Test Report issued under the responsibility of:

TEST REPORT
IEC 60335-2-23
Part 1: Safety of household and similar electrical appliances
Part 2: Particular requirements for appliances for skin or hair care

Report Number.....:	NBES230900548002-M1
Date of issue .....:	2023-11-27 Modification No.1: 2024-01-19
Total number of pages.....:	18
Name of Testing Laboratory preparing the Report.....:	SGS-CSTC Standards Technical Services Co., Ltd. Ningbo Branch
Applicant's name .....:	Shuye Technology Co., Limited.
Address .....:	19H Maxgrand Plaza, No.3 Tai Yau Street, San Po Kong, Kowloon, Hong Kong
Test specification:	
Standard.....:	IEC 60335-2-23:2016, AMD1:2019 in conjunction with IEC 60335-1:2010, COR1:2010, AMD1:2013, COR1:2014, AMD2:2016, COR1:2016
Test procedure.....:	CB Scheme
Non-standard test method.....:	N/A
Test Report Form No. .....:	IEC60335_2_23L
Test Report Form(s) Originator ....:	VDE Prüf- und Zertifizierungsinstitut GmbH
Master TRF .....:	Dated 2019-09-10

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

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 .....:	Hair Dryer
Trade Mark.....:	laifen
Original Product/Equipment Manufacturer .....:	Dongguan Laifen Electronic Technology Co., Ltd.
Branding Manufacturer(s).....:	Room 201, Building 3, No.2 Xinghui Road, Songshanhu Tech Park, Dongguan, Guangdong, China None
Model/Type reference .....:	**Swift,** SE
Ratings .....:	220 – 240 V; 50/60 Hz or 50 - 60 Hz; Class II For **Swift**: 1600 W; For SE: 1500 W

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
☒	**CB Testing Laboratory:**	SGS-CSTC Standards Technical Services Co., Ltd. Ningbo Branch	
Testing location/ address .....:		No.1177, Lingyun Road, Hi-Tech Zone, Ningbo, Zhejiang, China	
Tested by (name, function, signature) .....:		Able Jiang, PE	
Approved by (name, function, signature) ..:		David Zhao, Reviewer	David Zhao
☐	**Testing procedure: CTF Stage 1:**	N/A	
Testing location/ address .....:			
Tested by (name, function, signature) .....:			
Approved by (name, function, signature) ..:			
☐	**Testing procedure: CTF Stage 2:**	N/A	
Testing location/ address .....:			
Tested by (name + signature).....:			
Witnessed by (name, function, signature) .:			
Approved by (name, function, signature) ..:			
☐	**Testing procedure: CTF Stage 3:**	N/A	
☐	**Testing procedure: CTF Stage 4:**	N/A	
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):

1. Annex I – European group differences and national differences – attachment 1 page
2. Annex II – The requirements of Australia and New Zealand national differences– attachment 1 page
3. Annex III – Photo documentation – attachment 2 pages

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
The tested samples comply with the requirements of the test specification. IEC 60335-2-23:2016 + A1:2019 IEC 60335-1:2010 + A1:2013 + A2:2016 After review, test of clause 10, 11, 13, 19.7, 19.8, 19.101, 19.102, 30.1 and EMF were performed on Swift with alternative motor 1.	SGS-CSTC Standards Technical Services Co., Ltd. Ningbo Branch No.1177, Lingyun Road, Hi-Tech Zone, Ningbo, Zhejiang, China

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

-List of countries addressed:

- EU Group Differences
- Republic of Korea
- National differences of Australia and New Zealand
- Malaysia Group Differences
- Singapore Differences

The product fulfils the requirements of:
AS/NZS 60335.2.23:2017 + A1:2020 + A2:2021
AS/NZS 60335.1:2020 + A1:2021
EN 60335-2-23:2003 + A1:2008 + A11:2010 + A2:2015
EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A14:2019 + A2:2019 + A15:2021
EN 62233:2008

Statement concerning the uncertainty of the measurement systems used for the tests:
(may be required by the product standard or client)

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

Procedure number, issue date and title:

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

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

Copy of marking plate:
Copy of marking plate was not changed.

Test item particulars ..... :	
Classification of installation and use ..... :	Hand-held appliance
Supply Connection ..... :	Type Y attachment (non-detachable cord with plug)
..... :	
Possible test case verdicts:	
- test case does not apply to the test object .....:	N/A
- test object does meet the requirement .....:	P (Pass)
- test object does not meet the requirement .....:	F (Fail)
Testing .....:	
Date of receipt of test item .....:	2024-01-05
Date (s) of performance of tests.....:	2024-01-05 to 2024-01-19

General remarks:

"(See Annex #)" 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.

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) ..... :	Dongguan Laifen Manufacturing Co., Ltd. Room 301, Building 2, No.2 Xinghui Road, Songshanhu Tech Park, Dongguan, Guangdong, China

General product information and other remarks:

This appliance for household and indoor use only.

For detail of the differences see below table:

Model	Heating element	Motor	PCB	Material for enclosure	Rated power	Internal structure
SWIFT	Heating wires from two manufacturers: heating1: Laifen heating2: Taoming	Same	From three manufacturers: PCB1: Tulin PCB2: Youming PCB3: Laifen	PA+Fiberglass	1600 W	Same
SE				PC	1500 W	
Remark: The actual heating wires of 1500W and 1600W are the same, set to different rating powers through PCB.						

Modification 1 Report NBES230900548002-M1:

The original Test Report Ref. No. NBES230900548001 dated 2023-11-27 was modified on 2024-01-19 to include the following changes and additions, which are considered technical modification:

1. Alternative motors were added in this report, see below table for detail:

Original motor	Alternative motors
LF01 105 W, 107000 r/min, 310 V, Class 155	Motor 1: LF01 150 W, 107000 r/min, 310 V, Class 155 Remark: Same as original motor, except for nominal rated power and speed.
	Motor 2: LF01 105 W, 102000 r/min, 310 V, Class 155 Remark: Same as original motor and motor 1, except for nominal rated power and speed.
	Motor 3: LF01 150 W, 102000 r/min, 310 V, Class 155 Remark: Same as original motor and motor 1, except for nominal rated power and speed.

2. Changed the model name from “SWIFT” to “Swift”.

IEC 60335-2-23			
Clause	Requirement + Test	Result - Remark	Verdict
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
	Representative period for appliances incorporating PTC heating elements is 30 min. (IEC 60335-2-23:2016)		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..... :		N/A
	If the current varies throughout the operating cycle and the maximum value of the current exceeds, by a factor greater than two, the arithmetic mean value of the current occurring during a representative period, the current is the maximum value that is exceeded for more than 10 % of the representative period		N/A
	Otherwise the current is the arithmetic mean value		N/A
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated current is related to the arithmetic mean value of the range		N/A
	Representative period for appliances incorporating PTC heating elements is 30 min. (IEC 60335-2-23:2016)		N/A
11	**HEATING**		—
11.1	No excessive temperatures in normal use		P
	For appliances incorporating swivel connection, compliance also checked by test of clause 11.101 (IEC 60335-2-23:2016)		N/A
11.2	The appliance is held, placed or fixed in position as described..... :	Operated with unrestricted airflow directed downwards	P

IEC 60335-2-23			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliances intended to be used on a stand or attached to a support placed to give most unfavourable results (IEC 60335-2-23:2016)		N/A
	Hand-held appliances with an integral rest are also tested when placed on their rest away from the walls of the test corner. (IEC 60335-2-23:2016)		N/A
11.3	Temperature rises, other than of windings, determined by thermocouples		P
	Temperature rises of windings determined by resistance method, unless		N/A
	the windings are non-uniform or it is difficult to make the necessary connections		P
11.4	Heating appliances operated under normal operation at 1,15 times rated power input (W) .....:	(see appended table)	P
	Temperature rise limits exceeded in appliances incorporating motors, transformers or electronic circuits, and power input is lower than rated power input, test repeated with appliance supplied at 1,06 times rated voltage (IEC 60335-2-23:2016)		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 as heating appliances (IEC 60335-2-23:2016)		P
11.7	Appliances without timer operated (IEC 60335-2-23:2016):		—
	- for 30 min, for hand-held appliances (IEC 60335-2-23:2016);		P
	- in cycles of 30 s on and 5 s off until steady conditions established, for hand dryers that automatically controlled by presence of hands (IEC 60335-2-23:2016);		N/A
	- until steady conditions established, for other appliances (IEC 60335-2-23:2016).		N/A
	Appliances incorporating timer operated in cycles until steady conditions established. Each cycle consists of maximum operating time of timer (min) followed by rest period of 5 s (IEC 60335-2-23:2016) :		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		N/A

IEC 60335-2-23			
Clause	Requirement + Test	Result - Remark	Verdict
	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
	The temperature rise of detachable curlers is not measured. (IEC 60335-2-23:2016)		N/A
	The water temperature at the geometric centre of the water volume not exceeds 50 °C. (IEC 60335-2-23:2016) (IEC 60335-2-23:2016/AMD1:2019)		N/A
11.101	Appliances incorporating a swivel connection positioned with their major axis horizontal, supply cord hanging vertically. Pull force of 1 N applied to supply cord (IEC 60335-2-23:2016)		N/A
	Appliance supplied at rated voltage, current being 1,25 times rated current (IEC 60335-2-23:2016)		N/A
	Appliance rotated about its major axis at rate of approximately 50 rev/min, direction of rotation being reversed every 20 rev. Test carried out for 1500 rev (IEC 60335-2-23:2016)		N/A
	Temperature rise of sliding contacts not exceed 65 K (IEC 60335-2-23:2016)		N/A
13	**LEAKAGE CURRENT AND ELECTRIC STRENGTH AT OPERATING TEMPERATURE**		—
13.1	Leakage current not excessive and electric strength adequate		P
	Heating appliances operated at 1,15 times the rated power input (W) .....:		N/A
	Motor-operated appliances and combined appliances supplied at 1,06 times the rated voltage (V) .....:	1,06 x 240 V=254,4 V	P
	Protective impedance and radio interference filters disconnected before carrying out the tests		P
13.2	The leakage current is measured by means of the circuit described in figure 4 of IEC 60990:1999	Class II appliance	P
	For class 0I appliances and class I appliances, except parts of class II construction, C may be replaced by a low impedance ammeter		N/A
	Leakage current measurements.....:	(see appended table)	P
13.3	The appliance is disconnected from the supply		P
	Electric strength tests according to table 4 .....:	(see appended table)	P
	No breakdown during the tests		P
19	**ABNORMAL OPERATION**		—
19.7	Stalling test by locking the rotor if the locked rotor torque is smaller than the full load torque, or		N/A

IEC 60335-2-23			
Clause	Requirement + Test	Result - Remark	Verdict
	locking moving parts of other appliances	Locked moving parts	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
	the capacitor is of class S2 or S3 of IEC 60252-1		N/A
	Appliances with timer or programmer supplied with rated voltage for each of the tests, for a period equal to the maximum period allowed .....:		N/A
	An electronic timer or programmer that operates to ensure compliance with the test before the maximum period under the conditions of clause 11 is reached, is a protective electronic circuit		N/A
	Test carried out for 5 min except for (IEC 60335-2-23:2016):		—
	- hand-held appliances (IEC 60335-2-23:2016);		P
	- appliances have to be kept switched on by hand (IEC 60335-2-23:2016);		N/A
	- appliances incorporating a timer (IEC 60335-2-23:2016).		N/A
	During and after the test, the appliance shall not emit flames. (IEC 60335-2-23:2016)		P
	Hand dryers are subjected to the test only if the locked rotor torque is less than the full load torque. (IEC 60335-2-23:2016).		N/A
	Other appliances supplied with rated voltage for a period as specified.....:	30s	P
	Winding temperatures not exceeding values specified in table 8 .....:	(see appended table)	P
19.8	Multi-phase motors operated at rated voltage with one phase disconnected		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		P
	Insulation, other than of class III appliances or class III constructions that do not contain live parts, withstands the electric strength test of 16.3, the test voltage as specified in table 4:		—
	- basic insulation (V).....:	1000	P
	- supplementary insulation (V).....:	1750	P
	- reinforced insulation (V) .....:	3000	P

IEC 60335-2-23			
Clause	Requirement + Test	Result - Remark	Verdict
	After operation or interruption of a control, clearances and creepage distances across the functional insulation withstand the electric strength test of 16.3, the test voltage being twice the working voltage		P
	The appliance does not undergo a dangerous malfunction, and		P
	no failure of protective electronic circuits, if the appliance is still operable		N/A
	Appliances tested with an electronic switch in the off position, or in the stand-by mode:		—
	- do not become operational, or		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
19.101	Hairdryers operated as specified in clause 11 until steady conditions established (IEC 60335-2-23:2016)		P
	Voltage at terminals of motor reduced until running speed of motor is just sufficient to prevent thermal cut-out from operating, power input to heating element being maintained at 1,15 times rated power input (IEC 60335-2-23:2016)	(see appended table)	P
	Voltage is decreased at (IEC 60335-2-23:2016)		—
	- 1 V/min, for motors with working voltage not exceeding 30 V (IEC 60335-2-23:2016);		N/A
	- 5 V/min, for motors with working voltage exceeding 30 V (IEC 60335-2-23:2016).		P
	Appliance operated until steady conditions established (IEC 60335-2-23:2016)	(see appended table)	P
	Test is repeated with the heat setting switch placed in each position. (IEC 60335-2-23:2016/AMD1:2019)	(see appended table)	P
	Voltage to the heating element is maintained at the value that gives 1,15 times rated power input with the switch at the highest heat setting position. (IEC 60335-2-23:2016/AMD1:2019)		P
19.102	Portable hair dryers operated under normal operation at 1,15 times rated power input (IEC 60335-2-23:2016)	(see appended table)	P

IEC 60335-2-23			
Clause	Requirement + Test	Result - Remark	Verdict
	Sheet of polyethylene approximately 200 mm x 200 mm and having thickness of 50 µm placed against air-inlet and moved in any direction in order to reduce airflow so that most unfavourable conditions established (IEC 60335-2-23:2016)		P
	Test carried out for 30 min (IEC 60335-2-23:2016)		P
	Test repeated with airflow directed horizontally (IEC 60335-2-23:2016)		P
30	**RESISTANCE TO HEAT AND FIRE**		—
30.1	External parts of non-metallic material,		P
	parts supporting live parts, and		N/A
	parts of thermoplastic material providing supplementary or reinforced insulation		P
	sufficiently resistant to heat		P
	Ball-pressure test according to IEC 60695-10-2		P
	External parts tested at 40 °C plus the maximum temperature rise determined during the test of clause 11, or at 75 °C, whichever is the higher; temperature (°C)..... :	(see appended table 30.1)	P
	Parts supporting live parts tested at 40 °C plus the maximum temperature rise determined during the test of clause 11, or at 125 °C, whichever is the higher; temperature (°C) ..... :		N/A
	Parts of thermoplastic material providing supplementary or reinforced insulation tested at 25 °C plus the maximum temperature rise determined during clause 19, if higher; temperature (°C)..... :		N/A
	Hand dryers and hairdryers, temperature rises occurring during tests of clause 19 not taken into account (IEC 60335-2-23:2016)		P

10.1	TABLE: Power input deviation				P
Input deviation of/at:	P rated (W)	P measured (W)	Δ P	Required Δ P	Remark
230 V, 50 Hz	1600 W	1505	-5,9%	+5 % / -10 %	Swift with alternative motor 1
230 V, 60 Hz	1600 W	1496	-6,5%	+5 % / -10 %	

10.2	TABLE: Current deviation	N/A

11.8	TABLE: Heating test (Swift with alternative motor 1)		P
	Test voltage (V) .... :	256,1 V 1,15 x (240/230)^2 x 1600=2003,5 W	—
	Ambient (°C) ..... :	T1=20,0 °C, T2=21,8 °C	—

Thermocouple locations	Max. temperature rise measured, Δ T (K)	Max. temperature rise limit, Δ T (K)
Supply cord insulation	14,6	50
Ambient of power switch	15,9	60 (T85-25)
Control PCB for heating	27,8	120
Internal wire (Lead to PCB)	18,5	80 (T105-25)
Motor housing	36,5	115(Class 155)
Main PCB	8,4	120
VDR	34,8	60 (T85-25)
X2 capacitor	29,4	75 (T100-25)
LED PCB	21,7	120
Internal wire (near heating element)	18,8	80(T105-25)
Ambient of Thermal cut-out	91,2	For reference
Ambient of Thermal link	29,6	For reference
Ambient of NTC	27,2	For reference
Negative-ion generator	21,2	65 (T90-25)
Enclosure (internal near heating element)	20,1	For reference
Bracket for heating element	15,6	For reference
Rear enclosure	18,5	For reference
LED light cover (white)	14,3	For reference
Power switch button	7,5	50
Cool switch button	7,9	50
Plastic for air outlet	69,6	For clause 30.1
Handle	8,0	50

External plastic enclosure (near motor)	4,6	74
Test corner	44,8	65

13.2	**TABLE: Leakage current (Swift with alternative motor 1)**		P
	Heating appliances: 1,15 x rated input (W) ..:	--	—
	Motor-operated and combined appliances: 1,06 x rated voltage (V) .....:	240 x 1,06 = 254,4 V	—
Leakage current between:		**I (mA)**	**Max. allowed I (mA)**
Between L/N and accessible parts		0,0001	0,35(peak)

13.3	**TABLE: Dielectric strength (Swift with alternative motor 1)**	P
Test voltage applied between:	Test potential applied (V)	Breakdown / flashover (Yes/No)
Between live part and internal wire insulation	1000	No
Between internal wire and accessible parts	1750	No
Between live part and accessible surface	3000	No

19.13	**TABLE: Abnormal operation, temperature rises(Swift with alternative motor 1)**						P
Thermocouple locations	**Max. temperature rise measured, Δ T (K)**						**Max. temperature rise limit, Δ T (K)**
	19.7	**19.8**	**19.101 (Position 3)**	**19.101 (Position 2)**	**19.102 (Vertical)**	**19.102 (Horizontal)**	
Supply cord insulation	2,9	3,0	11,6	10,0	10,6	10,3	150
Test corner	0,2	0,2	64,9	62,1	68,5	59,6	150
Motor housing	77,5 °C	50,6 °C	58,1°C	57,4 °C	63,6 °C	60,9 °C	240 °C

24.1	**TABLE: Critical components information**				P
Object / part No.	**Manufacturer/ trademark**	**Type / model**	**Technical data**	**Standard**	**Mark(s) of conformity 1)**
Plug	Lian Dung Electric Wire Material Co., Ltd	LT-332	250 V~, 16 A, 2P	DIN VDE 0620-2-1	VDE* (40014933)
(Alternative)	Kenic Electric Mfg. Co., Ltd.	KE-25	250 V~, 16 A, 2P	DIN VDE 0620-2-1	VDE* (40001713)

BS Plug (Fitted with an appropriate size fuse link)	Dongguan Lian Dung Electric Wire Material Co., Ltd	LT-328	250 V~	BS 1363-1	BSI* (KM 68559)
(Alternative)	Kenic Electric Mfg. Co., Ltd.	KE-328	250 V~	BS 1363-1	BSI* (KM 54019)
Plug for Korea	Hangzhou Leadership Electric Component Co., Ltd	LT-429	250 V~, 10 A, 2P	KC60884-1 KSC8305	KC* (SU04036-16001)
(Alternative)	Kenic Electric Mfg. Co., Ltd.	KE-82	250 V~, 16 A, 2P	KC60884-1 KSC8305	KC* (SU04012-1004D)
Plug for Australia	Lian Dung Electric Wire Material Company Ltd	LT-422	250 V~, 10 A, 2P	AS/NZS 3112	NSW* (NSW25509)
(Alternative)	Kenic Electric Mfg. Co., Ltd.	KE-12C	250 V~, 10 A, 2P	AS/NZS 3112	NSW* (NSW18070)
Supply cord	I-Sheng Electric Wire & Cable Co., Ltd.	H05VV-F	2 x 1,0 mm^2	DIN EN 50525-2-11	VDE* (40006070)
(Alternative)	Kenic Electric Mfg. Co., Ltd.	H05VV-F	2 x 1,0 mm^2	DIN EN 50525-2-11	VDE* (103853)
Supply cord for Korea	I-Sheng Manufacturing (Songgang) Factory	H05VV-F	2 x 1,0 mm^2	KC60227-1 KC60227-2 KC60227-5	KC* (SU01015-4001)
(Alternative)	Kenic Electric Mfg. Co., Ltd.	H05VV-F	2 x 1,0 mm^2	KC60227-1 KC60227-2 KC60227-5	KC* (SU01008-4002A)
Supply cord for Australia	I-Sheng Electric Wire & Cable Co., Ltd.	H05VV-F	2 x 1,0 mm^2	AS/NZS 60227.5	SAA* (SAA-190401-EA)
(Alternative)	Kenic Electric Mfg. Co., Ltd.	H05VV-F	2 x 1,0 mm^2	AS/NZS 60227.5	NSW* (NSW15075)
Heating element	Dongguan Taoming Electronic Technology CO., LTD.	0Cr25AL5	Φ: 0,4 mm; 11,3±0,3 ohm/m	IEC/EN 60335-1 IEC/EN 60335-2-23	Tested with appliance
(Alternative)	Dongguan Laifen Manufacturing Co., Ltd.	40LF01001A	Φ: 0,4 mm; 11,3±0,3 ohm/m	IEC/EN 60335-1 IEC/EN 60335-2-23	Tested with appliance
Thermal link	SCHOTT Japan Corporation	SF240R0	Tf:240°C, 250 V~, 10 A/15 A	IEC/EN 60691	VDE* (40035880)
(Alternative)	Zhongshan YUANSHUN Thermal Protectors Co.,	RY240	Tf:240°C, 250 V~, 10 A	IEC/EN 60691	TUV* (R 50397951)

	LTD.				
(Alternative)	Zhongshan LongDe Electrical Co., Ltd.	RY240	Tf:240°C, 250 V~, 10 A	IEC/EN 60691	TUV* (B 067446 0027 Rev.02)
(Alternative)	A.R. Electric Co., Ltd.	F00240C	Tf:240°C, 250 V~, 10 A	IEC/EN 60691	TUV* (R 50415424)
Thermal cut out	Zhongshan Chuancheng Precision Electronics Co., Ltd	CCS9	Tf: 75°C, 250 V~,12 A	IEC/EN 60730-1 IEC/EN 60730-2-9	TUV* (R 50279441)
(Alternative)	Foshan Eagle Technology Co., Ltd.	AMT-C1B	Tf: 75°C, 250 V~,12 A	IEC/EN 60730-1 IEC/EN 60730-2-9	TUV* (R 50451298)
X2 capacitor	Tenta Electric Industrial Co., Ltd.	MEX/MKP	275 V~ / 310 V~, X2, 0,22 µF, 0,33µF, 40/100/21	IEC/EN 60384-14	VDE* (119119)
(Alternative)	Guangdong JURCC electronics Co., LTD.	MPX/MKP	275 V~ / 305 V~ / 310 V~, X2, 0,22 uf, 0,33 µF, 40/110/56	IEC/EN 60384-14	VDE* (40034920)
(Alternative)	Dain Electronics Co., Ltd	MPX/MEX/NPX	275 V~, X2, 0,22 µF, 0,33µF, 40/110/21, 40/100/21	IEC/EN 60384-14	VDE* (40018798)
(Alternative)	KNSCHA ELECTRONICS CO., LIMITED	MPX/MKP	275 V~/305 V~/310 V~, X2, 0,22 µF, 0,33 µF, 40/110/56	IEC/EN 60384-14	VDE* (40045532)
Varistor	Dongguan City Dafu Electronics Co. Ltd.	10D471K NDF10D471K	300 V, 210 PF, T85	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE* (40050909)
(Alternative)	Hongzhi Enterprises Ltd.	HEL10D471K	272 V, 460 PF, T85	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE* (40037512)
Fuse	Shenzhen Lanson Electronics Co. Ltd	24E	250 V~, T3,15 A	IEC/EN 60127-1 IEC/EN 60127-7	CB* (CN52403)
(Alternative)	Dongguan Chevron Electronic Technology Co., Ltd.	SET	250 V~, T3,15 A	IEC/EN 60127-1 IEC/EN 60127-7	VDE* (40049351)
(Alternative)	Dongguan Better Electronics Technology Co., Ltd.	244	250 V~, T3,15 A	IEC/EN 60127-1 IEC/EN 60127-7	TUV* (R 50335764)
(Alternative)	XC Electronics (Shenzhen) Corp. Ltd.	24T	250 V~, T3,15 A	IEC/EN 60127-1 IEC/EN 60127-7	TUV* (R 50423660)

(Alternative)	Suzhou Walter Electronic Co., Ltd.	2410LT	250 V~, T3,15 A	IEC/EN 60127-1 IEC/EN 60127-7	TUV* (R 50485936)
Optocoupler	Everlight Electronics Co., Ltd	ELM3052 V	T110	IEC/EN 60747-5-5	VDE* (40028116)
(Alternative)	Everlight Electronics Co., Ltd	EL3H4 V	T110	IEC/EN 60747-5-5	VDE* (132249)
(Alternative)	FUJIAN LIGHTNING OPTOELECTRONIC CO., LTD	TD 3052 TD 3063 TD 354A	T110	IEC/EN 60747-5-5	VDE* (40048885)
NTC	Guangdong hongzhi Electronic Technology Co., Ltd	8D-11	Operating temperature: -40~+175 °C	IEC/EN 60335-1 IEC/EN 60335-2-23	Tested with appliance
Switch	Siber(China) Electric Mfg. Limited	XN-14B	250 V~; 10(2) A; T85, 1E4	IEC/EN 61058-1	TUV* (B 093102 0006 Rev.01)
(Alternative)	Shunde District of Foshan City Yimingda Electrical Company Limited	KND-1 series	125/250 V~; 16(4) A; 250 V~; 10(2) A; T105; 1E4	IEC/EN 61058-1	ENEC* (NO4729)
(Alternative)	Zhuhai Toply Electronics Science & Technology Co., Ltd.	TS-13	250 V~; 10(2) A; T85, 1E4	IEC/EN 61058-1	TUV* (B 069119 0048 Rev.05)
Internal wire (Lead to motor)	Foshan Zhengguan Fluorplastics Wire Factory	10362	26 AWG, 200 °C; 600 V	IEC/EN 60335-1 IEC/EN 60335-2-23	UL* (E345435) + Tested with appliance
Internal wire	Foshan City Zheng Guan Fluorplastics Wire Factory	1332	10-30 AWG, 200 °C; 600 V	IEC/EN 60335-1 IEC/EN 60335-2-23	UL* (E307535) + Tested with appliance
(Alternative)	Shenzhen Xinlian Wire & Cable Co., Ltd	1569	300 V, 18 AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-23	UL* (E502584) + Tested with appliance
Quick connector on PCB	Dongguan Shi Shang Tong Metal Electronics Co., Ltd.	5TS870115	GWT550	IEC/EN 60335-1 IEC/EN 60335-2-23	Tested with appliance
Motor	Dongguan Laifen Electronic Technology Co., Ltd	LF01	105 W, 107000 r/min, 310 V, Class 155	IEC/EN 60335-1 IEC/EN 60335-2-23	Tested with appliance
(Alternative)	**Dongguan Laifen Electronic**	**LF01**	**150 W, 107000 r/min, 310 V,**	**IEC/EN 60335-1 IEC/EN 60335-2-**	**Tested with appliance**

	Technology Co., Ltd		**Class 155**	**23**	
(Alternative)	**Dongguan Laifen Electronic Technology Co., Ltd**	**LF01**	**105 W, 102000 r/min, 310 V, Class 155**	**IEC/EN 60335-1 IEC/EN 60335-2-23**	**Tested with appliance**
(Alternative)	**Dongguan Laifen Electronic Technology Co., Ltd**	**LF01**	**150 W, 102000 r/min, 310 V, Class 155**	**IEC/EN 60335-1 IEC/EN 60335-2-23**	**Tested with appliance**
Motor winding	PACIFIC Electric Wire & Cable (shenzhen) Co., Ltd	UEWH/U@	MW 82-C Class 180	IEC/EN 60335-1 IEC/EN 60335-2-23	UL* (E201757) + Tested with appliance
Negative Ion Generator	Dongguan Nanbai Electronic Technology Co., Ltd	NB-LM	I/P:100-250 V~, 50/60 Hz, 1 W, T90 O/P: -3,0 KV DC±1,0 KV DC or I/P: 220-240 V~, 50 Hz, ≤1 W, O/P: -0,5~-6 kV DC	IEC/EN 60335-1 IEC/EN 60335-2-65	TUV* (B 0832100010 Rev.02)
Plastic enclosure / Internal plastic parts of handle (model of **Swift**)	Cndong Epone New Materials (Guangdong) Co., Ltd.	PA6B30	Min.thickness:2,0 mm	IEC/EN 60335-1 IEC/EN 60335-2-23	Tested with appliance
Plastic enclosure / Internal plastic parts of handle (model of SE)	DongGuan Changcheng Industrial Co., Ltd	CLC-PCWH409B	Min.thickness:2,0 mm	IEC/EN 60335-1 IEC/EN 60335-2-23	Tested with appliance
Switch button (model of **Swift**)	CNDONG EPONE NEW MATERIALS (GUANGDONG) CO., LTD	PA6B30	Min.thickness:1,0 mm	IEC/EN 60335-1 IEC/EN 60335-2-23	Tested with appliance
Switch button (model of SE)	DongGuan Changcheng Industrial Co., Ltd	CLC-PCWH409B	Min.thickness:1,0 mm	IEC/EN 60335-1 IEC/EN 60335-2-23	Tested with appliance
Plastic for air outlet	CNDONG EPONE NEW MATERIALS (GUANGDONG) CO., LTD	ZGDB SLVPA66B30 WZ	Min.thickness:1,5 mm	IEC/EN 60335-1 IEC/EN 60335-2-23	Tested with appliance
Main PCB material	KINGBOARD LAMINATES HOLDINGS LTD	KB-6160C	V-0	IEC/EN 60335-1 IEC/EN 60335-2-23	UL* (E123995) + Tested with appliance
(Alternative)	Shenzhen Honlynn Circuit Co Ltd	HL-D	V-0	IEC/EN 60335-1 IEC/EN 60335-2-23	UL* (E475833) + Tested with appliance
(Alternative)	Jiangxi Fan Li Sheng Electronics Co Ltd	YFL-D	V-0	IEC/EN 60335-1 IEC/EN 60335-2-23	UL* (E471141) + Tested with

					appliance
LED PCB material	KINGBOARD LAMINATES HOLDINGS LTD	KB-6160C	V-0	IEC/EN 60335-1 IEC/EN 60335-2-23	UL* (E123995) + Tested with appliance
(Alternative)	Shenzhen Honlynn Circuit Co Ltd	HL-D	V-0	IEC/EN 60335-1 IEC/EN 60335-2-23	UL* (E475833) + Tested with appliance
(Alternative)	Jiangxi Fan Li Sheng Electronics Co Ltd	YFL-D	V-0	IEC/EN 60335-1 IEC/EN 60335-2-23	UL* (E471141) + Tested with appliance
(Alternative)	FENGSHUN JUNDA ELECTRONIC CO LTD	JD-F	V-0	IEC/EN 60335-1 IEC/EN 60335-2-23	UL* (E252800) + Tested with appliance
Heat shrink tube	Dongguan Huangfeng Insulation Material Co., Ltd	HFT-02	GWT550	IEC/EN 60335-1 IEC/EN 60335-2-23	UL* (E236485) + Tested with appliance
Silicone tube	DACHUN ELECTRON FACTORY	SES@	600 V, 200 ˚C, VW-1, used to wrap	IEC/EN 60335-1 IEC/EN 60335-2-23	UL* (E324726) + Tested with appliance
Mica support	PAMICA GROUP LTD	PB5662A	Min.thickness:0,81 mm	IEC/EN 60335-1 IEC/EN 60335-2-23	Tested with appliance

Supplementary information:

1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.
2) License available upon request.
3) The rating of BS fuse-link should be used according to the table 2 for BS 1363-1:2016+A1:2018.

30.1	**TABLE: Ball Pressure Test of Thermoplastics**		P
Allowed impression diameter (mm) .....:		2,0	—
Object/ Part No./ Material	**Manufacturer/ trademark**	**Test temperature (°C)**	**Impression diameter (mm)**
Plastic for air outlet	See 24.1	110	1,20

<End of report>

IEC60335_2_23M ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO TEST REPORT **IEC 60335-2-23** **EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES** Household and similar electrical appliances – Safety – Part 2-23: Particular requirements for appliances for skin or hair care			
Differences according to.....:	EN 60335-2-23:2003 + A1:2008 + A11:2010 + AC:2012 + A2:2015 used in conjunction with EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A14:2019 + A2:2019 + A15:2021 EN 62233:2008 + AC:2008		
Attachment Form No.....:	EU_GD_IEC60335_23M_II		
Attachment Originator .....:	Nemko Group AS		
Master Attachment.....:	2022-06-17		
	CENELEC COMMON MODIFICATIONS (EN)		—
11.8	Replace the first paragraph of Part 1 by the following: “During the test, the temperature rises are monitored continuously and shall not exceed the values shown in Table 3 and Table Z101. (EN 60335-2-23:2003/A2:2015)	Covered by 11.8 of main report	P
	In Table 3 delete the row “External enclosure of motor-operated appliances, except handles held in normal use” and the corresponding footnotes. (EN 60335-2-23:2003/A2:2015)		P
	Replace the footnote d of Table Z101 with the following text. “d Metal is considered coated when a coating having a minimum thickness of 80 µm made by enamel or non-substantially plastic coating is used.” (EN 60335-2-23:2003/A2:2015)		N/A
	ANNEX EN 62233:2008 + AC:2008 **EMF- ELECTROMAGNETICS FIELDS**		—
Clause	Requirement + Test	Result - Remark	Verdict
	The tested product also complies with the requirements of EN 62233:2008		
Swift with alternative motor 1	Limit ……100%	Measured max. : 8,519 %	P

< End of Annex I >

AS/NZS 60335.1 & AS/NZS 60335.2.23 – Annex II

The requirements of AS/NZS 60335.1:2020 (deviations from IEC 60335-1:2010 + A1:2013 + A2:2016)			
10.1	After the last paragraph of the test specification insert the following variation:		—
	Appliance outlets and socket outlets accessible to the user		N/A
	-that are incorporated in appliances connected to the supply mains; and		N/A
	-that operate at rated voltage;		N/A
	Are not loaded during the test, however their contribution to the power input is considered to be the marked outlet load per appliance outlet or socket-outlet.		N/A
11.7	After the first paragraph of the test specification insert the following variation:		—
	Appliance outlets and socket outlets accessible to the user are loaded with a resistive load that gives the marked outlet load in watts.		N/A
11.8	After the first paragraph of the test specification insert the following variation:		—
	The pins of plug connectors inserted into appliance outlets accessible to the user and plugs inserted into socket outlets accessible to the user shall have a temperature rise not exceeding 45 K.		N/A
19.13	After the seventh paragraph of the test specification insert the following variation:		—
	During and after the tests the no-load output voltage of an accessible safety extra-low voltage outlet or connector or Universal Serial Bus (USB) outlet shall not have increased by more than 3 V or 10% of its no-load output voltage in normal use, whichever is higher.		N/A

<End of Annex II>

Annex III
Photo documentation
Hair Dryer
Swift, SE

Report No.: NBES230900548002-M1

Detail of: Alternative motor 1

View:

[ ] general

[ ] front

[ ] rear

[ ] right

[ ] left

[ ] top

[ ] bottom

Remark: Same as original motor, except for nominal rated power and speed.

Detail of: Alternative motor 2

View:

[ ] general

[ ] front

[ ] rear

[ ] right

[ ] left

[ ] top

[ ] bottom

Remark: Same as original motor and motor 1, except for nominal rated power and speed.

Annex III
Photo documentation
Hair Dryer
Swift, SE

Report No.: NBES230900548002-M1

Detail of: Alternative motor 3

View:

[ ] general

[ ] front

[ ] rear

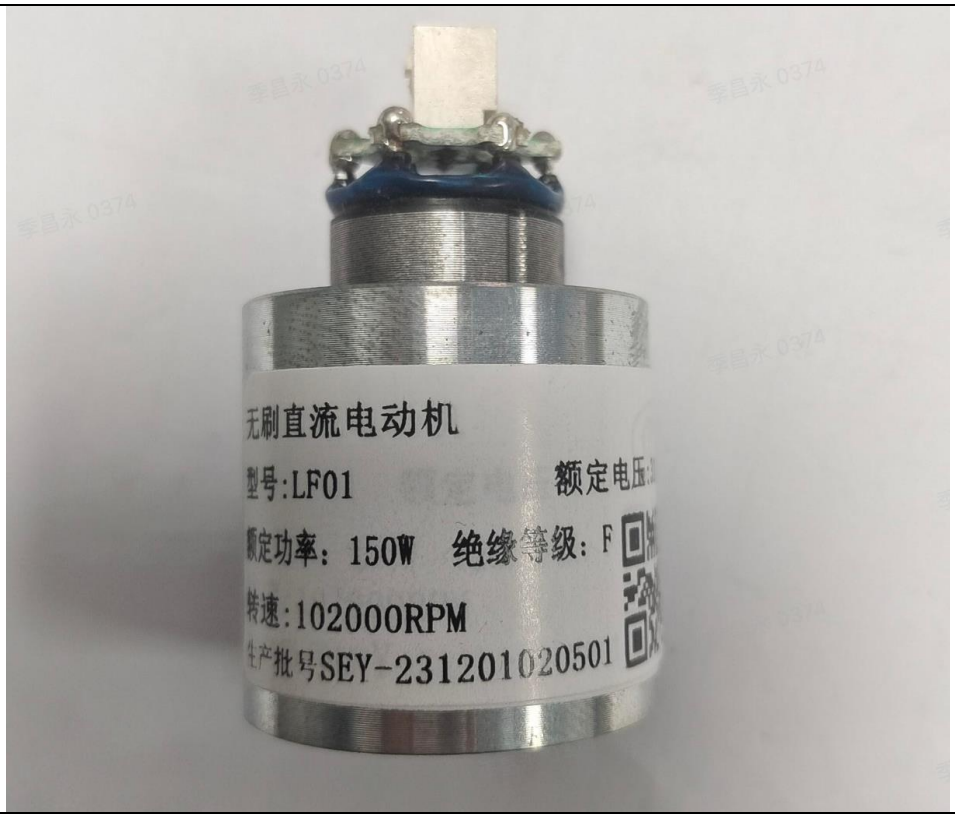
[ ] right

[ ] left

[ ] top

[ ] bottom

Remark: Same as original motor and motor 1, except for nominal rated power and speed.



< End of Annex III >