Test Report issued under the responsibility of:

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TEST REPORT
IEC 60335-2-85
Safety of household and similar electrical appliances
Part 2: Particular requirements for fabric steamers

Report Number. .....:	180900469SHA-001
Date of issue .....:	2018-10-26; Amendment 8: 2023-06-20
Total number of pages.....	53 pages of test report (included 13 pages of photographs)
Applicant's name ..... :	
Address .....:	N
Test specification:	
Standard .....:	(IEC 60335-2-85:2002 (Second edition) + A1:2008 used in conjunction with IEC 60335-1:2010 (Fifth Edition)+A1:2013+ A2:2016) EN 60335-2-85:2003+A1:2008+A11:2018+A2:2020 used in conjunction with EN 60335-1:2012+A11:2014+A13:2017+A1:2019+ A2:2019+A14:2019+A15:2021 EN 62233:2008
Test procedure .....:	-
Non-standard test method.....:	EK1 454-09
Test Report Form No.....:	IEC60335_2_85D
Test Report Form(s) Originator.....:	SLG
Master TRF .....:	Dated 2014-04

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.
This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description .....:	Steam brush (fabric steamer)
Trade Mark .....:	--
Manufacturer.....:	
Model/Type reference .....:	DF-019, DF-019A, DF-019C, DF-021, DF-020, DF-020A
Ratings .....:	220-240V~, 50-60Hz, Class I DF-019, DF-019A, DF-020: 1100W; DF-021: 1200W; DF-019C, DF-020A: 1500W

Testing procedure and testing location:			
☒	**Testing Laboratory:**	Intertek Testing Services Shanghai Limited.	
Testing location/ address ..... :		Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, P.R. China	
☐	**Associated CB Testing Laboratory:**	N/A	
Testing location/ address ..... :		N/A	
Tested by (name + signature) ..... :		Andy Huo	
Approved by (name + signature) ..... :		Chain Zhang	
☐	**Testing procedure: TMP/CTF Stage 1:**	N/A	
Testing location/ address ..... :		N/A	
Tested by (name + signature) ..... :		N/A	
Approved by (name + signature) ..... :		N/A	
☐	**Testing procedure: WMT/CTF Stage 2:**	N/A	
Testing location/ address ..... :		N/A	
Tested by (name + signature) ..... :		N/A	
Witnessed by (name + signature) ..... :		N/A	
Approved by (name + signature) ..... :		N/A	
☐	**Testing procedure: SMT/CTF Stage 3 or 4:**	N/A	
Testing location/ address ..... :		N/A	
Tested by (name + signature) ..... :		N/A	
Witnessed by (name + signature) ..... :		N/A	
Approved by (name + signature) ..... :		N/A	
Supervised by (name + signature)..... :		N/A	

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

None

Summary of testing:

From the result of our inspection and tests on the submitted samples, we conclude that they comply with the requirements of the standards.

Tests performed (name of test and test clause):	**Testing location:**
Refer to Amendment 8 (in page 5).	Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, P. R. China

Summary of compliance with National Differences:

List of countries addressed

National difference of German concerned.

☒ **The product fulfils the requirements of** EN 60335-2-85:2003+A1:2008+A11:2018+A2: 2020 used in conjunction with EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A2:2019+A14:2019+A15:2021 and EN 62233:2008

Copy of marking plate:

Representative

Note: When the equipment is vended to EU, then name and address of the importer or authorized representative within the EEA shall be added on the equipment.

Test item particulars ..... :	
Classification of installation and use ..... :	Class I, household and indoor used, hand-held
Supply Connection ..... :	Type Y
..... :	
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.....:	2023-04-04
Date (s) of performance of tests .....:	2023-04-06 to 2023-06-19

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(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.
Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.

The services are provided subject to the terms and condition of the company, which can be furnished upon request.

PAH test according to AfPS GS 2019:01 PAK is considered and passed, please refer to PAH test report 200703195SHA-001-PAH, 200703195SHA-001-PAH+A1, 200703195SHA-001-PAH+A2, 200703195SHA-001-PAH+A3, 200703195SHA-001-PAH+A4.

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) .....:

General product information:

The products tested in this test report are considered as hand-held steam brush (fabric steamer) for household and indoor use. All of them incorporate a thermostat and a thermal link to safeguard themselves. All of them have similar construction.

Model similarity:

1. DF-019 has a small pump which controlled by PCB board and a steam switch, it supply water to heating parts, then the steam spray out.
2. DF-019A has a small pump which controlled by a power switch and a steam switch, it supply water to heating parts, then the steam spray out.
3. DF-019C is same as DF-019A, except the rated power input.
4. DF-021 has a different appearance to DF-019 series. It has a foldable handle, but DF-019 series do not have.
5. DF-020 series and DF-019 series share similar appearance and structure.
6. DF-020 is same as DF-020A, except the rated power input.

Amendment 8:

The original test report ref. No. 180900469SHA-001, dated on 2018-10-26, with amendment 1, dated on 2019-04-30, with amendment 2, dated on 2020-08-13, with amendment 3, dated on 2021-03-26, with amendment 4, dated on 2021-05-19, with amendment 5, dated on 2021-09-23, with amendment 6, dated on 2021-10-29, with amendment 7, dated on 2022-04-27, was modified on 2023-06-20 to including the following addition:

1. Added two models: DF-020, DF-020A.

2. Added alternative pump (for DF-019, DF-019A, DF-019C, DF-020, DF-020A), pump (only for DF-019A).

3. Updated standard EN 60335-1 from “EN 60335-1:2012+A11:2014+A13:2017 +A1:2019+A2:2019 +A14:2019” to “EN 60335-1:2012+A11:2014+A13:2017 +A1:2019+A2:2019+A14:2019+A15:2021”.

4. Updated table 24.1 and PAH report.

After evaluation, DF-020A with pump DJMP-2 is selected as representative model subjected to all tests and DF-019A with pump EJ-01, DF-020 are also tested for relevant tests if mentioned, finally only the most unfavourable results are recorded

Clause concerned: Cl.7, 8, 10, 11, 13, 15, 16, 19, 21, 22, 25, 27, EMF and new standard clause need to be conducted, other clauses which not mentioned in the report were referred to original test report.

Table concerned: Table 10.1, 11.8, 13.2, 13.3, 16.2, 16.3, 19, 19.7, 19.13, 21.1, 24.1, 29.1, 29.2, 30.2.

All temperature rises for Cl30.1 are lower than tested in original test report.

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict

7	MARKING AND INSTRUCTIONS		
7.1	Rated voltage or voltage range (V) ....:	220-240	P
	Symbol for nature of supply, or ....:	~	P
	Rated frequency (Hz) ....:	50-60	P
	Rated power input (W), or ....:	Refer to marking plate	P
	Rated current (A) ....:		N/A
	Manufacturer's or responsible vendor's name, trademark or identification mark..... .....:	Refer to marking plate	P
	Model or type reference ....:	Refer to marking plate	P
	Symbol IEC 60417-5172, for class II appliances		N/A
	IP number, other than IPX0..... .....:	IPX0	N/A
	Symbol IEC 60417-5180, for class III appliances, unless		N/A
	the appliance is operated by batteries only		N/A
	Symbol IEC 60417-5036, for the enclosure of electrically-operated water valves in external hose-sets for connection of an appliance to the water mains, if the working voltage exceeds extra-low voltage		N/A
	Electrode-type appliances shall be marked with their rated power input (IEC 60335-2-85:2002) ..... :		N/A
7.2	Warning for stationary appliances for multiple supply		N/A
	Warning placed in vicinity of terminal cover		N/A
7.3	Range of rated values marked with the lower and upper limits separated by a hyphen	220-240V, 50-60Hz	P
	Different rated values marked with the values separated by an oblique stroke		N/A
7.5	Appliances with more than one rated voltage or one or more rated voltage ranges, marked with rated input or rated current for each rated voltage or range, unless		N/A
	the power input is related to the arithmetic mean value of the rated voltage range		P
	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

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
	Symbol for class II appliances placed unlikely to be confused with other marking		N/A
	Units of physical quantities and their symbols according to international standardized system		P
7.8	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 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..... .....:	Refer to photo	P
	This applies also to switches which are part of a control		P
	If figures are used, the off position indicated by the figure 0		P
	The figure 0 indicates only OFF position, unless no confusion with the OFF position		P
7.12	Instructions for safe use provided		P
	Details concerning precautions during user maintenance		P
	The instructions state that:		--
	- the appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction	Replaced by EN 60335-1:2012	N/A
	- children being supervised not to play with the appliance	Replaced by EN 60335-1:2012	N/A
	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

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
	The instructions shall include details regarding filling, cleaning and descaling (IEC 60335-2-85:2002)		P
	The instructions shall state the substance of the following: (IEC 60335-2-85:2002)		--
	- care should be taken when using the appliance due to the emission of steam		P
	- unplug the appliance during filling and cleaning		P
	The instructions for electrode-type appliances shall include the substance of the following: (IEC 60335-2-85:2002)		--
	- the composition and quantity of solution to be used and advice not to use an excessive amount of salt		N/A
	- the appliance is not to be operated from a d.c. supply		N/A
	The instructions for appliances incorporating an appliance inlet, and intended to be partially or completely immersed in water for cleaning, shall state that the connector must be removed before the appliance is cleaned and the appliance inlet dried before the appliance is used again (IEC 60335-2-85:2002)		N/A
7.12.5	Replacement cord instructions, type X attachment with a specially prepared cord		N/A
	Replacement cord instructions, type Y attachment		P
	Replacement cord instructions, type Z attachment		N/A
7.13	Instructions and other texts in an official language	English & German	P
7.14	Marking clearly legible and durable, rubbing test as specified		P
7.15	Markings on a main part		P
	Marking clearly discernible from the outside, if necessary after removal of a cover		P
	For portable appliances, cover can be removed or opened without a tool		N/A
	For stationary appliances, name, trademark or identification mark and model or type reference visible after installation		N/A
	For fixed appliances, name, trademark or identification mark and model or type reference visible after installation according to the instructions		N/A
	Indications for switches and controls placed on or near the components. Marking not on parts which can be positioned or repositioned in such a way that the marking is misleading		P

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict

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 20N: no contact with live parts		P
8.1.2	Use of test probe 13 of IEC 61032, with a force not exceeding 1 N, through openings in class 0 appliances and class II appliances/constructions: no contact with live parts		P
	Test probe 13 also applied through openings in earthed metal enclosures having a non-conductive coating: no contact with live parts		P
8.2	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
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
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated power input is related to the arithmetic mean value		P
	NOTE 101: For electrode-type appliances, the negative deviation is not limited (IEC 60335-2-85:2002)		N/A
11	HEATING		
11.1	No excessive temperatures in normal use		P

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
11.2	The appliance is held, placed or fixed in position as described.....:	Hand-held	P
11.3	Temperature rises, other than of windings, determined by thermocouples		P
	Temperature rises of windings determined by resistance method, unless		N/A
	the windings are non-uniform or it is difficult to make the necessary connections	Pump	P
11.4	Heating appliances operated under normal operation at 1.15 times rated power input (W) .....:		P
	Electrode-type appliances are supplied at the most unfavourable voltage between 0,94 and 1,06 times rated voltage (IEC 60335-2-85:2002) .....:		N/A
11.7	Appliances are operated until steady conditions are established (IEC 60335-2-85:2002)		P
	Container of electrode-type appliances is refilled as quickly as possible and as many times as necessary (IEC 60335-2-85:2002)		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
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).....:		P
	Motor-operated appliances and combined appliances supplied at 1.06 times the rated voltage (V).....:		N/A
	Protective impedance and radio interference filters disconnected before carrying out the tests		N/A
	Electrode-type appliances are supplied at 1,06times rated voltage (IEC 60335-2-85:2002) ..:		N/A

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
13.2	For class 0, class II and class III appliances, leakage current measured by means of the circuit described in figure 4 of IEC 60990		N/A
	For other appliances, a low impedance ammeter may be used	Class I	P
	Leakage current measurements .....:	(see appended table)	P
	For electrode-type appliances and appliances having bare heating elements, the leakage current is measured between a metallic mesh placed in the steam 10 mm from the outlet, and accessible metal parts. Leakage current shall not exceed 0,25 mA (IEC 60335-2-85:2002)		N/A
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
15	MOISTURE RESISTANCE		
15.2	Spillage of liquid does not affect the electrical insulation		P
	Appliances with type X attachment fitted with a flexible cord as described		N/A
	Appliances incorporating an appliance inlet tested with or without an connector, whichever is most unfavourable		N/A
	Detachable parts are removed		N/A
	Overfilling test with additional amount of water, over a period of 1 min (l) .....:	0,25 l	P
	The appliance withstands the electric strength test of 16.3		P
	No trace of water on insulation that can result in a reduction of clearances or creepage distances below values specified in clause 29		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		N/A
	Humidity test for 48 h in a humidity cabinet	23ºC, R.H. 93%	P
	Reassembly of those parts that may have been removed		N/A
	The appliance withstands the tests of clause 16		P
16	LEAKAGE CURRENT AND ELECTRIC STRENGTH		

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
16.1	Leakage current not excessive and electric strength adequate		P
	Protective impedance disconnected from live parts before carrying out the tests		N/A
	Tests carried out at room temperature and not connected to the supply		P
16.2	Single-phase appliances: test voltage 1.06 times rated voltage (V).....:	254,4V	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)	N/A
16.3	Electric strength tests according to table 7 .....:	(see appended table)	P
	Test voltage applied between the supply cord and inlet bushing and cord guard and cord anchorage as specified .....:	(see appended table)	P
	No breakdown during the tests		P
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)	N/A
	Appliances incorporating heating elements subjected to the tests of 19.2 and 19.3, and		P
	if the appliance also has a control that limit the temperature during clause 11 it is subjected to the test of 19.4, and		N/A
	if applicable, to the test of 19.5		P
	Appliances incorporating PTC heating elements are also subjected to the test of 19.6		N/A

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
	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		N/A
	Appliances incorporating contactors or relays subjected to the test of 19.14, being carried out before the tests of 19.11		N/A
	Appliances incorporating voltage selector switches subjected to the test of 19.15		N/A
	Unless otherwise specified, the tests are continued until a non-self-resetting thermal cut-out operates, or		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		N/A
19.2	Test of appliances with heating elements with restricted heat dissipation; test voltage (V), power input of 0.85 times rated power input (W) .....:		P
	Appliances are placed in any stable position on a black-painted plywood board. They are filled or empty, whichever is more unfavourable (IEC 60335-2-85:2002)		P
	Container of electrode-type appliances is filled with a saturated solution of NaCl at 20°C ± 5 °C, appliance being supplied at rated voltage (IEC 60335-2-85:2002)		N/A
19.3	Test of 19.2 repeated; test voltage (V), power input of 1.24 times rated power input (W) .....:		P
	This test is not applicable to electrode-type appliances (IEC 60335-2-85:2002)		N/A
19.4	Test conditions as in clause 11, any control limiting the temperature during tests of clause 11 short-circuited		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	Class I	P
	The test repeated with reversed polarity and the other end of the heating element connected to the sheath		P

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
	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
19.7	Stalling test by locking the rotor if the locked rotor torque is smaller than the full load torque, or		N/A
	locking moving parts of other appliances		P
	Locked rotor, capacitors open-circuited one at a time		N/A
	Test repeated with capacitors short-circuited one at a time, unless		N/A
	capacitor is of class P2 of IEC 60252-1		N/A
	Appliances with timer or programmer supplied with rated voltage for each of the tests, for a period equal to the maximum period allowed:		N/A
	Other appliances supplied with rated voltage for a period as specified:	Hand-held appliance: 30s	P
	Winding temperatures not exceeding values specified in table 8:	(see appended table)	P
19.13	During the tests the appliance does not emit flames, molten metal, poisonous or ignitable gas in hazardous amounts		P
	Temperature rises not exceeding the values shown in table 9.....:	(see appended table)	P
	Compliance with clause 8 not impaired		P
	If the appliance can still be operated it complies with 20.2		N/A
	Insulation, other than of class III appliances or class III constructions that do not contain live parts, withstands the electric strength test of 16.3, the test voltage as specified in table 4:		
	- basic insulation (V).....:	1000V, 1min	P
	- supplementary insulation (V) .....:	1750V, 1min	P
	- reinforced insulation (V).....:	3000V, 1min	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	480V	P
	The appliance does not undergo a dangerous malfunction, and		N/A
	no failure of protective electronic circuits, if the appliance is still operable		N/A

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliances tested with an electronic switch in the off position, or in the stand-by mode:		
	- do not become operational, or		N/A
	- if they become operational, do not result in a dangerous malfunction during or after the tests of 19.11.4		N/A
	If the appliance contains lids or doors that are controlled by one or more interlocks, one of the interlocks may be released provided that:		
	- the lid or door does not move automatically to an open position when the interlock is released, and		N/A
	- the appliance does not start after the cycle in which the interlock was released		N/A
21	MECHANICAL STRENGTH		
21.1	Appliance has adequate mechanical strength and is constructed as to withstand rough handling		P
	Checked by applying 3 blows to every point of the enclosure like to be weak, in accordance with test Ehb of IEC 60068-2-75, spring hammer test, with an impact energy of 0,5 J	(see appended table)	P
	The appliance shows no damage impairing compliance with this standard, and		P
	compliance with 8.1, 15.1 and clause 29 not impaired		P
	If doubt, supplementary or reinforced insulation subjected to the electric strength test of 16.3		N/A
	If necessary, repetition of groups of three blows on a new sample		N/A
21.2	Accessible parts of solid insulation having strength to prevent penetration by sharp implements		P
	Test not applicable if the thickness of supplementary insulation is at least 1 mm and reinforced insulation at least 2 mm		P
	The insulation is tested as specified, and does withstand the electric strength test of 16.3		N/A
22	CONSTRUCTION		
22.4	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 the pins of the plug, for appliances having a capacitor with rated capacitance exceeding 0,1µF, the appliance being disconnected from the supply at the instant of voltage peak	DF-020, DF-020A: no capacitor	N/A

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
	Voltage not exceeding 34 V (V) .....:		N/A
22.6	Electrical insulation not affected by condensing water or leaking liquid	Considered for EK1 454-09	P
	Electrical insulation of Class II appliances not affected if a hose ruptures or seal leaks	Double hoses used	P
	In case of doubt, test as described		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	No such substances	P
	the substance has adequate insulating properties		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	50 N push force for all parts, 50 N pull force to enclosure, handle, 30 N pull force to switch button and knob.	P
22.12	Handles, knobs etc. fixed in a reliable manner		P
	Fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible		P
	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied	Switch button	P
	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied	Handle	P
22.13	Unlikely that handles, when gripped as in normal use, make the operator's hand touch parts having a temperature rise exceeding the value specified for handles which are held for short periods only		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		P

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
22.18	Current-carrying parts and other metal parts resistant to corrosion		P
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 substances	P
	impregnated		N/A
	This requirement does not apply to magnesium oxide and mineral ceramic fibres used for the electrical insulation of heating elements		N/A
22.30	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		P
	Ceramic material not tightly sintered, similar materials or beads alone not used as supplementary or reinforced insulation		N/A
	Insulating material in which heating conductors are embedded is considered to be basic insulation, not reinforced insulation		N/A
	Oxygen bomb test at 70 °C for 96 h and 16 h at room temperature		N/A

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
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		P
	Electrodes not used for heating liquids	No electrodes used	N/A
	Liquids may be heated using electrodes and may be in direct contact with their live parts, and with live parts of bare heating elements (IEC 60335-2-85:2002)		N/A
	For class II constructions, conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts, not in direct contact with basic or reinforced insulation, unless		P
	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		P
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, other than those of electrical components, provided they are reliably connected to an earthing terminal or earthing contact, or separated from live parts by earthed metal		N/A

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
	Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation		N/A
22.36	For appliances other than class III, handles continuously held in the hand in normal use so constructed that when gripped as in normal use, the operators hand is not likely to touch metal parts, unless		P
	they are separated from live parts by double or reinforced insulation		N/A
22.44	Appliances not having an enclosure that is shaped or decorated like a toy		P
22.45	When air is used as reinforced insulation, clearances not reduced below the values specified in 29.1.3 due to deformation as a result of an external force applied to the enclosure		P
22.101	Appliances shall be constructed so that there are no sudden jets of steam or hot water likely to expose the user to a hazard when the appliance is used as in normal use (IEC 60335-2-85:2002)		P
22.102	Water containers shall be vented to the atmosphere. The aperture shall be at least 5 mm in diameter or 20 mm² in area with a minimum dimension of at least 3 mm (IEC 60335-2-85:2002)		P
25	SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS		
25.14	Supply cords moved while in operation adequately protected against excessive flexing		P
	Flexing test, as described:		
	- applied force (N) .....:	5 N for 3x0,75mm²	P
	- number of flexings.....:	20 000	P
	Number for flexings for type Z attachments is 50 000 and for other attachments 20 000 (IEC 60335-2-85:2002) .....:	Type Y: 20 000	P
	The test does not result in:		
	- short-circuit between the conductors, such that the current exceeds a value of twice the rated current		P
	- breakage of more than 10% of the strands of any conductor		P
	- separation of the conductor from its terminal		P
	- loosening of any cord guard		P
	- damage to the cord or the cord guard		P

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
	- broken strands piercing the insulation and becoming accessible		P
25.15	For appliances with supply cord and appliances to be permanently connected to fixed wiring by a flexible cord, conductors of the supply cord relieved from strain, twisting and abrasion by use of cord anchorage		P
	The cord cannot be pushed into the appliance to such an extent that the cord or internal parts of the appliance can be damaged		P
	Pull and torque test of supply cord, values shown in table 12: mass (kg); pull (N); torque (not on automatic cord reel) (Nm) .....:	>1kg and <4kg, 60N force and 0,25Nm torque.	P
	Cord not damaged and max. 2 mm displacement of the cord	Max. 0,5mm	P
27	PROVISION FOR EARTHING		
27.5	Low resistance of connection between earthing terminal and earthed metal parts		P
	This requirement does not apply to connections providing earthing continuity in the protective extra-low voltage circuit, provided the clearances of basic insulation are based on the rated voltage of the appliance		N/A
	Resistance not exceeding 0,1 Ω at the specified low-resistance test (Ω) .....:	Max. 0,02 Ω	P

IEC60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO TEST REPORT **IEC 60335-1:2010 + A1:2013 + A2:2016** **EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES** Household and similar electrical appliances – Safety – Part 1: GENERAL REQUIREMENTS			
Differences according to.....:	EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A14:2019 + A2:2019 + A15:2021 EN 62233:2008		
TRF template used .....:	IECEE OD-2020-F2:2020, Ed. 1.1		
Attachment Form No.....:	EU_GD_IEC60335_1X_II		
Attachment Originator .....:	Nemko Group AS		
Master Attachment.....:	2022-03-04		
	CENELEC COMMON MODIFICATIONS (EN)		
6.1	Delete “class 0” and “class 01”		N/A
7.1	Single-phase appliances to be connected to the supply mains: 230 V covered		P
	Multi-phase appliances to be connected to the supply mains: 400 V covered		N/A
7.12	The instructions include the substance of the following:		--
	- this appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved		P
	- children shall not play with the appliance		P
	- cleaning and user maintenance shall not be made by children without supervision		P
8.1.1	Also test probe 18 of EN 61032 is applied		P
	The appliance being in every possible position during the test, except that		P
	appliances normally used on the floor and having a mass exceeding 40 kg are not tilted		N/A
	The force on the probe in the straight position is increased to 10 N when probe 18 is used		P
	When using test probe 18 the appliance is fully assembled as in normal use without any parts removed, and		P

IEC60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	parts intended to be removed for user maintenance are also not removed		P
8.1.3	Instead of test probe B, test probe 18 and test probe 13, for appliances other than those of class II, test probe 41 of IEC 61032 is applied with a force not exceeding 1 N to live parts of visibly glowing heating elements, all poles of which can be disconnected by a single switching action		N/A
8.2	Compliance is checked by inspection and by applying the test probes of EN 61032 in accordance with the conditions specified in 8.1.1		P
	Test probe B and probe 18 of EN 61032 are applied to built-in appliances and fixed appliances only after installation		N/A
15.1.2	Appliances with an automatic cord reel tested with the cord in the most unfavourable position so that the reeling of the wet cord may affect electrical insulation during operation, the cord not being dried before reeling		N/A
20.2	For appliances having hazardous moving parts, due to their working function, e.g. the needle of a sewing machine, tools of kitchen machines or the blade of an electrical knife, full protection is not possible for performing their intended use		N/A
	When using a test probe similar to test probe B of EN 61032, having a circular stop face and applied with a force of 5N, the accessories and detachable covers are removed		N/A
	When using test probe 18 it is applied with a force of 2,5N on the appliance fully assembled		N/A
22.12	Other parts intended to be detached during use, maintenance or cleaning (e.g. batteries, battery covers, lids, attachments, steam nozzles) are not considered as parts providing a similar function as handles, knobs, grips, levers		P
22.17	The requirement is not applicable to built-in appliances		N/A
22.44	An appliance is child-appealing if one of the following criteria is present:		--
	- appliance decorated using faces, cartoon like characters, or similar images		N/A
	- appliance using shapes representing animals, characters, persons or scale models		N/A
	An appliance is child-appealing if more than one of the following criteria are present:		--
	- using non-functional light (functional light is e.g. illumination of an object or area, signal indicating status of an appliance)		N/A

IEC60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	- using non-functional sound (e.g. music)		N/A
	- using non-functional movement		N/A
	If the appliance is child-appealing, has a mass less than 4 kg or is mounted or normally intended for use at a height less than 850 mm, the following conditions shall be met:		--
	- surface temperature rise requirements not exceeded		N/A
	- hazardous moving parts not accessible		N/A
	- live parts not accessible		N/A
	- liquid temperature requirement not exceeded,		N/A
	unless for vessels in which two independent and sequential actions are needed to access the liquid		N/A
	- the requirement of 22.12 is applicable for all accessible parts of the appliance		N/A
24.1	Components comply with the safety requirements specified in the relevant EN standards as far as they reasonably apply		P
	Motors are not required to comply with EN 60034-1, but tested as part of the appliance according to this standard		P
	Relays are tested as part of the appliance according to this standard		N/A
	Relays may be alternatively tested to EN 60730-1 and the additional requirements in EN 60335-1		N/A
	The requirements of Clause 29 of this standard apply between live parts of components and accessible parts of the appliance		P
	Components may comply with the requirements for clearances and creepage distances for functional insulation as specified in the relevant component standard		P
	The requirements of 30.2 of this standard apply to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections inside components		P
	Components that have not been tested and shown to comply with the EN standard for the relevant component are tested according to the requirements of 30.2 of this standard		N/A
	Components that have been tested and shown to comply with the resistance to fire requirements in the EN standard for the relevant component need not be retested provided that:		--
	- the severity specified in the component standard is not less than the severity specified in 30.2, and		P

IEC60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	- the test report for the component states the values of t_e and t_i acc. to EN 60695-2-11		P
	If the above two conditions are not satisfied, the component is tested as part of the appliance		N/A
	Power electronic converter circuits are not required to comply with EN 62477-1, but tested as part of the appliance according to this standard		N/A
	Unless components have been tested and found to comply with the relevant EN 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 EN standard for the component are necessary other than those specified in 24.1.1 to 24.1.9		P
	Components that have not been tested and found to comply with the relevant EN standard, and		N/A
	components that are not marked or not used in accordance with their marking,		N/A
	are tested in accordance with the conditions occurring in the appliance, the number of samples being that required by the relevant standard		N/A
	Lamp-holders and starter-holders that have not been tested and found to comply with the relevant EN standard are tested as a part of the appliance and additionally comply with the gauging and interchangeability requirements of the relevant EN standard under the conditions occurring in the appliance		N/A
	Where the relevant EN standard specifies these gauging and interchangeability requirements at elevated temperatures, the temperatures measured during the tests of Clause 11 are used		N/A
	There are no additional tests specified for nationally standardized plugs such as those detailed in IEC/TR 60083 or connectors complying with the standard sheets of EN 60320-1 and EN 60309, unless they are specifically mentioned in the text of this standard		P
	Plugs and socket-outlets and other connecting devices of interconnection cords are not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1, or		N/A
	with connectors and appliance inlets complying with the standard sheets of EN 60320-1, if		N/A
	direct supply to these parts from the supply mains gives rise to a hazard		N/A

IEC60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	For plugs used in CENELEC countries Annex ZH applies		P
24.Z1	Type S2 and S3 capacitors according to EN 60252-1 are not required to undergo the testing as required by 30.2.2 and 30.2.3.1		N/A
25.1	Plugs and pins for insertion into socket outlets follow the relevant standards sheets in Annex ZH		P
25.7	Rubber sheathed cords (60245 IEC 53) are not suitable for appliances intended to be used outdoors, or		N/A
	when they are liable to be exposed to significant amount of ultraviolet radiation		N/A
25.25	Instead of IEC/TR 60083, dimensions of the pins and engagement face of plugs of appliances that are inserted into socket-outlets are in accordance with the dimensions of the relevant plug standard		P
	Common plugs and socket-outlets types in CENELEC countries as shown in Annex ZH		P
26.11	Conductors connected by soldering are not considered to be positioned or fixed so that reliance is not placed upon the soldering alone to maintain them in position,		P
	unless they are held in place near the terminals independently of the solder		N/A
29.3.Z1	Appliance constructed so that if there is a possibility of damaging the insulation during installation, the insulation withstands the scratch and penetration test of 21.2		N/A
32	Compliance regarding electromagnetic fields is checked according to EN 62233		P
Annex I, 19.I.101	The appliance is supplied at rated voltage and operated under normal operation with each of the fault conditions specified		N/A
	The duration of any of the tests is as specified in 19.7		N/A
ZA	**ANNEX ZA (**NORMATIVE) **SPECIAL NATIONAL CONDITIONS (EN)**		
	Denmark, Sweden, Norway and Finland		
7.12.8	The maximum inlet water pressure is at least 1,0 MPa .... :		N/A
	Norway		

IEC60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
19.5	The test is also applicable to appliances intended to be permanently connected to fixed wiring		N/A
	Norway		
22.2	The second paragraph of this subclause, dealing with single-phase, permanently connected class I appliances having heating elements, is not applicable due to the supply system		N/A
	Denmark		
22.47	The maximum inlet water pressure is at least 1,0 MPa .... :		N/A
	Ireland, United Kingdom and Cyprus		
25.8	In the table, the line >10 A and ≤16 A is replaced with:		--
	> 10 and ≤ 13 1,25 (1,0)[b]		N/A
	> 13 and ≤ 16 1,5 (1,0)[b]		N/A
ZB	**ANNEX ZB** (INFORMATIVE) **A-DEVIATIONS**		
	Ireland		
25.1 and 25.25	These regulations apply to all plugs for domestic use at a voltage of not less than 200 V and in general allow only plugs complying with I.S. 401:1997, or equivalent, to be fitted to domestic appliances		N/A
	United Kingdom		
25.1 and 25.25	These regulations apply to all plugs for domestic use at a voltage of not less than 200 V and in general allow only plugs to BS 1363 to be fitted to domestic appliances.		P
	It also allows plugs to BS 4573 and EN 50075 to be fitted to shavers and toothbrushes		N/A
ZC	ANNEX ZC **(NORMATIVE)** NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS		
	A list of documents referred to in the text of this standard in such a way that some or all of their content constitutes requirements of this document		P

IEC60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ZD	**ANNEX ZD** (INFORMATIVE) **IEC and CENELEC CODE DESIGNATIONS FOR FLEXIBLE CORDS**		
	List of IEC and CENELEC code designations for flexible cords		P
ZE	**ANNEX ZE** (INFORMATIVE) **SPECIFIC ADDITIONAL REQUIREMENTS FOR APPLIANCES AND MACHINES INTENDED FOR COMMERCIAL USE**		
7.1	Business name and full address of the manufacturer and, where applicable, his authorized representative:		N/A
	Model or type reference..... :		N/A
	Serial number, if any		N/A
	Production year		N/A
	Designation of the appliance ..... :		N/A
7.12	Instructions provided with the appliance so that the appliance can be used safely		N/A
	The instructions contain at least the following information:		
	- the business name and full address of the manufacturer and, where applicable, his authorized representative		N/A
	- model or type reference of the appliance as marked on the appliance itself, except for the serial number		N/A
	- the designation of the appliance together with its explanation in case it is given by a combination of letters and/or numbers		N/A
	- the general description of the appliance, when needed due to the complexity of the appliance		N/A
	- specific precautions required during installation, operation, adjusting, user maintenance, cleaning, repairing or moving		N/A
	- when needed drawings, diagrams, descriptions and explanations necessary for the safe use and user maintenance of the appliance		N/A
	- the possible reasonably foreseeable misuse and, whenever relevant, a warning against the effects it may have on the safe use of the appliance		N/A
	The words “Original instructions” appear on the language version(s) verified by the manufacturer or by the authorized representative		N/A

IEC60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	When a translation of the original instructions has been provided by a person introducing the appliance on the market; the meaning of the sentence “Translation of the original instructions” appear in the relevant instructions delivered with the appliance		N/A
	The instructions for maintenance/service to be done by specialized personnel, mandated by the manufacturer or the authorized representative may be supplied in only one Community language which the specialized personnel understand		N/A
	The instructions indicate the type and frequency of inspections and maintenance required for safe operation including the preventive maintenance measures		N/A
7.12.ZE1	If needed for specific appliances, the following information to be given:		
	- on use, transportation, assembly, dismantling when out of service, testing or foreseeable breakdowns, if these operations have consequences on stability of the appliance in order to avoid overturning, falling or uncontrolled movements of the appliance or of its component parts		N/A
	- on how to maintain adequate mechanical stability when in use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance		N/A
	- on the protective measures to be taken by the user, including, where appropriate, the personal protective equipment to be provided		N/A
	- on the operating method to be followed in the event of accident or breakdown; if a blockage is likely to occur the operating method to safely unblock the appliance		N/A
	- on the specifications on the spare parts to be used, when these affect the health and safety of the operator		N/A
	- on airborne noise emissions, determined and declared in accordance with the relevant Part 2, which includes:		
	- the A-weighted emission sound pressure level at workstations, where this exceeds 70 dB(A)..... ;		N/A
	- where this level does not exceed 70 dB(A), this fact is indicated		N/A
	- the peak C-weighted instantaneous sound pressure value at workstations, where this exceeds 63 Pa (130 dB in relation to 20 µPa) ..... :		N/A

IEC60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	- the A-weighted sound power level emitted by the machinery, where the A-weighted emission sound pressure level at workstations exceeds 80 dB(A) ..... :		N/A
7.12.ZE2	The instructions include a warning to disconnect the appliance from its power source during service and when replacing parts		N/A
	If the removal of the plug is foreseen, it is clearly indicated that the removal of the plug is such that an operator can check from any of the points to which he has access that the plug remains removed		N/A
	If this is not possible, due to the construction of the appliance or its installation, a disconnection with a locking system in the isolated position is provided		N/A
19.11.4.8	The appliance continues to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage fluctuation occurred, or		N/A
	a manual operation is required to restart it		N/A
20.1	Appliances and their components and fittings have adequate mechanical stability during transportation, assembly, dismantling and any other action involving the appliance		N/A
20.2	Dangerous moving transmission parts safeguarded either by design or guards		N/A
	When guards are used, they are fixed guards, interlocking movable guards or protective devices		N/A
	Moving parts directly involved in the function of the appliance which cannot be made completely inaccessible fitted with:		
	- fixed guards or interlocking movable guards preventing access to those sections of the parts that are not used in the work, and		N/A
	- adjustable guards restricting access to those sections of the moving parts where access is necessary		N/A
	Interlocking movable guards used where frequent access is required		N/A
21.1	Appliances and their components and fittings have adequate mechanical strength and is constructed to withstand such rough handling that may be expected in normal use, during transportation, assembly, dismantling, scrapping and any other action involving the appliance		N/A
22.ZE.1	For appliances provided with a seat, the seat gives adequate stability		N/A

IEC60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	The distance between the seat and the control devices capable of being adapted to the operator		N/A
22.ZE.2	For appliances provided with separate devices for the start and the stop functions, the stop function is unambiguously identifiable and does always override the start function		N/A
	For appliances provided with one device performing the start and the stop function, the stop function is unambiguously identifiable and does always override the start function		N/A
22.ZE.3	Appliances designed in such a way that incorrect mounting is avoided, if this can lead to an unsafe situation		N/A
	If this is not possible, information on the correct mounting is given directly on the part and/or the enclosure		N/A
22.ZE.4	Where the weight, size or shape prevents appliances from being moved manually, they are fitted with attachments for lifting gear, or		N/A
	so designed that they can be fitted with such attachments, or		N/A
	be shaped in such a way that standard lifting gear can easily be used		N/A
	Appliances to be moved manually are constructed or equipped so that they can be moved easily and safely		N/A
22.ZE.5	The fixing systems of fixed guards which prevent access to dangerous moving transmission parts only removable with the use of tools		N/A
	If such guards have to be removed by the user for routine cleaning or maintenance their fixing systems remain attached to the fixed guards or to the machine after removal		N/A
	Where possible, guards are incapable of remaining in place without their fixings		N/A
	This does not apply if, after removal of the screws, or if the component is incorrectly repositioned, the appliance becomes inoperative		N/A
	Movable guards are interlocked		N/A
	The interlocking devices prevent the start of hazardous appliance functions until the guards are fixed in their position, and give a stop command whenever they are no longer closed		N/A
	Where it is possible for an operator to reach the danger zone before the risk due to hazardous appliance functions has ceased, movable guards associated with a guard locking device in addition to an interlocking device that:		

IEC60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	- prevents the start of hazardous appliance functions until the guard is closed and locked, and		N/A
	- keeps the guard closed and locked until the risk of injury from the hazardous appliance functions has ceased		N/A
	Interlocking movable guards remain attached to the appliance when open, and		N/A
	they are designed and constructed in such a way that they can be adjusted only by means of an intentional action		N/A
22.ZE.6	Interlocking movable guards designed in such a way that the absence or failure of one of their components prevents starting or stops the hazardous appliance functions		N/A
	The guard is opened to the extent needed to cause the interlocking to operate and is then closed, the number of operations being defined in the specific Part 2 ..... :		N/A
	After this test any defect that may be expected in normal use is applied to the interlock system, including interruption of the supply, only one defect being simulated at a time		N/A
	After these tests the interlock system is fit for further use		N/A
22.ZE.7	Adjustable guards restricting access to areas of the moving parts strictly necessary for the work are:		
	- adjustable manually or automatically, depending on the type of work involved, and		N/A
	- readily adjustable without the use of tools		N/A
22.ZE.8	In case of interruption, re-establishment after an interruption or fluctuation in whatever manner of the power supply, the appliance does not restart		N/A
	However, automatic restarting of the operation is allowed if the appliance may continue to operate, without causing any hazard to the user, from the same point in its operating cycle at which the voltage interruption or fluctuation occurred		N/A
22.ZE.9	Appliances fitted with means to isolate them from all energy sources		N/A
	Such isolators are clearly identified, and		N/A
	they are capable of being locked if reconnection endanger persons		N/A
	After the energy source is disconnected, it is possible to dissipate any energy remaining or stored in the circuits of the appliance without risk to persons		N/A

IEC60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ZF	**ANNEX ZF** (INFORMATIVE) **CRITERIA APPLIED FOR THE ALLOCATION OF PRODUCTS COVERED BY STANDARDS IN THE EN 60335 SERIES UNDER LVD OR MD**		
	List of standards under CENELEC/TC61 with the allocation under the LVD (Low Voltage Directive) or the MD (Machinery Directive) ..... :	LVD	P
ZG	**ANNEX ZG** (NORMATIVE) **UV APPLIANCES**		
	The following modifications to this standard apply to appliances having UV emitters		N/A
	This annex is not applicable to appliances covered by the scopes of IEC 60335-2-27, IEC 60335-2-59 or IEC 60335-2-109		N/A
7.12.ZG	The instructions for appliances incorporating UVC emitters include the substance of the following: WARNING — This appliance contains a UV emitter. Do not stare at the light source		N/A
32	For appliances incorporating UV emitters the manufacturer delivers a declaration providing evidence that the plastic material exposed to the radiation is UV resistant		N/A
ZH	**ANNEX ZH** (INFORMATIVE) **Common plug and socket-outlet types in CENELEC countries**		
	In general, supply cords of single-phase appliances having a rated current not exceeding 16 A are fitted with a plug complying with the following standard sheets:		
	- for class I appliances or class II appliances with functional earth, standard sheet EU2, EU3 or EU4:	EU4	P
	- for class II appliances, standard sheet EU5, EU6 or EU7 ..... :		N/A
	There are exemptions or differences in certain CENELEC countries		N/A
ZI	**ANNEX ZI** (INFORMATIVE) **Information on the application of A11:2014 to EN 60335-1:2012** **CENELEC CLC/TC 61(SEC)2096A**		
	Clarification of the application of parts 2 in conjunction with the 2002 or 2012 version of EN 60335-1		P

IEC60335_1X ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ZZA	**ANNEX ZZA** (INFORMATIVE) **RELATIONSHIP BETWEEN THIS EUROPEAN STANDARD AND THE SAFETY OBJECTIVES OF DIRECTIVE 2014/35/EU [2014 OJ L96} AIMED TO BE COVERED**		
	This standard provides one means of conforming to safety objectives of Directive 2014/35/EU		P
	When cited in the Official Journal under that Directive, compliance with the normative clauses of this standard given in Table ZZA.1 confers a presumption of conformity with the safety objectives of that Directive and associated EFTA regulations		P
	Compliance with this Part 1 when used together with the relevant Part 2 provides one means of conformity with the safety objectives		P
ZZB	**ANNEX ZZB** (INFORMATIVE) **RELATIONSHIP BETWEEN THIS EUROPEAN STANDARD AND THE ESSENTIAL REQUIREMENTS OF DIRECTIVE 2006/42/EC AIMED TO BE COVERED**		
	This standard provides one means of conforming to essential requirements of EU Directive 2006/42/EC		N/A
	When cited in the Official Journal under that Directive, compliance with the normative clauses of this standard given in Table ZZB.1 confers a presumption of conformity with the essential requirements of that Directive and associated EFTA regulations		N/A
	Compliance with this Part 1 when used together with the relevant Part 2 provides one means of conformity with the essential health and safety requirements		N/A
	ANNEX EN 62233:2008 **EMF- ELECTROMAGNETICS FIELDS**		
	The tested product also complies with the requirements of EN 62233:2008		
	Limit ……100%	Measured max. : 0,673uT	P

10.1	TABLE: Power input deviation				P
Input deviation of/at:	**P rated (W)**	**P measured (W)**	**Δ P**	**Required Δ P**	**Remark**
DF-020 at 230V~	1100	1069	-2,8%	-10% ~ +5%	P
DF-020A at 230V~	1500	1389	-7,4%	-10% ~ +5%	P
Supplementary information:					

11.8	TABLE: Heating test, thermocouple measurements for DF-020A with pump DJMP-2		P
	Test voltage (V) ..... :	1878W at 267V	—
	Ambient (°C) ..... :	23	—

Thermocouple locations:	**Max. temperature rise measured, Δ T (K)**	**Max. temperature rise limit, Δ T (K)**
Supply cord	7	50
Wire connector	8	-
Ambient of thermostat	143	195 (T-25)
Insulation of thermal link	170	175 (T-25)
Ambient of power switch	15	60 (T-25)
Ambient of steam switch	34	80 (T-25)
Internal wire	82	155 (T-25)
Pump	101	140
Water tank	13	For Cl.30.1
Enclosure	65	For Cl.30.1
Indicator cover	30	For Cl.30.1
Holding of heating plate	149	For Cl.30.1
Silicone tube	49	145
Handle	24	50
Knob, steam button	10	60
Supplementary information:		

11.8	TABLE: Heating test, thermocouple measurements for DF-019A with pump EJ-01		P
	Test voltage (V) ..... :	1377W at 262V	—
	Ambient (°C) ..... :	23	—

Thermocouple locations:	**Max. temperature rise measured, Δ T (K)**	**Max. temperature rise limit, Δ T (K)**
Supply cord	5	50
Internal wire	101	155 (T-25)
Pump	111	140

Enclosure	60	For Cl.30.1
Supplementary information:		

13.2	**TABLE: Leakage current**		P
	Heating appliances: 1.15 x rated input (W) .. :	Refer to table 24.1	—
	Motor-operated and combined appliances: 1.06 x rated voltage (V)..... :	23	—

Leakage current between:	**I (mA)**	**Max. allowed I (mA)**
L/N – Earthing metal parts	Max. 0,05	0,75
L/N – Enclosure (with metal foil or ungrounded metal parts)	Max.0,02(peak)	0,35 Peak
L/N – Switch/handle	Max.0,02(peak)	0,35 Peak
Supplementary information:		

13.3	**TABLE: Dielectric strength**	P
Test voltage applied between:	**Test potential applied (V)**	**Breakdown / flashover (Yes/No)**
Live parts and basic insulation part	1000	No
Internal wire and plastic enclosure	1750	No
Live parts and plastic enclosure	3000	No
Supplementary information:		

16.2	**TABLE: Leakage current**		P
	Single phase appliances: 1.06 x rated voltage (V) ..... :	254,4	—
	Three phase appliances 1.06 x rated voltage divided by √3 (V) ..... :	23	—

Leakage current between:	**I (mA)**	**Max. allowed I (mA)**
L/N – Earthing metal parts	Max. 0,07	0,75
L/N – Enclosure (with metal foil or ungrounded metal parts)	0,02(Max)	0,25
L/N – Switch /handle	0,02(Max)	0,25
Supplementary information:		

16.3	**TABLE: Dielectric strength**	P
Test voltage applied between:	**Test potential applied (V)**	**Breakdown / flashover (Yes/No)**
Live parts and basic insulation part	1250	No
Internal wire and plastic enclosure	1750	No
Live parts and plastic enclosure	3000	No

Supplementary information:

19	**Abnormal operation conditions**						P
Operational characteristics			**YES/NO**	**Operational conditions**			
Are there electronic circuits to control the appliance operation?			No	N/A			
Are there “off” or “stand-by” position?			No	N/A			
The unintended operation of the appliance results in dangerous malfunction?			No	N/A			
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	Refer to Cl.19.2		N/A	N/A	N/A	N/A	P
19.3	Refer to Cl.19.3		N/A	N/A	N/A	N/A	P
19.4	Refer to Cl.19.4		N/A	N/A	N/A	N/A	P
19.5	Refer to Cl.19.5		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	Refer to Cl.19.7		N/A	N/A	N/A	N/A	P
19.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.11.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.11.4.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.10X	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Supplementary information:							

19.7	**TABLE: Abnormal operation, locked rotor/moving parts**					P
	Test voltage (V) ..... :			240		—
	Ambient, t1 (°C) ..... :			23		—
	Ambient, t2 (°C) ..... :			23		—
Temperature of winding:	**R1 (Ω)**	**R2 (Ω)**	**Δ T (K)**	**T (°C)**	**Max. T (°C)**	
Winding of pump DJMP-2	--	--	--	113	240	
Supplementary information: DF-020A with pump DJMP-2						

19.7	**TABLE: Abnormal operation, locked rotor/moving parts**		P
	Test voltage (V) ..... :	240	—
	Ambient, t1 (°C) ..... :	23	—

	Ambient, t2 (°C)..... :		23		—
Temperature of winding:	**R1 (Ω)**	**R2 (Ω)**	**Δ T (K)**	**T (°C)**	**Max. T (°C)**
Winding of pump EJ-01	--	--	--	125	240
Supplementary information: DF-019A with pump EJ-01					

19.13	**TABLE: Abnormal operation, temperature rises for DF-020A with pump DJMP-2**			P
Thermocouple locations:	**Max. temperature rise measured, Δ T (K)**			**Max. temperature rise limit, Δ T (K)**
	Cl.19.2, Cl.19.3	Cl.19.4	19.7	
Test corner	5	12	6	150
Supply cord	11	15	12	150
Enclosure	68	-	66	For Cl.30.1
Indicator cover	34	-	32	For Cl.30.1
Supplementary information:				

19.13	**TABLE: Abnormal operation, temperature rises for DF-019A with pump EJ-01**	P
Thermocouple locations:	**Max. temperature rise measured, Δ T (K)**	**Max. temperature rise limit, Δ T (K)**
	19.7	
Test corner	5	150
Supply cord	10	150
Enclosure	62	For Cl.30.1
Supplementary information:		

21.1	**TABLE: Impact resistance**		P
Impacts per surface	**Surface tested**	**Impact energy (J)**	**Comments**
3	All surface	0,5	P
Supplementary information:			

24.1	**TABLE: Components**				**P**
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
Pump (for DF-019, DF-019A, DF-019C, DF-020,DF-020A)	Zhejian Duojia Electro mechanical Technology Co.,Ltd.	DJMP-2	220-240V~, 50-60Hz, 8W, Class 180(H)	EN 60335-1	TUV PS*/ B 106039 0004 Rev.01
Pump (only for DF-019A)	Ningbo Yijiaao Electrical Co., Ltd.	EJ-01	220-240V, 50-60Hz, 7W, Class 180(H)	EN 60335-1	TUV*/ R 50582268
Power switch for DF-019A, DF-019C, DF-020, DF-020A	Yueqing Yixing Electronic Co., Ltd.	KCD1	250V~, 10A, T85, 1E4	EN 61058-1	TUV */R 50465517

All above listed components are new added, others refer to CDF for detail.

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

29.2	**TABLE: Creepage distances, basic, supplementary and reinforced insulation**										P
Working voltage (V):	**Creepage distance (mm) Pollution degree**										
	1	**2**			**3**			**Type of insulation**			
		Material group			**Material group**						
		I	**II**	**IIIa/IIIb**	**I**	**II**	**IIIa/IIIb***	**B****	**S****	**R****	**Verdict**
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9		—	—	N/A
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9	—		—	N/A
≤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	X	—	—	P
250	0,56	1,25	1,8	**2,5**	3,2	3,6	4,0	—	X	—	P
250	1,12	2,5	3,6	**5,0**	6,4	7,2	8,0	—	—	X	P

400	1,0	2,0	2,8	4,0	5,0	5,6	6,3		—	—	N/A
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3	—		—	N/A
400	2,0	4,0	5,6	8,0	10,0	11,2	12,6	—	—		N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0		—	—	N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0	—		—	N/A
500	2,6	5,0	7,2	10,0	12,6	14,2	16,0	—	—		N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0		—	—	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	—		—	N/A
>630 and ≤800	3,6	6,4	9,0	12,6	16,0	18,0	20,0	—	—		N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5		—	—	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	—		—	N/A
>800 and ≤1000	4,8	8,0	11,2	16,0	20,0	22,0	25,0	—	—		N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0		—	—	N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	—		—	N/A
>1000 and ≤1250	6,4	10,0	14,2	20,0	25,0	28,0	32,0	—	—		N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0		—	—	N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	—		—	N/A
>1250 and ≤1600	8,4	12,6	18,0	25,0	32,0	36,0	40,0	—	—		N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0		—	—	N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	—		—	N/A
>1600 and ≤2000	11,2	16,0	22,0	32,0	40,0	44,0	50,0	—	—		N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0		—	—	N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	—		—	N/A
>2000 and ≤2500	15,0	20,0	28,0	40,0	50,0	56,0	64,0	—	—		N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0		—	—	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	—		—	N/A
>2500 and ≤3200	20,0	25,0	36,0	50,0	64,0	72,0	80,0	—	—		N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0		—	—	N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	—		—	N/A
>3200 and ≤4000	25,0	32,0	44,0	64,0	80,0	90,0	100,0	—	—		N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0		—	—	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	—		—	N/A
>4000 and ≤5000	32,0	40,0	56,0	80,0	100,0	112,0	126,0	—	—		N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0		—	—	N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	—		—	N/A

>5000 and ≤6300	40,0	50,0	72,0	100,0	126,0	142,0	160,0	—	—		N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0		—	—	N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	—		—	N/A
>6300 and ≤8000	50,0	64,0	90,0	126,0	160,0	180,0	200,0	—	—		N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0		—	—	N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	—		—	N/A
>8000 and ≤10000	64,0	80,0	112,0	160,0	200,0	220,0	250,0	—	—		N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0		—	—	N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	—		—	N/A
>10000 and ≤12500	80,0	100,0	142,0	200,0	250,0	280,0	320,0	—	—		N/A
Supplementary information: *) Material group IIIb is allowed if the working voltage does not exceed 50 V **) B = Basic insulation, S = Supplementary insulation, R = Reinforced insulation											

29.2	**TABLE: Creepage distances, functional insulation**							P
Working voltage (V):	**Creepage distance (mm) Pollution degree**							
	1	**2**			**3**			
		Material group			**Material group**			
		I	**II**	**IIIa/IIIb**	**I**	**II**	**IIIa/IIIb***	**Verdict / Remark**
≤10	0,08	0,4	0,4	0,4	1,0	1,0	1,0	N/A
50	0,16	0,56	0,8	1,1	1,4	1,6	1,8	N/A
125	0,25	0,71	1,0	1,4	1,8	2,0	2,2	N/A
250	0,42	1,0	1,4	**2,0**	2,5	2,8	3,2	P
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								

30.2	**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**		
Electromagnetic valve bobbin of DJMP-2	Refer to CDF	X						P
Electromagnetic valve bobbin of EJ-01	Refer to CDF	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):								N/A
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)?.....:								N/A
Ignition of the specified layer placed underneath the test specimen (Yes/No) .....:								N/A
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								

Photo 1

Description: External view of DF-020A

Remark: DF-020 is same as DF-020A, except the power input

Photo 2

Description: Bottom view of DF-020A

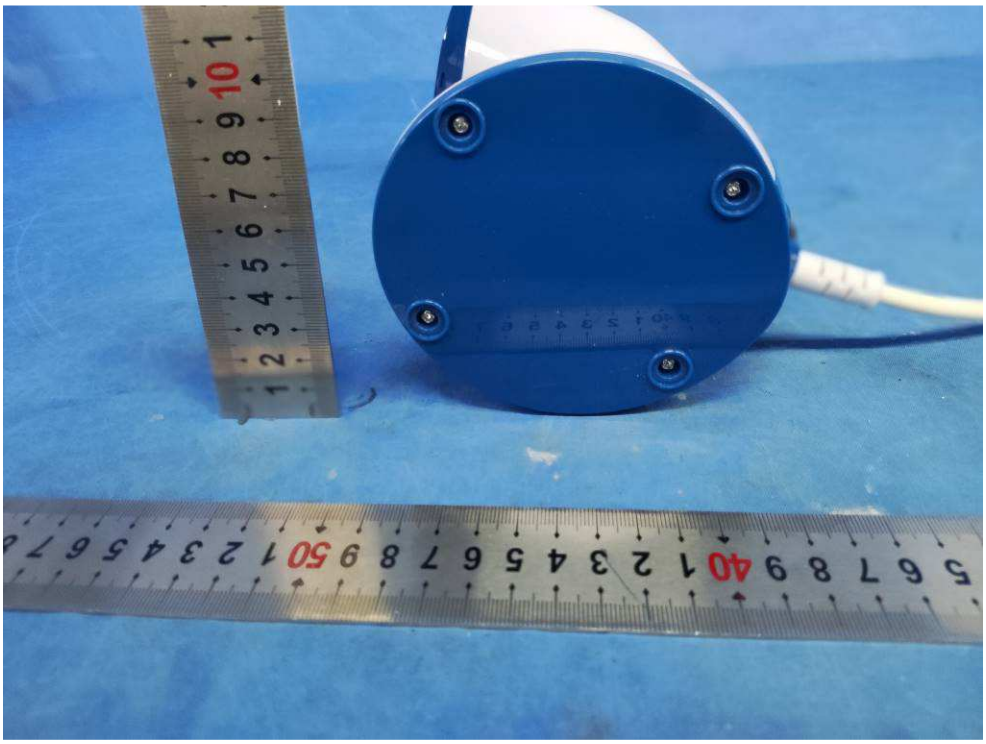

Photo 3

Description: External view of DF-020A

Photo 4

Description: External view of DF-020A

Photo 5

Description: External view of DF-020A

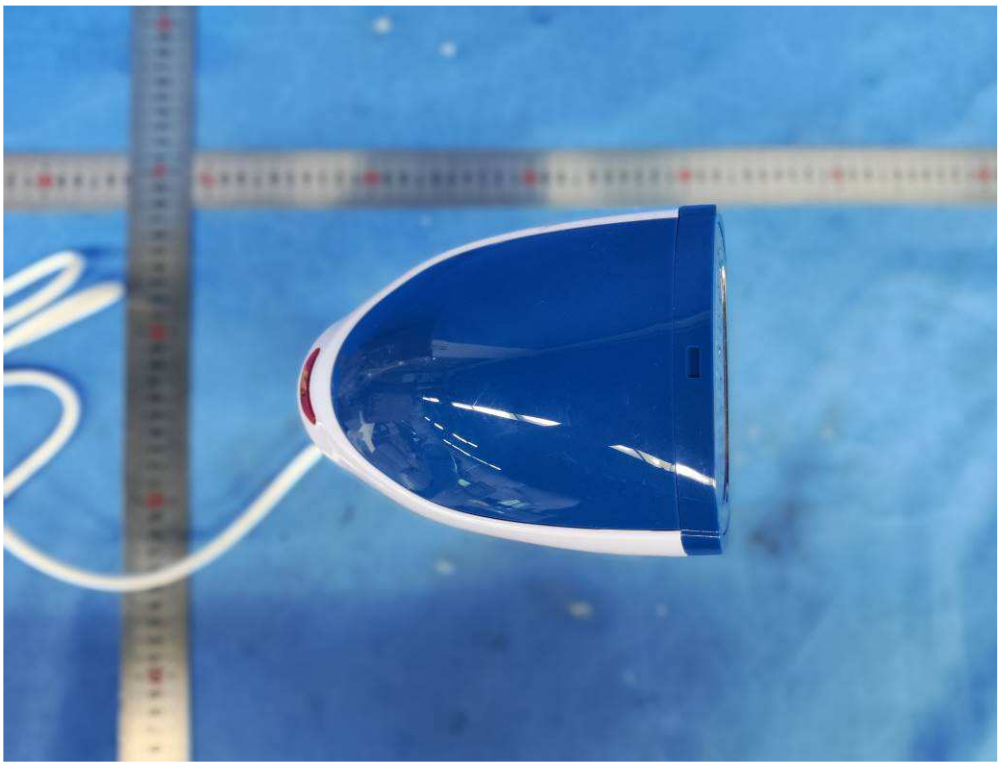

Photo 5

Description: External view of DF-020A

Photo 6

Description: Water tank view of DF-020A

Photo 7

Description: Internal view of DF-020A

Photo 8

Description: Internal view of DF-020A

Photo 9

Description: Internal view of DF-020A

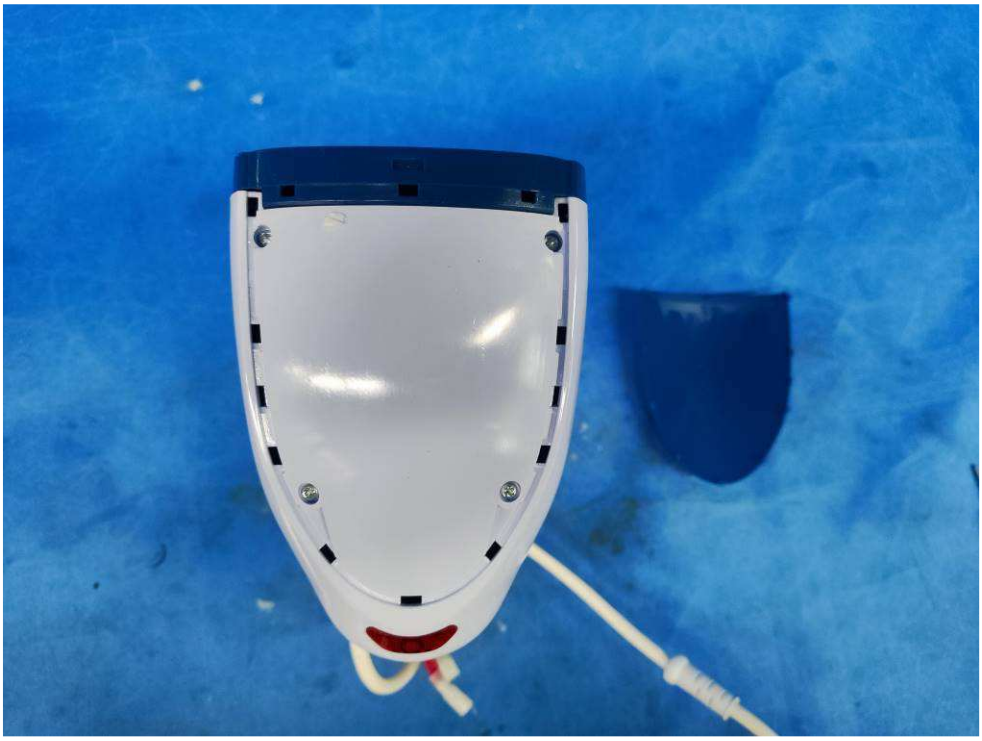

Photo 10

Description: Internal view of DF-020A

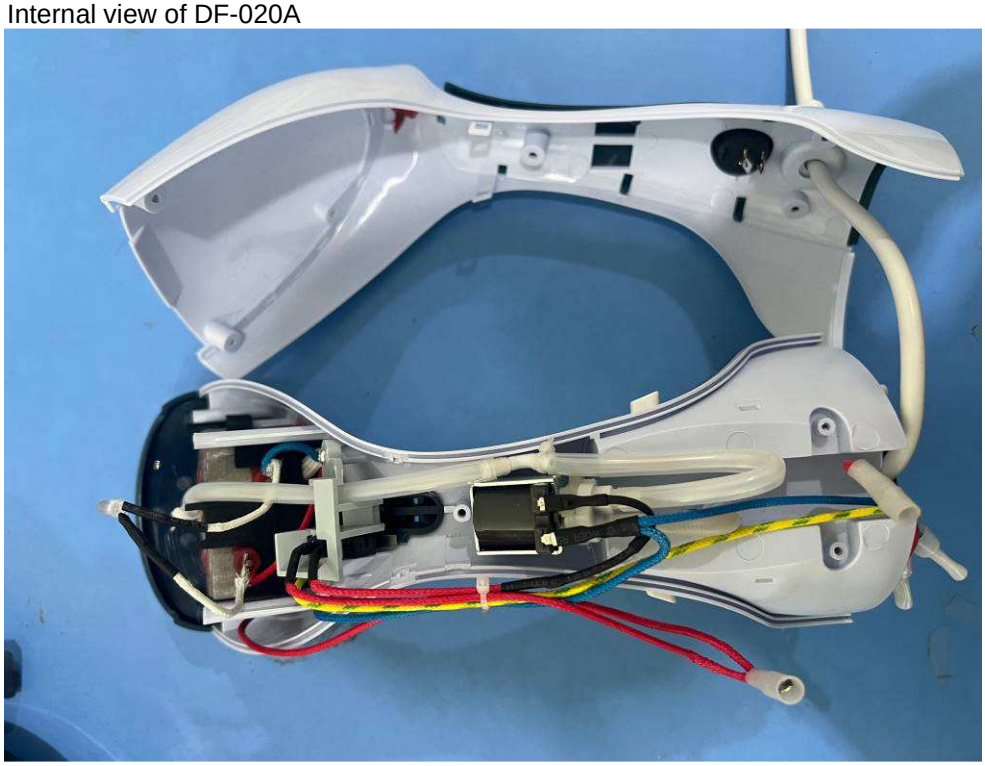

Photo 11

Description: Internal view of DF-020A

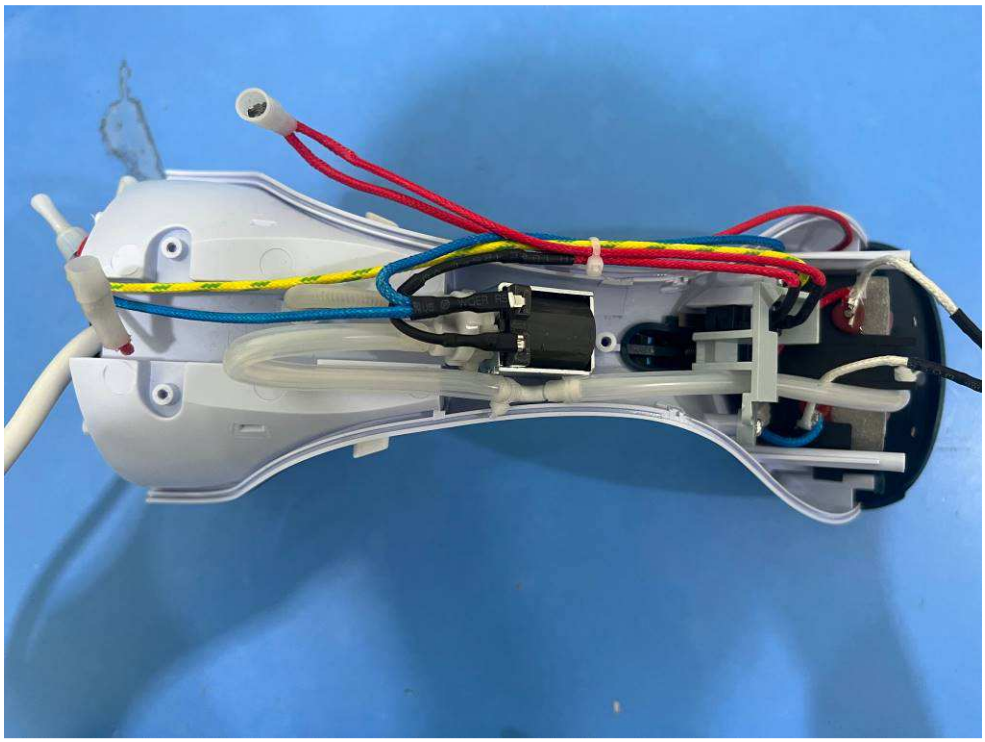

Photo 12

Description: Internal view of DF-020A

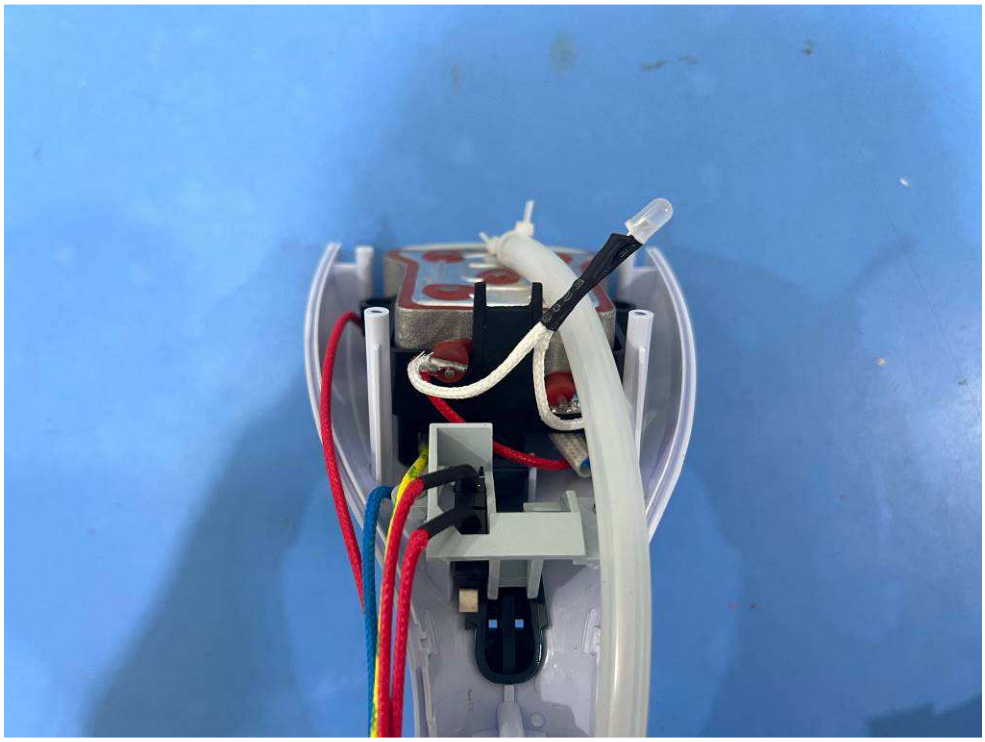

Photo 13

Description: Internal view of DF-020A

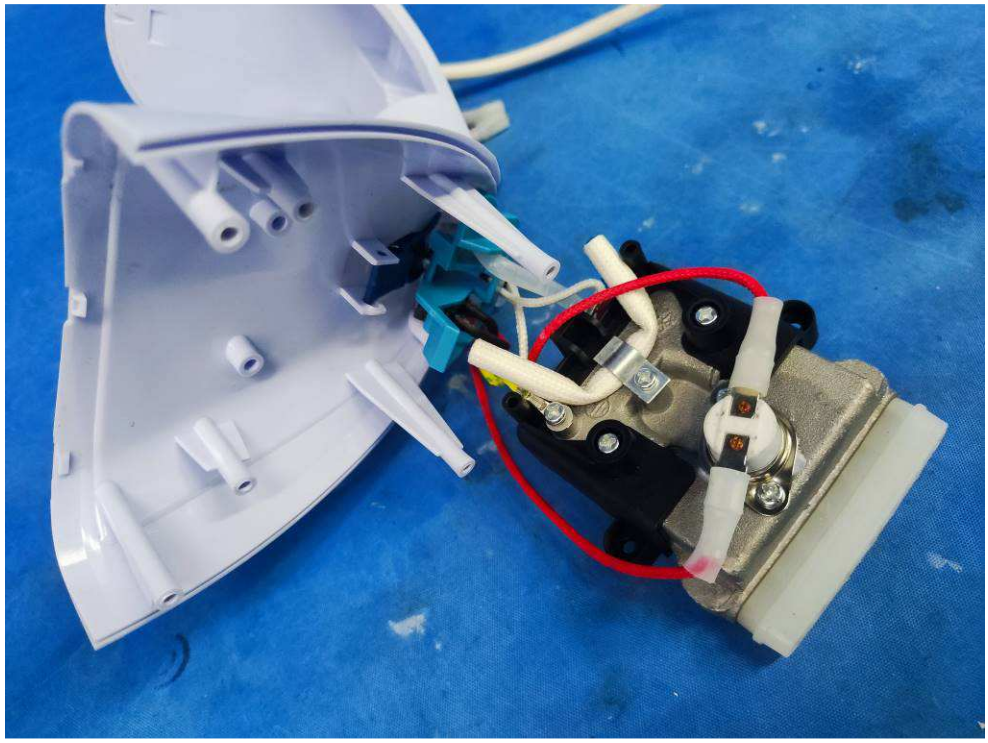

Photo 24
Description: Earthing connection of heating plate for all models

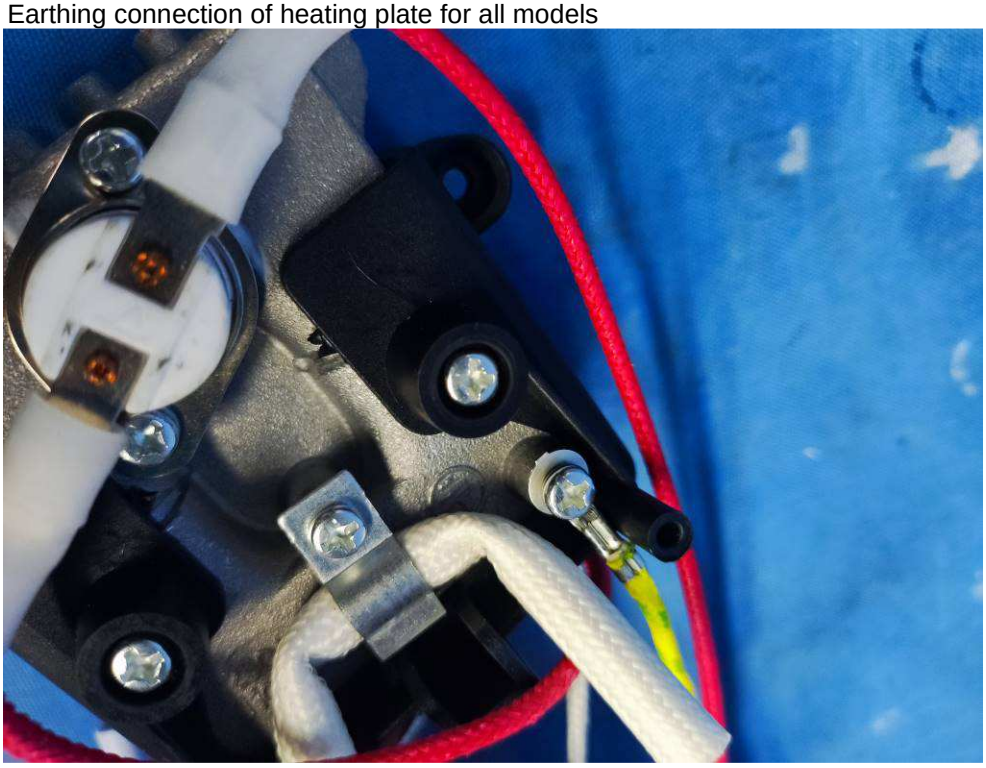

Photo 25
Description: Double water tube view of both models

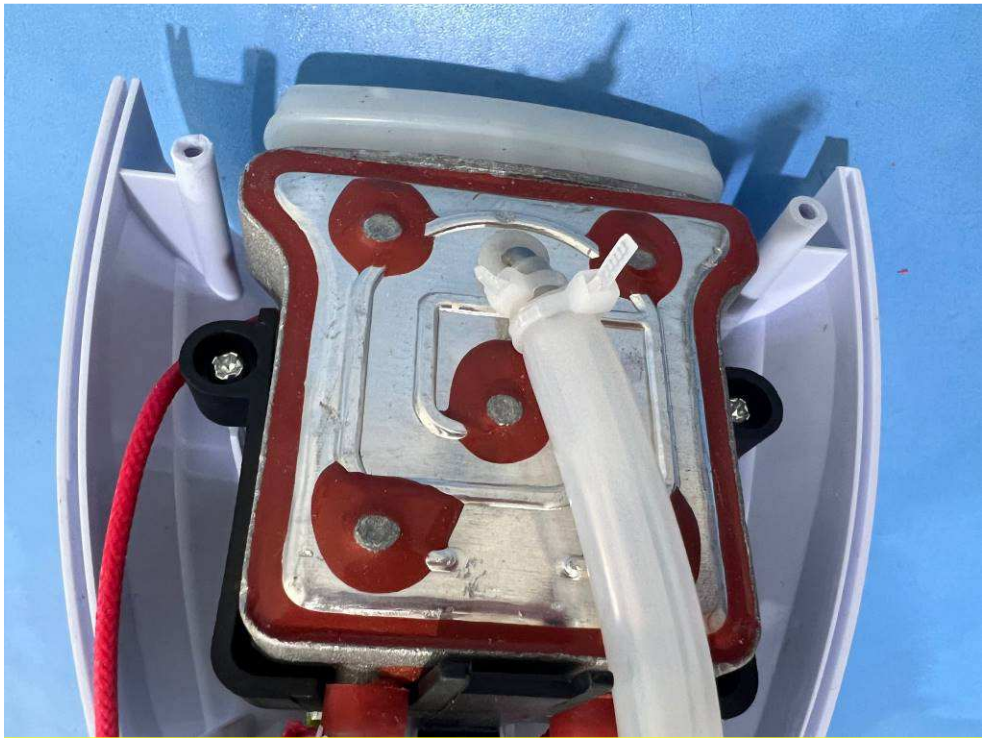

Photo 23

Description: Heating element of DF-020A

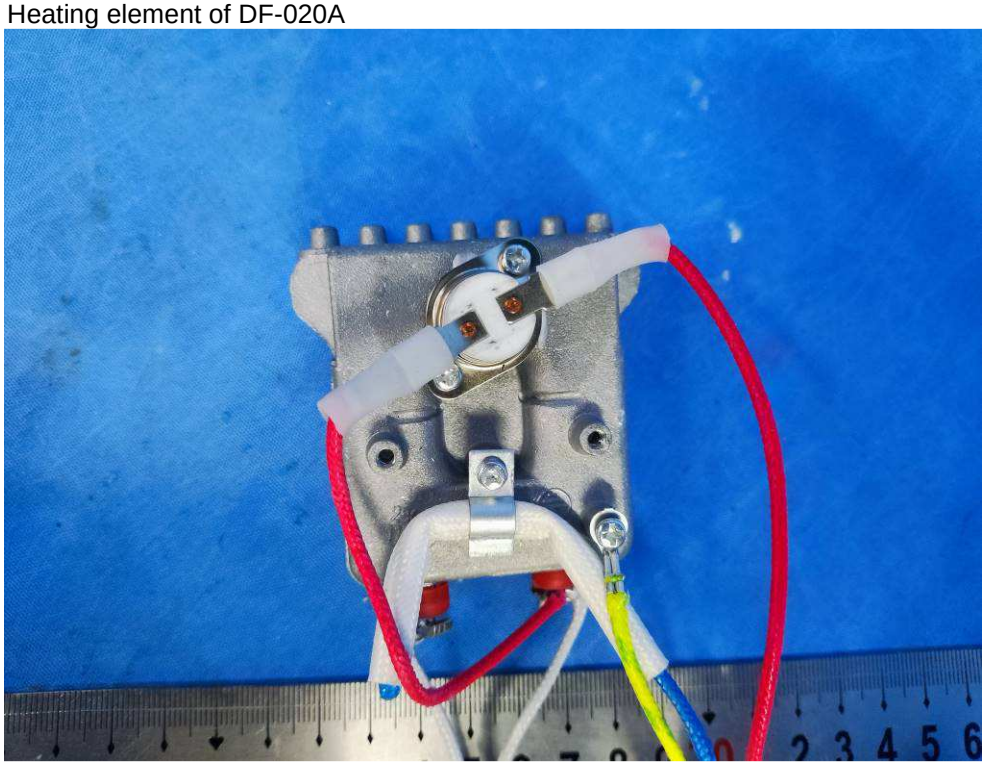

Photo 24

Description: Heating element of DF-020A

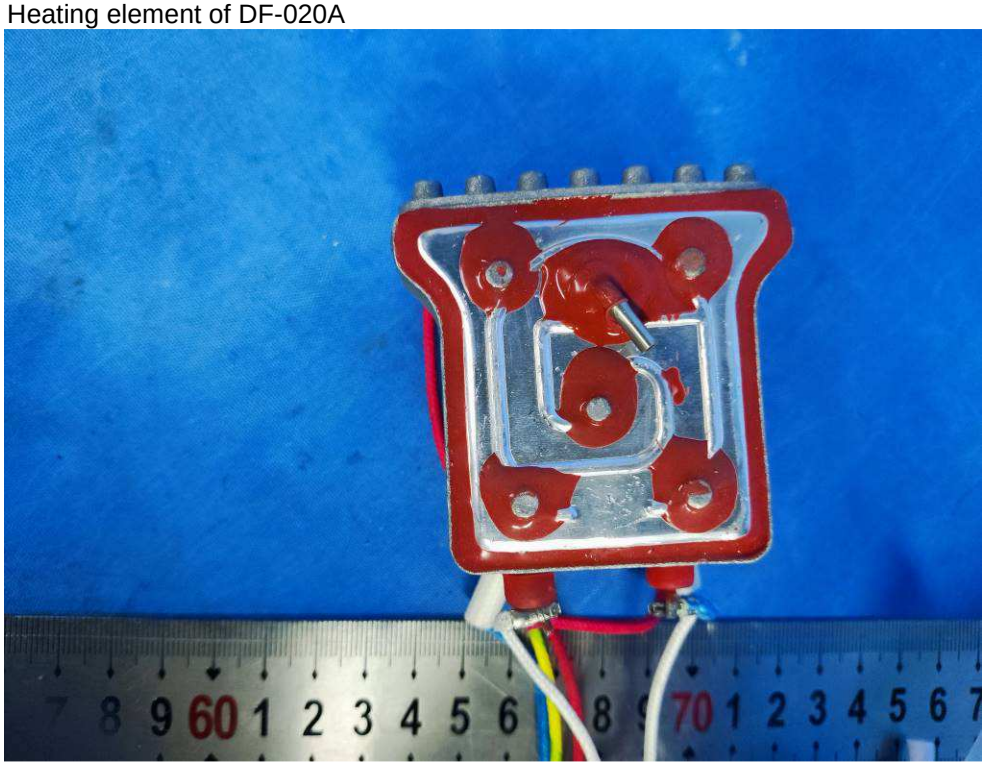

Photo 24
Description: Alternative pump DJMP-2 view for DF-019A, DF-019C, DF-020, DF-020A

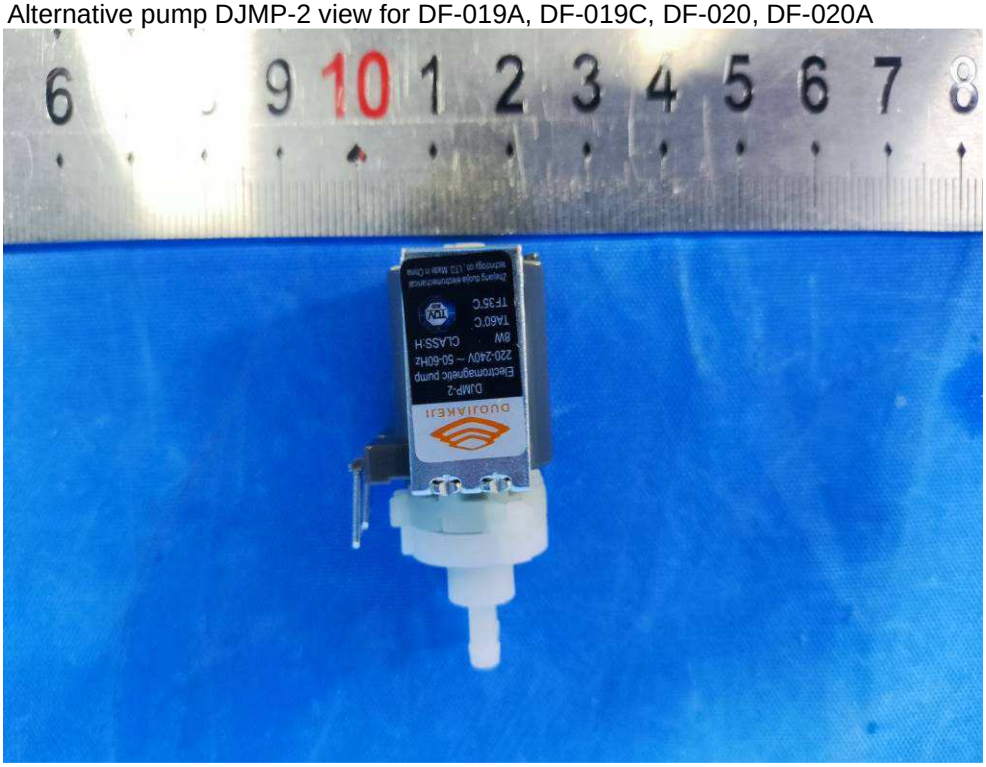

Photo 25
Description: Alternative pump DJMP-2 view for DF-019A, DF-019C, DF-020, DF-020A

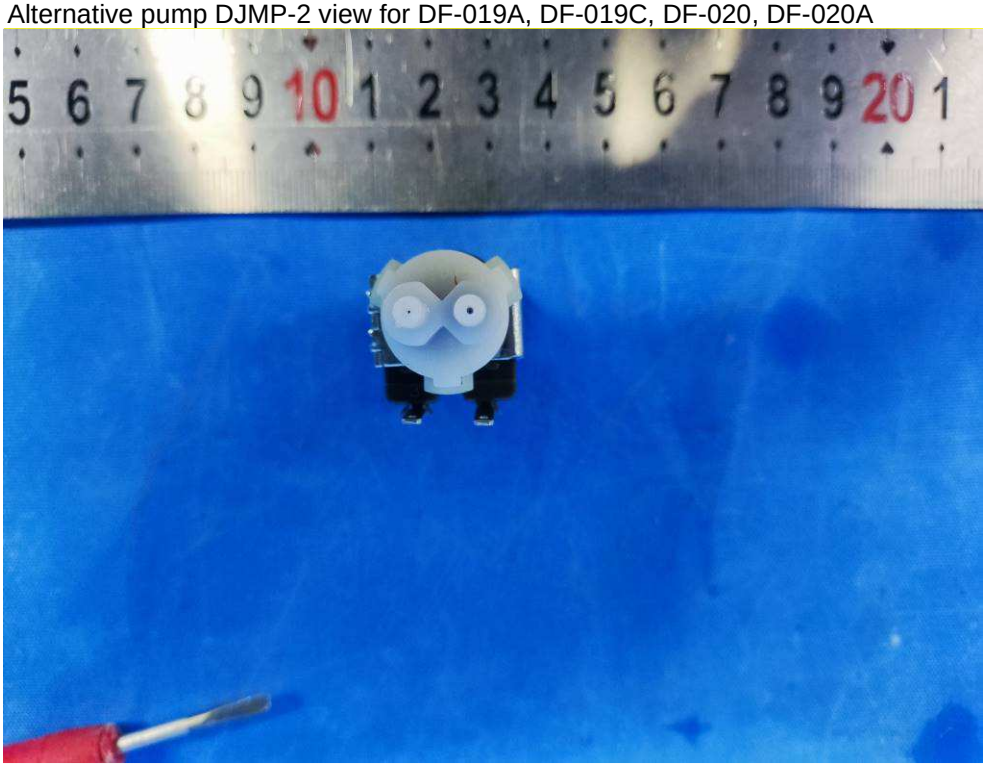

Photo 23
Description: Alternative internal view of DF-019A, DF-019C with pump EJ-01

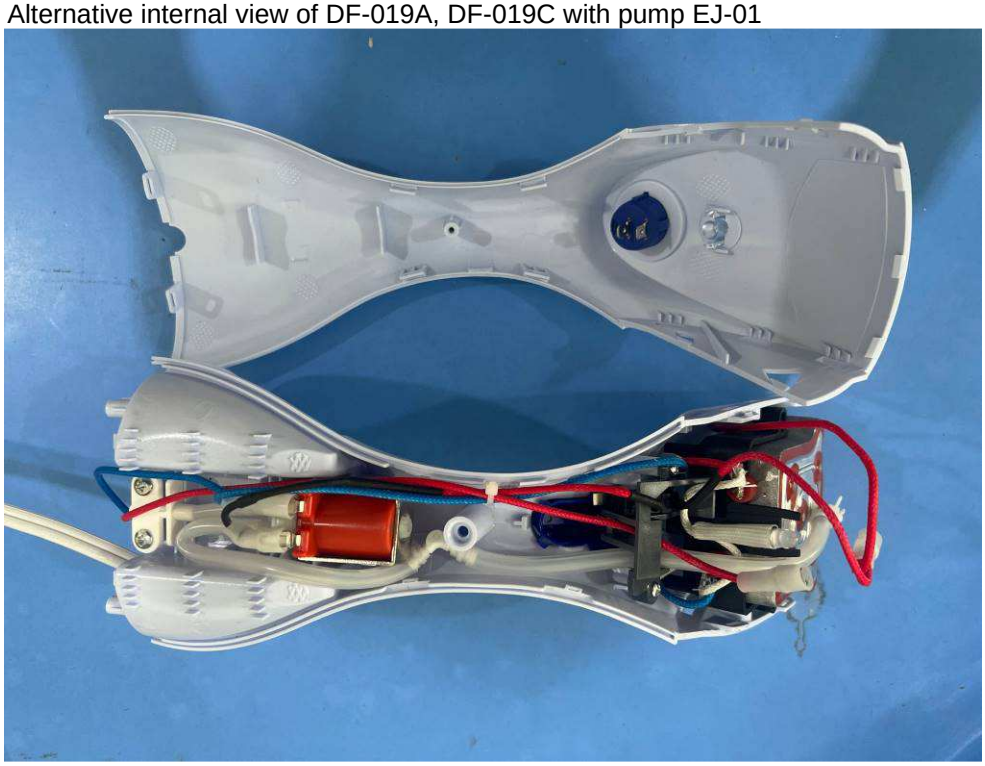

Photo 24
Description: Alternative pump EJ-01 view for DF-019A, DF-019C

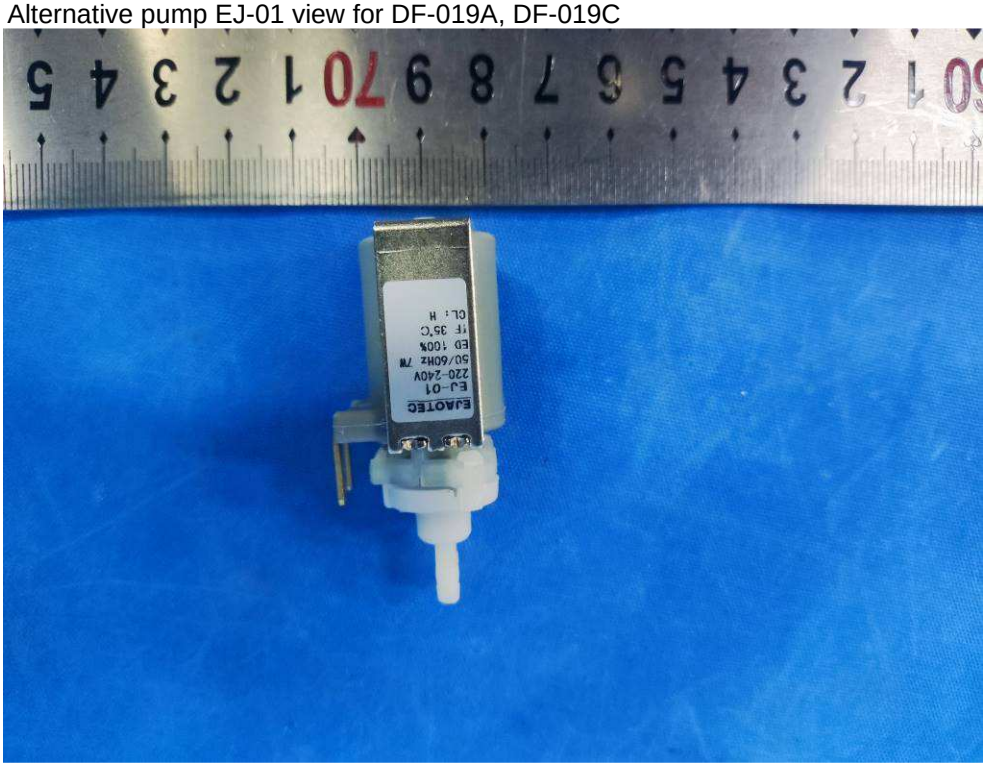

Photo 25
Description: Alternative pump EJ-01 view for DF-019A, DF-019C