



Test Report issued under the responsibility of:



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

Report Number: EFSH18112154-IE-01-L01-M1
Date of issue: 2019-01-14; Modification 1: 2019-04-01
Total number of pages..... 16 pages

Applicant's name: CIXI MEIYU ELECTRIC APPLIANCE CO., LTD.
Address: NO.1, ZHUANGQIAO ROAD, YUNCHENG, ZHOUXIANG, CIXI,
NINGBO, CHINA

Test specification:

Standard: IEC 60335-2-85:2002, AMD1:2008, AMD2:2017
for use in conjunction with IEC 60335-1:2010, COR1:2010,
COR2:2011, AMD1:2013, COR1:2014, AMD2:2016, COR1:2016,
Test procedure.....: CB Scheme
Non-standard test method.....: N/A

Test Report Form No.....: IEC60335_2_85H
Test Report Form(s) Originator.....: SLG
Master TRF.....: Dated 2018-09-04

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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:

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Test item description..... :	GARMENT STEAMER	
Trade Mark..... :	N/A	
Manufacturer..... :	Same as the applicant	
Model/Type reference..... :	MY-268, MY-188, MY-528, MY-728, MY-828, MY-928	
Ratings..... :	220-240V~, 50/60Hz, Class I for all models MY-528,MY-728,MY-928: 1700W; MY-188,MY-268,MY-828: 2000W	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
<input checked="" type="checkbox"/> CB Testing Laboratory:	Eurofins Product Testing Service (Shanghai) Co., Ltd.	
Testing location/ address	No.395, No.399 West Jiangchang Road, Jing'an District, Shanghai, China	
Tested by (name, function, signature)..... :	Michael Liu (Project engineer)	<i>Michael Liu</i>
Approved by (name, function, signature)... :	Brian Pan (Project engineer)	<i>Brian Pan</i>
<input type="checkbox"/> Testing procedure: CTF Stage 1:		
Testing location/ address		
Tested by (name, function, signature)..... :		
Approved by (name, function, signature)... :		
<input type="checkbox"/> Testing procedure: CTF Stage 2:		
Testing location/ address		
Tested by (name, function, signature)..... :		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature)... :		
<input type="checkbox"/> Testing procedure: CTF Stage 3:		
<input type="checkbox"/> 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):

None.

Summary of testing:

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

Tests performed (name of test and test clause):

- Cl.7 Marking and instruction
- Cl.10 Power input and current
- Cl.11 Heating
- Cl.13 Leakage current and electric strength at operating temperature
- Cl.19 Abnormal operation

Testing location:

Eurofins Product Testing Service (Shanghai) Co., Ltd.
No.395, No.399 West Jiangchang Road, Jing'an District, Shanghai, China

Summary of compliance with National Differences:

List of countries addressed:

None

- The product fulfils the requirements of IEC 60335-2-85:2002 (Second edition) + A1:2008 + A2:2017 used in conjunction with IEC 60335-1:2010 (Fifth Edition) incl. Corr. 1:2010 and Corr. 2:2011 + A1:2013 + A2:2016

Copy of marking plate: (Representative, may differ with the model number and rated power input)

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.

GARMENT STEAMER

MY-268

220-240V~, 50/60Hz, 2000W, Class I

CIXI MEIYU ELECTRIC APPLIANCE CO., LTD.

NO.1,ZHUANGQIAO ROAD,YUNCHENG, ZHOUXIANG,
CIXI, NINGBO, CHINA

GARMENT STEAMER

MY-928

220-240V~, 50/60Hz, 1700W, Class I

CIXI MEIYU ELECTRIC APPLIANCE CO., LTD.

NO.1,ZHUANGQIAO ROAD,YUNCHENG, ZHOUXIANG,
CIXI, NINGBO, CHINA

Test item particulars :	
Classification of installation and use..... :	Portable Appliance
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 :	2019-03-15
Date (s) of performance of tests..... :	2019-03-15 to 2019-04-01
General remarks:	
<p>"(See Enclosure #)" refers to additional information appended to the report.</p> <p>"(See appended table)" refers to a table appended to the report.</p> <p>Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.</p> <p>The related applicable CTL decisions have been considered and the requirements found fulfilled.</p> <p>Determination of the test result includes consideration of measurement uncertainty from the test equipment and methods.</p>	
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 :	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies)..... :	CIXI MEIYU ELECTRIC APPLIANCE CO., LTD. NO.32, SHICHANG ROAD, YUNCHENG, ZHOUXIANG, CIXI, NINGBO, ZHEJIANG, CHINA

General product information:

The appliances are GARMENT STEAMERS for household and indoor use only.

All models have the same function, circuit and similar boiler. They are controlled by mechanical switches.

After view, MY-828 were selected to do full of tests and Cl.20.1 was performed on MY-928..

Modification 1:

The original Test Report Ref. EFSH18112154-IE-01-L01, dated 2019-01-14 was modified on 2019-04-01 to include the following changes and/or additions:

1. Correct the rated power input of MY-528,MY-728 and MY-928 from “1700-2000W” to “1700W” , and correct the rated power input of MY-188,MY-268 and MY-828: “1700-2000W” to “2000W”.
2. Update the information of table 24.1.
3. Correct the address of factory.

After review, MY-828 were selected to do tests of Cl.10.1, Cl.11.8, Cl.13, Cl.19.2, Cl.19.3, Cl.19. 4, Cl.19.5 and only test of Cl.10.1 and Cl.20.1 were performed on MY-928.

This report is only valid in conjunction with the original test report No. EFSH18112154-IE-01-L01.

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
7	MARKING AND INSTRUCTIONS		--
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		P
	Relation between marking for upper and lower limits of rated power input or rated current and voltage is clear		N/A
10	POWER INPUT AND CURRENT		--
10.1	Power input at normal operating temperature, rated voltage and normal operation not deviating from rated power input by more than shown in table 1 ..:	(see appended table)	P
	If the power input varies throughout the operating cycle and the maximum value of the power input exceeds, by a factor greater than two, the arithmetic mean value of the power input occurring during a representative period, the power input is the maximum value that is exceeded for more than 10 % of the representative period		N/A
	Otherwise the power input is the arithmetic mean value		N/A
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated power input is related to the arithmetic mean value		P
	NOTE 101: For electrode-type appliances, the negative deviation is not limited (IEC 60335-2-85:2002)		N/A
10.2	Current at normal operating temperature, rated voltage and normal operation not deviating from rated current by more than shown in table 2	(see appended table)	N/A
	If the current varies throughout the operating cycle and the maximum value of the current exceeds, by a factor greater than two, the arithmetic mean value of the current occurring during a representative period, the current is the maximum value that is exceeded for more than 10 % of the representative period		N/A
	Otherwise the current is the arithmetic mean value		N/A
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
	the rated current is related to the arithmetic mean value of the range		N/A
11	HEATING		--
11.1	No excessive temperatures in normal use		P
11.2	The appliance is held, placed or fixed in position as described	The appliances were place on the test corner as near to the walls as possible	P
11.3	Temperature rises, other than of windings, determined by thermocouples		P
	Temperature rises of windings determined by resistance method, unless		P
	the windings are non-uniform or it is difficult to make the necessary connections		N/A
11.4	Heating appliances operated under normal operation at 1.15 times rated power input (W)	(see appended table)	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
11.5	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)		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 tables)	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

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
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)	(see appended table)	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
13.2	The leakage current is measured by means of the circuit described in Figure 4 of IEC 60990:1999		
	For class 0, class II and class III appliances, and class II constructions, leakage current measured by means of the circuit described in figure 4 of IEC 60990		P
	For class 0I and class I appliances, a low impedance ammeter may be used		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
19	ABNORMAL OPERATION		--
19.1	The risk of fire, mechanical damage or electric shock under abnormal or careless operation obviated		P
	Electronic circuits so designed and applied that a fault will not render the appliance unsafe	(see appended table)	P
	Appliances incorporating heating elements subjected to the tests of 19.2 and 19.3, and		P
	if the appliance also has a control that limit the temperature during clause 11 it is subjected to the test of 19.4, and		P
	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		N/A
	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)	192,7V~, 1555,4W	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)	Empty boiler is more unfavourable	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)	256,9V~, 2700,3W	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		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

IEC 60335-2-85			
Clause	Requirement + Test	Result - Remark	Verdict
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	P
	- supplementary insulation (V).....:	1750V	P
	- reinforced insulation (V).....:	3000V	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		N/A
	no failure of protective electronic circuits, if the appliance is still operable		N/A
	Appliances tested with an electronic switch in the off position, or in the stand-by mode:		--
	- do not become operational, or		N/A
	- 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

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

10.1	TABLE: Power input deviation					P
Input deviation of/at:	P rated (W)	P measured (W)	ΔP	Required ΔP	Remark	
MY-928	1700	1780	+4,7%	-10%~+5%	Supplied at 230V~	
MY-828	2000	2097	+4,9%	-10%~+5%	Supplied at 230V~	
Supplementary information: Tested at 50/60Hz, the most unfavourable results were recorded.						

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

11.8	TABLE: Heating test, thermocouples		MY-828	P
	Test voltage (V):		247,8	
	Ambient (°C):		20	
	Thermocouple locations	dT (K)	Max. dT (K)	
	Supply cord	29,9	50	
	Test corner	7,9	65	
	Internal wire	64,8	155(T180)	
	Ambient of power switch	46,3	60(T85)	
	Insulation of thermal link	154,7	175(T200)	
	Ambient of thermostat	102,4	155(T180)	
	Enclosure	27,3	--	
	Water container	25,4	--	
	Switch Knob	8,2	50	
	Handle	1,7	50	
	Steam opening-outlet	54,7	--	

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

13.2	TABLE: Leakage current		MY-828	P
	Heating appliances: 1.15 x rated input (W) ..:		2300W	—
	Motor-operated and combined appliances: 1.06 x rated voltage (V).....:		N/A	—
Leakage current between:		I (mA)	Max. allowed I (mA)	
L/N – Earthing metal parts		0,059/0,088	0,75	
L/N – Enclosure		0,021/0,019	0,35 peak	
L/N – Switch/knob/handle		0,017/0,016	0,35 peak	
Supplementary information:				

13.3	TABLE: Dielectric strength			P
Test voltage applied between:		Test potential applied (V)	Breakdown / flashover (Yes/No)	
L/N – Earthing metal parts		1000	No	
Internal wire – Enclosure		1750	No	
L/N – Switch/knob/handle		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?		YES	Manual operation				
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	No hazards	N/A	N/A	N/A	N/A	P
19.3	Refer to Cl.19.3	No hazards	N/A	N/A	N/A	N/A	P
19.4	Refer to Cl.19.4	No hazards	N/A	N/A	N/A	N/A	P
19.5	Refer to Cl.19.5	No hazards	N/A	N/A	N/A	N/A	P

IEC 60335-2-85							
Clause	Requirement + Test			Result - Remark			Verdict
19.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19.11	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						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:							

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

19.13	TABLE: Abnormal operation, temperature rises		MY-828	P
Thermocouple locations		dT (K)	Max. dT (K)	
Cl.19.2&19.3				
Test corner		16,1	150	
Supply cord		28,1	150	
Enclosure		30,9	--	
Cl.19.4 & Cl.19.5				
Test corner		5,8	150	
Supply cord		27,2	150	
Cl.20.1				
Test corner		9,6	150	
Supply cord		36,8	150	
Enclosure		27,1	--	

IEC 60335-2-85					
Clause	Requirement + Test			Result - Remark	Verdict
24.1	TABLE: Components				P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
Plug	Ningbo Qiaopu Electric Co., Ltd.	D03	250V~, 16A	DIN VDE 0620-2- 1	VDE*/ 40002872
Plug for UK	Ningbo Qiaopu Electric Co., Ltd.	D09A	250V~, 13A	BS 1363-1	ASTA*/ 930
Plug for Saudi	Cixi Lujie Electrical Appliance Co., Ltd.	LJ01	250V~, 13A	SASO 2203	Intertek*/ KSA R- 310542/2
Plug for Malaysia	Cixi Lujie Electrical Appliance Co., Ltd.	LJ01	250V~, 13A	MS 589-1	SIRIM QAS*/ PC001335
Supply cord	Ningbo Qiaopu Electric Co., Ltd.	H05VV-F	3X 1,0mm ²	EN 50525-2-11	VDE*/ 40035976
Alternative	Yuyao Nan Xiang Cable Co., Ltd.	H03RT-H	3X 1,0mm ²	EN 50525-2-22	VDE*/ 40024504
Alternative	Shangyu Jintao Electron Co., Ltd.	H05RN-F	3X 1,0mm ²	EN 50525-2-21	VDE*/ 40018106
Internal wire	CIXI SHUANGHONG WIRE CO., LTD.	H05S-K	1x1,0mm ² T180	EN 50525-2-41	VDE*/ 40017324
Thermostat	Ningbo Tianguan Temperature Controller Manufacturing Co.,Ltd.	KSD301-T	250V~, 16A, Tf180, T180	IEC 60730-1 IEC 60730-2-9	TUV*/ R 50212271
Thermal link	The Third Radio Factory of Yangzhong,Jiangsu	RY240	250V~, 10A, Tf240 , T240	IEC 60691	TUV*/ R 50311907
Heating element	Cixi Zhouxiang Jinjia Hardware Factory	MY	220-240V~, 1700-2000W	IEC 60335-1 IEC 60335-2-85	Tested with appliance
Insulation of thermal link	SHENZHEN WAHCHANGWEI INDUSTRIAL CO LTD	SRS-70	600V, 200°C (UL E233803)	IEC 60335-1 IEC 60335-2-85	Tested with appliance
Heat shrinkable tube	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR-H	600V, 125°C, VW-1 (UL E203950)	IEC 60335-1 IEC 60335-2-85	Tested with appliance
Wire connector	HEAVY POWER CO LTD	CE1	(UL E113650)	IEC 60335-1 IEC 60335-2-85	Tested with appliance
SWITCH	Cixi Biege Electrical Appliance Co., Ltd.	XK1-222	250V~, 16A, T125, 1E4	IEC/EN 61058-1	TUV/14 03 61954 019
Plastic enclosure	Ningbo Fude Power Co.,Ltd	PP, T30S	Min.thickness: 1,1mm	IEC 60335-1 IEC 60335-2-85	Tested with appliance
Switch knob	Yuyao Daqing Plastic Co.,Ltd	ABS, 750A	Min.thickness: 1,0mm	IEC 60335-1 IEC 60335-2-85	Tested with appliance

IEC 60335-2-85					
Clause	Requirement + Test			Result - Remark	Verdict
Support of heating element	Cixi Meiyu Electric Appliance Co.,Ltd	Nylon plastic, --	Min.thickness: 1,0mm	IEC 60335-1 IEC 60335-2-85	Tested with appliance
Indicator cover	LG Chem	PC, 1100	Min.thickness: 1,2mm	IEC 60335-1 IEC 60335-2-85	Tested with appliance
Supplementary information: 1) Provided evidence ensures the agreed level of compliance. See OD-2039.					