



Test Report issued under the responsibility of:



TEST REPORT
IEC 60335-2-31
Safety of household and similar electrical appliances
Part II : particular requirements for range hoods

Report Number.....: SHES210701485002-M1

Date of issue.....: 2021-09-08, Amendment No.1: 2024-09-18

Total number of pages.....: 22 pages

Applicant's name Hangzhou DE&E Smart Home Co., Ltd.

Address No. 98 Hongxing Road, Qiaonan Block, Xiaoshan Economic And Technological Development Zone, Xiaoshan District, Hangzhou, Zhejiang Province, China

Test specification:

Standard IEC 60335-2-31:2012, AMD1:2016, AMD2:2018 in conjunction with IEC 60335-1:2010, AMD1:2013, AMD2:2016

Test procedure CB Scheme

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

Test Report Form No.....: IEC60335_2_31L

Test Report Form(s) Originator: DEKRA Certification B.V.

Master TRF Dated 2019-06-07

Copyright © 2019 Worldwide System for Conformity Testing and Certification of Electrotechnical Equipment and Components (IECEE), Geneva, Switzerland. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

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	Range Hood
Trade Mark.....	—
Manufacturer	Same as applicant
Model/Type reference	HC9065, HC9066, HC9068, HT9016, HT9018, HT9025, HC6065, HC6066, HC6068, HT6016, HT6018, HT9028, H308T9, H309T9
Ratings	220 V - 240 V; 50/60 Hz; Class I; 184 W

Testing procedure and testing location:		
☒	CB Testing Laboratory:	SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
Testing location/ address..... :		588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China.
Tested by (name + signature)		Luke Li / Project engineer <i>Luke Li</i>
Approved by (name + signature)		Sven Dong / Reviewer <i>Sven Dong</i>
☐	Testing procedure: CTF Stage 1:	N/A
Testing location/ address..... :		
Tested by (name + signature)		
Approved by (name + signature)		
☐	Testing procedure: CTF Stage 2:	N/A
Testing location/ address..... :		
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
☐	Testing procedure: CTF Stage 3:	N/A
☐	Testing procedure: CTF Stage 4:	N/A
Testing location/ address..... :		
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
Supervised by (name + signature)		

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

- 1.Attachment 1 – Photo documentation – 6 pages
- 2.Attachment 2 – EN 60335-2-31:2014/A1:2023 + A2:2023 + A11:2023 – 7 pages
- 3.Attachment 3 – EN 60335-1:2012/A15:2021 + A16:2023 – 2 pages
- 4.Attachment 4 – Australia National Differences – 6 pages
- 5.Attachment 5 – SASO difference – 1 page

Summary of testing:**Tests performed (name of test and test clause):**

Tests were carried out according to the following standards:

IEC 60335-2-31:2012 + A1:2016 + A2:2018
 IEC 60335-1:2010 + A1:2013 + A2:2016
 EN 60335-2-31:2014 + A1:2023 + A2:2023 + A11:2023
 EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A14:2019 + A2:2019 + A15:2021 + A16:2023
 EN 62233: 2008
 AS/NZS 60335.2.31:2020
 AS/NZS 60335.1:2020 + A1:2021

Tests of clause 10, 11, 13 and 30 were carried out on model HT9025 at 60 Hz.

The requirement of standard EN 60335-2-31:2014/A1:2023 + A2:2023 + A11:2023, EN 60335-1:2012/A15:2021 + A16:2023, AS/NZS 60335.2.31:2020, AS/NZS 60335.1:2020 + A1:2021 and SASO difference were evaluated.

Testing location:

CBTL

Summary of compliance with National Differences**List of countries addressed:**

- EU Group Differences
- Australia National Differences
- SASO difference

☒ The product fulfils the requirements of EN 60335-2-31:2014 + A1:2023 + A2:2023 + A11:2023, EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A14:2019 + A2:2019 + A15:2021 + A16:2023, EN 62233: 2008, AS/NZS 60335.2.31:2020, AS/NZS 60335.1:2020 + A1:2021

Copy of marking plate

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

Range Hood

Product Name	Range Hood	Caution 1. Do not light up fire directly under the range hood in case of destroying the product. 2. Clean the hood regularly. 3. Please put on protection glove during cleaning. 4. Prevent water from getting into the motor, switch control and other electric parts. 5. Clockwise is the loose direction of wheel cap. Please do take off the plug before cleaning!
Model No.	HC9065	
Rated Voltage	220-240V~	
Rated Frequency	50/60Hz	
Noise	53dB	
Input Power	184W	

2*2W LED POWER INCLUDED

Manufacturer: HANGZHOU DE&E SMART HOME CO., LTD
 Add: No. 98 Hongxing Road, Xiaoshan District, Hangzhou
 City, Zhejiang Province 311231, China



 MADE IN CHINA



XXXXXXXXXXXXXX

NS

The copies of labels for other models were the same as above one except for the model name and parameter.

Test item particulars	Range Hood
Classification of installation and use	Fixed appliance
Supply Connection	Flexible supply cord fitted with non-detachable 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	2024-07-12
Date (s) of performance of tests	2024-07-12 to 2024-09-18
General remarks:	
“(See Attachment #)” refers to additional information appended to the report. “(See appended table)” refers to a table appended to the report. Throughout this report a ☒ comma / ☐ point is used as the decimal separator. This document is issued by the Company subject to its General Conditions of Service, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company’s findings at the time of its intervention only and within the limits of Client’s instructions, if any. The Company’s sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.	
Manufacturer’s Declaration per sub-clause 4.2.5 of IEC60335-2-31:	
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)	Same as applicant

General product information and other remarks:

Range hoods are for household and indoor use only.

Models in report were identical with each other except for the differences in the following table:

Model name	Motor speed*	Control panel**	Appearance	Width (mm)
HC9065	3	A	A	900
HC9066	3	B		900
HC9068	4	C		900
HC6065	3	A		600
HC6066	3	B		600
HC6068	4	C		600
HT9016	3	D	B	900
HT9018	4	C		900
HT9025	3	A		900
HT6016	3	D		600
HT6018	4	C		600
HT9028	4	E		900

Remark: *There are two motors covered in this report. These two motors are totally identical with each other except the number of motor shifts taps and speeds. The highest and second highest speed for both two motor are identical.

** These 4 control panels are connected to same main PCB.

Type of control panel	
A	
B	
C	
D	
E	

Amendment 1 Report: SHES210701485002-M1

The original Test Report SHES210701485001 dated 2021-09-08 was modified on 2024-08-02 to include the following changes, which were considered technical modifications:

1. Ratings frequency will be updated to 50/60 Hz and the tests data with 60Hz were added.
2. New model H308T9 and H309T9 were added, which were identical HT9028 except for the model name and had Smoke sensing function.
3. Appliances name was changed from 'Hangzhou DE&E Appliances Co., Ltd.' to 'Hangzhou DE&E Smart Home Co., Ltd.'
4. Type of control panel had been corrected, details refer to below table:

Type of control panel	
A	
D	

5. Alternative covers were added, details refer to Photo documentation.

6. Alternative components (plug, supply cord and LED lamp) were added, detail refer to table 24.1 in bold.

7. The requirement of standard EN 60335-2-31:2014/A1:2023 + A2:2023 + A11:2023, EN 60335-1:2012/A15:2021 + A16:2023, AS/NZS 60335.2.31:2020, AS/NZS 60335.1:2020 + A1:2021 and SASO difference were evaluated.

After reviewing, tests described in '**summary of testing**' were considered to be necessary.

IEC 60335-2-31			
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		P
	Test carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated power input is related to the arithmetic mean value		P
10.2	Current at normal operating temperature, rated voltage and normal operation not deviating from rated current by more than shown in table 2..... :		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
11	HEATING		—
11.1	No excessive temperatures in normal use		P
11.2	Replacement: (IEC 60335-2-31)		—
	Built-in appliances are installed in accordance with the instructions.		N/A
	Other appliances are fixed to a vertical support.		P
	The appliance is located above a hob so that the distance between its lowest point and the hob surface is the minimum distance specified in the instructions.		P

IEC 60335-2-31			
Clause	Requirement + Test	Result - Remark	Verdict
	A vertical side wall extending to the top of the range hood is placed at right angles to the vertical support, 100 mm from one side of the range hood. Dull black-painted plywood approximately 20 mm thick is used for the vertical support, the side wall and for the installation of built-in range appliances.		P
	If the range hood is intended to be installed over a hob having four hob elements, the hob shall have two 2 kW electric elements at the back and two 1,5 kW electric elements at the front.		P
	If the range hood is intended to be installed over a hob having six hob elements, the hob shall have three 2 kW electric elements at the back and three 1,5 kW electric elements at the front.		P
	The layout of the hobs used in the tests is shown in Figure 101. The hobs are centrally situated with respect to the range hood.		P
	Vessels with water and no lids are placed on the hob elements, the hob elements are operated to maintain vigorous boiling.		P
	The appliance is also tested without the hob elements in operation.		P
	For appliances delivered for installation with the control and filter boxes separate from the fan, the duct length on input and output shall be 4 times fan diameter.		N/A
	However, if the fan is intended to be mounted on the external structure of a building, the fan is not ducted on the output side.		N/A
11.3	Temperature rises, other than of windings, determined by thermocouples		P
	Temperature rises of windings determined by resistance method, unless	Fan motor	P
	the windings are non-uniform or it is difficult to make the necessary connections	Transformer, inductance	P
11.4	Heating appliances operated under normal operation at 1.15 times rated power input (W) :		N/A
11.5	Motor-operated appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage (V)..... :	206,8 V and 254,4 V	P
11.6	Combined appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage (V)..... :		N/A
11.7	Appliances are operated until steady conditions are established. (IEC 60335-2-31)		P

IEC 60335-2-31			
Clause	Requirement + Test	Result - Remark	Verdict
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
	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 limit for external enclosures and wood does not apply when the hob elements are in operation. (IEC 60335-2-31)		P
	Without the hob elements in operation and only the temperature rise of the external enclosure and wood are measured, the temperature rise limit for wood is 65K. (IEC 60335-2-31)		P
	Temperature rises of lampholders and the enclosure are also determined with the fan motor switched off and lights switched on. (IEC 60335-2-31)		P
	Enclosure temperatures are not measured within a distance of 35 mm around the lamp glass regardless of its shape. (IEC 60335-2-31)		P
	For down-draft systems, the temperature rises shall not exceed the values given in Table 3 reduced by 15 K.(IEC 60335-2-31)		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)	254,4 V	P
	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		P

IEC 60335-2-31			
Clause	Requirement + Test	Result - Remark	Verdict
	For class 0I appliances and class I appliances, except parts of class II construction, C may be replaced by a low impedance ammeter		P
	Leakage current measurements..... :	(see appended table)	P
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
30	RESISTANCE TO HEAT AND FIRE		—
30.1	External parts of non-metallic material,		P
	parts supporting live parts, and		P
	parts of thermoplastic material providing supplementary or reinforced insulation		P
	sufficiently resistant to heat		P
	Ball-pressure test according to IEC 60695-10-2		P
	External parts tested at 40 °C plus the maximum temperature rise determined during the test of clause 11, or at 75 °C, whichever is the higher; temperature (°C)..... :	(see appended table)	P
	Parts supporting live parts tested at 40°C plus the maximum temperature rise determined during the test of clause 11, or at 125 °C, whichever is the higher; temperature (°C) :	(see appended table)	P
	Parts of thermoplastic material providing supplementary or reinforced insulation tested at 25 °C plus the maximum temperature rise determined during clause 19, if higher; temperature (°C) :	(see appended table)	N/A
	The ball pressure test is carried out on the exposed parts of the underside of the appliance at a temperature of at least 105 °C. (IEC 60335-2-31)		P
30.2	Parts of non-metallic material resistant to ignition and spread of fire		P
	This requirement does not apply to:		—
	parts having a mass not exceeding 0,5 g, provided the cumulative effect is unlikely to propagate flames that originate inside the appliance by propagating flames from one part to another, or		N/A
	decorative trims, knobs and other parts unlikely to be ignited or to propagate flames that originate inside the appliance		P
	Compliance checked by the test of 30.2.1, and in addition:		P

IEC 60335-2-31			
Clause	Requirement + Test	Result - Remark	Verdict
	- for attended appliances, 30.2.2 applies		N/A
	- for unattended appliances, 30.2.3 applies		P
	For appliances for remote operation, 30.2.3 applies		N/A
	For base material of printed circuit boards, 30.2.4 applies		P
30.2.1	Parts of non-metallic material subjected to the glow-wire test of IEC 60695-2-11 at 550 °C		P
	However, test not carried out if the material is classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 550 °C, or		N/A
	the material is classified at least HB40 according to IEC 60695-11-10		N/A
	Parts for which the glow-wire test cannot be carried out need to meet the requirements in ISO 9772 for material classified HBF		N/A
30.2.2	Not applicable. (IEC 60335-2-31)		N/A
30.2.3	Appliances operated while unattended, tested as specified in 30.2.3.1 and 30.2.3.2		P
	The tests are not applicable to conditions as specified		N/A
30.2.3.1	Parts of non-metallic material supporting connections carrying a current exceeding 0,2 A during normal operation, and		P
	parts of non-metallic material, other than small parts, within a distance of 3 mm,		P
	subjected to the glow-wire test of IEC 60695-2-11 with a test severity of 850 °C	(see appended table)	P
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	The glow-wire test is not carried out on parts of material classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 850 °C		N/A
30.2.3.2	Parts of non-metallic material supporting connections, and		P
	parts of non-metallic material within a distance of 3mm,		P
	subjected to glow-wire test of IEC 60695-2-11		P
	The test severity is:		—
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation		P

IEC 60335-2-31			
Clause	Requirement + Test	Result - Remark	Verdict
	- 650 °C, for other connections		P
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	However, the glow-wire test of 750 °C or 650 °C as appropriate, is not carried out on parts of material fulfilling both or either of the following classifications:		—
	- a glow-wire ignition temperature according to IEC 60695-2-13 of at least:		N/A
	775 °C, for connections carrying a current exceeding 0,2 A during normal operation		N/A
	675 °C, for other connections		N/A
	- a glow-wire flammability index according to IEC 60695-2-12 of at least:		N/A
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation		N/A
	- 650 °C, for other connections		N/A
	The glow-wire test is also not carried out on small parts. These parts are to:		—
	- comprise material having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A
	- comprise material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- comply with the needle-flame test of Annex E, or		N/A
	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
	The consequential needle-flame test of Annex E applied to non-metallic parts that encroach within the vertical cylinder placed above the centre of the connection zone and on top of the non-metallic parts supporting current-carrying connections, and parts of non-metallic material within a distance of 3 mm of such connections if these parts are those:		—
	- parts that withstood the glow-wire test of IEC 60695-2-11 of 750 °C or 650 °C as appropriate, but produce a flame that persist longer than 2 s, or		N/A
	- parts that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- small parts, that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- small parts for which the needle-flame test of Annex E was applied, or		N/A

IEC 60335-2-31			
Clause	Requirement + Test	Result - Remark	Verdict
	- small parts for which a material classification of V-0 or V-1 was applied		N/A
	However, the consequential needle-flame test is not carried out on non-metallic parts, including small parts, within the cylinder that are:		—
	- parts having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A
	- parts comprising material classified as V-0 or V-1 according to IEC 60695-11-10, or		N/A
	- parts shielded by a flame barrier that meets the needle-flame test of Annex E or that comprises material classified as V-0 or V-1 according to IEC 60695-11-10		N/A

10.1	TABLE: Power input deviation					P
Input deviation of/at:		P rated (W)	P measured (W)	ΔP	Required ΔP	Remark
230 V, 60 Hz		184	116,5	-36,7%	$\leq +20\%$	HT9025
Supplementary information: —						

11.8	TABLE: Heating test (for model HT9025)			P		
	Test voltage (V)		206,8 and 254,4 V, 60Hz	—		
	Ambient (°C).....		T1=23,9 °C, T2=23,8 °C	—		
Thermocouple locations		Max. temperature rise measured, Δ T (K)		Max. temperature rise limit, Δ T (K)		
Supply cord		2,1		50		
Internal wire to motor		8,7		50		
Internal wire to lamp		5,8		50		
Control panel		2,5		45		
Plastic on filter		7,8		For Cl.30.1		
Electric box		7,4		For Cl.30.1		
Motor running capacitor		11,0		45(T70)		
PCB		11,0		120		
Transformer		17,2		85 (Class 130 (B))		
Motor winding		39,7		85 (Class 130 (B))		
Lamp cover		6,4		For Cl.30.1		
Fan duct		8,3		For Cl.30.1		
Relay		10,2		60(T85)		
X2 capacitor		24,3		80(T105)		
Varistor		26,1		60(T85)		
Y capacitor		12,6		100(T125)		
Optocoupler		17,8		85(T110)		
Supplementary information: Hob elements are in operation, the temperatures of lamp relevant parts were measured with fan motor switched off after steady condition being established with fan motor switched on.						
11.8	TABLE: Heating test, resistance method (for model HT9025)			P		
	Test voltage (V).....		206,8 and 254,4 V, 60Hz	—		
	Ambient (°C)		T1=23,9 °C, T2=23,8 °C	—		
Temperature rise of winding		R1 (Ω)	R2 (Ω)	Δ T (K)	Max. Δ T (K)	Insulation class
Motor winding		213,60	251,7	46,2	115	Class 155 (F)
Supplementary information: Hob elements are in operation						

13.2	TABLE: Leakage current		P
	Heating appliances: 1.15 x rated input (W).. :	—	—
	Motor-operated and combined appliances: 1.06 x rated voltage (V)..... :	254,4 V	—
Leakage current between		I (mA)	Max. allowed I (mA)
L/N and accessible plastic part		0,02	0,35(Peak)
L/N and earthed metal part		1,2	3,5
Supplementary information: —			

13.3	TABLE: Dielectric strength		P
Test voltage applied between:		Test potential applied (V)	Breakdown / flashover (Yes/No)
Live parts and earthed metal		1023	No
Live parts and plastic enclosure		1773	No
Live parts and accessible part		3046	No
Supplementary information: When the appliance is supplied at rated voltage under minimum load, voltage across capacitors in series with a motor winding is 269 V.			

24.1	TABLE: Critical components information					P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Plug	Ningbo Jintao Electrical Co., Ltd.	TS03	250 V~, 16 A	DIN VDE 0620-2-1 IEC 60884-1	VDE 40014174	
Alt.	Ningbo Liansheng Wire &Cable Co.,Ltd	LS03	250 V~, 16 A	DIN VDE 0620-1 IEC 60884-1	VDE 40034732	
Plug (Only for United Kingdom)	Yuyao Yunbiao Electrical Co. Ltd	YB006	250 V~, 13 A	BS 1363-1 IEC 60884-1	BSI KM 73093	
Alt.	Ningbo Weiyun Electronic Co. Ltd	EP888	250 V~, 13 A	BS 1363-1 IEC 60884-1	BSI KM 562806	
Plug for Australia	Ningbo Xuanhua Electrical Co., Ltd.	XH022B	250 V~, 10 A	AS/NZS 3112	SAA091261E A	
Plug for Saudi Arabia	CIXI WANNENG ELECTRON CO., LTD	WN401	250 V~, 13 A	BS 1363-1 SASO 2203 IEC 60884-1	4384681.02	
Supply cord	Ningbo Jintao Electrical Co., Ltd.	H05VV-F 60227 IEC 53	3G0,75 mm ²	EN 50252-2-11 IEC 60227	VDE 40024517	
Alt.	Nibgbo JinTing Nuclear Cable Co.,Ltd	H05VV-F	3G0,75 mm ²	EN 50252-2-11 IEC 60227	VDE 40033767	
Internal wire	ZHONGSHAN WEIFENG ELECTRICAL EQUIPMENT CO LTD	2468	80 °C, 300 V, 32 - 16 AWG	IEC/EN 60335-2-31 IEC/EN 60335-1	UL E314135 + tested with appliance	
Alt.	ZHONGSHAN CITY WEIFENG ELECTRIC APPLIANCE CO., LTD	60227 IEC 08(RV-90)	300/500 V 0,5-2,5 mm	GB/T 5023.3 IEC 60227	CCC 20080101052 90051	
Alt.	ZHONGSHAN WEIFENG ELECTRICAL EQUIPMENT CO LTD	1007	80 °C, 300 V, 32 - 16 AWG	IEC/EN 60335-2-31 IEC/EN 60335-1	UL E314135 + tested with appliance	
Control lead wire	XINDGA ELECTRONICS WIRE & CABLE CO LTD	2547	300 V, 80 °C, VW-1, 24 AWG	IEC/EN 60335-2-31 IEC/EN 60335-1	UL E187208+ tested with appliance	
Alt.	Wenzhou hutai Electronic Cable Co., Ltd.	2547	300 V, 80 °C, VW-1, 24 AWG	IEC/EN 60335-2-31 IEC/EN 60335-1	UL E238824 + tested with appliance	

Lamp lead wire	Jiaxin Yongda Dianqi Youxian Gongsi	H03VV-F	0,5 mm ²	IEC/EN 60335-2-31 IEC/EN 60335-1	Tested with appliance
Alt.	Shengzhou Xuefeng Electrical Wire & Appliances Factory	60227 IEC 52(RVV)	0,5 mm ²	GB/T 5023.5 IEC 60227	CCC 20020101050 24919
Alt.	Tongxiang Yisheng Electric Appliance Appliances	60227 IEC 52(RVV)	0,5 mm ²	GB/T 5023.5 IEC 60227	CCC 20150101057 91019
Alt.	Ning bo Haoguang Electric appliance co., Ltd	60227 IEC08(RV-90)	0,5 mm ² 0,75 mm ²	GB/T 5023.5 IEC 60227	CCC 20040101051 06210
Alt.	Zhejiang xinxi electronic wire rod co., Ltd	60227 IEC08(RV-90)	0,5 mm ² 0,75 mm ²	GB/T 5023.5 IEC 60227	CCC 20020101050 13606
Alt.	Tongxiang Yong Xiu San Xin Electrical Accessories Factory	60227 IEC08(RV-90)	0,5 mm ²	GB/T 5023.5 IEC 60227	CCC 20150101057 91048
Alt.	Tong Xiang Shi Da Ma Mi Ge Dian Zi Xian Chang	60227 IEC08(RV-90)	0,5 mm ²	GB/T 5023.5 IEC 60227	CCC 20110101054 98502
Connector	CWB Electronics (Zhe Jiang) Co., Ltd.	TJC2	PA66	GB/T 5169 GB/T 4207 GB/T 6040 GB/T 19466	CQC 12134067918
Alt.	Yueqing Changshun Electronics Co., Ltd.	TJC2	PA66	GB/T 5169 GB/T 4207 GB/T 6040 GB/T 19466	CQC 13134097689
Alt.	Zhejiang ZUCH Technology Co., Ltd	TJC2	PA66	GB/T 5169 GB/T 4207 GB/T 6040 GB/T 19466	CQC 11134062781
Alt.	Zhejiang Hongxing Electrical Co., Ltd	HX25003, HX75006, HX39603, HX25037	PA66	IEC/EN 60335-2-31 IEC/EN 60335-1	Tested with appliance
Motor for models HC9065, HC9066, HT9016, HT6016, HT9025, HC6065, HC6066 with 3-speed	JEAMO Motor Co., Ltd.	CPT-50B	220-240 V, 50W, Class 130 (B)	IEC/EN 60335-2-31 IEC/EN 60335-1	Tested with appliance

Motor for models HC9068, HC6068, HT9018, HT6018, HT9028 with 4-speed	JEAMO Motor Co., Ltd.	CPT-50B	220-240 V, 50W, Class 130 (B)	IEC/EN 60335-2-31 IEC/EN 60335-1	Tested with appliance
Motor protector	Jiangsu Changsheng Electric Appliance Co., Ltd	BR-B2D	250 V, 8 A, 125 °C, T150	GB14536.1 GB14536.3 IEC 60730-1 IEC 60730-2-2	CQC 2002TMP043 3CQC
Alt.	Changzhou Desheng Heng Hui Electronics Co., Ltd	BW-B	250 V, 10 A, 125 °C, T150	GB14536.1 GB14536.3 IEC 60730-1 IEC 60730-2-2	CQC 11002055820
Alt.	Jiangsu changsheng electric appliance co., Ltd	BR-A2D	250 V, 6 A, 130 °C, T160	GB14536.1 GB14536.3 IEC 60730-1 IEC 60730-2-2	CQC 05002014329
Alt.	Changzhou Xin Du Electronic Co., Ltd	CW-II	250 V, 6 A, 130 °C, T160	GB14536.1 GB14536.3 IEC 60730-1 IEC 60730-2-2	CQC 02002001271
Motor capacitor	Guangdong Fengming Electronic Tech. Co., Ltd.	CBB61-P2	450 V~, 50/60 Hz, 5 µF, T70, S3	IEC/EN 60252-1	TUV R 50163114
Main PCB	Shandong Jinbao Tech-Innov Corporation	ZD-95(G)F	CEM-1, V-0, Min Thk (mm): 1,6 mm	IEC/EN 60335-2-31 IEC/EN 60335-1	UL E141940 + tested with appliance
Alt.	Kingboard Laminates Holdings Ltd	KB-5150, KB-6150C	V-0, Min Thk (mm): 1,6 mm	IEC/EN 60335-2-31 IEC/EN 60335-1	UL E123995 + tested with appliance
Alt.	Kingboard Laminates Holdings Ltd	KB-6160	V-0, Min Thk (mm): 1,6 mm	IEC/EN 60335-2-31 IEC/EN 60335-1	tested with appliance
Relay	Song Chuan Precision Co., Ltd.	307H-1AH-F-C	250 VAC, 12 VDC, 10 A, T85, 10E4	IEC/EN 61810-1	VDE 40028236
Alt.	Xiamen Hongfa Electroacoustics Co., Ltd.	HF32F-G	250 VAC, 12 VDC, 10 A, T85, 10E4	IEC/EN 61810-1	VDE 40012204
Varistor	Fenghua Adv.Tech. (Holding) Co. Ltd	FNR-14K561	560 VAC, T85	IEC/EN 61051-1 IEC/EN 61051-2	VDE 40008242

Alt.	SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD	14D561K	560 VAC, T125	IEC/EN 61051-1 IEC/EN 61051-2	VDE 40023049
X2 capacitor	GUANGDONG MENLO ELECTRIC POWER CO LTD	MLC-X2	275 vac, 0,22 uF, T105	IEC/EN 60384-14	VDE 40040284
Alt.	SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD	MPX	275 Vac, 0,22 uF, T110	IEC/EN 60384-14	VDE 40034679
Alt.	Hongye Electrical Appliance Co., Ltd.	MKP	275 Vac, 0,22 uF, 40/105/21, B	IEC/EN 60384-14	VDE 40038868
Y capacitor	Fenghua Advanced Technology (Holding) CO. LTD	CT7	AC 400 V, 2200 pF, T125	IEC/EN 60384-14	VDE 40013874
Alt.	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	CD-Series	AC 400 V, 2200pF, T125	IEC/EN 60384-14	VDE 40025754
Transformer	Foshan Shunde Weirui Electronic CO., LTD	EF-20002	Input: 90 VAC-245 VAC, Output: 12 VDC, Class 130 (B)	GB 19212.1 GB 19212.17 IEC 61558-1 IEC 61558-2-16	CQC 17001181810
Fuse	XC Electronics (Shen Zhen) Corp. Ltd	5TE	250 VAC, 5 A	IEC/EN 60127	VDE 40036821
Alt.	Dongguan Better Electronics Technology Co., Ltd.	932	250 VAC, 5 A	IEC/EN 60127	VDE 40033369
Optocoupler	Everlight Electronics Co., Ltd.	EL817	Cr.=Cl.≥7,6 mm, T110	IEC/EN 60747	VDE 132249
Alt.	CT Micro International Corporation	CT817B	Cr.=Cl.≥7,6 mm, T110	IEC/EN 60747	VDE 40039590

Supplementary information:

- 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.
- 2) License available upon request.

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)	
LED lamp cover	—	75		1,1	
Supplementary information: —					

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		
LED lamp cover	—	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 [(te – ti) ≤ 2s] (Yes/No):								Yes
If no, then surrounding parts passed the needle-flame test of annex E (Yes/No)..... :								N/A
The test specimen passed the test by virtue of most of the flaming material being withdrawn with the glow-wire (Yes/No)?..... :								Yes
Ignition of the specified layer placed underneath the test specimen (Yes/No):								No
Supplementary information:								
- 550 °C GWT not relevant (or applicable) to parts of material classified at least HB40 or if relevant HBF								
- The GWIT pre-selection option, the 850 °C GWFI pre-selection option, and the 850 °C GWT are not relevant (or applicable) for attended appliances								
All alternative components were tested, and the most unfavourable results were recorded.								

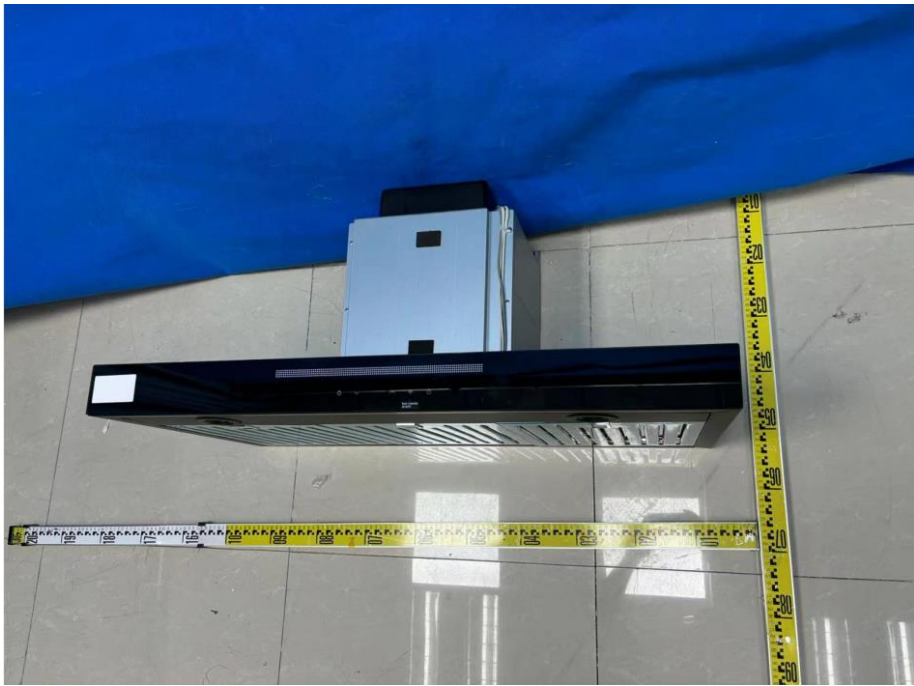
<End>

Type of equipment, model: Range Hood
 See main report

Details of: For models H309T9: Front view

View:

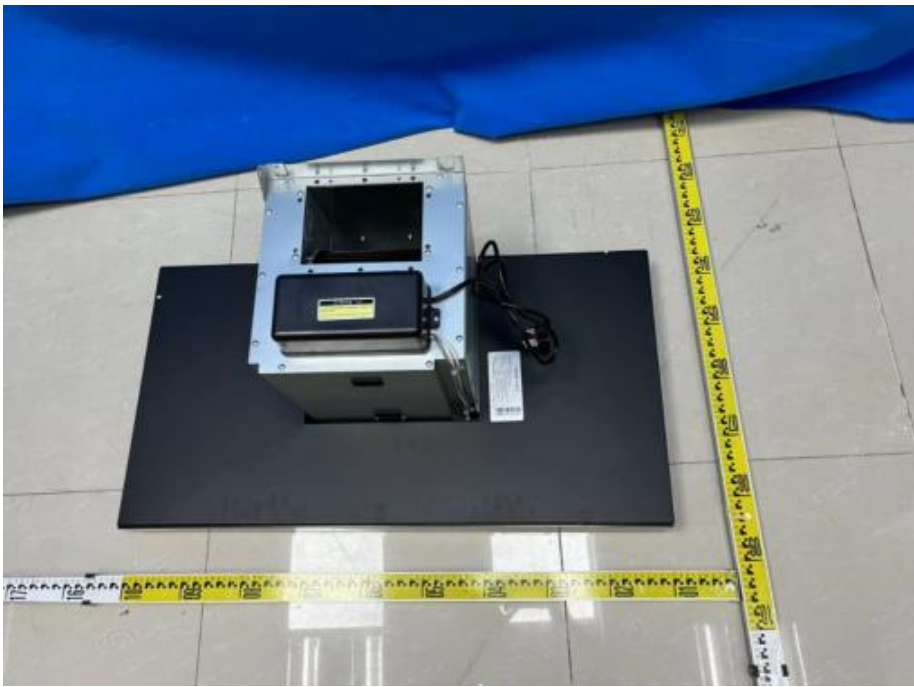
- ☐ general
- ☒ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



Details of: For models H309T9: Rear view

View:

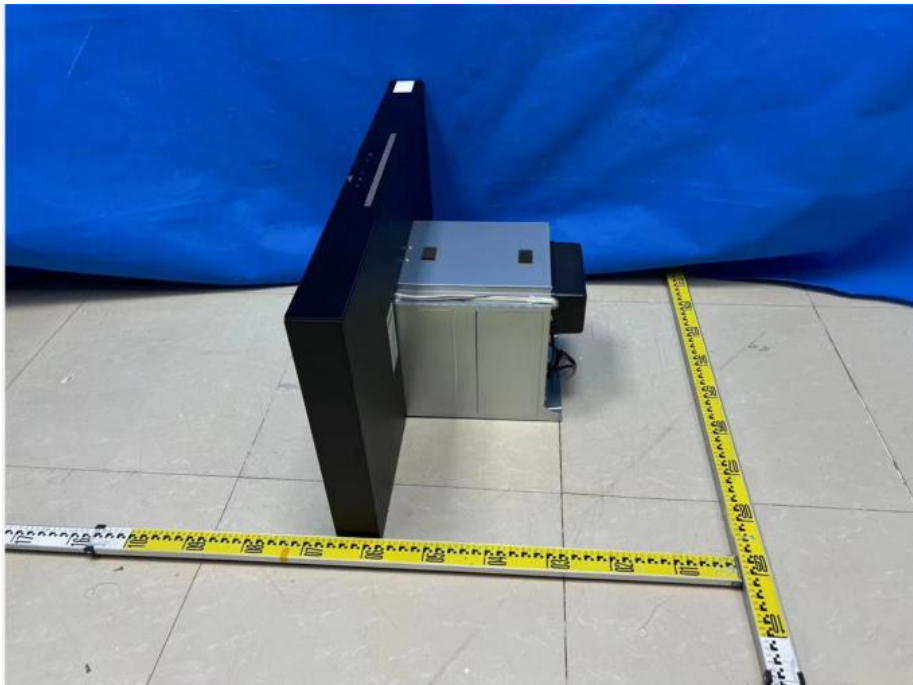
- ☐ general
- ☐ front
- ☒ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



Details of: For models H309T9: Right view

View:

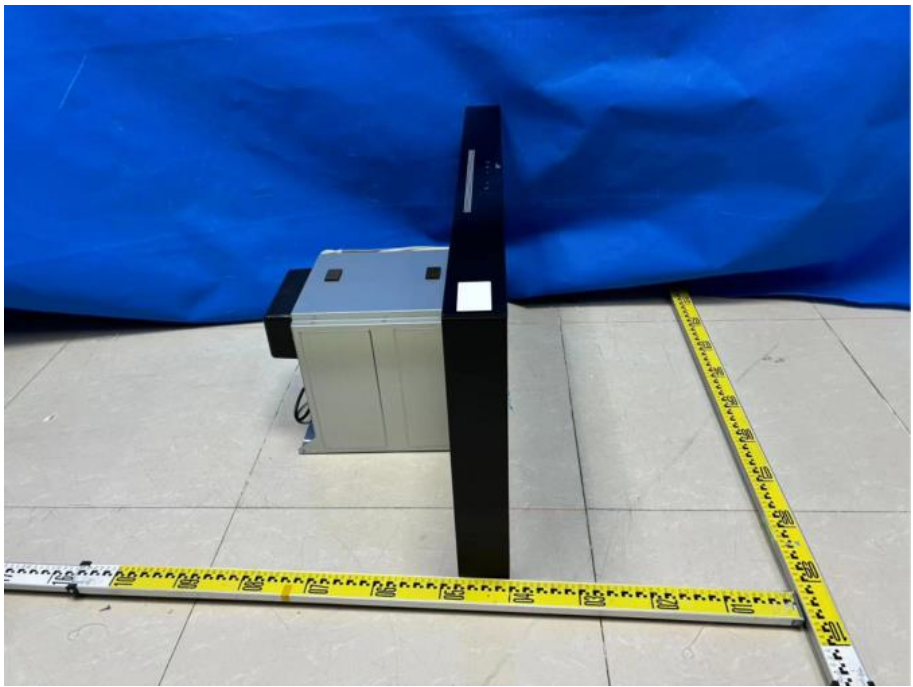
- ☐ general
- ☐ front
- ☐ rear
- ☒ right
- ☐ left
- ☐ top
- ☐ bottom



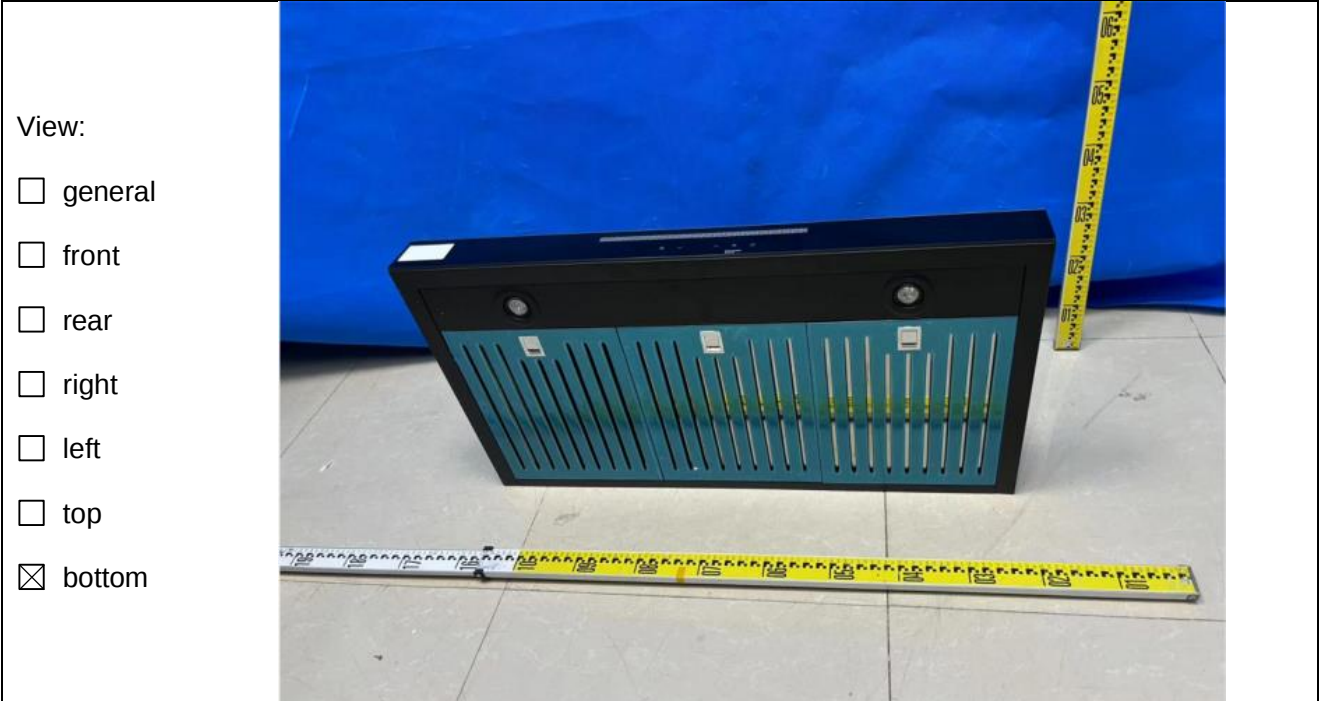
Details of: For models H309T9: Left view

View:

- ☐ general
- ☐ front
- ☐ rear
- ☐ right
- ☒ left
- ☐ top
- ☐ bottom



Details of: For models H309T9: bottom view



Details of: For model H309T9: Control panel



Details of: Alternative cover

View:

- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



Details of: Alternative cover

View:

- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



Details of: Alternative cover

View:

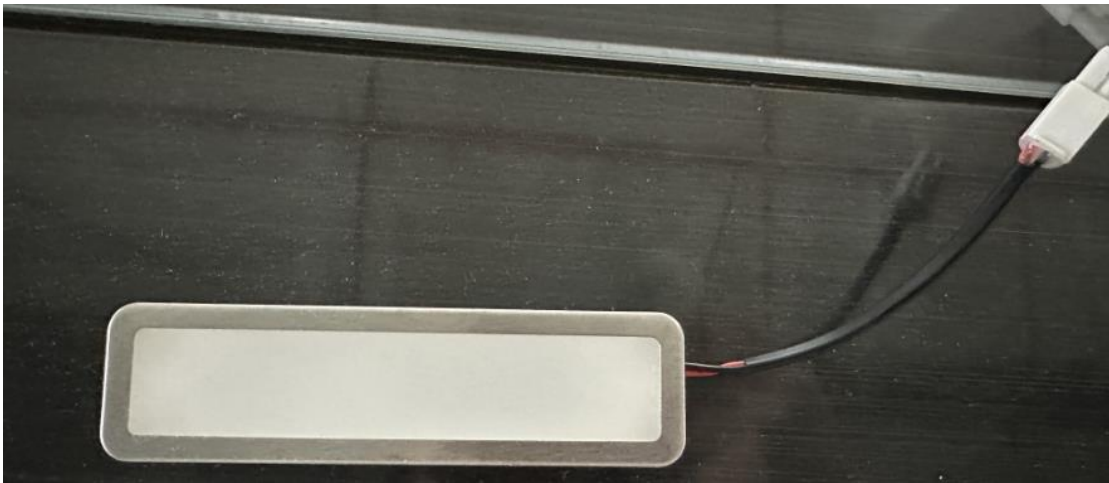
- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



Details of: Alternative LED lamp

View:

- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



Details of: Alternative LED lamp

View:

- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



--- End of This Attachment ---

IEC60335_2_31L_III - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO TEST REPORT IEC 60335-2-31 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Household and similar electrical appliances – Safety – Part 2: Particular requirements for range hoods			
Differences according to : EN 60335-2-31:2014/A11:2023 + A1:2023 + A2:2023			
TRF template used : IECEE OD-2020-F2:2020, Ed. 1.1			
Attachment Form No. : EU_GD_IEC60335_2_31L_III			
Attachment Originator : IMQ S.p.A.			
Master Attachment : 2024-05-30			
Copyright © 2024 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.			
CENELEC COMMON MODIFICATIONS			
7.1	If the voltage rating of the lamp is less than the rated voltage of the appliance, the voltage rating of the lamp shall also be marked on or near the lampholder. (EN 60335-2-31:2014/A1:2023)		N/A
	Range hoods intended to be used with self-shielded tungsten halogen lamps or metal halide lamps only shall be marked with symbol "Use only with self-shielded tungsten halogen lamps or self-shielded metal halide lamps" or with the substance of the following: (EN 60335-2-31:2014/A1:2023)		—
	Use only with self-shielded tungsten halogen lamps or self-shielded metal halide lamps. (EN 60335-2-31:2014/A1:2023)		N/A
	Range hoods incorporating a protective shield shall be marked with symbol "Replace any cracked shield" or with the substance of the following: (EN 60335-2-31:2014/A1:2023)		—
	Replace any cracked protective shield. (EN 60335-2-31:2014/A1:2023)		N/A
7.6	Use only with self-shielded tungsten halogen lamps or self-shielded metal halide lamps. (EN 60335-2-31:2014/A1:2023)		N/A
	Replace any cracked shield. (EN 60335-2-31:2014/A1:2023)		N/A
7.12	The instructions shall state the substance of the following: (EN 60335-2-31:2014/A1:2023)		—

IEC60335_2_31L_III - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	– lamp type, shape description and image; (EN 60335-2-31:2014/A1:2023)		P
	– rated wattage of the intended lamp; (EN 60335-2-31:2014/A1:2023)		P
	– max wattage of a potential replacement lamp; (EN 60335-2-31:2014/A1:2023)		N/A
	– rated voltage or voltage range of lamp or, for pre-heat starting fluorescent lamps starter replacement details; (EN 60335-2-31:2014/A1:2023)		N/A
	– the type of lamp cap; (EN 60335-2-31:2014/A1:2023)		N/A
	– nominal dimension(s) of lamp. (EN 60335-2-31:2014/A1:2023)		N/A
	An ILCOS D code (standard version code specified in IEC 61231) including both the letter and figure sections is considered to provide the required instructions. (EN 60335-2-31:2014/A1:2023)		N/A
	If symbol “Use only with self-shielded tungsten halogen lamps or self-shielded metal halide lamps” or symbol “Replace any cracked shield” is used its meaning shall be explained. (EN 60335-2-31:2014/A1:2023)		N/A
7.12.1	The installation instructions shall include the substance of the following: (EN 60335-2-31:2014/A1:2023)		—
	he minimum distance between the supporting surface for the cooking vessels on the hob and the lowest part of the range hood. (When the range hood is located above a gas appliance, this distance shall be at least 65 cm. If the instructions for installation for the gas hob specify a greater distance, this has to be taken into account. The distance of 65 cm can be reduced for (EN 60335-2-31:2014/A1:2023)		N/A
	– non-combustible parts of range hoods; or (EN 60335-2-31:2014/A1:2023)		N/A
	– parts operating at safety extra low voltage (EN 60335-2-31:2014/A1:2023)		N/A
	If the range hood is only intended to be installed over a hob with no more than four hob elements this shall be stated. (EN 60335-2-31:2014/A1:2023)		N/A
	The installation instructions for down-draft systems shall also include the substance of the following: (EN 60335-2-31:2014/A11:2023)		—

IEC60335_2_31L_III - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	the following warning (for down-draft systems not intended to be used with gas hobs): (EN 60335-2-31:2014/A11:2023)		N/A
	"CAUTION: Do not use this appliance with gas hobs" (EN 60335-2-31:2014/A11:2023)		N/A
7.14	The height of symbol: (EN 60335-2-31:2014/A1:2023)		—
	- "Use only with self-shielded tungsten halogen lamps"; or (EN 60335-2-31:2014/A1:2023)		N/A
	- "self-shielded metal halide lamps"; or (EN 60335-2-31:2014/A1:2023)		N/A
	- "Replace any cracked shield" (EN 60335-2-31:2014/A1:2023)		N/A
	shall be at least 15 mm. (EN 60335-2-31:2014/A1:2023)		N/A
7.15	Symbol or the marking: (EN 60335-2-31:2014/A1:2023)		N/A
	- "Use only with self-shielded tungsten halogen lamps; or (EN 60335-2-31:2014/A1:2023)		N/A
	- self-shielded metal halide lamps"; or (EN 60335-2-31:2014/A1:2023)		N/A
	- the marking "Use only with self-shielded tungsten halogen lamps; or (EN 60335-2-31:2014/A1:2023)		N/A
	- self-shielded metal halide lamps"; or (EN 60335-2-31:2014/A1:2023)		N/A
	shall be visible during replacement of the lamp. (EN 60335-2-31:2014/A1:2023)		N/A
	Symbol or the marking: (EN 60335-2-31:2014/A1:2023)		—
	- "Replace any cracked shield" or (EN 60335-2-31:2014/A1:2023)		N/A
	- "Replace any cracked shield" (EN 60335-2-31:2014/A1:2023)		N/A
	shall be visible when the appliance is installed as in normal use. (EN 60335-2-31:2014/A1:2023)		N/A
11.2	The appliance is located close to a hob so that the distance between its lowest point and the hob surface is the minimum distance specified in the instruction. (EN 60335-2-31:2014/A11:2023)		P
	For down-draft systems the lowest point equals the closest point. (EN 60335-2-31:2014/A11:2023)		N/A

IEC60335_2_31L_III - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
11.8	Temperature rises of lampholders and the enclosure are also determined with the fan motor switched off and lights switched on. Enclosure temperatures are not measured within a distance of 35 mm around the lamp glass regardless of its shape. (EN 60335-2-31:2014/A1:2023)		P
15.2	A vessel with 0,5 l of solution is poured steadily over a period of 15 s over critical parts of the down-draft system. (EN 60335-2-31:2014/A11:2023)		N/A
19.101	Appliances are operated close to a hob as specified in Clause 11, but without vessels and with only the two outer hob elements at the back being energized. In case for down-draft systems the lowest point equals the closest point. (EN 60335-2-31:2014/A11:2023)		N/A
20.2	The second indent in the compliance in 20.2 of Part 1 is not applicable, (EN 60335-2-31:2014)		N/A
	except for down draft systems (EN 60335-2-31:2014)		N/A
20.101	If a part of a range hood or down-draft system can be moved on its own by any means other than moved or released or guided by hand, there shall be no risk of entrapment or injury. Hand guided movements shall be indicated by the manufacturer either on the appliance or in the user manual. (EN 60335-2-31:2014/A11:2023)		N/A
	The appliance is operated at rated voltage and is operated to open and close the driven part. The driven part shall: (EN 60335-2-31:2014/A11:2023)		—
	a) decelerate to a speed lower than 15 mm/s in the last 50 mm of the movement, as it approaches any position in which entrapment may occur not exceeding a force of 150 N unless it is unlikely that potential points of entrapment or injury can be reached in normal operation of the appliance; (EN 60335-2-31:2014/A11:2023)		N/A
	b) when EN 61032 probe 32 is placed at any potential entrapment point across the width and height of the opening; (EN 60335-2-31:2014/A11:2023)		N/A
	- stop and reverse direction before contacting the probe by any means of sensing; or (EN 60335-2-31:2014/A11:2023)		N/A

IEC60335_2_31L_III - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	- if the probe is touched by the driven part with a force not of shear; (EN 60335-2-31:2014/A11:2023)		N/A
	- not exert a force on the probe exceeding a value of 100 N; or (EN 60335-2-31:2014/A11:2023)		N/A
	- stop and reverse direction a force on the probe higher than a value of 100 N. (EN 60335-2-31:2014/A11:2023)		N/A
	- if the probe is touched by the driven part with a force of shear, it shall not exceed a value of 25 N and all the edges of the parts touching the probe shall be rounded with a radius of not less than 2 mm. (EN 60335-2-31:2014/A11:2023)		N/A
	Exemption for shear forces are as follows:		—
	-If the recess in a potential shearing area does not exceed 3 mm, there is no shearing hazard. For an example see Figure Z101; (EN 60335-2-31:2014/A11:2023)		N/A
	-If the recess in a potential shearing area allows test probe 32, there is no shearing hazard. For an example see Figure Z102. (EN 60335-2-31:2014/A11:2023)		N/A
	If probe 32 does not fit between moving parts, edges of the shearing area shall at least have a radius of 2 mm. (EN 60335-2-31:2014/A11:2023)		N/A
	If compliance relies on the operation of an electronic circuit, the test is repeated under the following conditions applied separately: (EN 60335-2-31:2014/A11:2023)		N/A
	- the fault conditions in a) to g) of 19.11.2, are applied one at a time to the electronic circuit; (EN 60335-2-31:2014/A11:2023)		N/A
	- the electromagnetic phenomena tests of 19.11.4.2 and 19.11.4.5 are applied in turn to the appliance. (EN 60335-2-31:2014/A11:2023)		N/A
	The driven part shall: (EN 60335-2-31:2014/A11:2023)		—

IEC60335_2_31L_III - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	a) decelerate to a speed lower than 15 mm/s in the last 50 mm of the movement, as it approaches any position in which entrapment may occur not exceeding a force of 150 N unless it is unlikely that potential points of entrapment or injury can be reached in normal operation of the appliance; or (EN 60335-2-31:2014/A11:2023)		N/A
	b) EN 61032 probe 32 is placed at any potential entrapment point across the width and height of the opening; (EN 60335-2-31:2014/A11:2023)		N/A
	- stop and reverse direction before contacting the probe by any means of sensing; or (EN 60335-2-31:2014/A11:2023)		N/A
	- if the probe is touched by the driven part with a force not of shear; (EN 60335-2-31:2014/A11:2023)		N/A
	- not exert a force on the probe exceeding a value of 100 N; or (EN 60335-2-31:2014/A11:2023)		N/A
	- stop and reverse direction a force on the probe higher than a value of 100 N. (EN 60335-2-31:2014/A11:2023)		N/A
	- if the probe is touched by the driven part with a force of shear, it shall not exceed a value of 25 N and all the edges of the parts touching the probe shall be rounded with a radius of not less than 2 mm. (EN 60335-2-31:2014/A11:2023)		N/A
	It shall not be possible to touch dangerous moving parts with this test probe. (EN 60335-2-31:2014/A11:2023)		N/A
22.104	Range hoods intended to incorporate tungsten halogen lamps or metal halide lamps shall be fitted with a protective shield. For tungsten halogen lamps, the shield shall be of glass. (EN 60335-2-31:2014/A1:2023)		N/A
	This requirement is not applicable for range hoods intended to be used with self-shielded tungsten halogen lamps or self-shielded metal halide lamps only. (EN 60335-2-31:2014/A11:2023)		N/A
30.101	Appliances shall not incorporate combustible material likely to propagate a fire originating from a cooking surface. (EN 60335-2-31:2014/A2:2023)		P

IEC60335_2_31L_III - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Internal air-ducts and parts within them, such as fans and odour extraction filters", are subjected to the needle-flame test of Annex E, droplets of material being ignored. (EN 60335-2-31:2014/A2:2023)		P
	Grease filters are not subjected to the needle-flame test of Annex E. (EN 60335-2-31:2014/A2:2023)		P

--- End of This Attachment ---

EN 60335-1:2012/A15:2021			
Clause	Requirement + Test	Result - Remark	Verdict
	CENELEC COMMON MODIFICATIONS (EN)		—
20.2	<i>Replace “dangerous” with “hazardous” (twice).</i>		P
22.44	<i>In sub Clause 22.44, replace the text by the following:</i>		—
	An appliance is child-appealing if one of the following criteria is present:		N/A
	— 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:		N/A
	— using non-functional light (functional light is e.g. illumination of an object or area, signal indicating status of an appliance);		N/A
	— 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:		N/A
	— No surface (both functional surfaces and non-functional) that are accessible by means of test probe 19 of IEC 61032 located at a height less than 850 mm shall exceed the temperature rises stated below: <i>Temperature rise</i> — of bare metal 38K — of coated metal 42K — of glass and ceramic 51K — of plastic having a thickness exceeding 0,4 mm 58K		N/A
	— Hazardous moving parts shall not be accessible by means of test probe 19 of IEC 61032 under the conditions specified for test probe 18 in Clause 20.2.		N/A
	— Live parts shall not be accessible by means of test probe 19 of IEC 61032 under the conditions specified for test probe 18 in Clause 8.1.1.		N/A
	— Liquid in the appliance shall not exceed 38 °C in normal use when it is accessible by means of test probe 19 under the conditions specified for test probe 18 in Clause 20.2 or can get out of the appliance when positioned in different positions. Vessels in which two independent and sequential actions are needed to access the liquid are considered to meet the requirement.		N/A
	— The requirement of 22.12 is applicable for all accessible parts of the appliance.		N/A

EN 60335-1:2012/A15:2021			
Clause	Requirement + Test	Result - Remark	Verdict
	The requirement is not applicable to appliances where there is a toy shaped like the appliance.		N/A
24.1.7	<i>Replace the sub clause with the following:</i>		—
	If the remote operation of the appliance is via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is IEC 62151.		N/A

The requirement of EN 60335-1:2012 / A16:2023			
Clause	Requirement - Test	Result - Remark	Verdict
22	CONSTRUCTION		—
22.44	Replace in the third paragraph the sentence starting with “ If the appliance is child-appealing...” up to “..., the following conditions shall be met”: by the following:		—
	If the appliance is child-appealing and:		—
	— has a mass less than 4 kg; and		N/A
	— is mounted or normally intended for use at a height less than 850 mm		N/A

-End of This Attachment-

Part 1: Requirements of AS/NZS 60335.1:2020 + A1:2021			
Clause	Requirement - Test	Result - Remark	Verdict
	National Differences		—
3	TERMS AND DEFINITIONS		—
	After Clause 3.1.12 add the following variation:		—
AZ.3.1.201	Outlet load		—
	maximum allowed load that may be connected to appliance outlets and socket outlets accessible to the user		N/A
	Note to entry 1 A USB outlet is not considered to be an appliance outlet		N/A
5	GENERAL CONDITIONS FOR THE TESTS		—
5.2	Add the following variation:		—
	If the tests of AZ.22.201 need to be performed they are carried out on separate appliances, the number of appliances is that required by AS/NZS 3112.		N/A
5.8.1	Replace with the following variation:		—
	Appliances for a.c. only are tested with a.c. at 50 Hz, and those for a.c. and d.c. are tested at a.c. 50 Hz or d.c., whichever is the more unfavourable supply.		P
	After Clause 5.19 add the following variation:		—
AZ.5.201	For appliances, other than class III appliances, that are intended for connection to the supply mains:		—
	for single phase appliances, if marked with a rated voltage of either “230V” or “240V” test:		—
	at the multiplication factor (of less than 1) × 230 V; and		N/A
	at the multiplication factor (of greater than 1) × 240 V;		N/A
	for multi-phase appliances, if marked with a rated voltage of either “400V” or “415V” test:		—
	at the multiplication factor (of less than 1) × 400 V; and		N/A
	at the multiplication factor (of greater than 1) × 415 V;		N/A
	if marked with a rated voltage range then test:		—
	at the multiplication factor (of less than 1) × the lower extremity of the rated voltage range; and		P
	at the multiplication factor (of greater than 1) × the higher extremity of the rated voltage range; or		P
	at the worst-case voltage within the rated voltage range.		N/A
6	CLASSIFICATION		—

Part 1: Requirements of AS/NZS 60335.1:2020 + A1:2021			
Clause	Requirement - Test	Result - Remark	Verdict
6.1	Replace the requirement with the following variation:		—
	Appliances shall be of one of the following classes with respect to protection against electric shock: class I, class II, class III.		P
7	MARKING AND INSTRUCTIONS		—
7.1	Replace “poly-phase” by “multi-phase” in two places		—
	After the first paragraph of the requirement insert the following variation:		—
	Appliances intended for connection to the supply mains, other than class III appliances, shall be marked with		—
	– a rated voltage of at least: 230 V for single-phase appliances; 400 V for poly-phase appliances.		N/A
	– a rated voltage range that includes: 230 V for single-phase appliances; 400 V for poly-phase appliances.		P
	For appliance outlets and socket outlets accessible to the user that are incorporated in appliances connected to the supply mains; and		—
	- that operate at rated voltage;		N/A
	the appliances shall be marked with their maximum outlet load in Watts.		N/A
	Max. Outlet load (W).....:		N/A
7.13	Replace the requirement with the following variation:		—
	Instructions and other text required by this standard are written in English.		P
7.15	After the last paragraph of the requirement insert the following variation:		—
	The marking of the maximum outlet load shall be close to the appliance outlet or socket outlet.		N/A
10	POWER INPUT AND CURRENT		—
10.1	After the last paragraph of the test specification insert the following variation:		—
	Appliance outlets and socket outlets accessible to the user 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	HEATING		—
11.7	After the first paragraph of the test specification insert the following variation:		—

Part 1: Requirements of AS/NZS 60335.1:2020 + A1:2021			
Clause	Requirement - Test	Result - Remark	Verdict
	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
	Temperature rise (K).....:		N/A
19	ABNORMAL OPERATION		—
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 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
	Voltage normal use (V).....:		N/A
	Voltage abnormal operation (V).....:		N/A
	Deviation (%).....:		N/A
	During and after the tests the no-load output voltage of a USB outlet shall not increase by more than 3 V or 10% of its no-load output voltage in normal use, whichever is higher.		N/A
	Voltage normal use (V).....:		N/A
	Voltage abnormal operation (V).....:		N/A
	Deviation (%).....:		N/A
22	CONSTRUCTION		—
22.2	After the first paragraph of the requirement insert the following variation:		—
	For stationary appliances permanently connected to the fixed wiring, compliance with this requirement is considered to be met if the instruction concerning disconnection incorporated in the fixed wiring is in accordance with AS/NZS 3000.		N/A
22.3	Replace the text with the following variation:		—
	VOID		N/A
22.33	Delete the last sentence of the first paragraph of the requirement and introduce it as a new first paragraph of the requirement.		N/A
AZ.22.201	Appliances having integral pins for insertion into socket outlets shall comply with the appropriate requirements of AS/NZS 3112.		N/A

Part 1: Requirements of AS/NZS 60335.1:2020 + A1:2021			
Clause	Requirement - Test	Result - Remark	Verdict
	Compliance is checked as specified in Appendix J of AS/NZS 3112		N/A
AZ.22.202	Appliance outlets and socket outlets accessible to the user that are incorporated in appliances connected to the supply mains; and		N/A
	that operate at rated voltage		N/A
	shall be single-phase and have a current rating not exceeding 16 A.		N/A
	The socket outlets shall comply with AS/NZS 3112;		N/A
	accept a 3-pin, flat-pin plug as described in figure 2.1(a1) of AS/NZS 3112.		N/A
	The appliance outlets and socket outlets shall be protected by one of the following protection devices that has a current rating not exceeding the current rating of the appliance outlet or socket-outlet:		N/A
	- a circuit breaker for equipment complying with IEC 60934;		N/A
	- a manually resettable trip-free or cycling trip-free overcurrent protection device;		N/A
	- a non-user replaceable fuse-link.		N/A
	Current of outlet (A).....:		N/A
	Current of protection device (A).....:		N/A
	The protection device shall be placed behind a non-detachable cover. The actuating member of the circuit breaker and the manually resettable protection device may be accessible.		N/A
	The current rating of the appliance outlets and socket outlets is obtained from the marked outlet load in watts divided by the rated voltage.		N/A
	Compliance is checked by inspection and for a manually resettable trip-free or cycling trip-free overcurrent protection device by the following tests:		N/A
	The device shall be operated at rated voltage at 136% of its current rating, in an ambient temperature of 23°C ± 2°C in a draught-free environment.		N/A
	Rated voltage (V).....:		N/A
	Current of outlet (A).....:		N/A
	Test current (A).....:		N/A
	Ambient temperature (°C).....:		N/A
	The device shall operate to interrupt the current within 2 h.		N/A

Part 1: Requirements of AS/NZS 60335.1:2020 + A1:2021			
Clause	Requirement - Test	Result - Remark	Verdict
	Overload condition existed for (_h,_min, _sec).....:		N/A
	The device shall be operated at rated voltage at 600% of its current rating in an ambient temperature of 23°C ± 2°C in a draught-free environment		N/A
	Rated voltage (V).....:		N/A
	Current of outlet (A).....:		N/A
	Test current (A).....:		N/A
	Ambient temperature (°C).....:		N/A
	The device shall operate to interrupt the current within 5 s.		N/A
	Overload condition existed for (sec).....:		N/A
	Immediately following the overcurrent tests, the test of clause 16.3 shall be applied, and the device shall comply with the specified requirements of the test.		N/A
	The device shall comply with the ball pressure test of 30.1 carried out at 160 °C.		N/A
	Plastic material type.....:		N/A
	Impression diameter (mm).....:		N/A
	The device shall comply with the glow-wire test of 30.2.3.1 with a test severity of 960 °C.		N/A
	Plastic material type.....:		N/A
	Time of ignition (sec).....:		N/A
	Time of extinguish (sec).....:		N/A
	Specified layer placed underneath the test specimen does not ignite.:		N/A
24	COMPONENTS		—
24.1	Insert the following variation before NOTE 1:		—
	NOTE 201 The relevant IEC standard can be replaced with the relevant Australia/New Zealand standard where applicable.		P
24.1.7	Add the following variation to the test specification:		—
	Telecommunication interface circuitry must comply with the Telecom Labelling Notice issued under the Telecommunications Act instead of IEC 62151.		N/A
	NOTE 201 The Telecommunications Act is administered by the Australian Media and Communications Authority.		N/A
25	SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS		—
25.1	Insert the following variation:		—

Part 1: Requirements of AS/NZS 60335.1:2020 + A1:2021			
Clause	Requirement - Test	Result - Remark	Verdict

	Supply cords for single-phase portable appliances intended for direct connection to the supply mains, shall be fitted with an appropriate plug complying with AS/NZS 3112.		N/A
Table 11	In footnote <i>a</i> insert the following variation		—
	However, they cannot be used in class I appliances.		N/A
	Special national conditions (if any)		—
	Australia		—

Clause	Requirement - Test	Result - Remark	Verdict
Part 2: Requirements of AS/NZS 60335.2.31:2020			
7.12	Replace the first dashed item in the first paragraph of the addition by the following:		—
	Range hoods and other cooking fume extractors may adversely affect the safe operation of appliances burning gas or other fuels (including those in other rooms) due to back flow of combustion gases. These gases can potentially result in carbon monoxide poisoning. After installation of a range hood or other cooking fume extractor, the operation of flued gas appliances should be tested by a competent person to ensure that back flow of combustion gases does not occur.		P
7.12.1	Replace the Second dashed item in the first paragraph of the addition by the following:		—
	the minimum distance between the supporting surface for the cooking vessels on the hob and the lowest part of the range hood. (When the range hood is located above a gas appliance, this distance shall be at least 60 cm. If the instructions for installation for the gas hob specify a greater distance, this has to be taken into account. The distance of 60 cm can be reduced for	65 cm in the manuals	N/A
	-non-combustible parts of range hoods, except grease filters, or		N/A
	-parts operating at safety extra low voltage		N/A

-- End of This Attachment --

IEC 60335-1 ATTACHMENT 3			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60335-1

SAUDI ARABIA NATIONAL DIFFERENCES

Household and similar electrical appliances - Safety - Part 1: General requirements

Differences according to: IEC 60335-1

Attachment Form No.: SASO_ND_IEC60335_1A

Attachment Originator.....: SGS-CSTC

Master Attachment: 2016-02

Copyright © 2008 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.

General Requirements

No.	Requirement – Test	Result - Remark	Verdict
1	- When any Hous standards (including all parts of this standard) refer to this standard (IEC 60335-1), you need to consider this Saudi national differences .		P
2	-Electrical Appliances which are fitted with a plug , the Plug shall comply with SASO 2203 and IEC 60083:2006 (SA2 only)		P
3	The standard voltages and frequency in Saudi Arabia are 220V ac and 230V ac , 60 Hz . .		P
4	- Markings on the name plate shall be either in Arabic or English language.		P
5	- Safety instructions and Manuals shall be in Arabic language.		P
6	- Country of origin shall be shown on the marking plate.	Made in China	P

-End of This attachment-