for doors. (IEC 60335-2-7)		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
21.101.1	A rubber hemisphere –diameter 70 mm, hardness between 40 and 50 HIRD- is fixed to a cylinder – mass 20 kg- and dropped from a height of 100 mm onto the centre of the lid (IEC 60335-2-7)		N/A
	Test carried out 3 times, after which the lid is not damaged to such an extent that moving parts become accessible. (IEC 60335-2-7)		N/A
21.101.2	Vertically downwards force of 150 N is applied in the most unfavourable position to the door while it is open at an angle of 90 °± 5 °. Force is maintained for 1 min (IEC 60335-2-7)		P
	After test, the appliance is not damaged or deformed to such an extent that compliance with clause 20.103 to 20.105 impaired (IEC 60335-2-7)		P
21.102	Lids have adequate resistance to distortion (IEC 60335-2-7)		N/A
	Force of 50 N is applied to the open lid in most unfavourable direction and position (IEC 60335-2-7)		N/A
	Test is carried out three times, after which the hinges have not worked loose and the appliance is not damaged or deformed to such an extent that compliance with clause 20.103 to 20.105 is impaired (IEC 60335-2-7)		N/A
22	**CONSTRUCTION**		—
22.1	Appliance marked with the first numeral of the IP system, relevant requirements of IEC 60529 are fulfilled	IPX4	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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Pull force of 50 N to each pin after the appliance has being placed in the heating cabinet; when cooled to room temperature the pins are not displaced by more than 1 mm		N/A
	Each pin subjected to a torque of 0,4 Nm; the pins are not rotating, unless		N/A
	rotating does not impair compliance with this standard		N/A
22.4	Appliance for heating liquids and appliance causing undue vibration not provided with pins for insertion into socket-outlets		P
22.5	No risk of electric shock when touching pins, for appliances having a capacitor with rated capacitance equal to or greater than 0,1 μF, the appliance being disconnected from the supply at the instant of voltage peak		P
	Voltage not exceeding 34 V (V)..... :	20 V	P
	If compliance relies on the operation of an electronic circuit, the electromagnetic phenomena tests of 19.11.4.3 and 19.11.4.4 are applied		N/A
	The discharge test is then repeated three times, voltage not exceeding 34 V (V) ..... :		N/A
22.6	Electrical insulation not affected by condensing water or leaking liquid		P
	Electrical insulation of class II appliances not affected if a hose ruptures or seal leaks		P
	Requirement relating to leakage from containers, hoses, couplings and similar parts of the appliance is not applicable to parts that withstand the ageing test specified in Annex BB. (IEC 60335-2-7)		N/A
	Instead of coloured water, a solution composed of 5 g of the detergent specified in Annex AA per litre of distilled water is used. (IEC 60335-2-7)		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		P
22.8	Electrical connections not subject to pulling during cleaning of compartments to which access can be gained without the aid of a tool, and that are likely to be cleaned in normal use		P
22.9	Insulation, internal wiring, windings, commutators and slip rings not exposed to oil, grease or similar substances, unless		P
	the substance has adequate insulating properties		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
22.10	Not possible to reset voltage-maintained non-self-resetting thermal cut-outs by the operation of an automatic switching device incorporated within the appliance, if:		N/A
	- a non-self-resetting thermal cut-out is required by the standard, and		N/A
	- a voltage maintained non-self-resetting thermal cut-out is used to meet it		N/A
	Non-self-resetting thermal motor protectors have a trip-free action, unless		N/A
	they are voltage maintained		N/A
	Reset buttons of non-self-resetting controls so located or protected that accidental resetting is unlikely		N/A
22.11	Reliable fixing of non-detachable parts that provide the necessary degree of protection against electric shock, moisture or contact with moving parts		P
	Obvious locked position of snap-in devices used for fixing such parts		P
	No deterioration of the fixing properties of snap-in devices used in parts that are likely to be removed during installation or servicing		P
	Tests as described	Push 50 N on control panel, buttons and program selection knob, Pull 50 N on control panel and program selection knob, Pull 50 N and torque 2Nm on the four caps in rear cover	P
22.12	Handles, knobs etc. fixed in a reliable manner, if loosening result in a hazard		P
	Removing or fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible, if resulting in a hazard		P
	A choking hazard does not apply to appliances for commercial use		P
	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied	Buttons	P
	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied	Procedure selection knob	P
	If the part is removed and can be contained within the small parts cylinder, it is considered to be a choking hazard		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
22.13	Unlikely that handles, when gripped as in normal use, make the operator's hand touch parts having a temperature rise exceeding the value specified for handles which are held for short periods only		P
22.14	No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance		P
	No exposed pointed ends of self-tapping screws or other fasteners, likely to be touched by the user in normal use or during user maintenance		N/A
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
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		P
	constructed to prevent inappropriate replacement		N/A
22.20	Direct contact between live parts and thermal insulation effectively prevented, unless		P
	material used is non-corrosive, non-hygroscopic and non-combustible		N/A
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless	No such material	N/A
	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	No such material	N/A
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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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		N/A
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
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
	Ceramic and similar porous material in which heating conductors are embedded is considered to be basic insulation, not reinforced insulation		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	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, or		P
	unearthed metal parts separated from live parts by basic insulation only		N/A
	Electrodes not used for heating liquids		N/A
	For class II constructions, conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts, not in direct contact with basic or reinforced insulation, unless		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
22.34	Shafts of operating knobs, handles, levers etc. not live, unless		P
	the shaft is not accessible when the part is removed		N/A
22.35	For other than class III constructions, handles, levers and knobs, held or actuated in normal use, not becoming live in the event of a failure of basic insulation		P
	Such parts being of metal, and their shafts or fixings are likely to become live in the event of a failure of basic insulation, are either adequately covered by insulation material or their accessible parts are separated from their shafts or fixings by supplementary insulation		N/A
	This requirement does not apply to handles, levers and knobs on stationary appliances and cordless appliances, other than those of electrical components, provided they are reliably connected to an earthing terminal or earthing contact, or separated from live parts by earthed metal		P
	Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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
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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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		P
	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	Part 2 only requires table R.1	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		P
	No leakage from any part, including any inlet water hose		P
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
	These requirements not necessary on appliances that can operate as follows, without giving rise to a hazard:		—
	- continuously, or		N/A
	- automatically, or		N/A
	- remotely		N/A
22.52	Socket-outlets on appliances accessible to the user in accordance with the socket-outlet system used in the country in which the appliance is sold		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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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 be distinguished from other manual devices by means of shape, size, surface texture or position ..... :	By position and tactile feedback	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:		—
	- tactile feedback from the actuator or from the appliance, or		P
	- reduction in heat output; or		N/A
	- audible and visible feedback		N/A
22.56	Detachable power supply part provided with the part of class III construction		N/A
22.57	The properties of non-metallic materials do not degrade from exposure to UV-C radiation, as specified in annex T		N/A
	This requirement does not apply to glass, ceramics or similar materials		N/A
22.101	Appliances are constructed so that when the water level is above the lower hedge of the door opening, it is not possible to open the door by a simple action while the appliance is operating. (IEC 60335-2-7)		P
	This requirement is not applicable to appliances fitted with interlocked doors or doors that are opened by means of a key or by two separate actions, such as pushing and turning. (IEC 60335-2-7)		N/A
	Compliance is checked as specified. (IEC 60335-2-7)		P
	It is not possible to open the lid or door by a simple action. (IEC 60335-2-7)		P
	If the electronic circuit is programmable, the software shall contain measures to control the fault/error conditions specified in Table R.1 and is evaluated in accordance with the relevant requirements of Annex R. (IEC 60335-2-7)		P
	Heating elements are located or guarded so that they cannot be contacted by textile material. (IEC 60335-2-11)		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
22.102	Textile material does not come in contact with heating elements (IEC 60335-2-7)		P
	Interlocks are constructed so that unexpected operation of the appliance is unlikely to occur while the door is open. (IEC 60335-2-11)		P
	Attempting to release interlock by means of test probe B of IEC 61032 (IEC 60335-2-11)		P
22.103	Appliances are constructed so that, during normal use, filter compartments cannot be opened by a simple action. (IEC 60335-2-7)		P
	Requirement is not applicable to appliances intended for connection to the cold water supply only and without means to heat the water or to appliances fitted with filter compartment covers that are: (IEC 60335-2-7)		—
	- interlocked (IEC 60335-2-7)		N/A
	- opened by means of a key (IEC 60335-2-7)		N/A
	- opened by 2 separate actions, such as pushing and turning, or (IEC 60335-2-7)		P
	- opened by rotating by more than 180° (IEC 60335-2-7)		P
	If tumble dryer placed on top of a washing machine, the appliance does not tilt or fall (IEC 60335-2-11)		N/A
	Compliance is checked as specified and the appliances do not tilt and the tumble dryer does not fall off the washing machine (IEC 60335-2-11)		N/A
22.104	Lid and door interlocks are constructed so that they are unlikely to be forced open in normal use (IEC 60335-2-7)		P
	Compliance is checked as specified (IEC 60335-2-7)		P
	It is not possible to open the lid or door. (IEC 60335-2-7)		P
	The operation of protective devices for the heating circuit shall not disable the cool down period, if any. (IEC 60335-2-11)		P
22.105	Any mechanical release mechanism intended to open the loading door after a failure is only be accessible by using a tool (IEC 60335-2-7)		P
	In order to reduce the risk of spontaneous combustion of the clothes load, the drying cycle shall conclude with a cool down period to reduce the temperature of the normal clothes load to a suitable value. (IEC 60335-2-11)		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	This requirement is not applicable to appliances having a drying cycle air temperature not exceeding 55 °C. (IEC 60335-2-11)		N/A
	Compliance is checked as specified and at end of the cool down period the air temperature ≤ 55 °C. (IEC 60335-2-11)		P
22.106	Steam generators are vented to the atmosphere. (IEC 60335-2-7) (IEC 60335-2-11)		N/A
	Aperture has at least 5 mm in diameter or at least 20 mm^2 in area with a minimum dimension of 3 mm. (IEC 60335-2-7) (IEC 60335-2-11)		N/A
22.107	Appliances with steam generators are constructed in such a way that there is no spillage of water or sudden jets of steam or hot water likely to expose the user to a hazard when the appliance is used in accordance with the instructions. (IEC 60335-2-7) (IEC 60335-2-11)		N/A
	If jets of steam or liquids are emitted through protective devices, the electrical insulation is not affected or the user exposed to a hazard. (IEC 60335-2-7) (IEC 60335-2-11)		N/A
22.108	For appliances that are controlled by programmable electronic circuits that limit the number of heating elements and motors from being energised at the same time, simultaneous activation of any combination of heating elements and motors shall not render the appliance unsafe. (IEC 60335-2-7) (IEC 60335-2-11)		P
	Compliance is checked as specified. (IEC 60335-2-7) (IEC 60335-2-11)		P
	Under these conditions, compliance with 19.13 is fulfilled. (IEC 60335-2-7) (IEC 60335-2-11)		P
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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
23.3	Electrical connections and internal conductors movable relatively to each other not exposed to undue stress		N/A
	Flexible metallic tubes not causing damage to insulation of conductors		N/A
	Open-coil springs not used		N/A
	Adequate insulating lining provided inside a coiled spring, the turns of which touch one another		N/A
	No damage after 10 000 flexings for conductors flexed during normal use, or		N/A
	100 flexings for conductors flexed during user maintenance		N/A
	Electric strength test of 16.3, 1000 V between live parts and accessible metal parts		N/A
	Not more than 10 % of the strands of any conductor broken, and		N/A
	not more than 30 % for wiring supplying circuits that consume no more than 15 W		N/A
23.4	Bare internal wiring sufficiently rigid and fixed		N/A
23.5	The insulation of internal wiring subjected to the supply mains voltage withstanding the electrical stress likely to occur in normal use		P
	Basic insulation electrically equivalent to the basic insulation of cords complying with IEC 60227 or IEC 60245, or		N/A
	no breakdown when a voltage of 2000 V is applied for 15 min between the conductor and metal foil wrapped around the insulation		P
	For class II construction, the requirements for supplementary insulation and reinforced insulation apply,		P
	except that the sheath of a cord complying with IEC 60227 or IEC 60245 may provide supplementary insulation.		N/A
	A single layer of internal wiring insulation does not provide reinforced insulation		N/A
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		N/A
23.7	The colour combination green/yellow only used for earthing conductors		P
23.8	Aluminium wires not used for internal wiring		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
23.9	Stranded conductors not consolidated by soldering where they are subjected to contact pressure, unless		N/A
	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	The insulation and sheath of internal wiring for the supply of magnetic valves and similar components incorporated in external hoses for connection to the water mains shall be at least equivalent to the electrical characteristics of light polyvinyl chloride sheathed flexible cord (code designation 60227 IEC 52). (IEC 60335-2-7)		N/A
	The insulation and sheath of internal wiring for the supply of magnetic valves and similar components incorporated in external hoses shall be at least equivalent to light polyvinyl chloride sheathed flexible cord (code designation 60227 IEC 52). (IEC 60335-2-11)		N/A
24	**COMPONENTS**		**—**
24.1	Components comply with safety requirements in relevant IEC standards		P
	List of components..... :	(see appended table)	P
	Motors not required to comply with IEC 60034-1, they are tested as part of the appliance		P
	Relays tested as part of the appliance, or		N/A
	alternatively acc. to IEC 60730-1, and meeting the additional requirements in IEC 60335-1		P
	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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Components that have been previously tested to comply with the resistance to fire requirements in the IEC standard for the relevant component need not be retested provided the specified conditions are met		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		N/A
	If components have not been tested and found to comply with relevant IEC standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9		N/A
	For components mentioned in 24.1.1 to 24.1.9 no additional tests specified in the relevant component standard are necessary other than those specified in 24.1.1 to 24.1.9		P
	Components not tested and found to comply with relevant IEC standard and components not marked or not used in accordance with its marking, tested under the conditions occurring in the appliance		P
	Lampholders and starterholders that have not being tested and found to comply with the relevant IEC standard, tested as a part of the appliance and additionally according to the gauging and interchangeability requirements of the relevant IEC standard		N/A
	No additional tests specified for nationally standardized plugs such as those detailed in IEC/TR 60083 or connectors complying with the standard sheets of IEC 60320-1 and IEC 60309		P
24.1.1	Capacitors likely to be permanently subjected to the supply voltage and used for radio interference suppression or for voltage dividing, comply with IEC 60384-14		P
	If the capacitors have to be tested, they are tested according to annex F		N/A
24.1.2	Transformers in associated switch mode power supplies comply with annex BB of IEC 61558-2-16		N/A
	Safety isolating transformers comply with IEC 61558-2-6		N/A
	If they have to be tested, they are tested according to annex G		N/A
24.1.3	Switches comply with IEC 61058-1, the number of cycles of operation being at least 10 000		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	If they have to be tested, they are tested according to annex H		N/A
	If the switch operates a relay or contactor, the complete switching system is subjected to the test		N/A
	If the switch only operates a motor staring relay complying with IEC 60730-2-10 with the number of cycles of a least 10 000 as specified, the complete switching system need not be tested		N/A
24.1.4	Automatic controls comply with IEC 60730-1 with the relevant part 2. The number of cycles of operation being at least:		—
	- thermostats: 10 000		N/A
	- temperature limiters: 1 000		N/A
	- self-resetting thermal cut-outs: 300		P
	- voltage maintained non-self-resetting thermal cut-outs: 1 000		N/A
	- other non-self-resetting thermal cut-outs: 30		P
	- timers: 3 000		N/A
	- energy regulators: 10 000		N/A
	- programmers: ..... 3 000 (IEC 60335-2-7, IEC 60335-2-11)		P
	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		P
	For water valves containing live parts and that are incorporated in external hoses for connection of an appliance to the water mains, the degree of protection declared for subclause 6.5.2 of IEC 60730-2-8 is IPX7		N/A
	Thermal cut-outs of the capillary type comply with the requirements for type 2.K controls in IEC 60730-2-9		N/A
	For lid or door interlocks, the number of cycles of operation declared for Subclauses 6.10 and 6.11 of IEC 60730-2-12:2015 shall not be less than 6 000. (IEC 60335-2-7)		P
	For washing machines that include a drying function, the minimum number of cycles of operation is increased to 9 000. (IEC 60335-2-7)		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	If the interlock operates more than once during normal operation, the minimum number of cycles of operation is increased accordingly. (IEC 60335-2-7)		N/A
24.1.5	Appliance couplers comply with IEC 60320-1		N/A
	However, for class II appliances classified higher than IPX0, the appliance couplers comply with IEC 60320-2-3		N/A
	Interconnection couplers comply with IEC 60320-2-2		N/A
24.1.6	Small lamp holders similar to E10 lampholders comply with IEC 60238, the requirements for E10 lampholders being applicable		N/A
24.1.7	For remote operation of the appliance via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is IEC 62151		N/A
24.1.8	The relevant standard for thermal links is IEC 60691		P
	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		P
	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 ..... :	Certified relays	N/A
24.2	Appliances not fitted with:		—
	- switches, automatic controls or power supplies in flexible cords		P
	- devices causing the protective device in the fixed wiring to operate in the event of a fault in the appliance		P
	- thermal cut-outs that can be reset by soldering, unless		N/A
	the solder has a melding point of at least 230 °C		N/A
24.3	Switches intended for all-pole disconnection of stationary appliances are directly connected to the supply terminals and have a contact separation in all poles, providing full disconnection under overvoltage category III conditions		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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		P
	They are supplied with the appliance		P
	Appliances intended to be permanently connected to the water mains not connected by a detachable hose-set		N/A
24.8	Motor running capacitors in appliances for which 30.2.3 is applicable and that are permanently connected in series with a motor winding, not causing a hazard in event of a failure		N/A
	One or more of the following conditions are to be met:		—
	- the capacitors are of class S2 or S3 according to IEC 60252-1		N/A
	- the capacitors are housed within a metallic or ceramic enclosure		N/A
	- the distance of separation of the outer surface to adjacent non-metallic parts exceeds 50 mm		N/A
	- adjacent non-metallic parts within 50 mm withstand the needle-flame test of annex E		N/A
	- adjacent non-metallic parts within 50 mm classified as at least V-1 according to IEC 60695-11-10		N/A
24.101	Thermal cut-outs incorporated in washing machines for compliance with 19.4 are not self-resetting thermal cut-outs. (IEC 60335-2-7)		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Thermal cut-outs incorporated in tumble dryers for compliance with 19.4 are not self-resetting thermal cut-outs. (IEC 60335-2-11)		P
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, the current rating and voltage rating of the plug being not less than the corresponding ratings of its associated appliance		P
	- an appliance inlet having at least the same degree of protection against moisture as required for the appliance, or		N/A
	- pins for insertion into socket-outlets		N/A
25.2	Appliance not provided with more than one means of connection to the supply mains		P
	Stationary appliance for multiple supply may be provided with more than one means of connection, provided electric strength test of 1250 V for 1 min between each means of connection causes no breakdown		N/A
25.3	Appliance intended to be permanently connected to fixed wiring provided with one of the following means for connection to the supply mains:		—
	- a set of terminals allowing the connection of a flexible cord		N/A
	- a fitted supply cord		N/A
	- a set of supply leads accommodated in a suitable compartment		N/A
	- a set of terminals for the connection of cables of fixed wiring, cross-sectional areas specified in 26.6, and the appliance allows the connection of the supply conductors after the appliance has been fixed to its support		N/A
	- a set of terminals and cable entries, conduit entries, knock-outs or glands, allowing connection of appropriate types of cable or conduit, and the appliance allows the connection of the supply conductors after the appliance has been fixed to its support		N/A
	For a fixed appliance constructed so that parts can be removed to facilitate easy installation, this requirement is met if it is possible to connect the fixed wiring without difficulty after a part of the appliance has been fixed to its support		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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
	- polyvinyl chloride sheathed. Not used if they are likely to touch metal parts having a temperature rise exceeding 75 K during the test of clause 11		—
	- light polyvinyl chloride sheathed cord (60227 IEC 52), for appliances not exceeding 3 kg		N/A
	- ordinary polyvinyl chloride sheathed cord (60227 IEC 53), for other appliances		P
	- heat resistant polyvinyl chloride sheathed. Not used for type X attachment other than specially prepared cords		—
	- heat-resistant light polyvinyl chloride sheathed cord (60227 IEC 56), for appliances not exceeding 3 kg		N/A
	- heat-resistant polyvinyl chloride sheathed cord (60227 IEC 57), for other appliances		N/A
	- halogen-free, low smoke, thermoplastic insulated and sheathed		—
	- light duty halogen-free low smoke flexible cable (62821 IEC 101) for circular cable and (62821 IEC 101f) for flat cable		N/A
	- Ordinary duty halogen-free low smoke flexible cable (62821 IEC 102) for circular cable and (62821 IEC 102f(for flat cable		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	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
25.8	Nominal cross-sectional area of supply cords not less than table 11; rated current (A); cross-sectional area (mm^2) ..... :	Measured max. current:7,2 A Cross-sectional area: 1,0 mm^2 and 1,5 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:		—
	- other colours may be used for these additional neutral conductors;		N/A
	- all of the neutral conductors and line conductors are identified by marking using the alpha numeric notation specified in IEC 60445		N/A
	- the supply cord is fitted to the appliance		N/A
25.11	Conductors of supply cords not consolidated by soldering where they are subject to contact pressure, unless		P
	the contact pressure is provided by spring terminals		N/A
25.12	Insulation of the supply cord not damaged when moulding the cord to part of the enclosure		P
25.13	Inlet openings so constructed as to prevent damage to the supply cord		P
	If it is not evident that the supply cord can be introduced without risk of damage, a non-detachable lining or bushing complying with 29.3 for supplementary insulation provided		N/A
	If unsheathed supply cord, a similar additional bushing or lining is required, unless the appliance is		N/A
	class 0, or		N/A
	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:		—
	- applied force (N) ..... :		N/A
	- number of flexings ..... :		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	The test does not result in:		—
	- short-circuit between the conductors, such that the current exceeds a value of twice the rated current		N/A
	- breakage of more than 10% of the strands of any conductor		N/A
	- separation of the conductor from its terminal		N/A
	- loosening of any cord guard		N/A
	- damage to the cord or the cord guard		N/A
	- broken strands piercing the insulation and becoming accessible		N/A
25.15	For appliances with supply cord and appliances to be permanently connected to fixed wiring by a flexible cord, conductors of the supply cord relieved from strain, twisting and abrasion by use of cord anchorage		P
	The cord cannot be pushed into the appliance to such an extent that the cord or internal parts of the appliance can be damaged		P
	Pull and torque test of supply cord:		—
	- fixed appliances: pull 100 N; torque (not on automatic cord reel) (Nm) ..... :		N/A
	- other appliances: values shown in table 12: mass (kg); pull (N); torque (not on automatic cord reel) (Nm) ..... :	Pull force:100 N Torque: 0,35 Nm	P
	Cord not damaged and max. 2 mm displacement of the cord	0,5 mm	P
25.16	Cord anchorages for type X attachments constructed and located so that:		—
	- replacement of the cord is easily possible		N/A
	- it is clear how the relief from strain and the prevention of twisting are obtained		N/A
	- they are suitable for different types of supply cord		N/A
	- cord cannot touch the clamping screws of cord anchorage if these screws are accessible, unless		N/A
	they are separated from accessible metal parts by supplementary insulation		N/A
	- the cord is not clamped by a metal screw which bears directly on the cord		N/A
	- at least one part of the cord anchorage securely fixed to the appliance, unless		N/A
	it is part of a specially prepared cord		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	- 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	Type Y attachment	P
25.18	Cord anchorages only accessible with the aid of a tool, or		N/A
	Constructed so that the cord can only be fitted with the aid of a tool		P
25.19	Type X attachment, glands not used as cord anchorage in portable appliances		N/A
	Tying the cord into a knot or tying the cord with string not used		N/A
25.20	The conductors of the supply cord for type Y and Z attachment insulated from accessible metal parts		P
25.21	Space for supply cord for type X attachment or for connection of fixed wiring constructed:		—
	- to permit checking of conductors with respect to correct positioning and connection before fitting any cover		N/A
	- so there is no risk of damage to the conductors or their insulation when fitting the cover		N/A
	- for portable appliances, so that the uninsulated end of a conductor, if it becomes free from the terminal, prevented from contact with accessible metal parts		N/A
	2 N test to the conductor for portable appliances; no contact with accessible metal parts		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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:		—
	- 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
	- for class I or class II appliance with class III construction, the cross sectional areas of the conductors need not comply with 25.8 if specified conditions are met		N/A
	If necessary, electric strength test of 16.3		N/A
25.24	Interconnection cords not detachable without the aid of a tool if compliance with this standard is impaired when they are disconnected		N/A
25.25	Dimensions of pins that are inserted into socket-outlets compatible with the dimensions of the relevant socket-outlet.		N/A
	Dimensions of pins and engagement face in accordance with the dimensions of the relevant plug in IEC/TR 60083		N/A
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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
26.2	Appliances with type X attachment and appliances for the connection of cables of fixed wiring provided with terminals in which connections are made by means of screws, nuts or similar devices, unless		N/A
	the connections are soldered		N/A
	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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Stranded conductor test, 8 mm insulation removed		N/A
	No contact between live parts and accessible metal parts and,		N/A
	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		N/A
	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	Crimped connections were 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 protective earthing		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Class II appliances and class III appliances can incorporate an earth for functional purposes		N/A
	Safety extra-low voltage circuits not earthed, unless		N/A
	protective extra-low voltage circuits		N/A
27.2	Clamping means of earthing terminals adequately secured against accidental loosening		P
	Terminals for the connection of external equipotential bonding conductors allow connection of conductors of 2,5 to 6 mm², and		N/A
	- do not provide earthing continuity between different parts of the appliance, and		N/A
	- conductors cannot be loosened without the aid of a tool		N/A
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		N/A
27.3	For a detachable part having an earth connection and being plugged into another part of the appliance, the earth connection is made before and separated after current-carrying connections when removing the part		N/A
	For appliances with supply cords, current-carrying conductors become taut before earthing conductor, if the cord slips out of the cord anchorage		P
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		N/A
27.4	No risk of corrosion resulting from contact between parts of the earthing terminal and the copper of the earthing conductor or other metal		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
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		N/A
	Resistance not exceeding 0,1 Ω at the specified low-resistance test (Ω) ..... :	Measured 0,025 Ω	P
27.6	The printed conductors of printed circuit boards not used to provide earthing continuity in hand-held appliances.		N/A
	They may be used to provide earthing continuity in other appliances if at least two tracks are used with independent soldering points and the appliance complies with 27.5 for each circuit		N/A
	Requirements not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes		N/A
28	**SCREWS AND CONNECTIONS**		**—**
28.1	Fixings, electrical connections and connections providing earthing continuity withstand mechanical stresses		P
	Screws not of soft metal liable to creep, such as zinc or aluminium		P
	Diameter of screws of insulating material min. 3 mm		N/A
	Screws of insulating material not used for any electrical connections or connections providing earthing continuity		P
	Screws used for electrical connections or connections providing earthing continuity screwed into metal		P
	Screws not of insulating material if their replacement by a metal screw can impair supplementary or reinforced insulation		N/A
	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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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:		—
	- 30.2.2 is applicable and that carry a current not exceeding 0,5 A		N/A
	- 30.2.3 is applicable and that carry a current not exceeding 0,2 A		N/A
28.3	Space-threaded (sheet metal) screws only used for electrical connections if they clamp the parts together		N/A
	Thread-cutting (self-tapping) screws and thread rolling screws only used for electrical connections if they generate a full form standard machine screw thread		N/A
	Thread-cutting (self-tapping) screws not used if they are likely to be operated by the user or installer		N/A
	Thread-cutting, thread rolling and space threaded screws may be used in connections providing earthing continuity provided it is not necessary to disturb the connection:		—
	- in normal use,		N/A
	- during user maintenance,		N/A
	- when replacing a supply cord having a type X attachment, or		N/A
	- during installation		N/A
	At least two screws being used for each connection providing earthing continuity, unless		N/A
	the screw forms a thread having a length of at least half the diameter of the screw		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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Rivets for electrical connections or connections providing earthing continuity secured against loosening if the connections are subjected to torsion		N/A
29	**CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION**		**—**
	Clearances, creepage distances and solid insulation withstand electrical stress		P
	For coatings used on printed circuits boards to protect the microenvironment (Type 1) or to provide basic insulation (Type 2), annex J applies..... :		N/A
	The microenvironment is pollution degree 1 under type 1 protection		N/A
	For type 2 protection, the spacing between the conductors before the protection is applied is not less than the values specified in Table 1 of IEC 60664-3		N/A
	These values apply to functional, basic, supplementary and reinforced insulation..... :		N/A
29.1	Clearances not less than the values specified in table 16, taking into account the rated impulse voltage for the overvoltage categories of table 15, unless..... :	(see appended table)	P
	for basic insulation and functional insulation they comply with the impulse voltage test of clause 14		N/A
	However, if the distances are affected by wear, distortion, movement of the parts or during assembly, the clearances for rated impulse voltages of 1500 V and above are increased by 0,5 mm and the impulse voltage test is not applicable		P
	For appliances intended for use at altitudes exceeding 2 000 m, the clearances in Table 16 is increased according to the relevant multiplier values in Table A.2 of IEC 60664-1		N/A
	Impulse voltage test is not applicable:		—
	- when the microenvironment is pollution degree 3, or		P
	- for basic insulation of class 0 and class 01 appliances, or		N/A
	- to appliances intended for use at altitudes exceeding 2 000 m		N/A
	Appliances are in overvoltage category II		P
	A force of 2 N is applied to bare conductors, other than heating elements		N/A
	A force of 30 N is applied to accessible surfaces		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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
	- 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		N/A
	However, clearances are not specified if the appliance complies with clause 19 with the functional insulation short-circuited		P
	Lacquered conductors of windings considered to be bare conductors		P
	However, clearances at crossover points are not measured		P
	Clearance between surfaces of PTC heating elements may be reduced to 1 mm		N/A
29.1.5	Appliances having higher working voltages than rated voltage, clearances for basic insulation are the largest values determined from:		—

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	- table 16 based on the rated impulse voltage..... :		N/A
	- table F.7a in IEC 60664-1, frequency not exceeding 30 kHz		N/A
	- clause 4 of IEC 60664-4, frequency exceeding 30 kHz		N/A
	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1 or clause 4 of IEC 60664-4, the clearances of supplementary insulation are not less than those specified for basic insulation		N/A
	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1, the clearances of reinforced insulation dimensioned as specified in Table F.7a are to withstand 160 % of the withstand voltage required for basic insulation		N/A
	If clearances for basic insulation are selected from clause 4 of IEC 60664-4, the clearances of reinforced insulation are twice the value required for basic insulation		N/A
	If the secondary winding of a step-down transformer is earthed, or if there is an earthed screen between the primary and secondary windings, clearances of basic insulation on the secondary side not less than those specified in table 16, but using the next lower step for rated impulse voltage		N/A
	Circuits supplied with a voltage lower than rated voltage, clearances of functional insulation are based on the working voltage used as the rated voltage in table 15		N/A
29.2	Creepage distances not less than those appropriate for the working voltage, taking into account the material group and the pollution degree ..... :	(see appended table)	P
	Pollution degree 2 applies, unless	Sealed PCB	P
	- precautions taken to protect the insulation; pollution degree 1		N/A
	- insulation subjected to conductive pollution; pollution degree 3	Parts other than sealed PCB	P
	A force of 2 N is applied to bare conductors, other than heating elements		N/A
	A force of 30 N is applied to accessible surfaces		P
	In a double insulation system, the working voltage for both the basic and supplementary insulation is taken as the working voltage across the complete double insulation system		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Microenvironment has pollution degree 3, and the insulation must have CTI not less than 250, unless (IEC 60335-2-7, IEC 60335-2-11)		P
	insulation is enclosed or located so that it is unlikely to be exposed to pollution during normal use of appliance due to (IEC 60335-2-7, IEC 60335-2-11):		—
	- condensation produced by appliance; (IEC 60335-2-7, IEC 60335-2-11)		N/A
	- chemicals, such as detergent or fabric conditioner. (IEC 60335-2-7)		N/A
	The requirement for a minimum CTI value of 250 is not applicable to functional insulation if the working voltage ≤ 50 V. (IEC 60335-2-11)		N/A
29.2.1	Creepage distances of basic insulation not less than specified in table 17 ..... :	(see appended table)	P
	However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from table 2 of IEC 60664-4, these values being used if exceeding the values in table 17 ..... :		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
	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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	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
	- for insulation, other than single layer internal wiring insulation, by an assessment of the thermal quality of the material combined with an electric strength test, in accordance with 29.3.3, and		N/A
	for accessible parts of reinforced insulation consisting of a single layer, by measurement in accordance with 29.3.4, or		N/A
	- by an assessment of the thermal quality of the material according to 29.3.3 combined with an electric strength test in accordance with 23.5, for each single layer internal wiring insulation touching each other, or		N/A
	- as specified in subclause 6.3 of IEC 60664-4 for insulation that is subjected to any periodic voltage having a frequency exceeding 30 kHz		N/A
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
	parts of thermoplastic material providing supplementary or reinforced insulation		P
	sufficiently resistant to heat		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	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)..... :		N/A
30.2	Parts of non-metallic material resistant to ignition and spread of fire		P
	This requirement does not apply to:		—
	parts having a mass not exceeding 0,5 g, provided the cumulative effect is unlikely to propagate flames that originate inside the appliance by propagating flames from one part to another, or		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
	For washing machines incorporating a programmer or a timer, 30.2.3 is applicable. (IEC 60335-2-7)		P
	For other washing machines, 30.2.2 is applicable. (IEC 60335-2-7)		N/A
30.2.1	Parts of non-metallic material subjected to the glow-wire test of IEC 60695-2-11 at 550 °C	(see appended table)	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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	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
	parts of non-metallic material within a distance of 3 mm of such connections,		N/A
	subjected to the glow-wire test of IEC 60695-2-11 with appropriate severity level:		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
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	The glow-wire test is not carried out on parts of material classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least:		—
	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation		N/A
	- 650 °C, for other connections		N/A
	The glow-wire test is also not carried out on small parts. These parts are to:		—
	- comprise material having a glow-wire flammability index of at least 750 °C, or 650 °C as appropriate, or		N/A
	- comply with the needle-flame test of annex E, or		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
30.2.2	Not applicable. (IEC 60335-2-11)		P
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..... :		N/A
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	(see appended table)	P
	Glow-wire applied to an interposed shielding material, if relevant		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	The glow-wire test is not carried out on parts of material classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 850 °C		N/A
30.2.3.2	Parts of non-metallic material supporting connections, and		P
	parts of non-metallic material within a distance of 3 mm,		P
	subjected to the glow-wire test of IEC 60695-2-11 with appropriate severity level:	(see appended table)	P
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation		P
	- 650 °C, for other connections		P
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	However, the glow-wire test of 750 °C or 650 °C as appropriate, is not carried out on parts of material fulfilling both or either of the following classifications:		—
	- a glow-wire ignition temperature according to IEC 60695-2-13 of at least:		N/A
	- 775 °C, for connections carrying a current exceeding 0,2 A during normal operation		N/A
	- 675 °C, for other connections		N/A
	- a glow-wire flammability index according to IEC 60695-2-12 of at least:		N/A
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation		N/A
	- 650 °C, for other connections		N/A
	The glow-wire test is also not carried out on small parts. These parts are to:		—
	- comprise material having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A
	- 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:		—

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	- parts that withstood the glow-wire test of IEC 60695-2-11 of 750 °C or 650 °C as appropriate, but produce a flame that persist longer than 2 s, or		N/A
	- parts that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- small parts, that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- small parts for which the needle-flame test of annex E was applied, or		N/A
	- small parts for which a material classification of V-0 or V-1 was applied		N/A
	However, the consequential needle-flame test is not carried out on non-metallic parts, including small parts, within the cylinder that are:		—
	- parts having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A
	- parts comprising material classified as V-0 or V-1 according to IEC 60695-11-10, or		N/A
	- parts shielded by a flame barrier that meets the needle-flame test of annex E or that comprises material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
30.2.4	Base material of printed circuit boards subjected to the needle-flame test of annex E	(see appended table)	P
	Test not applicable to conditions as specified ..... :		N/A
30.101	Non-metallic materials in close proximity to heating elements and on which lint could accumulate shall be resistant to spread of fire. (IEC 60335-2-11)		N/A
	Requirement also applies to parts on which burning lint could fall. (IEC 60335-2-11)		N/A
	Needle-flame test is not carried out on (IEC 60335-2-11):		—
	- material classified as V-0 or V-1 according to IEC 60695-11-10, provided that the test sample was no thicker than the relevant part; (IEC 60335-2-11)		N/A
	- rotating parts of fans; (IEC 60335-2-11)		N/A
	- small parts as defined in IEC 60695-2-11. (IEC 60335-2-11)		N/A
31	**RESISTANCE TO RUSTING**		**—**
	Relevant ferrous parts adequately protected against rusting		P
	Tests specified in part 2 when necessary		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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
B	**ANNEX B (NORMATIVE) APPLIANCES POWERED BY RECHARGEABLE BATTERIES THAT ARE RECHARGED IN THE APPLIANCE**		—
	The following modifications to this standard are applicable for appliances powered by batteries that are recharged in the appliance		N/A
	Three forms of construction covered:		—
	a) Appliance supplied directly from the supply mains or a renewable energy source, the battery charging circuitry and other supply unit circuitry incorporated within the appliance		N/A
	b) The part of the appliance incorporating the battery is supplied from the supply mains or a renewable energy source, via a detachable supply unit. The battery charging circuitry is incorporated within the part of the appliance containing the battery		N/A
	c) The part of the appliance incorporating the battery is supplied from the supply mains or a renewable energy source, via a detachable supply unit. The battery charging circuitry is incorporated within the detachable supply unit		N/A
3.1.9	Appliance operated under the following conditions:		—
	- 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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	- if the appliance incorporates inductive coupling between two parts that are detachable from each other, the appliance is supplied from the supply mains with the detachable part removed		N/A
3.6.2	Part to be removed in order to discard the battery is not considered to be detachable		N/A
5.B.101	Appliances supplied from the supply mains tested as specified for motor-operated appliances		N/A
7.1	Battery compartment for batteries intended to be replaced by the user, marked with battery voltage (V) and polarity of the terminals..... :		N/A
	The positive terminal indicated by symbol IEC 60417-5005 and the negative terminal by symbol IEC 60417-5006		N/A
	Appliances intending to be supplied from a detachable supply unit marked with symbol IEC 60417-6181 and its type reference along with symbol ISO 7000-0790 (2004-01), or		N/A
	use only with <model designation> supply unit .... :		N/A
7.6	Additional symbols		N/A
7.12	The instructions give information regarding charging		N/A
	Instructions for appliances incorporating batteries intended to be replaced by the user include required information		N/A
	Instructions for appliances containing non user-replaceable batteries state the substance of the following:		—
	This appliance contains batteries that are only replaceable by skilled persons		N/A
	Instructions for appliances containing non-replaceable batteries shall state the substance of the following:		—
	This appliance contains batteries that are non-replaceable		N/A
	For appliances intending to be supplied from a detachable supply unit for the purposes of recharging the battery, the type reference of the detachable supply unit is stated along with the following:		—
	WARNING: For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance		N/A
	If the symbol for detachable supply unit is used, its meaning is explained		N/A
7.15	Markings placed on the part of the appliance connected to the supply mains		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	The type reference of the detachable supply unit is placed in close proximity to the symbol		N/A
8.2	Appliances having batteries that according to the instruction may be replaced by the user need only have basic insulation between live parts and the inner surface of the battery compartment		N/A
	If the appliance can be operated without batteries, double or reinforced insulation required		N/A
11.7	The battery is charged for the period stated in the instructions or 24 h ..... :		N/A
11.8	Temperature rise of the battery surface does not exceed the limit in the battery manufacturer's specification; measured (K); limit (K)..... :		N/A
	If no limit specified, the temperature rise does not exceed 20 K; measured (K) ..... :		N/A
19.1	Appliances subjected to tests of 19.B.101, 19.B.102 and 19.B.103		N/A
19.10	Not applicable		N/A
19.B.101	Appliances supplied at rated voltage for 168 h, the battery being continually charged		N/A
19.B.102	For appliances having batteries that can be removed without the aid of a tool, short-circuit of the terminals of the battery, the battery being fully charged,		N/A
19.B.103	Appliances having batteries replaceable by the user supplied at rated voltage under normal operation with the battery removed or in any position allowed by the construction		N/A
19.13	The battery does not rupture or ignite		N/A
21.B.101	Appliances having pins for insertion into socket-outlets have adequate mechanical strength		N/A
	Part of the appliance incorporating the pins subjected to the free fall test, procedure 2, of IEC 60068-2-31, the number of falls being:		—
	- 100, if the mass of the part does not exceed 250 g (g)..... :		N/A
	- 50, if the mass of the part exceeds 250 g ..... :		N/A
	After the test, the requirements of 8.1, 15.1.1, 16.3 and clause 29 are met		N/A
22.3	Appliances having pins for insertion into socket-outlets tested as fully assembled as possible		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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		P
	Test conditions as specified		P
E	**ANNEX E (NORMATIVE) NEEDLE-FLAME TEST**		**—**
	Needle-flame test carried out in accordance with IEC 60695-11-5, with the following modifications:		—
7	Severities		—
	The duration of application of the test flame is 30 s ± 1 s	PCB	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		—
	The duration of burning not exceeding 30 s		N/A
	However, for printed circuit boards, the duration of burning not exceeding 15 s		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
F	**ANNEX F (NORMATIVE) CAPACITORS**		**—**
	Capacitors likely to be permanently subjected to the supply voltage, and used for radio interference suppression or voltage dividing, comply with the following clauses of IEC 60384-14, with the following modifications:		—
1.5	Terms and definitions		—
1.5.3	Class X capacitors tested according to subclass X2		N/A
1.5.4	This subclause is applicable		N/A
1.6	Marking		—
	Items a) and b) are applicable		N/A
3.4	Approval testing		—
3.4.3.2	Table 3 is applicable as described		N/A
4.1	Visual examination and check of dimensions		—
	This subclause is applicable		N/A
4.2	Electrical tests		—
4.2.1	This subclause is applicable		N/A
4.2.5	This subclause is applicable		N/A
4.2.5.2	Only table 11 is applicable		N/A
	Values for test A apply		N/A
	However, for capacitors in heating appliances the values for test B or C apply		N/A
4.12	Damp heat, steady state		—
	This subclause is applicable		N/A
	Only insulation resistance and voltage proof are checked		N/A
4.13	Impulse voltage		—
	This subclause is applicable		N/A
4.14	Endurance		—
	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

IEC 60335-2-7, IEC 60335-2-11			
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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
13	Mechanism		—
	The tests may be carried out on a separate sample		N/A
15	Insulation resistance and dielectric strength		—
15.1	Not applicable		N/A
15.2	Not applicable		N/A
15.3	Applicable for full disconnection and micro-disconnection		N/A
17	Endurance		—
	Compliance is checked on three separate appliances or switches		N/A
	For 17.2.4.4, the number of cycles declared according to 7.1.4 is 10 000, unless		N/A
	otherwise specified in 24.1.3 of the relevant part 2 of IEC 60335 ..... :		N/A
	Switches for operation under no load and which can be operated only by a tool, and		N/A
	switches operated by hand that are interlocked so that they cannot be operated under load,		N/A
	are not subjected to the tests		N/A
	However, switches without this interlock are subjected to the test of 17.2.4.4 for 100 cycles of operation		N/A
	Subclauses 17.2.2 and 17.2.5.2 not applicable		N/A
	The ambient temperature during the test is that occurring in the appliance during the test of clause 11 in IEC 60335-1		N/A
	The temperature rise of the terminals not more than 30 K above the temperature rise measured in clause 11 of IEC 60335-1 (K) ..... :		N/A
20	Clearances, creepage distances, solid insulation and coatings of rigid printed board assemblies		—
	Clause 20 is applicable to clearances across full disconnection and micro-disconnection		N/A
	It is also applicable to creepage distances for functional insulation, across full disconnection and micro-disconnection, as stated in Table 24		N/A
I	**ANNEX I (NORMATIVE) MOTORS HAVING BASIC INSULATION THAT IS INADEQUATE FOR THE RATED VOLTAGE OF THE APPLIANCE**		**—**
	The following modifications to this standard are applicable for motors having basic insulation that is inadequate for the rated voltage of the appliance:		—
8	Protection against access to live parts		—

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
8.1	Metal parts of the motor are considered to be bare live parts		N/A
11	Heating		—
11.3	The temperature rise of the body of the motor is determined instead of the temperature rise of the windings		N/A
11.8	The temperature rise of the body of the motor, where in contact with insulating material, not exceeding values in table 3 for the relevant insulating material		N/A
16	Leakage current and electric strength		—
16.3	Insulation between live parts of the motor and its other metal parts is not subjected to the test		N/A
19	Abnormal operation		—
19.1	The tests of 19.7 to 19.9 are not carried out		N/A
19.I.101	Appliance operated at rated voltage with each of the following fault conditions:		—
	- short circuit of the terminals of the motor, including any capacitor incorporated in the motor circuit		N/A
	- short circuit of each diode of the rectifier		N/A
	- open circuit of the supply to the motor		N/A
	- open circuit of any parallel resistor, the motor being in operation		N/A
	Only one fault simulated at a time, the tests carried out consecutively		N/A
22	Construction		—
22.I.101	For class I appliances incorporating a motor supplied by a rectifier circuit, the d.c. circuit being insulated from accessible parts of the appliance by double or reinforced insulation		N/A
	Compliance checked by the tests specified for double and reinforced insulation		N/A
J	**ANNEX J (NORMATIVE)** **COATED PRINTED CIRCUIT BOARDS**		**—**
	Testing of protective coatings of printed circuit boards carried out in accordance with IEC 60664-3 with the following modifications:		—
5.7	Conditioning of the test specimens		—
	When production samples are used, three samples of the printed circuit board are tested		N/A
5.7.1	Cold		—
	The test is carried out at -25 °C		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.3	Rapid change of temperature		—
	Severity 1 is specified		N/A
5.9	Additional tests		—
	This subclause is not applicable		N/A
K	**ANNEX K (NORMATIVE) OVERVOLTAGE CATEGORIES**		**—**
	The information on overvoltage categories is extracted from IEC 60664-1		P
	Overvoltage category is a numeral defining a transient overvoltage condition		P
	Equipment of overvoltage category IV is for use at the origin of the installation		N/A
	Equipment of overvoltage category III is equipment in fixed installations and for cases where the reliability and the availability of the equipment is subject to special requirements		N/A
	Equipment of overvoltage category II is energy consuming equipment to be supplied from the fixed installation		P
	If such equipment is subjected to special requirements with regard to reliability and availability, overvoltage category III applies		N/A
	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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	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		P
	- 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 100 V, 175 V, 400 V or 600 V ..... :	250 V	P
	The test is carried out on five specimens		P
	In case of doubt, additional test with proof voltage reduced by 25 V, the number of drops increased to 100		N/A
10.2	Report		—
	The report states if the PTI value was based on a test using 100 drops with a test voltage of (PTI-25) V		N/A
O	**ANNEX O (INFORMATIVE) SELECTION AND SEQUENCE OF THE TESTS OF clause 30**		**—**
	Description of tests for determination of resistance to heat and fire		P
P	**ANNEX P (INFORMATIVE) GUIDANCE FOR THE APPLICATION OF THIS STANDARD TO APPLIANCES USED IN TROPICAL CLIMATES**		**—**

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Modifications applicable for class 0 and 01 appliances having a rated voltage exceeding 150 V, intended to be used in countries having a tropical climate and that are marked with symbol IEC 60417-6332		—
	Modifications may also be applied to class 1 appliances having a rated voltage exceeding 150 V, intended to be used in countries having a tropical climate and that are marked with symbol IEC 60417-6332, if liable to be connected to a supply mains that excludes the protective earthing conductor		—
5.7	The ambient temperature for the tests of clauses 11 and 13 is 40 +3/0 °C		N/A
7.1	The appliance marked with symbol IEC 60417-6332		N/A
7.12	The instructions state that the appliance is to be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA		N/A
	The instructions state that the appliance is considered to be suitable for use in countries having a tropical climate, but may also be used in other countries		N/A
	If symbol IEC 60417-6332 is used, its meaning is explained		N/A
11.8	The values of Table 3 are reduced by 15 K		N/A
13.2	The leakage current for class I appliances not exceeding 0,5 mA		N/A
15.3	The value of t is 37 °C		N/A
16.2	The leakage current for class I appliances not exceeding 0,5 mA (mA):		N/A
19.13	The leakage current test of 16.2 is applied in addition to the electric strength test of 16.3		N/A
Q	**ANNEX Q (INFORMATIVE) SEQUENCE OF TESTS FOR THE EVALUATION OF ELECTRONIC CIRCUITS**		—
	Description of tests for appliances incorporating electronic circuits		—
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		P
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		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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		P
R.2.1.1	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.2 have one of the following structures:		—
	- single channel with periodic self-test and monitoring		N/A
	- dual channel (homogenous) with comparison		N/A
	- dual channel (diverse) with comparison		N/A
	Programmable electronic circuits requiring software incorporating measures to control the fault/error conditions specified in table R.1 have one of the following structures:		—
	- single channel with functional test		P
	- single channel with periodic self-test		P
	- 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		P
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		P
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		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
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, detection of a fault/error shall occur before compliance with Clauses 19, 20.104, 20.105, 22.101 and 22.108 is impaired. (IEC 60335-2-7)		P
	For programmable electronic circuits with functions requiring software incorporating measures to control the fault/error conditions specified in Table R.1, detection of a fault/error shall occur before compliance with Clause 19, 20.104 and 22.108 is impaired. (IEC 60335-2-11)		P
R.2.2.6	The software is referenced to relevant parts of the operating sequence and the associated hardware functions		P
R.2.2.7	Labels used for memory locations are unique		P
R.2.2.8	The software is protected from user alteration of safety-related segments and data		P
R.2.2.9	The software and safety-related hardware under its control shall be initialized and shall terminate before compliance with Clauses 19, 20.104, 20.105, 22.101 and 22.108 is impaired. (IEC 60335-2-7)		P
	The software and safety-related hardware under its control shall be initialized and shall terminate before compliance with Clause 19, 20.104 and 22.108 is impaired. (IEC 60335-2-11)		P
R.3	Measures to avoid errors		—
R.3.1	General		—
	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		P
	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		P
R.3.2	Specification		—
R.3.2.1	Software safety requirements:	Software Id: 2241044 MD5: 26ACB1AA659868169E45A37B2D6218FD 2225475 MD5: 929ED6996DF3C6F56DCFEB353313CD8	P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	The specification of the software safety requirements includes the descriptions listed		P
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: 2241044 WDQY v1.0 (sealed at Apr.20.2021) 2225475 WFQY v1.0 (sealed at Apr.20.2021)	P
R.3.2.2.2	The architecture specification is validated against the specification of the software safety requirements by static analysis		P
R.3.2.3	Module design and coding		—
R.3.2.3.1	Based on the architecture design, software is suitably refined into modules		P
	Software module design and coding is implemented in a way that is traceable to the software architecture and requirements		P
R.3.2.3.2	Software code is structured		P
R.3.2.3.3	Coded software is validated against the module specification by static analysis		P
	The module specification is validated against the architecture specification by static analysis		P
R.3.3.3	Software validation		—
	The software is validated with reference to the requirements of the software safety requirements specification		P
	Compliance is checked by simulation of:		—
	- input signals present during normal operation		P
	- anticipated occurrences		P
	- undesired conditions requiring system action		P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict

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	Refer to software specification: Periodic self-test using static memory test, H.2.16.6 H.2.19.6	Walk-through, Functional and black-box testing: Process Simulation	P
1.2 VOID						—
1.3 Programme counter	Stuck at	Functional test, or Periodic self-test, or Independent time-slot monitoring, or Logical monitoring of the programme sequence	H.2.16.5 H.2.16.6 H.2.18.10.4 H.2.18.10.2	Refer to software specification: H.2.16.5 H.2.16.6	Walk-through, Functional and black-box testing: Process Simulation	P
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	Refer to software specification: Independent time-slot monitoring H.2.18.10.4	Walk-through, Functional and black-box testing: Process Simulation	P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict

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
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	Refer to software specification: H.2.18.10.1 Frequency monitoring H.2.18.10.4 Time slot monitoring	Walk-through, black-box testing: Process simulation	P
4. Memory 4.1 Invariable memory	All single bit faults	Periodic modified checksum, or multiple checksum, or word protection with single bit redundancy	H.2.19.3.1 H.2.19.3.2 H.2.19.8.2	H.2.19.4 periodic cyclic redundancy check	Walk-through, Process Simulation	P
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	Refer to software specification: H.2.19.6 Periodic static memory test with March X	Walk-through, Process Simulation	P
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	Same as 4.1 and 4.2	—	P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict

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
5 Internal data path	Stuck at	Word protection with single bit redundancy	H.2.19.8.2	Same as 4.1, 4.2 and 7	—	P
5.1 VOID						—
5.2 Addressing	Wrong address	Word protection with single bit redundancy including the address	H.2.19.8.2	Same as 4.1, 4.2 and 7	—	P
6 External communication	Hamming distance 3	Word protection with multi-bit redundancy, or CRC – single work, or Transfer redundancy, or Protocol test	H.2.19.8.1 H.2.19.4.1 H.2.18.2.2 H.2.18.14	H.2.18.14 VRC and LRC	Walk-through, Process simulation	P
6.1 VOID						—
6.2 VOID						—
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	Scheduled transmission H.2.18.18	Walk-through, functional and black-box, testing: Process simulation	P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict

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
7 Input/output periphery	Fault conditions specified in 19.11.2	Plausibility check	H.2.18.13	The control with: 1) Double control of door lock output H.2.18.11 2) Door lock status feedback circuit input H.2.18.13 3) Water level feedback circuit input H.2.18.8 4) Speed feedback circuit input H.2.18.8	2126652 Electronic circuits test record	P
7.1 VOID						—
7.2 Analog I/O 7.2.1 A/D and D/A-converter	Fault conditions specified in 19.11.2	Plausibility check	H.2.18.13	Plausibility check and input comparison for the temperature probe sensor input	Refer to controller board 2241044 2225475 Electronic circuits test record	P

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict

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
7.2.2 Analog multiplexer	Wrong addressing	Plausibility check	H.2.18.13	Plausibility check and testing pattern	Refer to controller board 2241044 2225475 Electronic circuits test record	P
8 VOID						—
9 Custom chips [d] e.g. ASIC, GAL, gate array	Any output outside the static and dynamic functional specification	Periodic self-test	H.2.16.6	No such custom chips used	—	N/A

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

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

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
S	**ANNEX S (NORMATIVE)** **BATTERY OPERATED APPLIANCES POWERED BY BATTERIES THAT ARE NON-RECHARGEABLE OR NOT RECHARGED IN THE APPLIANCE**		—
	The following modifications to this standard are applicable for battery-operated appliances where the batteries are either non-rechargeable (primary batteries), or		N/A
	rechargeable batteries (secondary batteries) that are not recharged in the appliance		N/A
5.8.1	If the supply terminals for the connection of the battery have no indication of polarity, the more unfavourable polarity is applied		N/A
5.S.101	Appliances intended for use with a battery box are tested with the battery box supplied with the appliance or with the battery box recommended in the instructions		N/A
5.S.102	Appliances are tested as motor-operated appliances.		N/A
7.1	Appliances marked with the battery voltage (V) and the polarity of the terminals, unless .....:		N/A
	the polarity is irrelevant		N/A
	Appliances also marked with:		—
	- name, trade mark or identification mark of the manufacturer or responsible vendor .....:		N/A
	- model or type reference .....:		N/A
	- IP number according to degree of protection against ingress of water, other than IPX0.....:		N/A
	- type reference of battery or batteries.....:		N/A
	If relevant, the positive terminal is indicated by the symbol IEC 60417-5005 and the negative terminal by the symbol IEC 60417-5006		N/A
	If appliances use more than one battery, they are marked to indicate correct polarity connection of the batteries		N/A
7.6	Additional symbols		N/A
7.12	The instructions contain the following, as applicable:		—
	- the types of batteries that may be used.....:		N/A
	- how to remove and insert the batteries		N/A
	- non-rechargeable batteries are not to be recharged		N/A
	- rechargeable batteries are to be removed from the appliance before being charged		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	- different types of batteries or new and used batteries are not to be mixed		N/A
	- batteries are to be inserted with the correct polarity		N/A
	- exhausted batteries are to be removed from the appliance and safely disposed of		N/A
	- if the appliance is to be stored unused for a long period, the batteries are removed		N/A
	- the supply terminals are not to be short-circuited		N/A
11.5	Appliances are supplied with the most unfavourable supply voltage between		—
	- 0,55 and 1,0 times the battery voltage, if the appliance can be used with non-rechargeable batteries		N/A
	- 0,75 and 1,0 times battery voltage, if the appliance is designed for use with rechargeable batteries only		N/A
	The values specified in Table S.101 for the internal resistance per cell of the battery is taken into account		N/A
19.1	The tests are carried out with the battery fully charged unless otherwise specified		N/A
19.13	The battery does not rupture or ignite		N/A
19.S.101	Appliances are supplied with the voltage specified in 11.5. The supply terminals having an indication of polarity are connected to the opposite polarity, unless		N/A
	such a connection is unlikely to occur due to the construction of the appliance		N/A
19.S.102	For appliances with provision for multiple batteries, one or more of the batteries are reversed and the appliance is operated, if reversal of batteries is allowed by the construction		N/A
25.5	The flexible leads or flexible cord used to connect an external battery or battery box in is connected to the appliance by a type X attachment		N/A
25.13	This requirement is not applicable to the flexible leads or flexible cord connecting external batteries or a battery box with an appliance		N/A
25.S.101	Appliances have suitable means for connection of the battery. If the type of battery is marked on the appliance, the means of connection is suitable for this type of battery		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
26.5	Terminal devices in an appliance for the connection of the flexible leads or flexible cord connecting an external battery or battery box are so located or shielded that there is no risk of accidental connection between supply terminals		N/A
30.2.3.2	There is no battery in the area of the vertical cylinder used for the consequential needle flame test, unless		N/A
	the battery is shielded by a barrier that meets the needle flame test of annex E, or		N/A
	that comprises material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
T	**ANNEX T (NORMATIVE)** **UV-C RADIATION EFFECT ON NON-METALLIC MATERIALS**		—
	Requirements for non-metallic materials subject to direct or reflected UV-C radiation exposure and whose mechanical and electrical properties are relied upon for compliance with the		N/A
	Does not apply to glass, ceramic and similar materials		N/A
	Tested as specified in ISO 4892-1 and ISO 4892-2, with the following modifications:		—
	Modifications to ISO 4892-1:		—
5.1.6	The UV-C emitter is a low pressure mercury lamp with a quartz envelope having a continuous spectral irradiance of 10 W/m2 at 254 nm		N/A
	Subclause 5.1.6.1 and Table 1 are not applicable		N/A
5.2.4	The black-panel temperature shall be 63 °C +/- 3 °C		N/A
5.3.1	Humidification of the chamber air is specified in part 2 when necessary		N/A
9	This clause is not applicable		N/A
	Modifications to ISO 4892-2:		—
7.1	At least three test specimens are tested		N/A
	Ten samples of internal wiring is tested		N/A
7.2	The specimens are attached to the specimen holders such that they are not subject to any stress		N/A
7.3	Apparatus prepared as specified		N/A
	The test specimens and, if used, the irradiance-measuring instrument are exposed for 1 000 h		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
7.4	If used, a radiometer is mounted and calibrated such that it measures the irradiance at the exposed surface of the test specimen		N/A
7.5	Material properties and test methods for parts providing mechanical support or impact resistance as specified in Table T.1		N/A
	Material properties and test method for electrical insulation of internal wiring as specified in Table T.2		N/A
8	This clause is not applicable		N/A
AA	**ANNEX AA (NORMATIVE)** **DETERGENT** (IEC 60335-2-7)		—
	Detergent specified in the instructions is used or (IEC 60335-2-7)		P
	Detergent composition as described (IEC 60335-2-7)		P
AA	**ANNEX AA (NORMATIVE)** **TUMBLE DRYERS THAT USE A REFRIGERATING SYSTEM INCORPORATING SEALED MOTOR-COMPRESSORS FOR CARRYING OUT THE DRYING PROCESS (IEC 60335-2-11)**		—
	Following modifications to this standard are applicable for tumble dryers that use a refrigerating system incorporating sealed motor-compressors. (IEC 60335-2-11)		N/A
AA.5.2	At least one additional specially prepared sample is required for the tests of 22.202. (IEC 60335-2-11)		N/A
AA.5.7	Tests specified in clauses 10, 11 and 13 are carried out at an ambient temperature of 23°C ±2 °C (IEC 60335-2-11)		N/A
AA.6.1	Tumble dryers using flammable refrigerants shall be class I (IEC 60335-2-11)		N/A
AA.7.1	Appliance shall also be marked with: (IEC 60335-2-11)		
	- the total mass of refrigerant (IEC 60335-2-11)		N/A
	- for a single component refrigerant, at least one of the following: (IEC 60335-2-11) • The chemical name • The chemical formula • The refrigerant number		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	- for a blended refrigerant, at least one of the following: (IEC 60335-2-11) • The chemical name and nominal proportion of each of the components; • The chemical formula and nominal proportion of each of the components; • The refrigerant number and nominal proportion of each of the components • The refrigerant number of the refrigerant blend.		N/A
	If refrigerant numbers are used ,they shall be as specified in ISO 817 (IEC 60335-2-11)		N/A
	The appliance is also be marked with the mass of the refrigerant for each separate refrigerant circuit (IEC 60335-2-11)		N/A
	Appliances that use flammable refrigerants shall be marked with Warning sign ISO 7010- W021 (2011-06). (IEC 60335-2-11)		N/A
AA.7.6	[Warning sign ISO 7010- W021 (2011-06)] Warning; Flammable material, risk of fire (IEC 60335-2-11)		N/A
AA.7.12	If symbol ISO 7010 W021 (2011-06) is used, its meaning shall be explained (IEC 60335-2-11)		N/A
	For appliances that use flammable refrigerants, the instructions include information pertaining to the installation, handling, servicing and disposal of the appliance. (IEC 60335-2-11)		N/A
	The instructions also include the substance of the following : (IEC 60335-2-11)		—
	WARNING: In the appliance enclosure or in the built-in structure, keep ventilation openings clear of obstruction. (IEC 60335-2-11)		N/A
	WARNING: Do not damage the refrigerant circuit. (IEC 60335-2-11)		N/A
AA.7.14	The perpendicular height of the triangle of symbol ISO 7010 W021 (2011-06) shall be at least 15 mm. (IEC 60335-2-11)		N/A
AA.7.15	The marking of the type of flammable refrigerant and symbol ISO 7010 W021 (2011-06) shall be visible when gaining access to the motor-compressors. (IEC 60335-2-11)		N/A
AA.11.8	Protective devices other than self-resetting thermal motor-protectors for motor-compressors shall not operate. (IEC 60335-2-11)		N/A
	Self-resetting thermal motor-protectors for motor-compressors shall not operate when steady conditions are established. (IEC 60335-2-11)		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Temperatures of windings and housing of motor-compressors shall not exceed values in Table 201 (IEC 60335-2-11)		N/A
	Temperature rise of all other components associated with the motor compressor shall not exceed values in Table 3 (IEC 60335-2-11)		N/A
AA.19.1	Motor-compressor not complying with IEC 60335-2-34 are subjected to the tests specified in IEC 60335-2-34, 19.101 and 19.102, and shall also comply with 19.104 of that standard. (IEC 60335-2-11)		N/A
AA.19.7	This test does not apply to motor-compressors. (IEC 60335-2-11)		N/A
AA.21.201	Appliances using flammable refrigerants withstand the effects of vibration. In accordance with IEC 60068-2-6, normal position, sinusoidal vibration, vertical direction, severity: Duration:30 min Acceleration: 5 m/s² Frequencies: 100 Hz or 120 Hz depending on the rated frequency of the appliance (50 or 60 Hz) (IEC 60335-2-11)		N/A
	After the test: No damage affecting safety No connections or parts the loosening of which may impair safety shall have loosened No leakage shall occur when checked according to AA.22.7 (IEC 60335-2-11)		N/A
AA.22.7	Appliances , including the motor-compressor, shall withstands (IEC 60335-2-11)		—
	-a pressure of 3,5 times the saturated vapour pressure of the refrigerant at 70°C for parts exposed to high-side pressure (IEC 60335-2-11)		N/A
	-a pressure of 5 times the saturated vapour pressure of the refrigerant at 25°C for parts exposed to low-side pressure (IEC 60335-2-11)		N/A
	Appliances, including the motor-compressor, using flammable refrigerants withstands: (IEC 60335-2-11)		—
	- a pressure of 3 times the adjusted value of the protective device for parts exposed to high-side pressure (IEC 60335-2-11)		N/A
	- a pressure of 5 times the saturated vapour pressure of the refrigerant at 25°C for parts exposed to low-side pressure (IEC 60335-2-11)		N/A
	The part under test shows no leakage. (IEC 60335-2-11)		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
AA.22.201	For tumble dryers that use flammable refrigerants, the mass of flammable refrigerant does not exceed 150 g each separate refrigerant circuit. (IEC 60335-2-11)		N/A
AA.22.202	For tumble dryers that use flammable refrigerants, any electrical component located inside the appliance that during normal operation or abnormal operation produces sparks or arcs and luminaries, shall be tested and found at least to comply with the requirements in Annex BB for group IIA gases or the refrigerant used. (IEC 60335-2-11)		N/A
	Refrigerant leakage into the appliance enclosure shall not result in an explosive atmosphere outside the appliance in areas where electrical components that produces sparks or arcs during normal operation or abnormal operation are mounted, when doors or lids remain closed or when opening or closing doors or lids, (IEC 60335-2-11)		N/A
	unless these components have been tested and found at least to comply with the requirements in Annex BB, for group IIA gases or the refrigerant used. (IEC 60335-2-11)		N/A
	Compliance is checked by inspection, by the appropriate test of IEC 60079-15 and by the test described in the IEC 60335-2-11 (IEC 60335-2-11)		N/A
	Test carried out while the door or lid is closed (IEC 60335-2-11)		N/A
	The measured value shall not exceed 75 % of the lower explosive limit of the refrigerant as specified in table 202, and shall not exceed 50 % of the lower explosive limit of the refrigerant as specified in table 202 for a period exceeding 5 min. (IEC 60335-2-11)		N/A
	Test repeated, and the door or lid is opened at a uniform rate in a time of between 1 s to 2 s to an angle of 90° or to the maximum possible, whichever is less. (IEC 60335-2-11)		N/A
	The concentration shall be the highest when the door or lid is opened. (IEC 60335-2-11)		N/A
AA.22.203	Temperature on surfaces that may be exposed to leakage of flammable refrigerants shall not exceed the auto-ignition temperature of the refrigerant, as specified in Table 202, reduced by 100 K Compliance is checked during the tests specified in clauses 11 and 19. (IEC 60335-2-11)		N/A
AA.22.204	For tumble dryers that use flammable refrigerants, a pressure responsive electrical cut-out is required for expansion valve refrigerant systems. (IEC 60335-2-11)		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	The pressure cut-out is allowed to be a self-resetting type. It shall not operate under the conditions of clause 11. However during the test of 19.4, 75 % of the lint-trap is blocked and under this condition of abnormal use, the pressure cut-out is allowed to operate. (IEC 60335-2-11)		N/A
	Compliance is checked by inspection during the tests of Clause 11 and 19.4. (IEC 60335-2-11)		N/A
AA.22.205	For tumble dryers that use flammable refrigerants, the insulation resistance between the drum and the enclosure and between the enclosure and the drive motor rotor shaft shall be sufficiently low so as to avoid a build-up of electrostatic charge. (IEC 60335-2-11)		N/A
	Compliance checked by measuring the insulation with a D.C. voltage of approximately 500 V applied: (IEC 60335-2-11) - between the drum and the enclosure - between the enclosure and the drive motor shaft		N/A
	Insulation resistance does not exceed 1 MΩ. (IEC 60335-2-11)		N/A
AA.22.206	For tumble dryers using flammable refrigerants, only factory sealed connections shall be used in the refrigerant circuit. (IEC 60335-2-11)		N/A
AA.24.1	Motor-compressors are not required to be separately tested in accordance with IEC 60335-2-34, nor are they required to meet the requirements of IEC 60335-2-34, if they meet the requirements of this standard. (IEC 60335-2-11)		N/A
AA.24.1.4	For appliances using a refrigerant system the number of cycles is as follows: (IEC 60335-2-11)		—
	- self-resetting thermal cut-out that may influence the test of 19.101 and that are not short circuited during the test of 19.101 (IEC 60335-2-11) 10 000		N/A
	- thermostat that control the motor-compressor (IEC 60335-2-11) 30 000		N/A
	- motor-compressor starting relays (IEC 60335-2-11) 30 000		N/A
	- automatic thermal motor-compressor for motor-compressors of the hermetic type (IEC 60335-2-11) 2 000		N/A
	- manual reset thermal motor-compressor for motor-compressors of the hermetic type (IEC 60335-2-11) 50		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	- other automatic thermal motor-compressor (IEC 60335-2-11) 2 000		N/A
	- other manual reset thermal motor-compressor (IEC 60335-2-11) 30		N/A
	- self-resetting pressure cut-outs (only required on appliances using flammable refrigerant) (IEC 60335-2-11) 1 000		N/A
	- manual reset cut-outs (only required on appliances using flammable refrigerant) (IEC 60335-2-11) 300		N/A
BB	**ANNEX BB (NORMATIVE)** **AGEING TEST FOR ELASTOMERIC PARTS** (IEC 60335-2-7)		—
	The ageing test on elastomeric parts is carried out by measuring their hardness and mass before and after immersion in a solutions of detergent and rinsing agent at elevated temperature. (IEC 60335-2-7)		N/A
	Test is carried out on at least three samples of each part as specified in ISO 1817, with the following modifications: (IEC 60335-2-7)		N/A
5	Test liquids (IEC 60335-2-7)		—
	Two test liquids are used: – one liquid is obtained by dissolving 5 g of the detergent specified in Annex AA per litre of distilled water; – the other liquid is composed of 0,6 ml of rinsing agent as specified in 15.2 per litre of distilled water (IEC 60335-2-7)		N/A
	Care is to be taken to ensure that the total mass of the test pieces immersed does not exceed 100 g for each litre of solution, that the test pieces are completely immersed and that their entire surface is freely exposed to the solution. During the tests, the test pieces are not to be exposed to direct light. Test pieces of different compounds are not to be immersed at the same time in the same solution. (IEC 60335-2-7)		N/A
6	Test Pieces (IEC 60335-2-7)		—
6.4	Conditioning (IEC 60335-2-7)		—
	Temperature : 23°C± 2°C (IEC 60335-2-7)		N/A
	Relative humidity : (50± 5)% (IEC 60335-2-7)		N/A
7	Immersion in the test liquid (IEC 60335-2-7)		—
7.1	Temperature (IEC 60335-2-7)		—

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Solution heated within 1 h with test pieces immersed to 75 $^{+5}_{0}$°C and maintained at this value (IEC 60335-2-7)		N/A
	Solution renewed every 24 h (IEC 60335-2-7)		N/A
7.2	Duration (IEC 60335-2-7)		—
	Immersion during periods as specified (IEC 60335-2-7)		N/A
8	Procedure (IEC 60335-2-7)		—
8.2	Change in mass (IEC 60335-2-7)		—
	Increase in mass of the test pieces, not exceeding 10 % of the value determined before immersion (IEC 60335-2-7)		N/A
8.6	Change in hardness (IEC 60335-2-7)		—
	Micro-test for hardness applies (IEC 60335-2-7)		N/A
	Hardness of the test pieces must not have changed by more than 8 IRHD (IEC 60335-2-7)		N/A
	Surface not sticky and no crack visible to the naked eye or any other deterioration (IEC 60335-2-7)		N/A
BB	**ANNEX BB (NORMATIVE)** **Equipment protection by type of protection "n" (IEC 60335-2-11)**		—
	Where reference is made to IEC 60079-15, the following clauses are applicable, as modified below (IEC 60335-2-11)		N/A
11	Supplementary requirements for non-sparking luminaires (IEC 60335-2-11)		—
	All of the subclauses of Clause 11 are applicable, except 11.2.4.1, 11.2.4.5, 11.2.5, 11.2.6, 11.2.7, 11.3.4, 11.3.5, 11.3.6 and 11.4. (IEC 60335-2-11)		N/A
16	General supplementary requirements for equipment producing arcs, sparks or hot surfaces (IEC 60335-2-11)		—
	Clause 16 is applicable (IEC 60335-2-11)		N/A
17	Supplementary requirements for hermetically sealed devices producing arcs, sparks and hot surfaces (IEC 60335-2-11)		—
	Clause 17 is applicable (IEC 60335-2-11)		N/A
18	Supplementary requirements for hermetically sealed devices producing arcs, sparks or hot surfaces (IEC 60335-2-11)		—
	Clause 18 is applicable (IEC 60335-2-11)		N/A
19	Supplementary requirements for sealed devices producing arcs, sparks or hot surfaces (IEC 60335-2-11)		—
	All of the subclauses of Clause 19 are applicable, except 19.1 and 19.6, which are replaced by the following. (IEC 60335-2-11)		N/A
19.1	Non-metallic materials (IEC 60335-2-11)		—

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Seals are tested using 22.5. However if the device is tested in the appliance, then 22.5.1 and 22.5.2 are not applicable. After the tests of Clause 19 in IEC 60335-2-11, by inspection, no damage that could impair the type of protection shall be evident. (IEC 60335-2-11)		N/A
19.6	Type tests (IEC 60335-2-11)		—
	The type tests described in 22.5 shall be performed where relevant (IEC 60335-2-11)		N/A
20	Supplementary requirements for restricted-breathing enclosures protecting equipment producing arcs, sparks or hot surfaces (IEC 60335-2-11)		—
	Clause 20 is applicable (IEC 60335-2-11)		N/A
CC	**ANNEX CC (NORMATIVE)** **DETERGENT FREE ELECTROLYSER WASHING MACHINES (IEC 60335-2-7)**		—
	Washing machines for household and similar use that incorporate an electrolyte process employing an electrolyte instead of detergent (IEC 60335-2-7)		N/A
CC.3	**Terms and definitions**		—
3.1.9	Electrolyte specified in the instructions, amount, reference (IEC 60335-2-7)		N/A
CC.7	**Marking and instructions** (IEC 60335-2-7)		—
7.12	instructions for appliances intended to be filled with electrolyte by the user contain details of the electrolyte to be used (IEC 60335-2-7)		N/A
	and the substance of the following: In order to avoid hazards, use only the electrolyte specified (IEC 60335-2-7)		N/A
7.12.1	Instructions state that the appliance is installed so that there is a distance of at least 200 mm between the appliance enclosure and external heat sources, such as appliances containing heating elements. (IEC 60335-2-7)		N/A
CC.15	**Moisture resistance** (IEC 60335-2-7)		—
15.2	Appliances are operated under the conditions of Clause 11 but without a clothes load. (IEC 60335-2-7)		N/A
	When the maximum water level is reached, the inlet valve is held open and the filling is continued for 15 min after first evidence of overflow or until the inflow is automatically stopped by other means. (IEC 60335-2-7)		N/A
CC.19	**Abnormal operation** (IEC 60335-2-7)		—
CC.19.201	Appliances are constructed so that foaming does not affect electrical insulation. (IEC 60335-2-7)		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Test carried out immediately after 15.2 (IEC 60335-2-7)		N/A
	After the test the appliance withstands the electric strength test of 16.3 (IEC 60335-2-7)		N/A
CC.22	**Construction** (IEC 60335-2-7)		—
22.6	Solution composed of 5 g of the detergent specified in Annex AA per litre of distilled water is used. (IEC 60335-2-7)		N/A
22.17	Spacers intended to prevent the electrolyser aperture being blocked by walls shall be fixed so that it is not possible to remove them from the outside of the appliance by hand or by means of screwdriver or a spanner. (IEC 60335-2-7)		N/A
CC.22.201	Appliances fitted with an electrolyser, consisting of cathodic and anodic chambers separated by an electrolytic separator, shall be constructed so that the electrolyser is always open to the atmosphere through an aperture of at least 5 mm in diameter, or 20 mm^2 in area with a width of at least 3 mm. (IEC 60335-2-7)		N/A
	The aperture is located so that it is unlikely to be obstructed in normal use. (IEC 60335-2-7)		N/A
CC.22.202	During normal use of the appliance, the chemical reaction in the electrolyser shall not produce hydrogen gas that is released in hazardous amounts into areas (IEC 60335-2-7)		—
	- where electrical components that produce arcs and sparks during normal operation or abnormal operation are mounted, unless (IEC 60335-2-7)		N/A
	these components have been tested and found at least to comply with IEC 60079-15 for group IIC gases, or (IEC 60335-2-7)		N/A
	- that contain surfaces with a temperature exceeding 460°C during normal operation or abnormal operation and that may be exposed to the released hydrogen gas (IEC 60335-2-7)		N/A
	Compliance is checked by inspection, by measuring the temperature of the relevant surfaces during normal operation or abnormal operation, and by measuring the concentration of hydrogen gas (shall not exceed 50% of the LFL of hydrogen) (IEC 60335-2-7)		N/A
CC.22.203	During normal use of the appliance, the chemical reaction in the electrolyser does not produce wash water that causes corrosion due to the PH value of the wash water. (IEC 60335-2-7)		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	Compliance is checked by the salt mist test of IEC 60068-2-52, severity 2 being applicable. (IEC 60335-2-7)		N/A
	After the test, the appliance does not have deteriorated to such an extent that compliance with this standard, in particular with Clauses 8 and 27, is impaired. The coating is not broken and has not come loose from the surface. (IEC 60335-2-7)		N/A
CC.29	**Clearances, creepage distances and solid insulation**		—
29.2	Pollution degree 3, and the insulation with a CTI not less than 250,		N/A
	Unless the insulation is enclosed or located so that it is unlikely to be exposed to pollution during normal use of the appliance due to : (IEC 60335-2-7)		N/A
	- condensation produced by the appliance (IEC 60335-2-7)		N/A
	- chemicals, such as electrolyte or fabric conditioner (IEC 60335-2-7)		N/A
CC.32	Radiation, toxicity and similar hazards (IEC 60335-2-7)		—
32	The ozone concentration produced by the chemical reactions in the electrolyser is not excessive. (IEC 60335-2-7)		N/A
	Compliance is checked by test as described (IEC 60335-2-7)		N/A
	Percentage of ozone does not exceed 5×10^{-6} (IEC 60335-2-7)		N/A
Annex BB	Instead of the solution containing detergent, a solution of the electrolysed portion of the wash water obtained under the conditions of cl. 11 is used. (IEC 60335-2-7)		N/A
DD	**WASHING MACHINES INCORPORATING A POWER DRIVEN WRINGER (IEC 60335-2-7)**		—
DD.7	**Marking and instructions** (IEC 60335-2-7)		—
7.1	The safety release mechanism of power-driven wringers shall be marked to indicate its method of operation, unless (IEC 60335-2-7)		N/A
	Its operating means to be continuously actuated by the user. (IEC 60335-2-7)		N/A
7.12	The instructions shall draw attention to the potential hazards involved when operating the wringer, (IEC 60335-2-7)		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	And shall state that : - the wringer must be disengaged or switched off when not in use; - the appliance must not be operated by children (IEC 60335-2-7)		N/A
DD.11	**Heating** (IEC 60335-2-7)		—
11.7	Appliance is operated for 3 cycles (washing following by wringing), with a rest period of 4 min between cycles. Duration of each wringing: 8 min. The wringer is loaded by passing a board through the rollers once a minute, the roller pressure being adjusted to the maximum value. The board is approximately 20 mm thick and 80 cm long, its width being at least equal to three-quarters of the effective length of the rollers. The board is uniformly tapered at each end down to a thickness of approximately 3 mm, over a distance of 20 cm. (IEC 60335-2-7)		N/A
DD.19	**Abnormal operation** (IEC 60335-2-7)		—
19.7	Moving parts of a wringer are locked even if a trip bar prevents rotation of the roller (IEC 60335-2-7)		N/A
DD.20	**Stability and mechanical hazards** (IEC 60335-2-7)		—
20.201	Power-driven wringers constructed so that the pressure between the rollers has to be maintained by the user, unless a readily accessible safety release or other means of protection is incorporated (IEC 60335-2-7)		N/A

IEC 60335-2-7, IEC 60335-2-11			
Clause	Requirement + Test	Result - Remark	Verdict
	The release mechanism shall operate easily without violent ejection of any part and shall release pressure on the rollers immediately. The rollers shall separate either by at least 45 mm at both ends or by at least 25 mm at one end and 75 mm at the other (IEC 60335-2-7)		N/A
	The safety release shall be operable by a person standing in any normal working position relative to the wringer, even if the fingers of both hands are trapped between the rollers. (IEC 60335-2-7)		N/A
	Power-driven wringers shall be constructed to prevent fingers being squeezed between a roller and the frame (IEC 60335-2-7)		N/A
	Power-driven wringers shall be controlled by an easily accessible switch (IEC 60335-2-7)		N/A

10.1	TABLE: Power input deviation				P
Input deviation of/at:	**P rated (W)**	**P measured (W)**	**Δ P**	**Required Δ P**	**Remark**
220 V, 50 Hz (washing)	1600	1534	-4,1%	+5/-10%	WD3Q1042BW as representative model assembled with washing motor WDHX350FA, washing heater WACES5827 and drying heater DRGQ (Full load)
220 V, 50 Hz (washing)	1600	1522	-4,9%	+5/-10%	WD3Q1042BW as representative model assembled with washing motor WDHX350FA, washing heater WACES5827 and drying heater DRGQ (Half load)
220 V, 50 Hz (drying)	1300	1214	-6,6%	+5/-10%	WD3Q1042BW as representative model assembled with washing motor WDHX350FA, washing heater WACES5827 and drying heater DRGQ
220 V, 50 Hz (drying)	1300	1358	+4,5%	+5/-10%	WD3Q1042BW assembled with drying heater TCRGQ-02
Supplementary information: 1. Rated capacity of washer-dryer is considered according to cl.3.1.9 of standard IEC 60335-2-7.					

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

11.8-1	TABLE: Heating test (WD3Q1042BW as representative model assembled with washing motor WDHX350FA, washing heater WACES5827 and drying heater DRGQ)		P
	Test voltage (V)..... ..... :	233,2 V/206,8 V	—
	Ambient (°C)..... :	t1= 23,0; t2=23,0	—

Thermocouple locations:	**Max. temperature rise measured, Δ T (K)**	**Max. temperature rise limit, Δ T (K)**
Supply cord	28,7	50
Internal wire for main motor	26,5	50
Internal wire for fan motor	37,6	50
Internal wire for drying heater	40,2	50
Internal wire for washing heater	18,5	50
Main PCB	35,4	120
Connector on main PCB	37,0	For cl.30.1
Varistor on main PCB	37,4	60 (T85)
Relay on main PCB	33,4	60 (T85)
X2 capacitor on main PCB	34,7	75 (T100)
Main motor winding	68,5	115 (Class 155 (F))
Inverter PCB	34,8	120
Relay on inverter PCB	38,8	60 (T85)
X capacitor on inverter PCB	29,2	75 (T100)
Connector on inverter PCB	27,4	For cl.30.1
Drain pump winding	55,4	115 (Class 155 (F))
Water inlet valve	43,2	65(Class 105(A))
Water level sensor	36,8	For cl.30.1
Filter	41,3	60 (T85)
Ambient of door interlock switch	33,9	60 (T85)
Fan motor winding	92,5	140 (Class 180 (H))
Ambient of thermal cut-out	59,1	Ref.
Drum	35,4	For cl.30.1
Control panel surface	15,2	58
Test corner	8,1	60

Door glass	34,3	51
Door handle	6,8	58
Metal-front	16,7	38
Metal-rear	16,8	42
Metal-side	15,4	42
Air outlet	54,2 °C	55 °C
Supplementary information: The most unfavourable test results were record here.		

11.8-1	**TABLE: Heating test, resistance method**				P
	Test voltage (V)..... :		233,2 V/206,8 V		—
	Ambient, t1 (°C)..... :		23,0		—
	Ambient, t2 (°C)..... :		23,0		—
Temperature rise of winding:	**R1 (Ω)**	**R2 (Ω)**	**Δ T (K)**	**Max. Δ T (K)**	**Insulation class**
Main motor winding	6,02	7,92	81,3	115	Class 155(F)
Fan motor winding	56,02	80,7	113,4	140	Class 180(H)
Drain pump (B12-6A)	325,5	415,7	71,4	115	Class 155(F)
Water inlet valve (FPE180A10)	4510	5623	63,5	75	Class 105(A)
Supplementary information: The most unfavourable test results were record here.					

11.8-2	**TABLE: Heating test** (WD3Q1042BW assembled with drying heater TCRGQ-02)		P
	Test voltage (V) :	233,2 V/206,8 V	—
	Ambient (°C) :	T1: 22,3; T2: 22,5	—

Thermocouple locations:	**Max. temperature rise measured, Δ T (K)**	**Max. temperature rise limit, Δ T (K)**
Supply cord	32,9	50
Internal wire for drying heater	40,2	50
Internal wire for washing heater	26,9	50
Main PCB	26,3	120
Connector on main PCB	46,8	For Cl. 30.1
X2 capacitor on main PCB	16,3	75 (T100)
Relay on main PCB	45,6	60 (T85)
Varistor on main PCB	43,6	60 (T85)
Washing motor winding	49,3	115 (Class 155 (F))
Inverter PCB	32,9	120
X2 capacitor on inverter PCB	35,1	75 (T100)
Relay on inverter PCB	39,2	60 (T85)
Varistor on inverter PCB	31,2	60 (T85)
Connector on inverter PCB	26,9	For Cl. 30.1
Drain pump	63,2	115 (Class 155 (F))
Ambient of water inlet valve	59,2	75 (Class 105 (A))
Enclosure of water level sensor	40,1	For Cl. 30.1
EMI filter	38,2	60 (T85)
Door lock	32,6	60 (T85)
Connector for dry heater	39,8	For Cl. 30.1
Fan motor winding	101,9	140 (Class 180 (H))
Ambient of thermal cut-out	55,9	Ref.
Drum	50,9	For Cl. 30.1
Control panel surface	20,6	58
Test corner	6,3	60
Door glass	32,6	51
Door handle	6,1	58
Coated metal-front	19,6	38
Coated metal-rear	18,2	42
Coated metal-side	20,2	42
Air outlet	48,9 °C	55 °C

Supplementary information: The most unfavourable test results were record here.					
11.8-2	**TABLE: Heating test, resistance method**				P
	Test voltage (V)..... :		233,2 V/206,8 V		—
	Ambient, t1 (°C) ..... :		22,3		—
	Ambient, t2 (°C) ..... :		22,5		—
Temperature rise of winding:	**R1 (Ω)**	**R2 (Ω)**	**Δ T (K)**	**Max. Δ T (K)**	**Insulation class**
Drain pump (PX2025-5)	188,9	243,4	73,8	115	Class 155(F)
Water inlet valve (FPS180D)	4497	5698	68,3	75	Class 105(A)
Supplementary information: The most unfavourable test results were record here.					

13.2	**TABLE: Leakage current (all tests)**		P
	Heating appliances: 1,15 x rated input (W).. :	—	—
	Motor-operated and combined appliances: 1,06 x rated voltage (V) ..... :	233,2 V	—
Leakage current between:	**I (mA)**	**Max. allowed I (mA)**	
Live part and accessible part	0,04 peak	0,35 peak	
Live part and earthed metal	0,38	3,5	
Supplementary information: The most unfavourable test results were record here.			

13.3	**TABLE: Dielectric strength (all tests)**		P
Test voltage applied between:	**Test potential applied (V)**	**Breakdown / flashover (Yes/No)**	
Live part and earthed metal enclosure	1000	No	
Internal wire and plastic enclosure	1750	No	
Live part and plastic enclosure	3000	No	
Supplementary information: The most unfavourable test results were record here.			

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

16.2	TABLE: Leakage current		P
	Single phase appliances: 1,06 x rated voltage (V)..... :	233,2 V	—
	Three phase appliances 1,06 x rated voltage divided by √3 (V)..... :	—	—

Leakage current between:	I (mA)	Max. allowed I (mA)
Live part and button	0,07	0,25
Live part and earthed metal enclosure	0,45	3,5
Supplementary information: —		

16.3	TABLE: Dielectric strength	P

Test voltage applied between:	Test potential applied (V)	Breakdown / flashover (Yes/No)
Live part and earthing part	1250	No
internal wire and plastic enclosure	1750	No
Live part and plastic enclosure	3000	No
Supplementary information: —		

17	TABLE: Overload protection	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: —					

19	Abnormal operation conditions						P
Operational characteristics			**YES/NO**	**Operational conditions**			
Are there electronic circuits to control the appliance operation?			Yes	Electronic circuits control the appliance operation when plug in			
Are there “off” or “stand-by” position?			Yes	Off position when plug in			
The unintended operation of the appliance results in dangerous malfunction?			No	No possible dangerous malfunction			
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	Short-circuit temperature control	Temperature rise not exceed limited value	N/A	N/A	N/A	N/A	P
19.5	One end of heating element connected to the sheath	Temperature rise not exceed limited value	N/A	N/A	N/A	N/A	P
19.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.7	Stall moving parts at rated voltage	No higher temperature occur and no danger occur	N/A	N/A	N/A	N/A	P
19.8	One phase of appliances incorporating multi-phase motors is disconnected. The appliance is then operated under normal operation and supplied at rated voltage	No higher temperature occur and no danger occur	N/A	N/A	N/A	N/A	P
19.9	Over load	No higher temperature occur and no danger occur.	N/A	N/A	N/A	N/A	P
19.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.11.2	Components fault	No higher temperature occur and no	N/A	N/A	N/A	N/A	P

	conditions	danger occur.					
19.11.4.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.101	Fault condition or unexpected operation	No higher temperature occur and no danger occur.	N/A	N/A	N/A	N/A	P
19.102	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.103	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Supplementary information: —							

19.7-1	**TABLE: Abnormal operation, locked rotor/parts**					P
	Test voltage (V) ..... :		—			—
	Ambient, t1 (°C) ..... :		—			—
	Ambient, t2 (°C) ..... :		—			—
Temperature of winding:	**R1 (Ω)**	**R2 (Ω)**	**Δ T (K)**	**T (°C)**	**Max. T (°C)**	
Main motor	—	—	—	—	—	
Supplementary information: The main motor has the electronic circuits to protect and no obvious temperature rise. Main motor and inverter PCB were certificated.						

19.7-2 & Annex D	**TABLE: Abnormal operation, locked rotor/moving parts**					P
	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: All the drain pumps were certified.						

19.7-3 & Annex D	**TABLE: Abnormal operation, locked rotor/moving parts**					P
	Test voltage (V) ..... :		220 V			—
	Ambient, t1 (°C) ..... :		21,0			—
	Ambient, t2 (°C) ..... :		21,5			—
Temperature of winding:	**R1 (Ω)**	**R2 (Ω)**	**Δ T (K)**	**T (°C)**	**Max. T (°C)**	
Winding of fan motor	—	—	—	156,8	210 (Class 180 (H))	
Supplementary information: The most unfavourable test results were record here.						

19.9	TABLE: Abnormal operation, running overload					P
	Test voltage (V).....:		233,2			—
	Ambient, t1 (°C) .....:		21,0			—
	Ambient, t2 (°C) .....:		21,4			—
Temperature of winding:	**R1 (Ω)**	**R2 (Ω)**	**Δ T (K)**	**T (°C)**	**Max. T (°C)**	
Main motor winding	—	—	—	32,7	180	
Supplementary information: The main motor has the electronic circuits to protect and no obvious temperature rise. Main motor and inverter PCB were certificated.						

19.13	TABLE: Abnormal operation, temperature rises	P
Thermocouple locations:	**Max. temperature rise measured, Δ T (K)**	**Max. temperature rise limit, Δ T (K)**
Power cord	38,4	150
Control panel	19,8	cl.30
Test corner	8,7	150
Supplementary information: The most unfavourable test results were record here.		

21.1	TABLE: Impact resistance		P
Impacts per surface	**Surface tested**	**Impact energy (Nm)**	**Comments**
3	Enclosure	0,5	P
3	Control panel	0,5	P
Supplementary information: —			

24.1	TABLE: Critical components information				P
Object / part No.	**Manufacturer/ trademark**	**Type / model**	**Technical data**	**Standard**	**Mark(s) of conformity[1)]**
Plug	Zhejiang Yuehua Telecommunication Co., Ltd.	YP304	250 V~, 16 A	DIN VDE 0620-2-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	VDE 40007669
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP304	250 V~, 16 A	CEI 23-50-II IEC 60884-1: 2002 + A1:2006 + A2:2013	IMQ CA02.03921
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP304	250 V~, 16 A	IEC 60884-1: 2002 + A1:2006 + A2:2013	CU-TR 0118101
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP304	250 V~, 16 A	NF C 61-314 IEC 60884-1: 2002 + A1:2006 + A2:2013	LCIE 676583
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP304	250 V~, 16 A	SNI 04-3892.1 IEC 60884-1: 2002 + A1:2006 + A2:2013	PCS 00592.01
Alternative	Wenzhou Yaohua Telecommunication Co., Ltd.	YP304	250 VAC, 16 A	K60884-1 KSC8305 IEC 60884-1: 2002 + A1:2006 + A2:2013	SU04021-7001B
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP304-1	250 V~, 16 A	DIN VDE 0620-2-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	VDE 40028410
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP304-1	250 V~, 16 A	CEI 23-50-II IEC 60884-1: 2002 + A1:2006 + A2:2013	IMQ CA02.04436
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP304-1	250 V~, 16 A	IEC 60884-1: 2002 + A1:2006 + A2:2013	CU-TR 0118101
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP304-1	250 V~, 16 A	NF C 61-314 IEC 60884-1: 2002 + A1:2006 + A2:2013	LCIE 677042
Alternative	Wenzhou Yaohua Telecommunication Co., Ltd.	YP304-1	250 VAC, 16 A	K60884-1 KSC8305 IEC 60884-1: 2002 + A1:2006 + A2:2013	KTL SU04021-7001B
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP314	250 V~,10 A	CEI 23-50-II IEC 60884-1: 2002 + A1:2006 + A2:2013	IMQ CA02.01723

Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP314-1	250 V~,16 A	CEI 23-50-II IEC 60884-1: 2002 + A1:2006 + A2:2013	IMQ CA02.03965
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP317	250 V~, 13 A	BS 1363-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	BSI KM 512007
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP317	250 V~, 13 A	MS 589-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	SIRIM PC000557
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP317	250 V~, 13 A	SS 145 part 1 IEC 60884-1: 2002 + A1:2006 + A2:2013	TUV SUD 141516-11
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP317	250 V~, 13 A	BS 1363-1 SASO 2203 IEC 60884-1: 2002 + A1:2006 + A2:2013	CVC 2017GTC8536033723-M3(R1)
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	BR3P-1	250 V~, 16A	ABNT 60884-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	TUV 20.0654
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	BR3P	250 V~, 10 A	ABNT 60884-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	TUV 20.0653
Alternative	Wenzhou Yaohua Telecommunication Co., Ltd.	YAR-3P	250 V~, 10 A	IRAM 2073 IRAM-NM 60884 IEC 60884-1: 2002 + A1:2006 + A2:2013	IRAM DC-E-W15-001.2
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP322	250 V~, 10 A	AS/NZS 3112 IEC 60884-1: 2002 + A1:2006 + A2:2013	SAI TE04946
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP322	250 V~, 10 A	AS/NZS 3112 IEC 60884-1: 2002 + A1:2006 + A2:2013	SAA-221493-EA
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP324	250 V~, 16 A	32 part 1.1 IEC 60884-1: 2002 + A1:2006 + A2:2013	SII 40636
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	YP326	250 V~, 16 A	SABS 1661 IEC 60884-1: 2002 + A1:2006 + A2:2013	SABS ML/102040AA
Alternative	Wenzhou Yaohua Telecommunication Co., Ltd.	YP305	250 V~, 10 A	SEV 1011 IEC 60884-1: 2002 + A1:2006 + A2:2013	S+ 22.0009

Alternative	Hangzhou Hongshi Electrical	SW168	250 V~, 13 A	BS 1363-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	BSI KM 10807
Alternative	Taizhou Xie Kang Electric Co.,Ltd.	XYP-106	250 V~, 13 A	BS 1363-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	ASTA1236
Alternative	Taizhou Xie Kang Electric Co., Ltd.	XYP-106	250 V~, 13 A	GSO BS 1363-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	GC/GZ/2016/000091
Alternative	Taizhou Xie Kang Electric Co.,Ltd.	XYP-106	250 V~, 13 A	SASO 2203 IEC 60884-1: 2002 + A1:2006 + A2:2013	191113162GZU-VOC001
Alternative	Taizhou Xie Kang Electric Co.,Ltd.	XYP-106	250 V~, 13 A	SS 145:Part 1 IEC 60884-1: 2002 + A1:2006 + A2:2013	COC170141-12
Alternative	Taizhou Xie Kang Electric Co.,Ltd.	XYP-106	250 V~, 13 A	MS 589-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	190410140GZU-001VOC
Alternative	Taizhou Xie Kang Electric Co.,Ltd.	XYP-108	250 V~, 10 A	AS/NZS 3112 AS/NZS 3100 IEC 60884-1: 2002 + A1:2006 + A2:2013	TUV AZ 69023972
Alternative	Taizhou Xie Kang Electric Co.,Ltd.	XYP-02	250 V~, 16 A	DIN VDE 0620-2-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	VDE 40037029
Alternative	Taizhou XieKang Electric Co.,Ltd.	XYP-02	250 V~, 16 A	KC 60884-1 KS C 8305 IEC 60884-1: 2002 + A1:2006 + A2:2013	KTL HUO4132-16001B
Alternative	BOLUO CHANG LE METAL & PLASTIC CO.LTD.	HEC-168	250 V~, 13 A	MS 589-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	PM079101
Alternative	Taizhou Xie Kang Electric Co.,Ltd.	XYP-110	250 V~, 16 A	IEC 60884-1: 2002 + A1:2006 + A2:2013	DE 2-019000
Alternative	Taizhou Xie Kang Electric Co.,Ltd.	XYP-04	250 V~, 10 A	CEI 23-50-II IEC 60884-1: 2002 + A1:2006 + A2:2013	CA02.05302
Alternative	Taizhou Xie Kang Electric Co.,Ltd.	XYP-117	250 V~, 10 A	IEC 60884-1: 2002 + A1:2006 + A2:2013	FI-41166
Alternative	QINGDAO RIKEN WIRE & CABLE CO.,LTD.	LY-50	250 V~, 13 A	BS 1363-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	KM73119

Alternative	QINGDAO RIKEN WIRE & CABLE CO.,LTD.	LY-21	250 V~, 16 A	DIN 49441-R2 IEC 60884-1: 2002 + A1:2006 + A2:2013	VDE 40006669
Alternative	Changzhou Hongchang Electronics Co.Ltd	DTIII-2P-05	250 V~, 16 A	DIN VDE 0620-2-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	VDE 40015536
Alternative	Changzhou Hongchang Electronics Co. Ltd	DTIII-2P-05	250 V~, 16 A	SNI IEC 60884-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	PCS 00470.02
Alternative	Changzhou Hongchang Electronics Co.Ltd	DTII-3P-22	250 V~, 13 A	BS 1363-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	KM 69647
Alternative	Changzhou Hongchang Electronics Co.Ltd	DTII-3P-17	250 V~, 10 A	AS/NZS 3112 IEC 60884-1: 2002 + A1:2006 + A2:2013	NSW28316/1
Alternative	Changzhou Hongchang Electronics Co.Ltd	DTII-3P-03	250 V~, 16 A	IS 1293 IEC 60884-1: 2002 + A1:2006 + A2:2013	BIS40051138
Alternative	Changzhou Hongchang Electronics Co.Ltd	DTII-3P-03	250 V~, 16 A	SANS 60799 IEC 60884-1: 2002 + A1:2006 + A2:2013	8207/13022
Alternative	Changzhou Hongchang Electronics Co.Ltd	DTIII-3P-01	250 V~, 16 A	CEI 23-50 IEC 60884-1: 2002 + A1:2006 + A2:2013	CA02.03486
Alternative	Changzhou Hongchang Electronics Co.Ltd	DTIII-3P-06	250 V~, 16 A	ANBT NBR NM 60884-1 IEC 60884-1: 2002 + A1:2006 + A2:2013	TÜV 20.0595
Supply cord	Wenzhou Yaohua Telecommunication Co., Ltd.	H05VV-F	3G1,0 mm² 3G1,5 mm²	EN 50525-2-11 IEC 60227-5: 2011	VDE 40025983
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	H05VV-F	3G1,0 mm² 3G1,5 mm²	EN 50525-2-11 IEC 60227-5: 2011	VDE 130596
Alternative	Wenzhou Yaohua Telecommunication Co.,Ltd	H05VV-F	3G1,0 mm² 3G1,5 mm²	K60227-5 IEC 60227-5: 2011	SU01013-2001F
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	H05VV-F	3G1,0 mm² 3G1,5 mm²	AS/NZS 60227.5 IEC 60227-5: 2011	ESO170179
Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	H05VV-F	3G1,0 mm² 3G1,5 mm²	AS/NZS 60227.5 IEC 60227-5: 2011	SAA-220161-EA

Alternative	Zhejiang Yuehua Telecommunication Co., Ltd.	H05VV-F	3G1,0 mm² 3G1,5 mm²	SNI 04-6629.5 IEC 60227-5: 2011	PCS 00592.02
Alternative	Taizhou XieKang Electric Co.,Ltd.	H05VV-F	3G1,0 mm² 3G1,5 mm²	KC 60227-5 IEC 60227-5: 2011	HU01077-16002A
Alternative	Taizhou Xie Kang Electric Co.,Ltd.	H05VV-F	3G1,0 mm² 3G1,5 mm²	DIN EN 50525-2-11 IEC 60227-5: 2011	VDE 40036119
Alternative	Taizhou Xie Kang Electric Co.,Ltd.	H05VV-F	3G1,0 mm² 3G1,5 mm²	AS/NZS 60227.5 IEC 60227-5: 2011	AZ 69024252
Alternative	TAIZHOU XIEKANG ELECTRIC CO LTD	SJT	3X14AWG-3X18AWG	UL62 IEC 60227-5: 2011	UL E469343
Alternative	QINGDAO RIKEN WIRE & CABLE CO., LTD.	H05VV-F	3G1,0 mm² 3G1,5 mm²	DIN EN 50525-2-11 IEC 60227-5: 2011	VDE 132193
Alternative	Changzhou Hongchang Electronics Co.Ltd	H05VV-F	3G1,0 mm² 3G1,5 mm²	AS/NZS 3191 IEC 60227-5: 2011	NSW28313
Alternative	Changzhou Hongchang Electronics Co.Ltd	H05VV-F	3G1,0 mm² 3G1,5 mm²	EN 50525-2-11 IEC 60227-5: 2011	VDE 124978
Alternative	Changzhou Hongchang Electronics Co.Ltd	H05VV-F	3G1,0 mm² 3G1,5 mm²	SNI 04-6629.5 IEC 60227-5: 2011	PCS 00470.01
Alternative	Changzhou Hongchang Electronics Co.Ltd	IS694	3G1,0 mm² 3G1,5 mm²	IS694 IEC 60227-5: 2011	BIS 4034542
Alternative	Changzhou Hongchang Electronics Co. Ltd	SJT	3*16AWG 3*18AWG	UL62 IEC 60227-5: 2011	UL E205765
Alternative	Changzhou Hongchang Electronics Co. Ltd	H05VV-F	3G1,0 mm² 3G1,5 mm²	IEC 60227-5:2011	TÜV 22.0135
Internal wire	Hefei Deren Electrical Appliance Co., Ltd	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2009010105338593 Tested with appliance
Alternative	Tition Electric Wire Group Co., Ltd.	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2002010105025573 Tested with appliance

Alternative	Weihai Honglin Electronic Co., Ltd.	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2004010 105124195 Tested with appliance
Alternative	XinYa Electronic Co., Ltd	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2004010 105134426 Tested with appliance
Alternative	Changshu JHOSIN Communication Technology Co Ltd	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2013010 105637010 Tested with appliance
Alternative	Suzhou hao yu jin cable co., LTD	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2011010 105509363 Tested with appliance
Alternative	Linoya Electronic Technology Co., Ltd.	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2002010 105009098 Tested with appliance
Alternative	Hefei Deren Electronic Co.,Ltd.	AVR-90	0,3 mm², 300/300 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2013010 105629494 Tested with appliance
Alternative	XinYa Electronic Co.,Ltd.	AVR-90	0,3 mm², 300/300 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2004010 105105720 Tested with appliance
Alternative	Jiaxing Tition Wire Co.,Ltd	AVR-90	0,3 mm², 300/300 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2008010 105294273 Tested with appliance
Alternative	Lino Ya Electronic Technology Co.,Ltd.	AVR-90	0,3 mm², 300/300 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2008010 105289846 Tested with appliance
Alternative	Suzhou hao yu jin cable co., LTD	AVR-90	0,3 mm², 300/300 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2011010 105509365 Tested with appliance
Alternative	Weihai Honglin Electronic Co., Ltd.	AVR-90	0,3 mm², 300/300 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2019010 105157151 Tested with appliance
Alternative	XinYa Electronic CO LTD	UL1569	16/18/20/22/24/ 26AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E170689 Tested with appliance

Alternative	Hefei Deren Electronic Device Co., Ltd.	UL1569	16/18/20/22/24/ 26AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E338621 Tested with appliance
Alternative	WeihaiHonglin Electronic Co., Ltd.	UL1569	16/18/20/22/24/ 26AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E239426 Tested with appliance
Alternative	Tition Electronic Wire Group Co Ltd	UL1569	16/18/20/22/24/ 26AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E216894 Tested with appliance
Alternative	Hefei Deren Electronic Device Co., Ltd.	UL1015	16/18/20/22 AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E338621 Tested with appliance
Alternative	Tition Electric Wire Group Co., Ltd.	UL1015	16/18/20/22 AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E216894 Tested with appliance
Alternative	Qing Dao Riken Wire & Cable Co., Ltd. (QING DAO LI YAN DIAN XIAN DIAN LAN YOU XIAN GONG SI)	AVR-90	0,3 mm², 300/300 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2007010 105236458 Tested with appliance
Alternative	Qing Dao Riken Wire & Cable Co., Ltd. (QING DAO LI YAN DIAN XIAN DIAN LAN YOU XIAN GONG SI)	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2002010 105013152 Tested with appliance
Alternative	Qing Dao Riken Wire & Cable Co., Ltd. (QING DAO LI YAN DIAN XIAN DIAN LAN YOU XIAN GONG SI)	UL1569	16/18/20/22/24/ 26/28AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E212103 Tested with appliance
Alternative	Qing Dao Riken Wire & Cable Co., Ltd. (QING DAO LI YAN DIAN XIAN DIAN LAN YOU XIAN GONG SI)	UL1015	14/16/18/20/22/2 4AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E212103 Tested with appliance
Alternative	Wenzhou Hutai Electronic Co., Ltd	60227 IEC 08(RV)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2003010 105099691 Tested with appliance

Alternative	Wenzhou Hutai Electronic Co.,Ltd	UL1569	16/18/20/22 AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E238824 Tested with appliance
Alternative	Weihai Honglin Electronic Co.,Ltd.	UL1015	16/18/20/22 AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E239426 Tested with appliance
Alternative	XinYa Electronic Co.,Ltd	UL1015	16/18/20/22 AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E170689 Tested with appliance
Alternative	CHONGQING YONGSHENG NEW ENERGY TECHNOLOGY CO., LTD	AVR-90	0,3 mm², 300/300 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2020010 105340663 Tested with appliance
Alternative	CHONGQING YONGSHENG NEW ENERGY TECHNOLOGY CO., LTD	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2020010 105340660 Tested with appliance
Alternative	CHONGQING YONGSHENG NEW ENERGY TECHNOLOGY CO., LTD	UL1569	16/18/20/22 AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E516900 Tested with appliance
Alternative	CHONGQING YONGSHENG NEW ENERGY TECHNOLOGY CO., LTD	UL1015	16/18/20/22 AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E516900 Tested with appliance
Alternative	Linoya Electronic Technology Co., Ltd.	UL1569	16/18/20/22 AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E315619 Tested with appliance
Alternative	LONSID ELECTRIC CO., LTD	AVR-90	0,3 mm², 300/300 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2004010 105130947 Tested with appliance
Alternative	ZHEJIANG LONDA ELECTRONIC WIRE & CABLE CO LTD	AVR-90	0,3 mm², 300/300 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2014010 105727768 Tested with appliance
Alternative	XINGDA ELECTRONICS WIRE & CABLE CO LTD	AVR-90	0,3 mm², 300/300 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2002010 105012464 Tested with appliance
Alternative	JIANGSU KELONG ELECTRONIC CABLE CO LTD	AVR-90	0,3 mm², 300/300 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2016010 105838118 Tested with appliance

Alternative	TONGXIANG TANSHI ELECTRIC CO LTD	AVR-90	0,3 mm², 300/300 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2002010 105014306 Tested with appliance
Alternative	ZHEJIANG LONDA ELECTRONIC WIRE & CABLE CO LTD	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2014010 105727770 Tested with appliance
Alternative	LONSID ELECTRIC CO., LTD	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2003010 105051465 Tested with appliance
Alternative	XINGDA ELECTRONICS WIRE & CABLE CO LTD	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2002010 105012462 Tested with appliance
Alternative	JIANGSU KELONG ELECTRONIC CABLE CO LTD	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2013010 105592821 Tested with appliance
Alternative	TONGXIANG TANSHI ELECTRIC CO LTD	60227 IEC 08(RV-90)	0,5 mm², 0,75 mm², 1,0 mm², 1,5 mm², 300/500 V, 90 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CCC2002010 105014302 Tested with appliance
Alternative	LONSID ELECTRIC CO., LTD	UL1569	16/18/20/22 AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E205056 Tested with appliance
Alternative	ZHEJIANG LONDA ELECTRONIC WIRE & CABLE CO LTD	UL1569	16/18/20/22 AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E205056 Tested with appliance
Alternative	XINGDA ELECTRONICS WIRE & CABLE CO LTD	UL1569	16/18/20/22 AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E187208 Tested with appliance
Alternative	JIANGSU KELONG ELECTRONIC CABLE CO LTD	UL1569	16/18/20/22 AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E318741 Tested with appliance
Alternative	TONGXIANG TANSHI ELECTRIC CO LTD	UL1569	16/18/20/22 AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E222788 Tested with appliance

Alternative	LONSID ELECTRIC CO., LTD	UL1015	16/18/20/22 AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E205056 Tested with appliance
Alternative	ZHEJIANG LONDA ELECTRONIC WIRE & CABLE CO LTD	UL1015	16/18/20/22 AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E205056 Tested with appliance
Alternative	XINGDA ELECTRONICS WIRE & CABLE CO LTD	UL1015	16/18/20/22 AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E187208 Tested with appliance
Alternative	XINYA ELECTRONIC CO LTD	UL1015	16/18/20/22 AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E170689 Tested with appliance
Alternative	JIANGSU KELONG ELECTRONIC CABLE CO LTD	UL1015	16/18/20/22 AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E318741 Tested with appliance
Alternative	TONGXIANG TANSHI ELECTRIC CO LTD	UL1015	16/18/20/22 AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E222788 Tested with appliance
Alternative	LinoYa Electronic Technology Co., Ltd	UL1015	16/18/20/22 AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E315619 Tested with appliance
Alternative	DONGGUAN LINOYA WIRE&CABLE CO LTD	UL1015	16/18/20/22 AWG, 600 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E315618 Tested with appliance
Alternative	DONGGUAN LINOYA WIRE&CABLE CO LTD	UL1569	16/18/20/22 AWG, 300 V, 105 ºC	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E315618 Tested with appliance
Water level sensor	Huizhou Toneluck Co., Ltd	B7-2521-A004	DC 5 V	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	Tested with appliance
Alternative	Huizhou Toneluck Co., Ltd	B7-2521-A005	DC 5 V	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	Tested with appliance
Alternative	Wuhu Lejia Electrical Co., Ltd.	XQB60	DC 5 V	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	Tested with appliance
Alternative	Hefei Rishang Electrical Appliacnce Co., Ltd.	XQB48-07C	DC 5 V	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	Tested with appliance
Alternative	Selong Electric Co., Ltd.	SW-7	DC 5 V	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	Tested with appliance

Door lock	Dongguan Ark-Les Electric Components Co., Ltd.	ZV-447	250 V~,16(6) A, T85, 1E4	IEC 60730-1:1999 + A1:2003 + A2:2007 IEC 60730-2-12:2015 EN 60730-1 EN 60730-2-12	ENEC HN69244147
Alternative	Selong Electric Co., Ltd.	KM-20	250 V~, 16(6) A, T85, 1E4	IEC 60730-1:1999 + A1:2003 + A2:2007 IEC 60730-2-12:2015 EN 60730-1 EN 60730-2-12	TUV B180554831018
Water inlet valve	Zhejiang Hongchang Electrical Technology Co.,Ltd	FPE180A10	AC 220-240 V, 50/60 Hz	IEC 60730-1:1999 + A1:2003 + A2:2007 IEC 60730-2-8:2008 EN 60730-1 EN 60730-2-8	TUV R 50288699
Alternative	WuHu LeJia Electrical Co., Ltd.	FPS180D	220-240 V, 50 Hz/60 Hz	IEC 60730-1:1999 + A1:2003 + A2:2007 IEC 60730-2-8:2008 EN 60730-1 EN 60730-2-8	TUV R 50449808
Washing heater	Hangzhou Heatwell Electric Heating Technology Co., Ltd	WACES5827	220 V, 1500 W	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	VDE 40023040 Tested with appliance
Thermal link	SCHOTT Japan Corporation	SFH 162R0	AC 250 V, 15 A, Tf167 °C	IEC 60691:2015 + A1:2019 EN 60691	VDE 40035885
Alternative	SCHOTT Japan Corporation	SF167R0/SF167R1	AC 250 V, 10 A, 15 A, Tf167 °C	IEC 60691:2015 + A1:2019 EN 60691	VDE 40035880
Alternative	SCHOTT Japan Corporation	SF169L/SF169L-1	AC 250 V, 10 A, 15 A, Tf172 °C	IEC 60691:2015 + A1:2019 EN 60691	VDE 40020519
Alternative	SCHOTT Japan Corporation	SF184R0/SF184R1	AC 250 V 10 A, 15 A, Tf184 °C	IEC 60691:2015 + A1:2019 EN 60691	VDE 40035880
Alternative	SCHOTT Japan Corporation	SF184L/SF184L-1	AC 250 V, 10 A, 15 A, Tf184 °C	IEC 60691:2015 + A1:2019 EN 60691	VDE 40020519

Alternative	Therm-O-Disc Europe B.V.	G4 serie	250 V, 10 A, Tf167 °C	IEC 60691:2015 + A1:2019 EN 60691	VDE 40017228
Alternative	Therm-O-Disc Europe B.V.	G5 serie	250 V, 20 A, Tf167 °C	IEC 60691:2015 + A1:2019 EN 60691	VDE 40017249
Alternative	Therm-O-Disc Europe B.V.	G5 serie	250 V, 16 A, Tf184 °C	IEC 60691:2015 + A1:2019 EN 60691	VDE 40017249
Drying Heater	Anhui Ningguo Tiancheng Electric Co.,Ltd.	TCRGQ-02	230 V, 1300 W	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	VDE 40029594 Tested with appliance
Alternative	Anhui Ningguo Tiancheng Technology Development Co.,ltd	DRGQ	230 V, 1300 W	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	CQC1300210 1631 Tested with appliance
Thermal cut-out	ChangShu Xin DuAn Electric Co., Ltd.	KSDS	10 A, 250 V~; 16 A, 250 V~; 50/60 Hz, 180 °C	IEC 60730-1:1999 + A1:2003 + A2:2007 IEC 60730-2-9:2008 EN 60730-1 EN 60730-2-9	TUV R 50374776
Alternative	ChangShu Xin DuAn Electric Co., Ltd.	KSD1	10 A, 250 V~; 16 A, 250 V~; 50/60 Hz, 140 °C	IEC 60730-1:1999 + A1:2003 + A2:2007 IEC 60730-2-9:2008 EN 60730-1 EN 60730-2-9	TUV R 50374776
Alternative	ChangShu Xin DuAn Electric Co., Ltd.	KSD1	10 A, 250 V~; 16 A, 250 V~; 50/60 Hz, 130 °C	IEC 60730-1:1999 + A1:2003 + A2:2007 IEC 60730-2-9:2008 EN 60730-1 EN 60730-2-9	TUV R 50374776
Alternative	ChangShu Xin DuAn Electric Co., Ltd.	KSDS	10 A, 250 V~; 16 A, 250 V~; 50/60 Hz, 160 °C	IEC 60730-1:1999 + A1:2003 + A2:2007 IEC 60730-2-9:2008 EN 60730-1 EN 60730-2-9	TUV R 50374776
Drain pump	Hanyu Group Joint-Stock Co.,Ltd.	B12-6A	220-240 V, 50 Hz, 38 W, Class 155 (F)	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	TUV R 50115410 Tested with appliance

Alternative	Wuxi Haoli Pumps Industrial Co.,Ltd.	PX2025-5	220-240 V, 50 Hz, 30 W, S2, 15 min, Class 155 (F)	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	TUV B0995180002 Rev.03 Tested with appliance
Protector for drain pump	Jiangsu Changsheng Electric Appliance Co.,Ltd.	18AM-B	AC 250 V, 140 °C	IEC 60730-1:2013 + A1:2015 IEC 60730-2-22:2014 EN 60730-1 EN IEC 60730-2-22	VDE 40022813
Alternative	Foshan Changhong Tongli Electric Allliance Co.,Ltd	KW-A1	AC 250 V, 140 °C	IEC 60730-1:2013 + A1:2015 IEC 60730-2-22:2014 EN 60730-1 EN IEC 60730-2-22	VDE 40020906
Alternative	Foshan Eagle Technology Co.Ltd.	AMT-11	AC 250 V, 140 °C	IEC 60730-1:2013 + A1:2015 IEC 60730-2-22:2014 EN 60730-1 EN IEC 60730-2-22	VDE 40023315
Alternative	Changzhou Xindu Electronics Co.,Ltd.	CW-II*	AC 250 V, 85 °C	IEC 60730-1:2013 + A1:2015 IEC 60730-2-22:2014 EN 60730-1 EN IEC 60730-2-22	VDE 40000497
Alternative	Jiangsu Changsheng Electric Appliance Co.,Ltd.	18AM-B	AC 250 V, 85 °C	IEC 60730-1:2013 + A1:2015 IEC 60730-2-22:2014 EN 60730-1 EN IEC 60730-2-22	VDE 40022813
Fan Motor	KELI MOTOR GROUP CO., LTD.	YJ72-20AHT01	220-240 V, 50/60 Hz, INPUT: 48 W, OUTPUT: 10 W, Class H	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	Test with appliance

Protector for fan motor	JIANGSU CHANGSHENG ELECTRIC APPLIANCE CO.LTD.	17AM-D	170 °C, 250 VAC	IEC 60730-1:2013 + A1:2015 IEC 60730-2-22:2014 EN 60730-1 EN IEC 60730-2-22	VDE 40016509
Alternative	CHANGZHOU AINUO ELECTRONICS TECHNICAL CO., LTD.	17AM	170 °C, 250 VAC	IEC 60730-1:2013 + A1:2015 IEC 60730-2-22:2014 EN 60730-1 EN IEC 60730-2-22	VDE 40030705
EMI Filter	Aerodev Electromagnetic Tech. Inc.	DNF06-Q(AHLF)	250 V~, 12 A, 25/100/21, 4 mH	IEC 60939-1:2010 IEC 60939-2:2005 EN 60939-1 EN 60939-2	SEMKO 1805745
Alternative	Qingdao Yunlu Energy Technology Co., Ltd.	NFT-QAHNFB	250 V~, 12 A, 25/100/21, 4 mH	IEC 60939-1:2010 IEC 60939-2:2005 EN 60939-1 EN 60939-2	TUV R 50190971
Alternative	Aerodev Electromagnetic Tech. Inc.	DNF06-Q(RALFB)	250 V~, 12 A, 25/085/21, 4 mH	IEC 60939-1:2010 IEC 60939-2:2005 EN 60939-1 EN 60939-2	SEMKO 1805745
Alternative	Qingdao Yunlu Energy Technology Co., Ltd.	NFT-QRONAA	250 V~, 12 A, 25/100/21, 4 mH	IEC 60939-1:2010 IEC 60939-2:2005 EN 60939-1 EN 60939-2	TUV R 50190971
Alternative	BaojiCity Ruitong Electrical Appliances Co..LTD.	NFT-QAHNFB	250 V, 12 A, 4 mH, 25/85/21	IEC 60939-1:2010 IEC 60939-2:2005 EN 60939-1 EN 60939-2	TUV R 50550530
Alternative	BaojiCity Ruitong Electrical Appliances Co..LTD.	NFT-QRONAA	250 V, 12 A, 4 mH, 25/85/21	IEC 60939-1:2010 IEC 60939-2:2005 EN 60939-1 EN 60939-2	TUV R 50550530

Main motor	Huzhou Nanyang Electric Motor Co. , Ltd	WDHX350FA	AC 220-240 V, 50/60 Hz, 4,0 A MAX, Class F, IP00, Washing: DC310 V, 2,0 A, 60 W, 500 r/min, S3, 60%, Spin: DC310 V, 2,5A, 350 W, 13000 r/min, S2, 5 min	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	TUV B061402 0002 Tested with appliance
Inverter PCB for WDHX350FA					
Washing machine Single Inverter Board	Guangzhou Shikun Electronics Co., Ltd	S.XG10BN.2	220-240 V~, 50/60 Hz, 4,0 A Max	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	JPTUV-120738 Test with appliance
PCB	Longnan Champion Asia Electronic Technology Co Ltd.	F-D	V-0, 130 °C	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E254215 Tested with appliance
Alternative	ZHUHAI KINGSUN ELECTRONICS AND TECHNOLOGY CO LTD	KS-D, KS-D1, KS-D2	V-0, 130 °C	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	UL E465853 Tested with appliance
X Capacitor (CX2, CX1)	Shenzhen Jinghao Capacitor Co., Ltd.	CBB62B	0,1 uF, 280 VAC, T110	EN 60384-14 IEC 60384-14:2013 + A1:2016	VDE 40018690
Alternative	Carli Electronics Co., Ltd.	MPX	0,1 uF, 275VAC, T100	EN 60384-14 IEC 60384-14:2013 + A1:2016	VDE 40008520
Alternative	Guangdong Fengming Electronic Tech Co., Ltd.	MKP-X2	0,1 uF, 275VAC, T105	EN 60384-14 IEC 60384-14:2013 + A1:2016	VDE 40025702
Alternative	Xiamen Faratronic Co. Ltd.	MKP62	0,1 uF, 305 VAC, T110	EN 60384-14 IEC 60384-14:2013 + A1:2016	VDE 40000358
Relay (RL1)	Dongguan Sanyou Electrical Appliance Co., Ltd.	SJ-SH-112DMH-F-C1	10 A, 250 VAC, 100000 cycles, T85	EN 61810-1 IEC 61810-1:2015 + A1:2019	TUV R 50142420
Alternative	Sanyou Corporation Limited	SRD-S-112DM	10 A, 250 VAC, 100000 cycles, T85	EN 61810-1 IEC 61810-1:2015 + A1:2019	VDE 40034479

Alternative	Sanyou Corporation Limited	SJ-SH-112DMH2	10 A, 250 VAC, 100000 cycles, T85	EN 61810-1 IEC 61810-1:2015 + A1:2019	VDE 40002146
Alternative	Xiamen Hongfa Electroacoustic Co., Ltd.	HF3FA	10 A, 250 VAC, 100000 cycles, T85	EN 61810-1 IEC 61810-1:2015 + A1:2019	VDE 40023708
Control board	JiangSu Guangzhong Electronic Technology Co., Ltd	CJB-G1-HX-004	220-240 VAC, 50/60 Hz	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	Tested with appliance
Alternative	Nanjing changdecheng electric appliances Co., LTD	CDCG-F8-HX-02	220 VAC, 50/60 Hz	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	Tested with appliance
RC unit	Shanghai Xiang Ri Ya Electronic Co., Ltd.	MPRCS	10 nF, 56 Ω, 300 VAC, T85	IEC/EN 60384-14	ENEC 2018058
Alternative	Shanghai Xiang Ri Ya Electronic Co., Ltd.	MPRCS	4n7F, 100 Ω, 300 VAC, T85	IEC/EN 60384-14	ENEC 2018058
PCB material	KINGBOARD LAMINATES HOLDINGS LTD.	CEM-1	Thickness: 1,6 mm, FV-0, KB-5150&	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	VDE 40040433 Tested with appliance
Alternative	Kingboard Lamiantes Holdings Limited	KB-5150	1,6 mm, FV-0	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	VDE 40040433 Tested with appliance
Alternative	Shantou Fenglida Electronic Technology Co., Ltd	KB-5150	1,6 mm-3,2 mm, V-0, 160 °C	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	VDE 40040433 Tested with appliance
Alternative	Kingboard Laminates Holdings Llimited	KB-5150	0,8-3,2 mm, FV-0	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	VDE 40040433 Tested with appliance
Alternative	Shengyi Technology Co., Ltd.	S3110	0,7-3,2 mm, FV-0	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	VDE 40010780 Tested with appliance
Alternative	Kingboard Laminates Holdings Llimited	panchromatic	KB-5150, 1,6 mm, FV-0	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	VDE 40040433 Tested with appliance
Relay	XIAMEN HONGFA ELECTOACOUSTIC CO., LTD	HF32F-G 012-HS	10 A, 250 VAC, 10 A, 30 VDC, T85, 5E4	EN 61810-1 IEC 61810-1:2015 + A1:2019	VDE 40012204

Alternative	XIAMEN HONGFA ELECTOACOUSTIC CO.,LTD	HF3FD 012-Z3F(576)	10 A, 250 VAC, 85 ºC, 6 A, 250 VAC, 105 ºC, 5E4	EN 61810-1 IEC 61810-1:2015 + A1:2019	VDE 40014057
Alternative	Xiamen Hongfa Electroacoustics Co., Ltd.	HF3FD 012-ZSTF	10 A, 250 VAC, T85, 5E4	EN 61810-1 IEC 61810-1:2015 + A1:2019	VDE 40014057
Alternative	XIAMEN HONGFA ELECTOACOUSTIC CO., LTD	HF32F(JZC-32F) series	12 V, 10 A, 250 VAC, -40 ºC ~85 ºC, 50000 cycles	EN 61810-1 IEC 61810-1:2015 + A1:2019	VDE 40012204
Alternative	XIAMEN HONGFA ELECTROACOUSTIC CO., LTD	HF3FD series	10 A, 250 V, -40 ºC~85 ºC, 50000 cycles	EN 61810-1 IEC 61810-1:2015 + A1:2019	VDE 40014057
Varistor	BestBright Electronics Co., Ltd.	561KD14J	560 VDC, 600 mW, T105	IEC 61051-1:2007 IEC 61051-2: 1991 + A1:2009 IEC 61051-2-2:1991	VDE 40050493
Alternative	BestBright Electronics Co., Ltd.	561KD14	560 V, 600 mW, T105	IEC 61051-1:2007 IEC 61051-2: 1991 + A1:2009 IEC 61051-2-2:1991	VDE 40050493
Alternative	Thinking Electronic Industrial Co., Ltd.	TVR14561*	560 V, 600 mW, T85	IEC 61051-1:2007 IEC 61051-2: 1991 + A1:2009 IEC 61051-2-2:1991	VDE 40021243
Alternative	Thinking Electronic Industrial Co., Ltd.	TVR14561	560 V, 0,6 W, T85	IEC 61051-1:2007 IEC 61051-2: 1991 + A1:2009 IEC 61051-2-2:1991	TUV J 50411784
X2 Capacitor	ShangHai XiangRiYa Electronic Co.,Ltd.NanTong Branch	MPX/MKP X2	220 nF, 275 VAC, T100	EN 60384-14 IEC 60384-14:2013 + A1:2016	VDE 40001876
Alternative	ShangHai XiangRiYa Electronic Co.,Ltd.NanTong Branch	MPX/MKP X2	100 nF, 275 VAC, T100	EN 60384-14 IEC 60384-14:2013 + A1:2016	VDE 40001876
Alternative	ShangHai XiangRiYa Electronic Co.,Ltd.	MPX/MKP X2	10 nF, 275VAC, T100	EN 60384-14 IEC 60384-14:2013 + A1:2016	VDE 40001876

Alternative	ShangHai XiangRiYa Electronic Co.,Ltd.NanTong Branch	MPX/MKP X2	4n7F, 275 VAC, T100	EN 60384-14 IEC 60384-14:2013 + A1:2016	VDE 40001876
Alternative	NANJING TENGEN RONG GUANG DA ELECTRONIC SALES CO., LTD.	MKP series	0,1 uF, 275 VAC, X2, -40~110 ºC	EN 60384-14 IEC 60384-14:2013 + A1:2016	VDE 40049725
Reactor	Aerodev Electromagnetic Tech. Inc	ADL124-12-2	4 A, 3 mH	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	Tested with appliance
Alternative	Qingdao Yunlu Energy Technology Co., Ltd	DMG-004C03-HSB0	4 A, 3 mH	IEC 60335-1 IEC 60335-2-7 IEC 60335-2-11	Tested with appliance
Water hose set	Wuxi Jinhua Yiyuan Technology Co., Ltd.	GJS-150CX	PVC, 3/4'', 25 ºC	IEC 61770:2008 + A1:2015 EN 61770	VDE 40003534

Supplementary information:

1. Provided evidence ensures the agreed level of compliance. See OD-CB2039.
2. License available upon request.
3. All the British plugs must be fitted with approved BS 1362 fuse-links having a rating appropriate to the cord fitted in accordance with table 2 of BS 1363-1.

28.1	TABLE: Threaded part torque test		P
Threaded part identification:	**Diameter of thread (mm)**	**Column number (I, II, or III)**	**Applied torque (Nm)**
Screw for enclosure	3,9	II	1,2
Screw for earthing	3,9	II	1,2
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**	—	—	—	—	—
500	0,2* / 0,5 / 0,8**	—	—	—	—	—
800	0,2* / 0,5 / 0,8**	—	—	—	—	—
1 500	0,5 / 0,8** / 1,0***	—	—	—	—	—
2 500	**1,5** / 2,0***	4,0	6,3	—	2,3	P
4 000	**3,0** / 3,5***	—	—	16,3	—	P
6 000	5,5 / 6,0***	—	—	—	—	—
8 000	8,0 / 8,5***	—	—	—	—	—
10 000	11,0 / 11,5***	—	—	—	—	—

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**			**Verdict**
		Material group			**Material group**						
		I	**II**	**IIIa/IIIb**	**I**	**II**	**IIIa/IIIb***	**B****	**S****	**R****	
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9		—	—	N/A
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9	—		—	N/A
≤50	0,36	1,2	1,7	2,4	3,0	3,4	3,8	—	—		N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4		—	—	N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4	—		—	N/A
125	0,56	1,5	2,1	3,0	3,8	4,2	4,8	—	—		N/A
250	0,56	1,25	1,8	2,5	3,2	3,6	**4,0(2,0 for motor)**	4,0	—	—	P
250	0,56	1,25	1,8	2,5	3,2	3,6	**4,0**	—	7,8	—	P
250	1,12	2,5	3,6	5,0	6,4	7,2	**8,0**	—	—	17,5	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

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

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			Verdict
		Material group			Material group						
		I	II	IIIa/IIIb	I	II	IIIa/IIIb*	B**	S**	R**	
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**							**Verdict / Remark**
	1	**2**			**3**			
		Material group			**Material group**			
		I	**II**	**IIIa/IIIb**	**I**	**II**	**IIIa/IIIb***	
≤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	3,2	P (2,3 mm)
400	0,75	1,6	2,2	3,2	4,0	4,5	5,0	N/A
500	1,0	2,0	2,8	4,0	5,0	5,6	6,3	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	N/A
Supplementary information: *) Material group IIIb is allowed if the working voltage does not exceed 50 V								

30.1	TABLE: Ball Pressure Test of Thermoplastics		P
Allowed impression diameter (mm) ..... :		2	—
Object/ Part No./ Material	**Manufacturer/ trademark**	**Test temperature (°C)**	**Impression diameter (mm)**
Plastic enclosure/ Control panel	—	75	1,2
Drum	—	90,9	1,1
Connector	—	125	1,2
Water level sensor	See table 24.1	125	1,4

EMI Filter	See table 24.1	125	1,6
Fan motor bobbin	See table 24.1	125	1,2
Washing motor bobbin	See table 24.1	125	1,4
Drain pump	See table 24.1	125	1,2
Reactor	See table 24.1	125	0,9
Supplementary information: The most unfavourable results were recorded.			

30.2	**TABLE: Resistance to heat and fire - Glow wire tests**							P
Object/ Part No./ Material	**Manufacturer / trademark**	**Glow wire test (GWT); (°C)**						**Verdict**
		550	**650**		**750**		**850**	
			te	**ti**	**te**	**ti**		
Plastic enclosure/ Control pane	—	X	—	—	—	—	—	P
Barrel	—	X	—	—	—	—	—	P
Connector	See table 24.1	—	—	—	0s	0s	X	P
Water level sensor	See table 24.1	—	0s	0s	—	—	—	P
Door interlock	See table 24.1	—	—	—	0s	0s	X	P
Filter	See table 24.1	—	—	—	0s	0s	X	P
Relay	See table 24.1	—	—	—	0s	0s	X	P
RC unit	See table 24.1	—	—	—	0s	0s	X	P
Reactor	See table 24.1	—	—	—	0s	0s	X	P
Drain pump	See table 24.1	—	—	—	0s	0s	X	P
Water inlet valve	See table 24.1	—	0s	0s	—	—	—	P
X2 capacitor	See table 24.1	—	—	—	0s	0s	X	P
Varistor	See table 24.1	—	—	—	0s	0s	X	P
Main motor bobbin	See table 24.1	—	—	—	0s	0s	X	P
Fan motor bobbin	See table 24.1	—	—	—	0s	0s	X	P
Thermal cut-out	See table 24.1	—	—	—	0s	0s	X	P

Object/ Part No./ Material	Manufacturer / trademark	Glow-wire flammability index (GWFI), °C				GW ignition temp. (GWIT), °C		Verdict
		550	650	750	850	675	775	
—	—	—	—	—	—	—	—	—
The test specimen passed the glow wire test (GWT) with no ignition [($t_e - t_i$) ≤ 2s] (Yes/No):								Yes
If no, then surrounding parts passed the needle-flame test of annex E (Yes/No)..... :								N/A
The test specimen passed the test by virtue of most of the flaming material being withdrawn with the glow-wire (Yes/No)? ..... :								Yes
Ignition of the specified layer placed underneath the test specimen (Yes/No)..... :								No
Supplementary information: - 550 °C GWT not relevant (or applicable) to parts of material classified at least HB40 or if relevant HBF - The GWIT pre-selection option, the 850 °C GWFI pre-selection option, and the 850 °C GWT are not relevant (or applicable) for attended appliances								

30.2/30.2.4	TABLE: Needle- flame test (NFT)				P
Object/ Part No./ Material	**Manufacturer/ trademark**	**Duration of application of test flame (ta); (s)**	**Ignition of specified layer Yes/No**	**Duration of burning (tb) (s)**	**Verdict**
PCB	See table 24.1	30	No	4	P
Supplementary information: - NFT not relevant (or applicable) for Parts of material classified as V-0 or V-1 - NFT not relevant (or applicable) for Base material of PCBs classified as V-0 or if relevant VTM-0					

Attachment 1: Photos

Front view (for all models except for external colours)

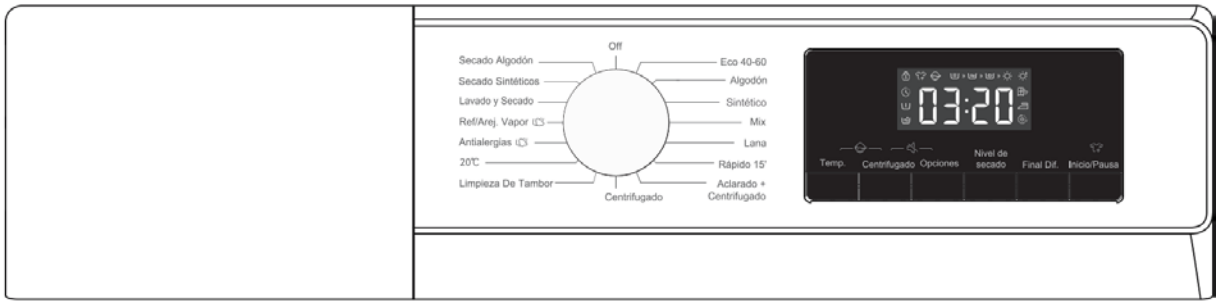
Side view (for all models except for external colours)

Attachment 1: Photos

Another side view (for all models except for external colours)

Back view (for all models except for external colours)

Attachment 1: Photos



Control panel (for all models except for external colours)

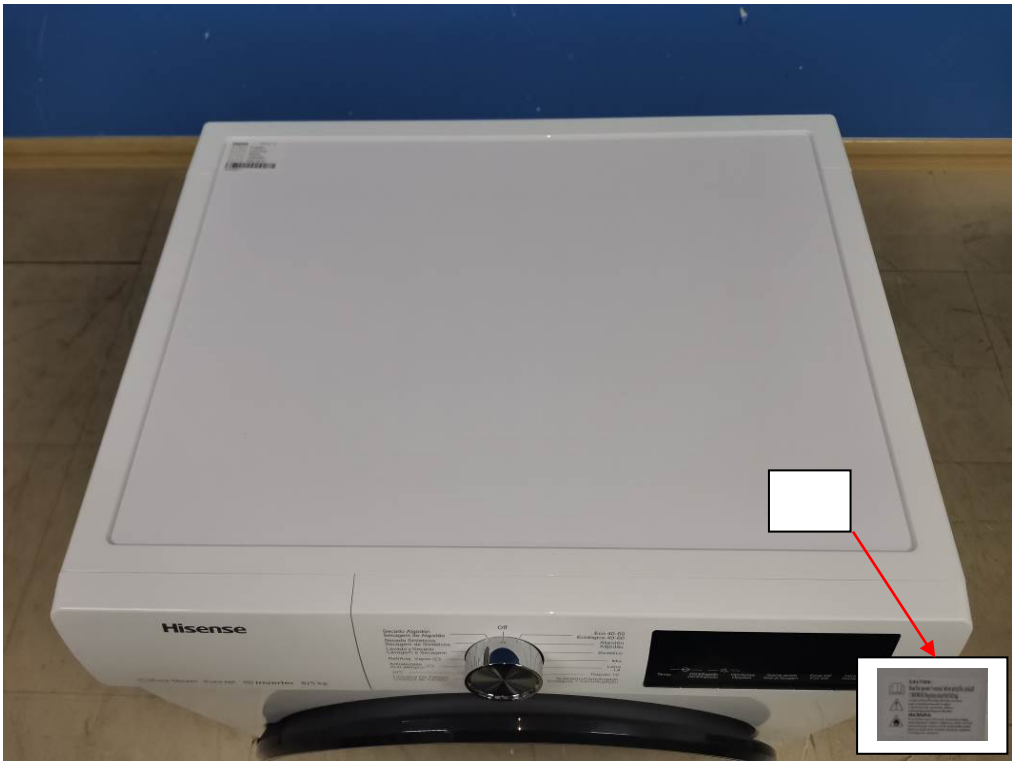
Open view (for all models except for external colours)

Attachment 1: Photos

Drum

Filter compartment

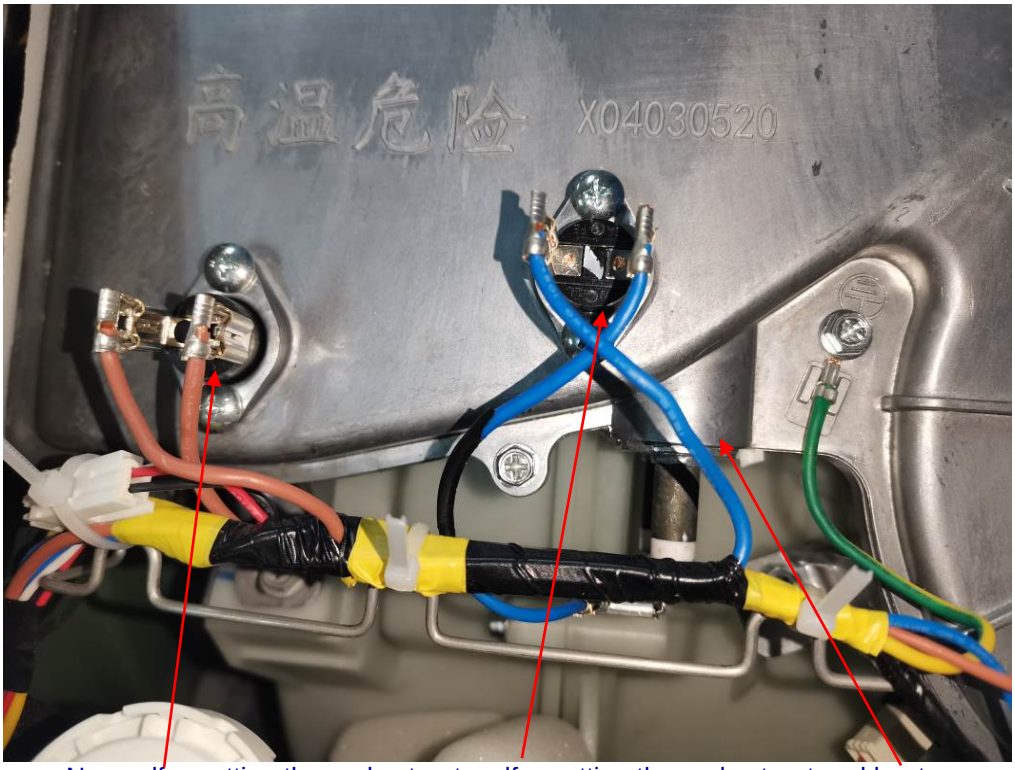
Attachment 1: Photos



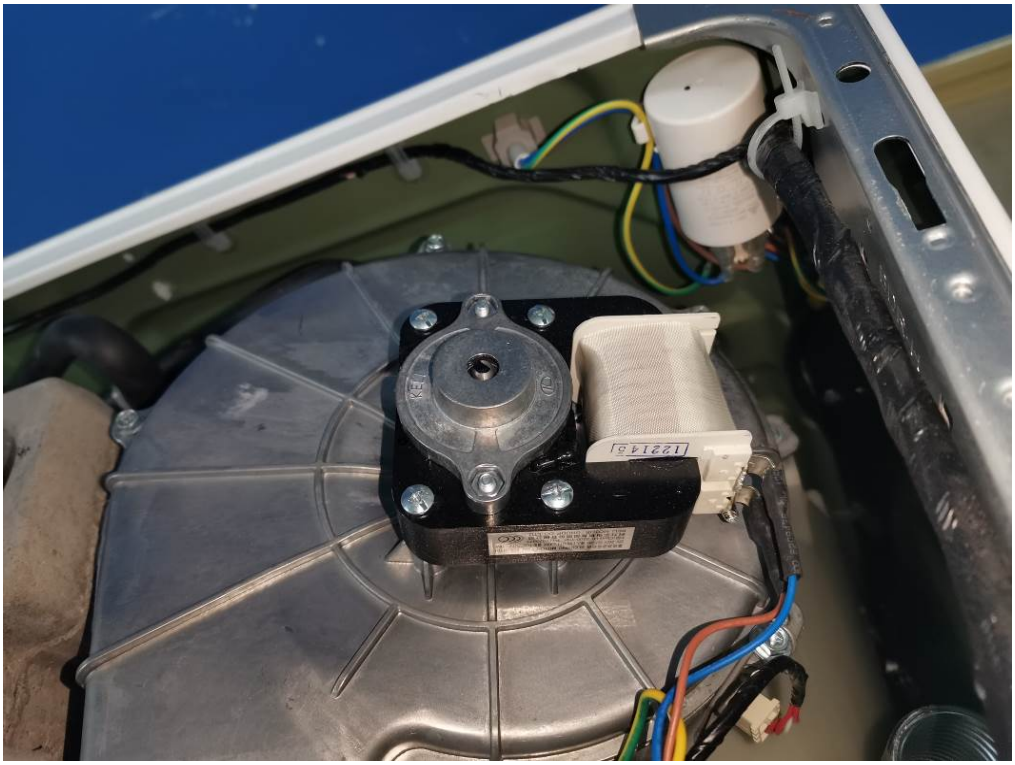
Top view (for all models except for external colours)

Top open view

Attachment 1: Photos



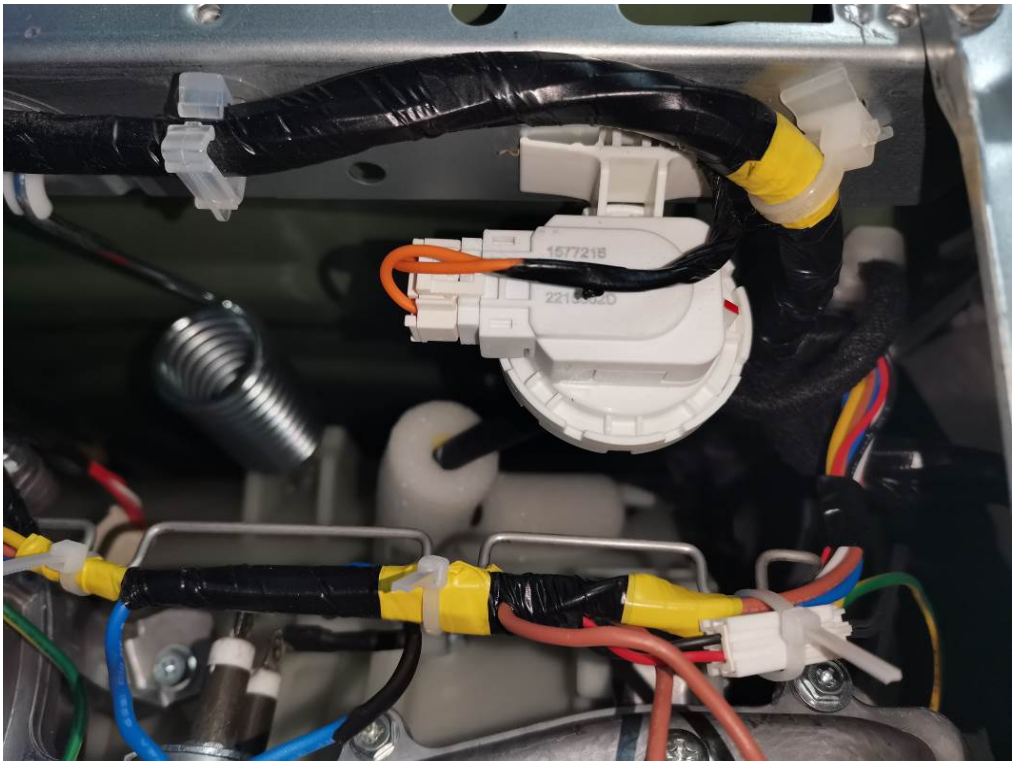
Non-self-resetting thermal cut-out, self-resetting thermal cut-out and heater



Fan motor

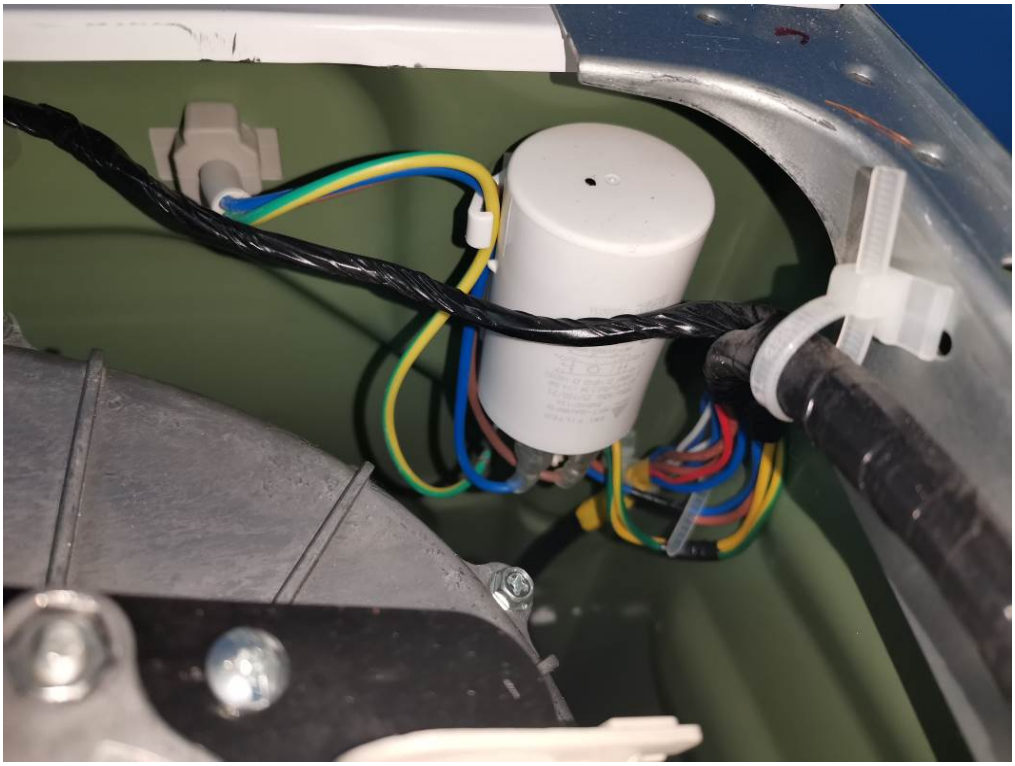
Attachment 1: Photos

Water inlet view

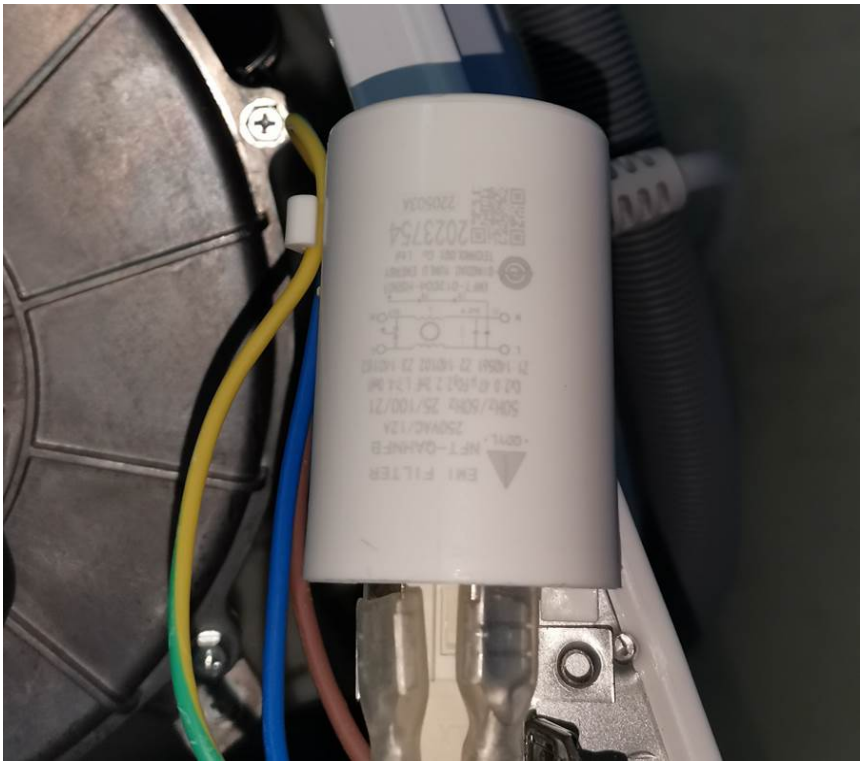


Water level sensor

Attachment 1: Photos

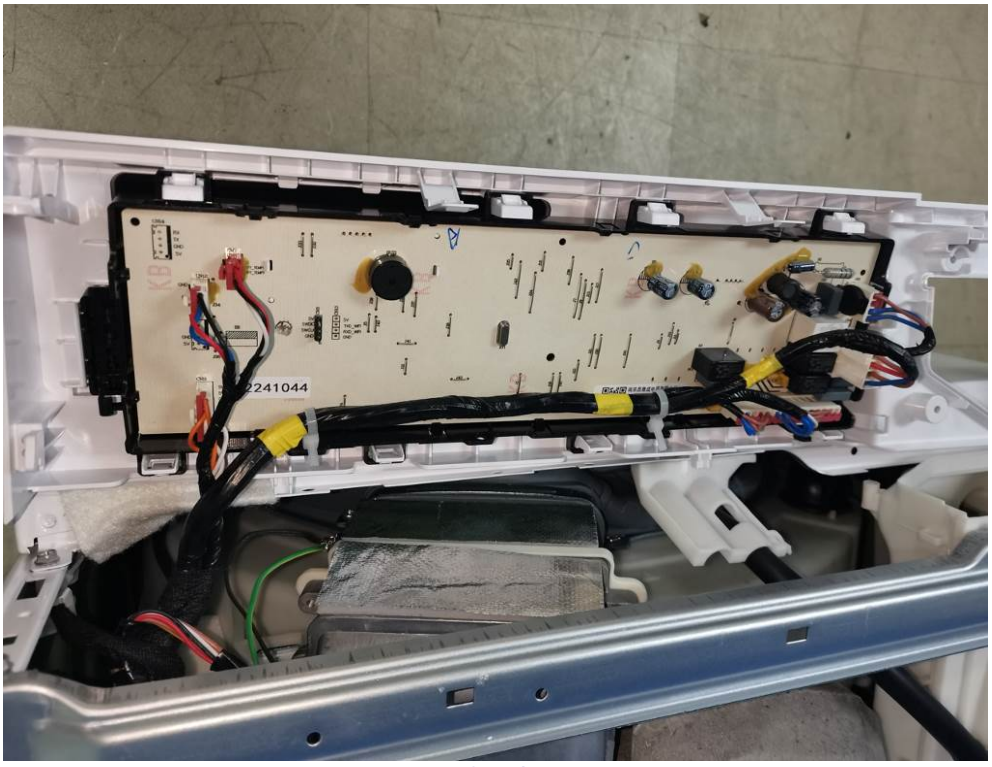


EMI filter



EMI filter

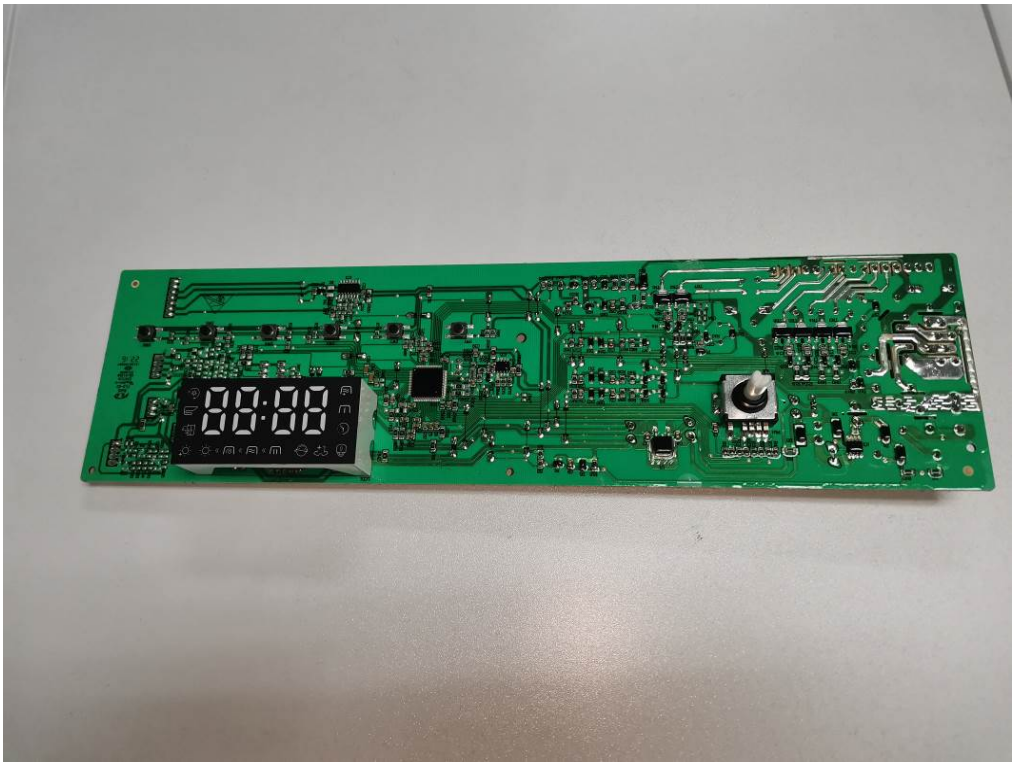
Attachment 1: Photos



Rear of main PCB

Main PCB

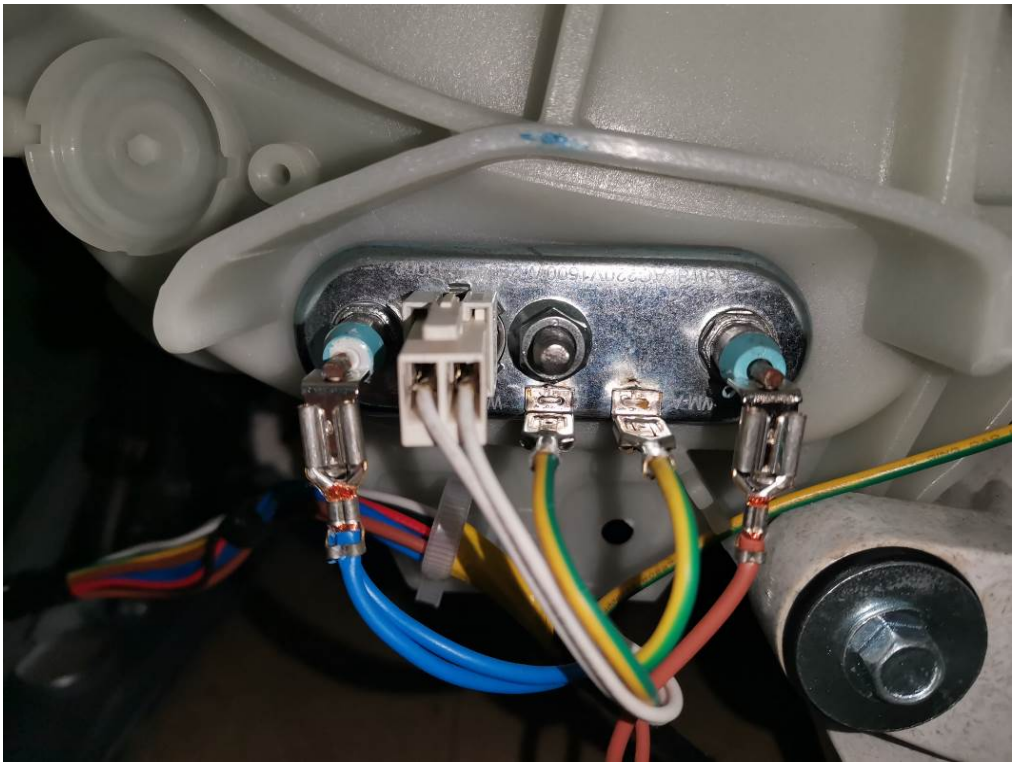
Attachment 1: Photos



Main PCB

Rear open view

Attachment 1: Photos

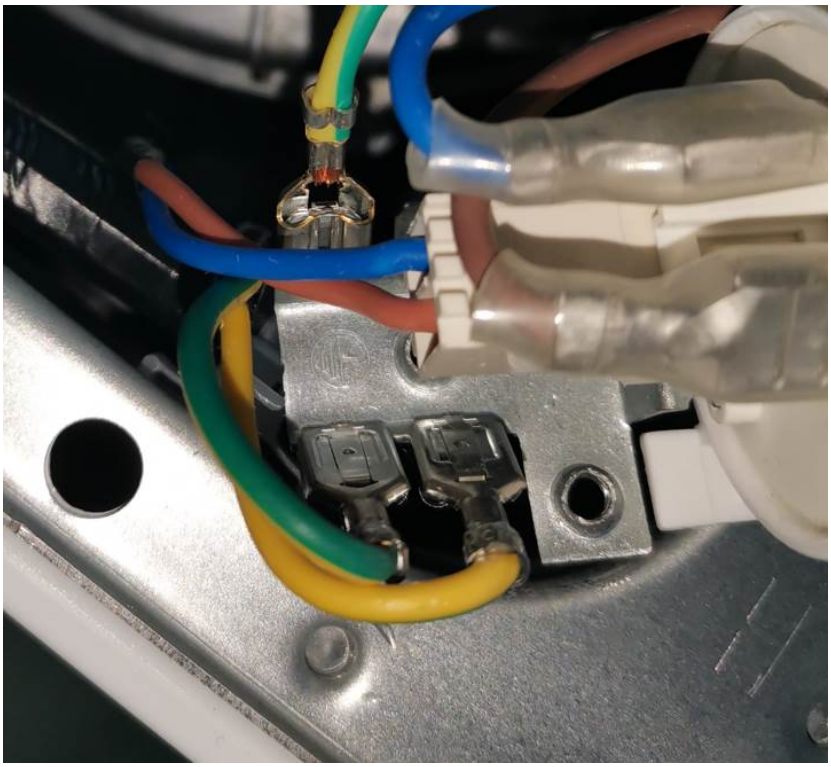


Washing heater

Cord anchorage

Attachment 1: Photos

Earthing



Earthing

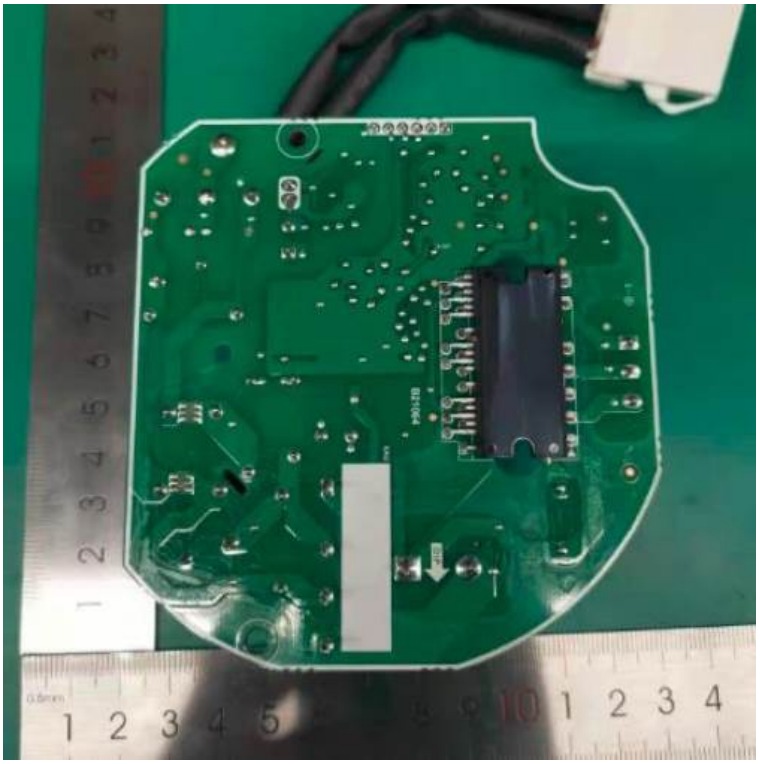
Attachment 1: Photos

Bottom view

Main motor and inverter PCB

Attachment 1: Photos

Inverter PCB



Inverter PCB

Attachment 1: Photos

Drian pump

Reactor

--End of report--