TEST REPORT

COMMISSION REGULATION (EU) No 66/2014

of 14 January 2014

implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for domestic ovens, hobs and range hoods

Report Number. ..... :	4930080.64
Tested by (name + signature)..... :	Hpak He
Approved by (name + signature) ..... :	Elvis Chen
Date of issue ..... :	2025-03-10
Total number of pages ..... :	49 Pages
Testing Laboratory ..... :	DEKRA Testing and Certification (Shanghai) Ltd. Guangzhou Branch
Address ..... :	Block 5, No.3, Qiyun Road, Huangpu District, Guangzhou, Guangdong, China
Applicant's name ..... :	Zhongshan Jinfulai Appliance Co., Ltd
Address ..... :	Building A, No 10 Qiye Road, Huangpu, zhongshan, Guangdong, China.
Test specification:	
Standard..... :	EN IEC 61591:2020+A11:2020 EN IEC 60704-1:2021 EN 60704-2-13:2017 EN 50564:2011
Test procedure ..... :	(EU) 65/2014, (EU) 66/2014, (EU) No 2016/2282 of 30 November 2016, (EU) 2017/254 of 30 November 2016
Non-standard test method……..:	N/A
Test Report Form No. ..... :	EU 65,66 range hood version 1.0
Test Report Form(s) Originator..... :	DEKRA

Test item description .....:	Range hood
Trade Mark .....:	Aeolus
Manufacturer .....:	Same as applicant
Factory.....:	Same as applicant
Model/Type reference .....:	BXV-M-SLWA*E
Ratings .....:	220-240Vac, 50/60Hz,

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
cl8 Power measurement of low power modes, cl9 Airborne acoustical noise, cl10 Volumetric airflow, cl11 Effectiveness of the lighting system, cl13 Grease absorption	DEKRA Testing and Certification (Shanghai) Ltd. Guangzhou Branch Block 5, No.3, Qiyun Road, Huangpu District, Guangzhou, Guangdong, China

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.

Model No.	BX2-5B-D8E1S02
Input	220-240Vac, 50/60Hz
Total Power	73W
Motor	70W
Lamp	Max:2X1.5W

CE

Zhongshan Jinfulai Appliance Co.,Ltd

Model No.	BX2-9-D8E9S02
Input	220-240Vac, 50/60Hz
Total Power	168W
Motor	165W
Lamp	Max:2X1.5W

CE

Zhongshan Jinfulai Appliance Co.,Ltd

Rating label

Test item particulars.....:	Range hood
Classification of installation and use.....:	Fixed appliance
Supply Connection.....:	Non-detachable power supply cord with plug
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
Testing.....:	
Date of receipt of test item.....:	2023.06.25
Date (s) of performance of tests.....:	2023.06.25-2023.10.19; 2024.07.15-2025.03.04

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to calculate the uncertainty associated with the measurement result.

The information provided by the customer in this report may affect the validity of the results, the test lab is not responsible for it.

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

The lamp in the range hood should comply with its own ERP regulation, this test report is only concerned the range hood.

This evaluation not include the conformity of Lighting in it.

Throughout this report a comma is used as the decimal separator.

General product information:

The basic information is listed below

Model	Motor	Switch	Lamp	Size	Amount of filter	Picture
BX2-9-D8E9 S02	165-4-650	Electronic button	2*1,5 W or 2*0,5 W	900 mm	3 filters 5 layers	
BX2-5B-D8 E1S02	70-650	Electronic button	2*1,5 W	1100 mm	4 filters 5 layers	
BX2-E-J1G1 9T01	100W (100-3 -550)	Electronic button	2*0,5 W or 2*1,5 W	600-900 mm	2 or 3 filters 5 layers	
BX2-6-J1G1 7T01	65-3-3 80	mechanical switch	2*0,5 W or 2*1,5 W	600 mm	2 filters 5 layers	
BX2-6-J1G1 9T01	65-3-3 80	mechanical switch	2*0,5 W or 2*1,5 W	900 mm	3 filters 5 layers	
BX2-5C-E7 E6S04	120-70 0	Electronic button	2*0,5 W or 2*1,5 W	600 mm	2 filters 5 layers	

Model	Motor	Switch	Lamp	Size	Amount of filter	Picture
BX2-5G-JIF 29T01	55-450	Button Switch	2*1,5 W or 2*0,5 W	900 mm	3 filters 5 layers	
BX2-5G-JIF 26T01	55-450	Button Switch	2*1,5 W or 2*0,5 W	900 mm	2 filters 5 layers	

The diameter of air outlet orifice is 150 mm. For clause 10 of EN 61591(volumetric airflow measurement), the corresponding pressure drop to an airflow of 200 m3/h is 5 Pa.
BXV-M-SLWA*E
BX denotes for company code
V = 1, 2 denotes for different rating voltage, V = 2, for 220-240 Vac.
M = 9,5B, E,6 denotes for different fan motor with different power input, it could be selected as below:
M = 9, denotes for fan motor mark 165 W (165-4-650)
M = 5B, denotes for fan motor mark 70 W (70-650)
M=E, denotes for fan motor mark 100 W (100-3-550)
M=6, denotes for fan motor mark 65 W (65-3-380)
M = 5C, denotes for fan motor mark 120 W
M = 5G, denotes for fan motor mark 55 W (55-450),
S = denotes for different type of controller, it could be selected as below:
J1: mechanical switch;
J2: Rocker switch (only for A= “L”, means pull-out series)
A1: four keys button;
A2: five keys button
A3: alternative four keys button;
A4: four keys button;
A5: four keys button (rectangle switch);
A6: four keys button with LCD display;
A7: four keys button with infra-red control;
A8: two knob;
C1: five keys touch;
C2:four keys touch with LCD display;
C3: four keys touch with numeric display;
C4: three keys touch with LCD display;
C5: four keys touch with numeric display(same as C3 except numeric display in a different direction);
C6: five keys touch;
C7: four keys touch with Liquid crystal display;
C8: five keys button with LCD display;
C9: three keys touch with numeric display;

D1: four keys button with slide touched(WIFI)..
D2: four keys touched with LCD display(WIFI);
D4, five keys touch with LED light
D5, four keys touched switch(WlFl).
D6: 6/8 keys touched switch or 8 keys touched switch(WlFl).
D8: five keys button
D9: four keys button with LED and gesture function,
E4: 5/7 touch switch
E5: Digital gesture switch
E7: 8 keys touched switch and heat sensor
F3: 7 keys button with LED and gesture function;
L = E denotes for different type of lamp, it could be selected as below:
L = E, means 1,5 Wx2 LED lamp (Round lamp)
L=G, means 0,5 Wx2 LED lamp (Round lamp)
L= F2, means 0,5 Wx2 LED lamp (Square light)
W = denotes for different width, it could be selected as below:
W = 5, means the width is 500 mm
W = 6, means the width is 600 mm
W = 7, means the width is 700 mm
W = 9, means the width is 900 mm
W = 1, means the width is 1100 mm
A = T/S, denotes for different appearance, but there only be:
T=tower model, s= trim strip
* = denotes design serial number—2 numbers.
E = denotes special version—2 numbers, E=Blank
This test report shall replace the test report 4930080.60 issued on 2025-02-27. It is issued concerning the following changes: add model BX2-5G-JIF29T01, BX2-5G-JIF26T01.
After review, model BX2-5G-JIF29T01 and BX2-5G-JIF26T01 were subjected to full test.

<table>
<tr><th>Clause</th><th>COMMISION REGULATION (EU) NO 66/2014</th><th>Result - Remark</th><th>Verdict</th></tr>
<tr><td>ANNEX I</td><td>Ecodesign requirements</td><td></td><td>-</td></tr>
<tr><td>3</td><td>ENERGY EFFICIENCY, AIR FLOW AND ILLUMINATION REQUIREMENTS</td><td></td><td>P</td></tr>
<tr><td>3.1</td><td>For domestic range hoods</td><td></td><td>P</td></tr>
<tr><td></td><td>1.3.1. Energy Efficiency Index (EEI hood) and Fluid Dynamic Efficiency (FDE hood)</td><td></td><td>P</td></tr>
<tr><td></td><td>Energy Efficiency Index limits for cavities of domestic ovens (EEI cavity)</td><td></td><td>P</td></tr>
<tr><td></td><td>The domestic range hoods shall have the maximum EEI hood and the minimum FDE hood limits as indicated in Table 3.</td><td></td><td>P</td></tr>
<tr><td></td><td>Energy Efficiency Index (EEI hood) and Fluid Dynamic Efficiency (FDE hood) for domestic range hoods
<table>
<tr><td>Timetable (entry into force 2014-2-20)</td><td>EEI_{hood}</td><td>FDE_{hood}</td></tr>
<tr><td>From 1 year after the entry into force
(from 2015-2-20)</td><td>$EEI_{hood} < 120$</td><td>$FDE_{hood} > 3$</td></tr>
<tr><td>From 3 years after the entry into force
(from 2017-2-20)</td><td>$EEI_{hood} < 110$</td><td>$FDE_{hood} > 5$</td></tr>
<tr><td>From 5 years after the entry into force
(from 2019-2-20)</td><td>$EEI_{hood} < 100$</td><td>$FDE_{hood} > 8$</td></tr>
</table></td><td>See appendix table</td><td>P</td></tr>
<tr><td>1.3.2</td><td>Air flow</td><td></td><td>P</td></tr>
<tr><td rowspan="2"></td><td rowspan="2">From 1 year after the entry into force, the domestic range hoods with a maximum air flow in any of the available settings higher than 650 m^3/h shall automatically revert to an air flow lower than or equal to 650 m^3/h in a time t limit as defined in Annex II.</td><td>For motor: 9
Boost setting: 643,0 m^3/h
Time: 5 min
For motor: 5B
Boost setting: 645,6 m^3/h
Time: 5 min
For motor: 5C</td><td>N/A</td></tr>
<tr><td>Boost setting 1:772.2 m^3/h
Time: 5 min</td><td>P</td></tr>
<tr><td>1.3.3</td><td>Low power modes for domestic range hoods</td><td></td><td>P</td></tr>
<tr><td>(1)</td><td>From 18 months after the entry into force:</td><td></td><td>P</td></tr>
</table>

Clause	COMMISION REGULATION (EU) NO 66/2014	Result - Remark	Verdict
	— Power consumption in ‘off mode’: the power consumption in any off-mode condition shall not exceed 1,00 W.		P
	— Power consumption in ‘standby mode(s)’: — The power consumption in any condition providing only a reactivation function, or providing only a reactivation function and a mere indication of enabled reactivation function, shall not exceed 1,00 W. — The power consumption of equipment in any condition providing only information or status display, or providing only a combination of reactivation function and information or status display, shall not exceed 2,00 W.		N/A
	— Availability of ‘off mode’ and/or ‘standby mode’: domestic range hoods shall provide ‘off mode’ and/or ‘standby mode’, and/or another condition which does not exceed the applicable power consumption requirements for ‘off mode’ and/or ‘standby mode’ when the equipment is connected to the mains power source.		P
(2)	From 3 years and 6 months after the entry into force:		P
	— Power consumption in ‘off mode’: the power consumption in any off-mode condition shall not exceed 0,50 W.		P
	— Power consumption in ‘standby mode(s)’: the power consumption in any condition providing only a reactivation function, or providing only a reactivation function and a mere indication of enabled reactivation function, shall not exceed 0,50 W. The power consumption of equipment in any condition providing only information or status display, or providing only a combination of reactivation function and information or status display shall not exceed 1,00 W.		P
	— Power management: when domestic range hoods are not providing the main function, or when other energy-using product(s) are not dependent on its functions, equipment shall, unless inappropriate for the intended use, offer a power management function, or a similar function, that switches equipment after the shortest possible period of time appropriate for the intended use of the equipment, automatically into: — ‘standby mode’, or — ‘off mode’, or		P
	— another condition which does not exceed the applicable power consumption requirements for ‘off mode’ and/or ‘standby mode’ when the equipment is connected to the mains power source.		N/A

Clause	COMMISION REGULATION (EU) NO 66/2014	Result - Remark	Verdict
	— The power management function shall be activated before delivery.		N/A
	— For range hoods with automatic functioning mode during the cooking period and fully automatic range hoods, the delay time after which the product switches automatically into the modes and conditions as referred to in the previous point shall be one minute after the motor and lighting have both been switched off either automatically or manually.		N/A
1.3.4	Illumination of the lighting		P
	From 1 year after entry into force, for range hoods which provide for lighting of the cooking surface, the average illumination of the lighting system on the cooking surface (E middle) shall be higher than 40 lux when measured under standard conditions.		P
2	PRODUCT INFORMATION REQUIREMENTS		P
	From 1 year after entry into force, the following product information shall be provided in the technical documentation of the product, the booklet of instructions and on the free access websites of manufacturers of domestic ovens, hobs and range hoods, their authorised representatives, or importers:		P
(a)	short title or reference to the measurement and calculation methods used to establish compliance with the above requirements;		P
(b)	information relevant to users in order to reduce total environmental impact (e.g. energy use) of the cooking process.		P
	From 1 year after entry into force, the technical documentation and a part for professionals of the free access websites of manufacturers, their authorised representatives, or importers shall contain information relevant for non-destructive disassembly for maintenance purposes and information relevant for dismantling, in particular in relation to the motor, if applicable, and any batteries, recycling, recovery and disposal at end-of-life.		P
2.3	For domestic range hoods: Information for domestic range hoods	See appendix table	P
ANNEX II	Measurements and calculations		P
3	DOMESTIC RANGE HOODS		P
3.1	Calculation of the Energy Efficiency Index (EEI hood)		P

Clause	COMMISION REGULATION (EU) NO 66/2014	Result - Remark	Verdict
	The Energy Efficiency Index (EEI hood) is calculated as: $EEI_{hood} = \frac{AEC_{hood}}{SAEC_{hood}} \times 100$ and is rounded to the first decimal place.		P
	Where: — SAEC hood = Standard Annual Energy consumption of the domestic range hood in kWh/a, rounded to the first decimal place, — AEC hood = Annual Energy Consumption of the domestic range hood in kWh/a, rounded to the first decimal place. The Standard Annual Energy Consumption (SAEC hood) of a domestic range hood shall be calculated as:		P
	$SAEC_{hood} = 0,55 \times (W_{BEP} + W_L) + 15,3$		P
	Where: — W_{BEP} is the electric power input of the domestic range hood at the best efficiency point, in Watt and rounded to the first decimal place, — W_L is the nominal electric power input of the lighting system of the domestic range hood on the cooking surface, in Watt and rounded to the first decimal place.		P
	The Annual Energy Consumption (AEC_{hood}) of a domestic range hood is calculated as:		P
(i)	for the fully automatic domestic range hoods:		N/A
	$AEC_{hood} = \left[\frac{(W_{BEP} \times t_H \times f) + (W_L \times t_L)}{60 \times 1\,000} + \frac{P_0 \times (1\,440 - t_H \times f)}{2 \times 60 \times 1\,000} + \frac{P_S \times (1\,440 - t_H \times f)}{2 \times 60 \times 1\,000}\right] \times 365$		N/A
(ii)	for all other domestic range hoods: $AEC_{hood} = \frac{[W_{BEP} \times (t_H \times f) + W_L \times t_L]}{60 \times 1\,000} \times 365$		P
	Where: — t_L is the average lighting time per day, in minutes (t_L = 120), — t_H is the average running time per day for domestic range hoods, in minutes (t_H = 60), — P_o is the electric power input in off mode of the domestic range hood, in Watt and rounded to the second decimal place,		P

Clause	COMMISION REGULATION (EU) NO 66/2014	Result - Remark	Verdict
	— P_s is the electric power input in standby mode of the domestic range hood, in Watt and rounded to the second decimal place, — f is the time increase factor, calculated and rounded to the first decimal place, as: f = 2 - (FDE hood × 3,6)/100		P
3.2	Calculation of the Fluid Dynamic Efficiency (FDE hood)		P
	The FDE hood at the best efficiency point is calculated by the following formula, and is rounded to the first decimal place: $FDE_{hood} = \frac{Q_{BEP} \times P_{BEP}}{3\,600 \times W_{BEP}} \times 100$		P
	Where: — Q_{BEP} is the flow rate of the domestic range hood at best efficiency point, expressed in m^3 /h and rounded to the first decimal place, — P_{BEP} is the static pressure difference of the domestic range hood at best efficiency point, expressed in Pa and rounded to the nearest integer, — W_{BEP} is the electric power input of the domestic range hood at the best efficiency point, expressed in Watt and rounded to the first decimal place.		P
3.3	Calculation on the limitation of the exhaust air		P
3.3.1	Domestic range hoods with a maximum air flow in any of the available setting higher than 650 m^3/h shall automatically revert to an air flow lower than or equal to 650 m^3/h in a time t_{limit} . This is the time limit to extract a volume of air of 100 m^3 by the domestic range hood operating with an airflow higher than 650 m^3/h, before automatically switching to an airflow of 650 m^3/h or lower. It is calculated, expressed in minutes and rounded to the nearest integer as: $t_{limit} = \frac{6\,000\ m^3}{Q_{max}}$ (1) Where: — Q_{max} is the maximum air flow of the domestic range hood, including intensive/boost mode if present, in m^3 /h and rounded to the first decimal place.	For motor: 9 Boost setting: 643,0 m^3/h Time: 5 min For motor: 5B Boost setting: 645,6 m^3/h Time: 5 min For motor: 5C	N/A
		Boost setting 1:772.2 m^3/h Time: 5 min	P
	The mere presence of a manual switch or setting decreasing the air flow of the appliance to a value lower than or equal to 650 m^3 /h is not considered fulfilling this requirement		N/A

Clause	COMMISION REGULATION (EU) NO 66/2014	Result - Remark	Verdict
3.3.2	For domestic range hoods with automatic functioning mode during the cooking period: — the activation of the automatic functioning mode shall be possible only through a manual operation by the user, either on the hood or elsewhere,		N/A
	— the automatic functioning mode shall revert to manual control after no more than 10 minutes from the moment the automatic function switches off the motor.		N/A
3.4	Illumination of lighting system (E_{middle})		P
	The average illumination of the lighting system on the cooking surface (E_{middle}) is measured under standard conditions in lux and rounded to the nearest integer.		P
3.5	Noise		P
	The Noise Value (in dB) is measured as the airborne acoustical A-weighted sound power emissions (weighted average value — L WA) of a domestic range hood at the highest setting for normal use, intensive or boost excluded, and rounded to the nearest integer		P
ANNEX III	Procedure for product conformity checking by market surveillance authorities		N/A
1	The Member State authorities shall test one single unit per model.		N/A
2	The model shall be considered to comply with the applicable requirements:		N/A
	(a) if the values provided in the product information as required by this Regulation are not more favourable for the manufacturer than the values in the technical documentation, including test reports; and		N/A
	(b) if testing of the relevant model parameters applying the tolerances listed in Table 7 shows compliance for all of those parameters.		N/A
3	If the result referred to in point 2(a) is not achieved, the model and all equivalent models shall be considered not to comply with this Regulation.		N/A
4	If the result referred to in point 2(b) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models which have been listed as equivalent product in the supplier's technical documentation.		N/A

Clause	COMMISION REGULATION (EU) NO 66/2014	Result - Remark	Verdict
5	The model shall be considered to comply with the applicable requirements if testing of the relevant model parameters listed in Table 7 shows compliance for all of those parameters.		N/A
6	If the result referred to in point 5 is not achieved, the model and all equivalent models shall be considered not to comply with this Regulation. The Member State authorities shall provide the test results and other relevant information to the authorities of the other Member States and to the Commission within 1 month of the decision being taken on the non-compliance of the model.		N/A
	Member State authorities shall use the measurement and calculation methods set out in Annex II.		N/A
	The tolerances set in this Annex shall be applied only to the verification of the measured parameters by Member State authorities, representing the allowed variations of the measurement results of the verification tests, and shall not be used by the manufacturer in establishing the values in the technical documentation or in interpreting these values with a view to achieving a better labelling classification or to communicate better performance by any means.		N/A

EN 61591			
Clause	Requirement – Test	Result – Remark	Verdict
4	**Classification**		P
	Recirculating-air range hood		N/A
	Air-extraction range hood		P
	Down-draft system		N/A
5	**List of measurement**		P
	Volumetric airflow		P
	Ability to absorb grease		P
	Effectiveness of hob light		P
	power measurement of low-power modes		P
	airborne acoustical noise		P
6	**General conditions for measurements**		P
6.1	The tests are carried out in a substantially draught-free room. The ambient temperature of the room is maintained at 20 °C ± 5 °C.		P
6.2	The range hood and the external blower or the down-draft system, if applicable, is (are) installed in accordance with the manufacturer's instructions.		P
	The maximum sized duct according to the instructions is to be used to connect to the blower.		N/A
6.3	The range hood and the external blower or the down-draft system, if applicable, are supplied at the rated voltage ±1%.		P
	If a voltage range is specified by the manufacturer the range hood and the external blower, if applicable, are to be supplied at the nominal voltage of the country in which the appliance is intended to be used.	230 V	P
6.4	For all tests, it shall be ensured that all filters are positioned correctly.		P
	For appliances with more than one grease filter, the filters shall be positioned with no gap in between(centrally positioned).		P
6.5	Cooking fume extractors shall be tested in the highest continuous setting for normal use, as stated in the manufacturer's instructions.		P
6.6	**Instrumentation and measurements**		-
	Instruments used and measurements made for this document shall comply with the specifications in Table 1 and Table 2. The accuracy is applied to the measured value.		P
8	**Power measurement of low power modes**		-

EN 61591			
Clause	Requirement – Test	Result – Remark	Verdict
	The power of low-power modes are measured in accordance with IEC 62301.		P
	If numbers have to be rounded, they shall be rounded to the nearest number in accordance with ISO 80000-1:2009, B.3, Rule B. If the rounding takes place to the right of the comma, the omitted places shall not be filled with zeros.		P
10	**Volumetric airflow**		-
10.1	The purpose of this test is to determine the volumetric airflow in general (see 10.3) and at the best efficiency point (BEP) (see 10.4).		P
	The airflow is measured in accordance with the methods contained in ISO 5167-1, ISO 5167-2, ISO 5167-3 and ISO 5167-4.		P
10.2	The maximum possible air-outlet of the cooking fume extractor is connected to a pressure compensation chamber (see Figure 1). The duct diameter needs to be the same as that of the air-outlet.		P
	A cooking fume extractor without ducting, e.g. a cooking fume extractor with recirculation mode, is connected directly to the pressure compensation chamber as shown in Figure 1b). The pressure compensation chamber shall be adapted to the dimensions of the cooking fume extractor under test.		P
	Follow the manufacturer’s instructions regarding the distance between points 1 and 7, as shown in Figure 1c) and 1d). If there is no value for the distance given, then the distance a is used.		P
	A cooking fume extractor in recirculation mode can have different geometries as "air outlet areas". These have to be adapted to the pressure compensation chamber.		N/A
	For non-circular ducts, a virtual diameter is considered that represents the same cross-section.		N/A
	The grease filter is installed for the test The odour-reduction filter is not installed for the test, except if the test is done in recirculation mode.		P
10.3	**Measurement of the volumetric airflow**		-

EN 61591			
Clause	Requirement – Test	Result – Remark	Verdict
	The cooking fume extractor is operated at the highest continuous setting for normal use for at least 1 800 s for warming up.		P
	The cooking fume extractor is operated and, by suitably adjusting the auxiliary fan or the baffle, the airflow corresponding to various pressures can be determined.		P
	The measurements are made with the controls positioned at the highest continuous setting for normal use, at the lowest setting, and at the boost position setting, if any.		P
	The airflow in recirculation mode is determined when the static pressure in the compensation chamber is at ambient pressure. For the measurement of the grease absorption in recirculation mode in Clause 13, the pressure drop of the odour-reduction filter has to be determined.		N/A
	The airflow in extraction mode is determined for discharge into a flue, which has the following pressure drop depending on the diameter of the air-outlet when there is an airflow of 200 m3/h: < 100 mm: 30 Pa b = 0,000 75 120 mm to 125 mm: 15 Pa b = 0,000 375 150 mm to 160 mm: 5 Pa b = 0,000 125 200 mm to 250 mm: 2,5 Pa b = 0,000 062 5 >250 mm: 1,25 Pa b = 0,000 031 25		P
10.4	**Calculation of the fluid dynamic efficiency (FDE_{hood})**		-
	The calculation of the fluid dynamic efficiency (FDE_{hood}) is only possible for a cooking fume extractor in extraction mode.		P
	For determining the fluid dynamic efficiency (FDE_{hood}) in accordance with 10.4, a pressureairflow curve and the corresponding electric-power curve with a minimum of 25 measuring points over the whole range are determined (see Figure 3).		P
	For the calculation, use the 6th degree polynomial and at least 10 measuring points, which are the interval 75 % to 125 % of the volume flow value at maximum energy efficiency. The measuring points should be well distributed over the range, whereby at least 5 measuring points of the volume flow has to be lower, and at a further 5 measuring points, the volume flow has to be higher than the volume flow of the calculated best effiency point (BEP). The BEP is the maximum value of this regression curve.		P

EN 61591			
Clause	Requirement – Test	Result – Remark	Verdict
	For the calculation of $FDE_{hood,}$ the measured data for the boost position setting is taken into account. If no boost position setting is available, then the highest continuous setting for normal use is taken into account.		P
	The BEP is determined. The fluid dynamic efficiency (FDE_{hood}) at the BEP (see Figure 3) is calculated with the following formula, and is rounded to one decimal place: $$FDE_{hood} = \frac{Q_{BEP} \cdot \Delta p_{BEP}}{3\,600 \cdot P_{BEP}} \times 100$$		P
11	**Effectiveness of the lighting system**		P
11.1	This method is used to assess the effectiveness of the lighting system of cooking fume extractors.		N/A
11.2	**Measurement**		-
	The lighting system of the cooking fume extractor is operated for at least 1 800 s forwarming up.		P
	The test is carried out in a room in which all other light sources are extinguished. During the test, only the lighting system of the cooking fume extractor is on.		P
	The electric power input of the lighting system (P_L) is determined by measuring the electric power input of the whole cooking fume extractor while only the lighting system is turned on. P_L is stated in W and rounded to the first decimal place.		P
	To avoid reflections, all adjacent surfaces, including the backwall and the cooking appliance, are covered, extended by at least 500 mm on both the left-hand and right-hand sides of the measurement area with a sheet of matt-black painted plywood or similar board.		P
	The distance as determined in 6.2 is the distance between the cooking fume extractor mounted and the aperture of the illuminance measurement device.		P

<table>
<tr><td colspan="4">EN 61591</td></tr>
<tr><td>Clause</td><td>Requirement – Test</td><td>Result – Remark</td><td>Verdict</td></tr>
<tr><td></td><td>The number and positioning of the measurement points is defined in Table 3 according to the
width W of the cooking fume extractor. The maximum width according to 7.1 applies. The
positions of the measurement points are determined in Figure 4, whereby the measurement
points 1, 2 and 3 show the centre line of the cooking fume extractor.</td><td></td><td>P</td></tr>
<tr><td></td><td>Table 3 – Relevant measurement points for assessing the effectiveness of the lighting system
<table><tr><th>Width (W) of cooking fume extractor (see 7.1) in mm</th><th>Relevant measurement points (see Figure 4)</th></tr><tr><td>W < 800</td><td>1 to 9</td></tr><tr><td>800 ≤ W < 1 050</td><td>1 to 15</td></tr><tr><td>1 050 ≤ W < 1 300</td><td>1 to 21</td></tr><tr><td>W ≥ 1 300</td><td>1 to 27</td></tr></table></td><td></td><td>P</td></tr>
<tr><td></td><td>The centre of island and ceiling range hoods has to be in line with measurement point 2 (see Figure 4).</td><td></td><td>N/A</td></tr>
<tr><td></td><td>Wall range hoods, built-in range hoods and microwave hood combinations are mounted
on the wall of the test room. The baseline of the measurement panel in Figure 4 is aligned to
the wall of the test room.</td><td></td><td>P</td></tr>
<tr><td></td><td>The illuminance for each measurement point is stated in lux and rounded to the nearest integer.</td><td></td><td>P</td></tr>
<tr><td>11.3</td><td>Assessment</td><td></td><td>-</td></tr>
<tr><td></td><td>The arithmetic average of the measurement points under test is calculated, and this value is stated as the illumination Emiddle in lux, rounded to the nearest integer.</td><td></td><td>P</td></tr>
<tr><td>13</td><td>Grease absorption</td><td></td><td>P</td></tr>
<tr><td>13.1</td><td>Purpose</td><td></td><td>-</td></tr>
<tr><td></td><td>This test is used to measure the efficiency of the grease filter.</td><td></td><td>P</td></tr>
<tr><td></td><td>The grease filter includes all detachable coverings, filter frames, plates or supports, which are
intended to be removed for cleaning without tools.</td><td></td><td>P</td></tr>
<tr><td>13.2</td><td>Measuring setup</td><td></td><td>-</td></tr>
<tr><td></td><td>All tests are carried out with identical new or cleaned filters and with a new or cleaned cooking
fume extractor and clean cookware.</td><td></td><td>P</td></tr>
</table>

EN 61591			
Clause	Requirement – Test	Result – Remark	Verdict
	A chamber in accordance with Figures 6 and 7 is used fitted with an absolute filter having a collecting efficiency of at least 99,995 %. The frame of the absolute filter shall not pick up any humidity. Its sides are sealed to the walls of the chamber. It has to be ensured that the equipment under test shall achieve the airflow of the working point.		P
	The air outlet from the chamber is connected to an auxiliary fan for controlling the pressure. The arrangement is shown in Figures 6 and 7.		P
	For a range hood or a microwave hood combination, a suitable electric hob element is positioned in accordance with 6.2. For a down-draft system, a suitable electric hob element is placed in accordance with Figure 7		P
	On this hob element, a piece of cookware (see Figure 8) with the following specifications is centrally positioned: -outer bottom diameter (200 ± 20) mm; -height (125 ± 20) mm; -uncoated; - thickness of bottom (7 ± 1) mm; - flatness of the bottom inside the cookware at ambient room temperature $\leqslant$ 0,2 mm (convex); - material: stainless steel.		P
	The diameter of the electric hob element shall match the diameter of the cookware as well as possible. However, it may vary by a maximum of ±20 mm. The height of the electric hob element and the cookware shall not be higher than 205 mm.		P
	In the bottom of the cookware, a thermocouple or temperature sensor in accordance with 6.6 is mounted as shown in Figure 8. The thermocouple or temperature sensor shall be in contact with the bottom of the cookware.		P
	The electric hob element is operated in such a way that the temperature in the bottom of the cookware is maintained at a temperature of (250 ± 5) °C.		P
	During the measurement, oil and water are dripped on the hot cookware. The points from which the oil and water are dripped are (10 ± 0,5) mm apart. The position of the cookware and means for supplying the oil and water is also shown in Figures 6 and 7.		P
	Refined and fresh corn oil shall be used with a temperature of (23 ± 2) °C. Demineralised water shall be used with a temperature of (23 ± 2) °C.		P

EN 61591			
Clause	Requirement – Test	Result – Remark	Verdict
13.3.1	**Determining the mass**		-
	The test is to be performed without the odour-reduction filt**er**(s).		P
	The mass of the cooking fume extractor is measured without the grease filter(s) and without the odour-reduction filter(s).		P
	To dry the filters, they are placed in a pre-heated cabinet for at least 60 min at a temperature of (50 ± 5) °C continuously. The mass of the **grease filter**(s) is determined separately, immediately after drying.		P
	The absolute filter (see Figures 6 and 7) is placed in a pre-heated cabinet for at least 60 min at a temperature of (50 ± 5) °C continuously. The mass is determined immediately after drying. In case of doubt, the absolute filter is dried for a further 3 h during which time the mass should not reduce by more than 0,5 g.		P
	The mass of the **cooking fume extractor**, the **grease filter**(s) and the absolute filter is rounded to ±0,1 g and stated.		P
13.3.2	**Warm-up period**		-
	The cooking fume extractor with the mounted and weighed filter(s) is installed in the chamber fitted with the mounted and weighed absolute filter in accordance with Figures 6 and 7, the arrangement being such that the air in the chamber has to pass through the cooking fume extractor.		P
	In the case of a multiple combination hood and a down-draft system with a separately mounted fan, the fan does not need to be mounted during the grease absorption test. The desired airflow rate can instead be achieved by using the auxiliary fan and by controlling the airflow with a suitable device.		P
	The cooking fume extractor is operated at the highest continuous setting for normal use for at least 1 800 s.		P
13.4	**Measurement**		-
	Before starting the measurement, the cookware is preheated to the required temperature of (250 ± 5) °C.		P
	If this temperature is reached, the cooking fume extractor is operated with any fan control adjusted to the highest continuous setting for normal use. At the same time, (48 ± 1) ml of corn oil per 1 800 s and (69 ± 1) ml of demineralised water per 1 800 s are dripped onto the heated cookware continuously. The nozzle diameter is (2,8 ± 0,1) mm.		P

EN 61591			
Clause	Requirement – Test	Result – Remark	Verdict
	The test is carried out for 1 800 s ± 10 s, after which the supply of oil and water is stopped and the electric hob is switched off. The cooking fume extractor and the auxiliary fan are switched off (600 ± 10) s later.		P
13.5	**Assessment**		-
	The cooking fume extractor is weighed again after removal of the grease filter and the mass of oil retained is determined. Oil that drips from the appliance during the measurement procedure is not taken into account. Oil that drips from the appliance after the measurement procedure is added to w_r. The grease filter and absolute filter are placed in a drying cabinet again for at least 60 min at a temperature of (50 ± 5) °C continuously. Afterwards, they are weighed immediately and the mass of the oil they contain is determined.		P
	Oil that drips from the filters during the drying process is added to w_g.		P
	For down-draft systems integrated in a cooking appliance, the oil that is on the surface of the cooking appliance is not added to w_r. The masses are measured to ±0,1 g.		P
	The **grease absorption factor** G_{FE} is calculated in percent as follows: $$G_{FE} = \frac{w_g}{w_r + w_t + w_g} \times 100\,\%$$ where: w_g is the mass of oil, in g, in the grease filter, including all detachable parts; w_r is the mass of oil, in g, retained in the airways of the cooking fume extractor and oil retained in ducting used in the chamber(s) to connect the cooking fume extractor to the compensation chamber (see Figures 6 and 7); w_t is the mass of oil, in g, retained in the absolute filter. The grease absorption factor GFE is rounded to the first decimal place. The test is carried out twice, and the average grease absorption factor is stated.		P

EN 60704-1 and EN 60704-2-13			
Clause	Requirement – Test	Result – Remark	Verdict
6	**Operation and location of appliances under test**		P
6.1	Equipping and pre-conditioning of appliances		P
6.1.1	The appliance is equipped with attachments, accessories, etc. as delivered by the manufacturer for the intended use or function.		P
	Recirculation-air range hoods should be fitted with a clean filter(s).		N/A
	Air-extraction range hoods shall be fitted with the pipe coupling ring, if any, having the largest diameter among those provided by the manufacturer. If the range hood is designed to accommodate additional filters, those filters shall be clean and appropriately fitted.		P
6.1.2	Care shall be taken to ensure that any auxiliary equipment (such as electrical conduits or cables, piping for water supply or drainage, air ducts, etc.) necessary for the operation of the appliance, does not radiate a significant amount of sound energy into the test environment or change the sound output of the appliance. Guidelines are given in 6.4 of ISO 3743-1, ISO 3743-2 and ISO 3744.		P
6.1.3	Prior to noise measurements, the range hood shall have been in operation for running in for at least 4 h at the highest speed setting for normal use.		P
6.1.4	Immediately before each series of noise measurements, the range hood equipped for its intended use is operated for stabilizing at the highest speed setting for normal use for 10 min.		P
6.2	Supply of electric energy and of water or gas		P
6.2.1	Appliances with mains powered electric motor(s) are supplied at rated voltage and at rated frequency. Appliances designed for DC only are supplied with DC. If a voltage range and/or a frequency range are indicated, then the supply voltage and/or frequency shall be the nominal system voltage and/or system frequency of the country in which the appliance is intended to be used. Tolerances shall not exceed ±2 % for voltage and ±1 % for frequency throughout the test.		P
	The nominal system voltage and its values are defined in IEC 60038.		P
	If the rated voltage of a mains supplied appliance differs from the nominal system voltage as common in the country of use, measurements should be carried out at the nominal voltage as common in the country of use.	230 V	P

EN 60704-1 and EN 60704-2-13			
Clause	Requirement – Test	Result – Remark	Verdict
	The supply voltage is measured at the plug of a non-detachable cable or cord, or at the appliance inlet if a detachable cable is provided, but in no case at the entrance of extension cables or cords.		P
6.2.2	Appliances with battery-powered electric motor(s) are started, for noise measurements, with full-charged batteries as specified by the manufacturer, and the measurements are interrupted when the battery voltage under load has dropped for lead-acid batteries to 0,9 times and for other batteries to 0,8 times the battery voltage under load at the beginning of the test.		N/A
	The battery voltage is measured at the battery terminals.		N/A
6.2.3 and 6.2.4	Not applicable.		N/A
6.3	Climatic conditions		P
	In general, household appliances (unless otherwise specified for a special family) are operated under the following climatic conditions: ambient temperature t = 23 °C ± 5 °C relative humidity RH = 50 % ± 20 % atmospheric pressure ps = 96 kPa ± 10 kPa		P
6.4	Loading and operating of appliances during tests		P
6.4.1	In general, the loading and operating conditions should, as far as practicable, simulate normal use but, in every case, preference has to be given to simple conditions providing a satisfactory repeatability and reproducibility.		P
	The presence of an operator should be avoided. An operator shall be present only if the application of the load is not practicable without an operator.		P
6.4.2	The appliances shall be equipped according to 6.1.1.		P
	The range hood shall be operated at the highest speed setting for normal use.		P

EN 60704-1 and EN 60704-2-13			
Clause	Requirement – Test	Result – Remark	Verdict
	Air-extraction range hoods shall be loaded using a pipe connected to a muffler. The pipe shall be rigid with smooth inner walls and shall have the widest diameter among those specified by the manufacturer. If not stated, a standard pipe with the best fitting diameter shall be used. The muffler shall have an insertion loss as specified. It shall have a circular section with the same internal diameter as that of the pipe, a length as specified and shall not have parts protruding inside that may cause additional pressure drops. The pipe and the muffler shall also comply with all the specifications and care shall be taken that they do not radiate noise.		P
	Range hoods with external fan shall be connected to the fan with a pipe and a muffler. The pipe shall be rigid with smooth inner walls and shall have the widest diameter among those specified by the manufacturer. If not stated, a standard pipe with the best fitting diameter shall be used. The muffler shall be provided with the appliance. If the manufacturer did not provide a muffler, the appliance is tested without muffler.		N/A
	In particular, when connecting the pipe and muffler system to the range hood, care shall be taken that this connection does not transfer any additional structure borne noise. For this purpose, isolating connecting pieces can be used.		P
	Static forces from the standard exhaust to the range hood shall also be avoided.		P
	Whenever it is possible to choose among two or more exit holes for the pipe connection, the one on the upper side of the range hood, if any, shall be used.		N/A
	Range hoods designed for connection with more than one pipe at the same time shall be connected accordingly to the number of pipes required.		N/A
6.4.3	Not applicable.		N/A
6.4.4	When applying loading and operating conditions for determining noise emission, care shall be taken to avoid possible overheating of the appliance under test. Rated operating and resting times and/or the manufacturer's instructions shall be followed.		P
6.5	Location and mounting of appliances		P
6.5.1	Range hoods not intended to be placed against a wall shall be supported by a stand with resilient means		N/A

EN 60704-1 and EN 60704-2-13			
Clause	Requirement – Test	Result – Remark	Verdict
	• either at a height of 0,6 m from the floor of the hard-walled test room or of the special reverberation test room with a minimum distance of 1 m between any surface (including protruding parts) of the range hood and the nearest wall;		N/A
	• or at a height of 0,6 m from a reflecting plane of the free field environment, taking into account the shape and size of the specified measurement surface.		N/A
	Care shall be taken in order to avoid any kind of interference between the supports and the air intake of the appliance under test.		N/A
6.5.2 and 6.5.3	Not applicable.		N/A
6.5.4	Range hoods intended to be placed against a wall are placed with a distance of D = 1 cm ± 0,5 cm between the back of the appliance and a vertical wall and supported by a stand with resilient means		P
	• either at a height of 0,6 m from the floor of the hard-walled test room or of the special reverberation test room with the mentioned distance from one vertical wall and with a minimum distance of 1 m between any surface (including protruding parts) of the range hood and the nearest other wall;		P
	• or at a height of 0,6 m on a horizontal reflecting plane in the free field environment and with the mentioned distance between the back of the range hood and the vertical reflecting plane. The minimum size of this vertical plane shall be at least equal to the size of the projection of the measurement surface. The acoustic absorption coefficient of the vertical reflecting plane shall be smaller than 0,06.		N/A
	Care shall be taken in order to avoid any kind of interference between the supports and the air intake of the appliance under test.		P
	Care should be taken to avoid any direct contact between the appliance (including protruding parts, worktops, spacers, etc.) and the vertical reflecting plane.		P
6.5.5	Appliances to be built-in are built-in according to the manufacturer’s installation instructions in an appropriate test enclosure.		N/A

EN 60704-1 and EN 60704-2-13			
Clause	Requirement – Test	Result – Remark	Verdict
7	**Measurement of sound pressure levels**		P
7.1	Microphone array, measurement surface and RSS location for essentially free field conditions over reflecting plane(s)		P
7.1.1	For range hoods not intended to be placed against a wall, including built-in appliances, the measurement surface is a parallelepiped with nine microphone positions, as specified in 7.3.1 of ISO 3744 and in Figure 1 of IEC 60704-1. Additional measurement positions may be required according to 7.3.2 of ISO 3744. The number of microphone positions may also be reduced according to 7.4.2 of ISO 3744.		N/A
	While defining the reference box around the appliance, the loading pipe connected to a range hood operating in exhausting mode should not be taken into account.		N/A
7.1.2	For range hoods intended to be placed against a wall, including built-in appliances, the measurement surface is a parallelepiped with six microphone positions, as specified in 7.3.1 of ISO 3744 and in Figure 2 of IEC 60704-1. Additional measurement positions may be required according to 7.3.2 of ISO 3744. The number of microphone positions may also be reduced according to 7.4.2 of ISO 3744.		P
	While defining the reference box around the appliance, the loading pipe connected to a range hood operating in exhausting mode should not be taken into account.		P
7.1.3 to 7.1.6	Not applicable		N/A
7.1.7	If the appliance under test emits steady noise, it is permissible to measure the surface sound pressure level by traversing a microphone along measurement paths, instead of at individual microphone positions, as described in 7.4.3 and Annexes B and C of ISO 3744.		N/A
7.1.8	Guidelines for the location of the RSS are given in Annex A of ISO 3744.		P
7.2	Microphone array and RSS location in hard-walled test rooms		N/A
	The requirements of 7.1 to 7.6 of ISO 3743-1 shall be followed.		N/A

EN 60704-1 and EN 60704-2-13			
Clause	Requirement – Test	Result – Remark	Verdict
7.3	Microphone array and RSS location in special reverberation test rooms		N/A
	The requirements of 7.1 to 7.7 of ISO 3743-2 shall be followed.		N/A
7.4	Measurements		P
	For measurements in free field conditions over a reflecting plane, the requirements of 7.5 of ISO 3744 shall be followed; for measurements in hard-walled test rooms, the requirements of 7.7 of ISO 3743-1 shall be followed; for measurements in special reverberation test rooms, the requirements of Clause 7 of ISO 3743-2 shall be followed.		P
7.4.1	The time-average sound pressure level has to be observed at each microphone position over a typical period of operation of the appliance. For noise that varies with time, the period of observation shall be specified carefully.		P
	In the case of a moving microphone, the integration time should include at least one full traverse for measurements according to ISO 3743-1 or ISO 3743-2, and at least two full traverses for measurements according to ISO 3744.		N/A
	The A-weighted time averaged sound pressure level shall be measured over a period of at least 30 s.		P
7.4.2	The following data shall be measured and considered when using the comparison method in hard-walled test rooms, or in special reverberation test rooms:		N/A
	- time-averaged octave-band sound pressure levels at each microphone position (or each traverse) during operation of the appliance under test;		N/A
	- time-averaged octave-band sound pressure levels at each microphone position (or each traverse) when the RSS is operating;		N/A
	- time-averaged octave-band sound pressure levels produced by the background noise.		N/A
7.4.3	The following data shall be measured and considered for measurements in free field conditions over a reflecting plane, or when using the direct method in special reverberation test rooms:		P
	- A-weighted or octave-band time-averaged sound pressure levels during operation of the appliance under test;		P

EN 60704-1 and EN 60704-2-13			
Clause	Requirement – Test	Result – Remark	Verdict
	- A-weighted or octave-band time-averaged sound pressure levels produced by the background noise.		P
7.4.4	If, due to simple instrumentation or due to the properties of the appliance under test, an observer has to be present, he shall be at least 0,5 m from the microphone in use, on the side away from the appliance under test.		N/A

Annex 1: information for range hoods

Table - Information for range hoods			
-	Symbol	Value	Unit
Model identification	-	BXV-M-SLWA*E	-
Annual Energy Consumption	AEC_{hood}	For motor 9: 34,3 with 2*1,5 W LED 33,6 with 2*0,5 W LED For motor 5B: 11,2 For motor E: 38,4 with 2*0,5 W LED 39,1 with 2*1,5 W LED For motor 6: 29,8 with 2*0,5 W LED lamp 30,5 with 2*1,5 W LED lamp For motor 5C: 16,6 with 2*0,5 W LED lamp 17,3 with 2*1,5 W LED lamp For motor 5G: 7,7 with 2*0,5 W LED lamp 8,5 with 2*1,5 W LED lamp	kWh/a
Time increase factor	f	For motor 9: 0,9 For motor 5B: 0,7 For motor E:1,6 For motor 6:1,5 For motor 5C:0,5 For motor 5G: 0,8	-
Fluid Dynamic Efficiency	FDE_{hood}	For motor 9:31,7 For motor 5B: 36,4 For motor E: 11,4 For motor 6: 14,1 For motor 5C:41,7 For motor 5G: 32,1	-

Fluid Dynamic Efficiency class	-	For motor 9: Class A For motor 5B: Class A For motor E: Class E For motor 6: Class D For motor 5C: Class A For motor 5G: Class A	-
Energy Efficiency Index	EEI_{hood}	For motor 9: 48,2 with 2*1,5 W LED lamp 47,6 with 2*0,5 W LED lamp For motor 5B: 30,4 For motor E: 75,0 with 2*0,5 W LED lamp 75,5 with 2*1,5 W LED lamp For motor 6: 66,4 with 2*0,5 W LED lamp 67,0 with 2*1,5 W LED lamp For motor 5C: 26,4 with 2*0,5 W LED lamp 27,3 with 2*1,5 W LED lamp For motor 5G: 26,9 with 2*0,5 W LED lamp 29,1 with 2*1,5 W LED lamp	-
Energy Efficiency class	-	For motor 9: Class A For motor 5B: Class A++ For motor E: Class C For motor 6: Class B For motor 5C: Class A+++ For motor 5G: Class A+++	-
Measured air flow rate at best efficiency point	Q_{BEP}	For motor 9:304,4 For motor 5B: 273,1 For motor E: 306,7 For motor 6: 159,6 For motor 5C:277,3 For motor 5G:144,2	m^3/h

Measured air pressure at best efficiency point	P_{BEP}	For motor 9: 371 For motor 5B: 175 For motor E: 85 For motor 6: 167 For motor 5C:460 For motor 5G:182	Pa
Maximum air flow at boost setting	Q_{boost}	For motor 9: 643,0 For motor 5B: 645,6 For motor 5C: Boost setting 1:772,2 Boost setting 2: 601,4	m^3/h
Maximum air flow at highest setting	Q_{max}	For motor 9: 563,6 For motor 5B: 573,1 For motor E: 522,7 For motor 6: 297,2 For motor 5C: 441,1 For motor 5G: 427,6	m^3/h
Air flow at working point(in normal use)	For motor 9:	Highest setting: 547,3 Lowest setting: 418,8	m^3/h
Air flow at working point(in normal use)	For motor 5B:	Highest setting: 532,9 Lowest setting: 274,5	m^3/h
Air flow at working point(in normal use)	For motor E:	Highest setting: 468,3 Lowest setting: 327,5	m^3/h
Air flow at working point(in normal use)	For motor 6:	Highest setting: 292,3 Lowest setting: 182,3	m^3/h
Air flow at working point(in normal use)	For motor 5C:	Highest setting: 411,1 Lowest setting: 222,7	m^3/h
Air flow at working point(in normal use)	For motor 5G:	Highest setting: 414,2 Lowest setting: 276,2	m^3/h

Measured electric power input at best efficiency point	W_{BEP}	For motor 9: 99,0 For motor 5B: 35,6 For motor E: 63,8 For motor 6: 52,4 For motor 5C:84,9 For motor 5G:22,7	W
Nominal power of the lighting system	W_L	2,5 for 2*1,5 W (Round lamp) 1,5 for 2*0,5 W (Round lamp) 1,5 for 2*0,5 W (Square light)	W
Average illumination of the lighting system on the cooking surface	E_{middle}	100 for 2*1,5W (Round lamp) 60 for 2*0,5W (Round lamp) 59 for 2*0,5 W (Square light)	lux
Lighting Efficiency	LE_{hood}	40 for 2*1,5 W (Round lamp) 40 for 2*0,5 W (Round lamp) 39 for 2*0,5 W (Square light)	lux/W
Lighting efficiency class	-	Class A for 2*1,5W (Round lamp) Class A for 2*0,5W (Round lamp) Class A for 2*0,5 W (Square light)	-
Grease Filtering Efficiency	GFE_{hood}	For motor 9: 73,0 For motor 5B: 71,4 For motor E: 73,5 For motor 6: 66,7 For motor 5C: 68,9 For motor 5G: 67,1	-
Grease Filtering Efficiency (GFE hood) class	-	For motor 9: Class D For motor 5B: Class D For motor E: Class D For motor 6: Class D For motor 5C: Class D For motor 5G: Class D	-

Measured power consumption in standby mode	P_s	S Switch: A6: 0,30 C2: 0,93 C7: 0,44 C8: 0,27 0,90 for D6 electrical control with WiFi 0,98 for D2 electrical control with WiFi 0,98 for D5 electrical control with WiFi 1,20 for D1 electrical control with WiF	W

Measured power consumption in off mode	Po	S Switch: A1: 0,39 A2: 0,41 A3: 0,38 A4:0,34 A5: 0,40 A7: 0,32 A8: 0,31 C1: 0,44 C3: 0,44 C4:0,49 C5:0,48 C6:0,43 C9: 0,48 D1: 0,43 D1: 0,49 (without wifi) D2: 0,48 (without wifi) D5: 0,48 (without wifi) D6: 0,48 (without wifi) D4: 0,48 D8:0,48 D9:0,49 E4: 0,48 E5:0,45 E7:0,49 J1: 0,00 J2: 0,00, F3: 0,45	W
Sound power level For motor 9:	L_{WA}	boost setting:69 Highest setting:66 Lowest setting:62	dB
Sound power level For motor 5B:	L_{WA}	boost setting: 65 Highest setting:64 Lowest setting:48	dB

Sound power level For motor E:	L_{WA}	Highest setting:60 Lowest setting:55	dB
Sound power level For motor 6:	L_{WA}	Highest setting:58 Lowest setting:49	dB
Sound power level For motor 5C:	L_{WA}	Boost setting 1: 71 Boost setting 2: 66 Highest setting: 59 Lowest setting: 43	dB
Sound power level For motor 5G:	L_{WA}	Highest setting:65 Lowest setting:55	dB

Annex 2: Information of efficiency class according to (EU) No. 65/2014

Energy efficiency classes of domestic range hoods

Energy Efficiency Class	Energy Efficiency Index (EEI_{hood})			
	Label 1	Label 2	Label 3	Label 4
A+++ (most efficient)				$EEI_{hood} < 30$
A++			$EEI_{hood} < 37$	$30 \leq EEI_{hood} < 37$
A+		$EEI_{hood} < 45$	$37 \leq EEI_{hood} < 45$	$37 \leq EEI_{hood} < 45$
A	$EEI_{hood} < 55$	$45 \leq EEI_{hood} < 55$	$45 \leq EEI_{hood} < 55$	$45 \leq EEI_{hood} < 55$
B	$55 \leq EEI_{hood} < 70$	$55 \leq EEI_{hood} < 70$	$55 \leq EEI_{hood} < 70$	$55 \leq EEI_{hood} < 70$
C	$70 \leq EEI_{hood} < 85$	$70 \leq EEI_{hood} < 85$	$70 \leq EEI_{hood} < 85$	$70 \leq EEI_{hood} < 85$
D	$85 \leq EEI_{hood} < 100$	$85 \leq EEI_{hood} < 100$	$85 \leq EEI_{hood} < 100$	$EEI_{hood} \geq 85$
E	$100 \leq EEI_{hood} < 110$	$100 \leq EEI_{hood} < 110$	$EEI_{hood} \geq 100$	
F	$110 \leq EEI_{hood} < 120$	$EEI_{hood} \geq 110$		
G (least efficient)	$EEI_{hood} \geq 120$			

Fluid Dynamic Efficiency classes for domestic range hoods

Fluid Dynamic Efficiency Class	Fluid Dynamic Efficiency (FDE_{hood})
A (most efficient)	$FDE_{hood} > 28$
B	$23 < FDE_{hood} \leq 28$
C	$18 < FDE_{hood} \leq 23$
D	$13 < FDE_{hood} \leq 18$
E	$8 < FDE_{hood} \leq 13$
F	$4 < FDE_{hood} \leq 8$
G (least efficient)	$FDE_{hood} \leq 4$

Lighting Efficiency classes for domestic range hoods

Lighting Efficiency Class	Lighting Efficiency (LE_{hood})
A (most efficient)	$LE_{hood} > 28$
B	$20 < LE_{hood} \leq 28$
C	$16 < LE_{hood} \leq 20$
D	$12 < LE_{hood} \leq 16$
E	$8 < LE_{hood} \leq 12$
F	$4 < LE_{hood} \leq 8$
G (least efficient)	$LE_{hood} \leq 4$

Grease Filtering Efficiency (GFE_{hood}) classes for domestic range hoods

Grease Filtering Efficiency Class	Grease Filtering Efficiency (%)
A (most efficient)	$GFE_{hood} > 95$
B	$85 < GFE_{hood} \leq 95$
C	$75 < GFE_{hood} \leq 85$
D	$65 < GFE_{hood} \leq 75$
E	$55 < GFE_{hood} \leq 65$
F	$45 < GFE_{hood} \leq 55$
G (least efficient)	$GFE_{hood} \leq 45$

Annex 3: Ecodesign requirements according to (EU) No. 66/2014

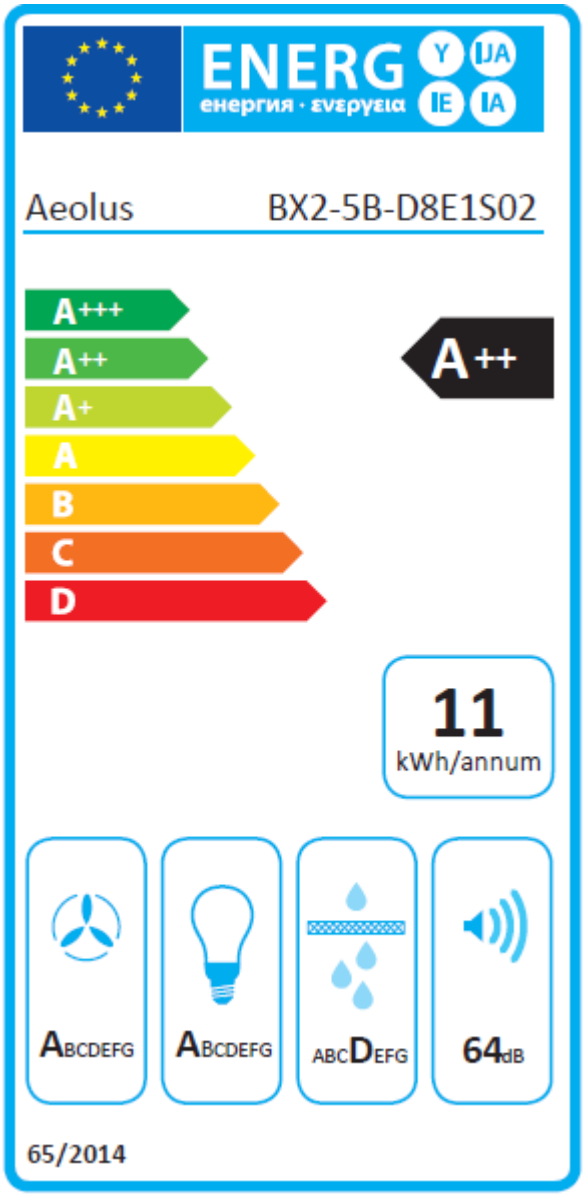
Item	Measured value	Stage 1	Stage 2	Stage 3
EEI_{hood}	For motor 9: 48,2 with 2*1,5 W LED lamp 47,6 with 2*0,5 W LED lamp For motor 5B: 30,4 For motor E: 75,0 with 2*0,5 W LED lamp 75,5 with 2*1,5 W LED lamp For motor 6: 66,4 with 2*0,5 W LED lamp 67,0 with 2*1,5 W LED lamp For motor 5C: 26,4 with 2*0,5 W LED lamp 27,3 with 2*1,5 W LED lamp For motor 5G: 26,9 with 2*0,5 W LED lamp 29,1 with 2*1,5 W LED lamp	☒ From 1 year after the entry into force < 120	☒ From 3 year after the entry into force < 110	☒ From 5 year after the entry into force < 100
FDE_{hood}	For motor 9:31,7 For motor 5B: 36,4 For motor E: 11,4 For motor 6: 14,1 For motor 5C:41,7 For motor 5G: 32,1	☒ From 1 year after the entry into force > 3	☒ From 3 year after the entry into force > 5	☒ From 5 year after the entry into force > 8

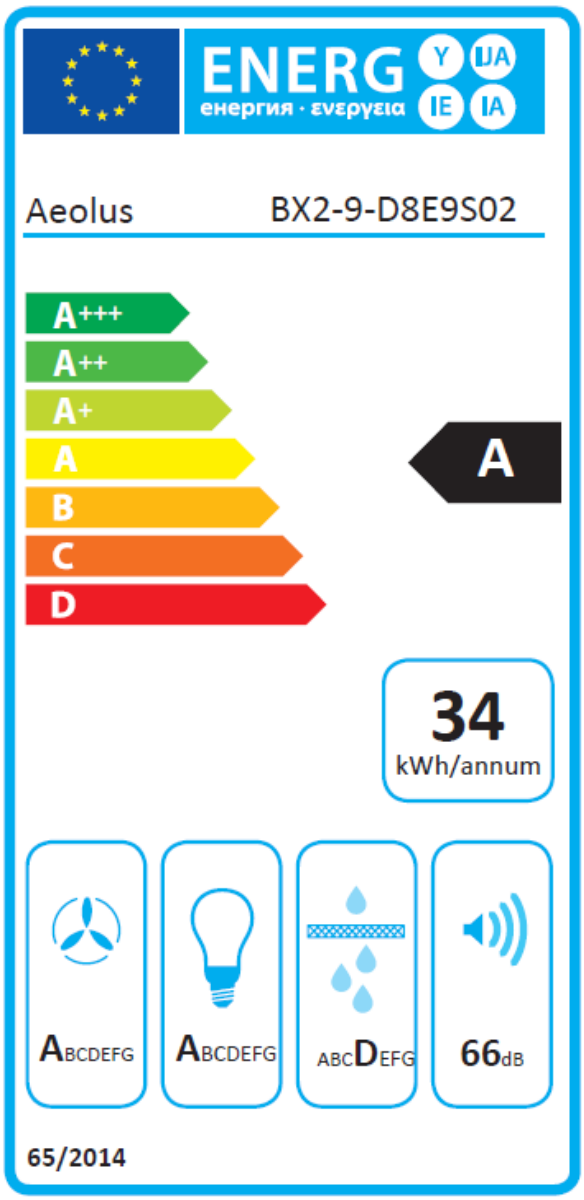
Po	A1: 0,39 W, A2: 0,41 W A3: 0,38 W A4:0,34 W A5: 0,40 W A7: 0,32 W A8: 0,31 W C1: 0,44 W C3: 0,44 W C4:0,49 W C5:0,48 W C6:0,43 W C9: 0,48 W D1: 0,43 W D4: 0,48 W D1: 0,49 W (without wifi) D2: 0,48 (without wifi) D5: 0,48 (without wifi) D6: 0,48 (without wifi) D8:0,48 W, D9:0,49 W J1: 0 W, J2: 0 W, E4: 0,48 W E5:0,45 W E7:0,49 W F3: 0,45 W	☒ From 18 months after the entry into force ≤ 1,00 W	☒ From 3 years and 6 months after the entry into force ≤ 0,50 W	-
P_s	S Switch: A6: 0,30 W C2: 0,93 W C7: 0,44 W C8: 0,27 W	From 18 months after the entry into force ☒≤ 1,00 W (without display) ☐ ≤ 2,00 W (with display)	From 3 years and 6 months after the entry into force ☒ ≤ 0,50 W (without display) ☐ ≤ 1,00 W (with display)	-

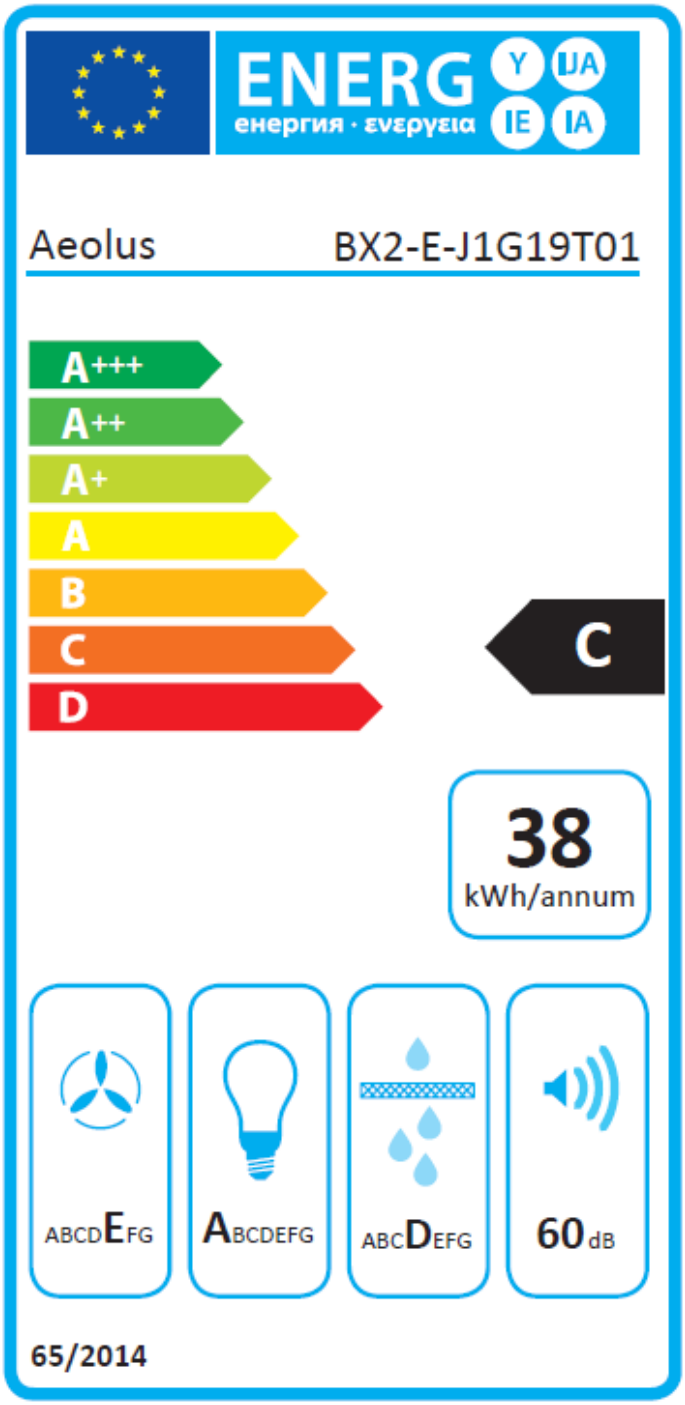
P_s	0.90W for D6 electrical control with WiFi 0,98 W for D2 electrical control with WiFi 0,98 W for D5 electrical control with WiFi 1,20 W for D1 electrical control with WiFi	EU 801/2013, EU 826/2023
E_{middle}	100 lux for 2*1,5W (Round lamp) 60 lux for 2*0,5W (Round lamp) 59 lux for 2*0,5 W (Square light)	☒ From 1 year after entry into force > 40 lux

Annex 4: Energy Label for domestic range hoods

Representative model







A+++(from 1 January 2018 voluntary and from 1 January 2020 mandatory)

The above energy label(s) is(are) draft version only for indicating the ratings.

(the manufacture shall use the applicable energy label on the product during the applicable timetable)

Annex 5: photos

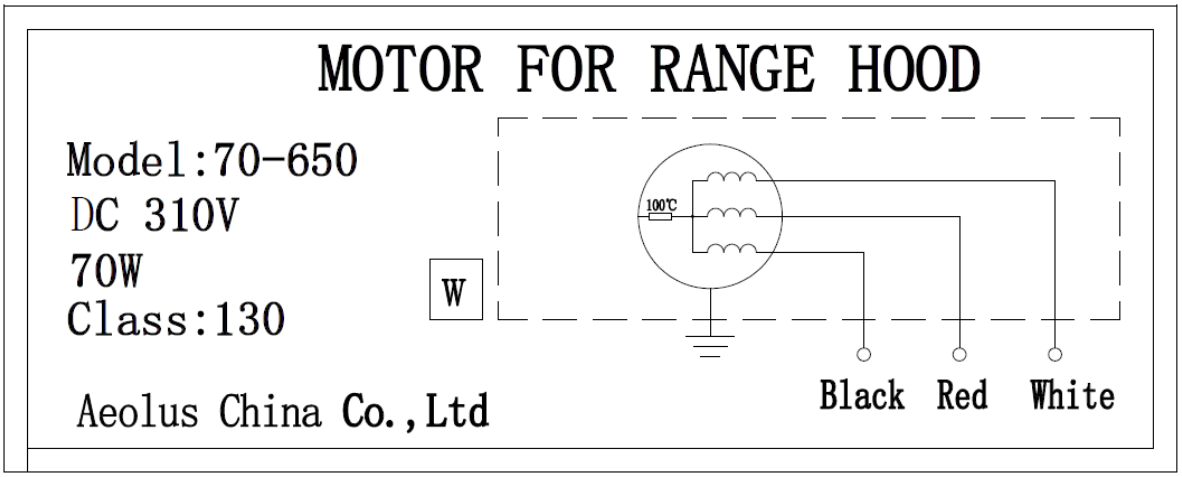
Front view

Rear view

Side view

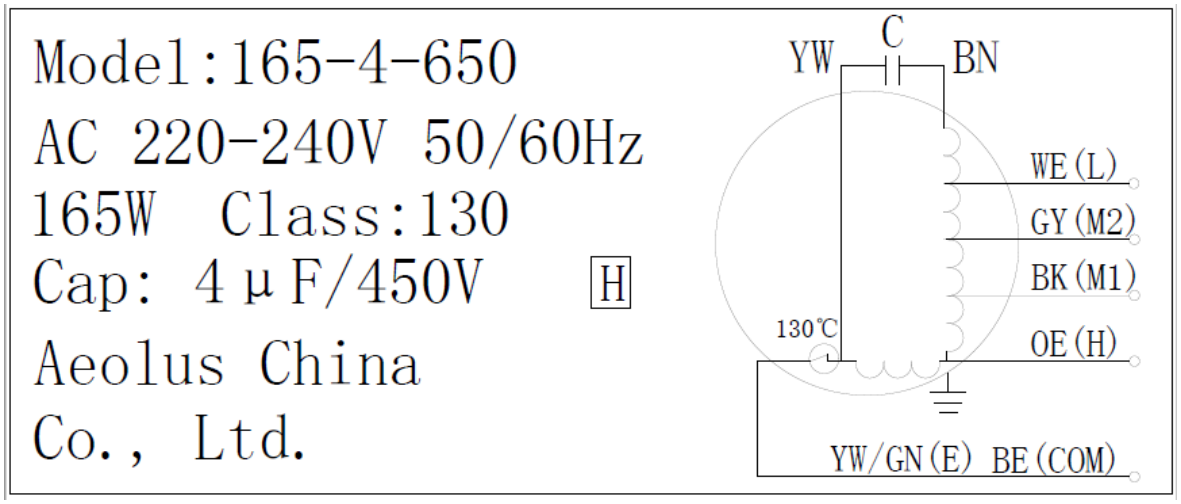
Switch view

Motor



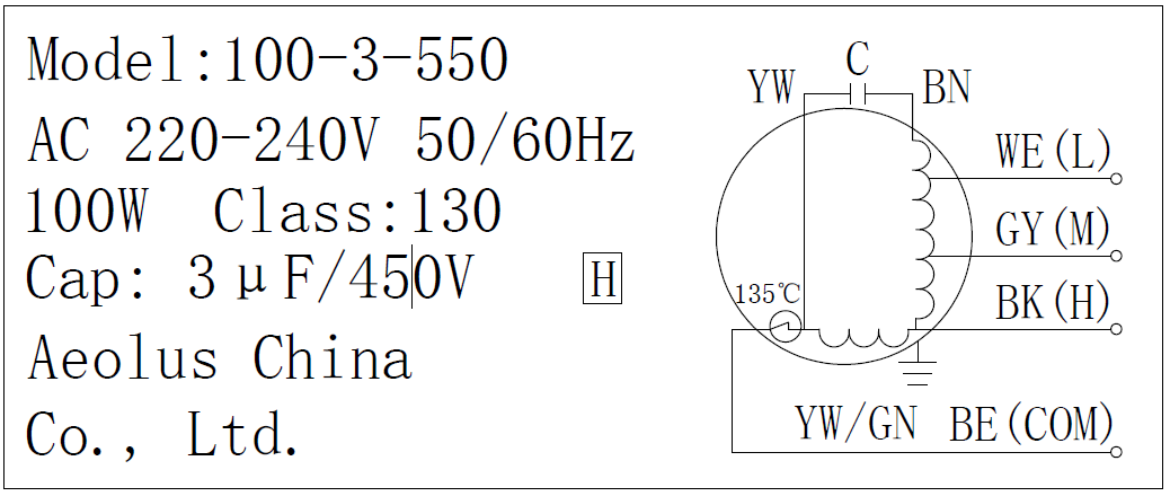
Motor label

Motor

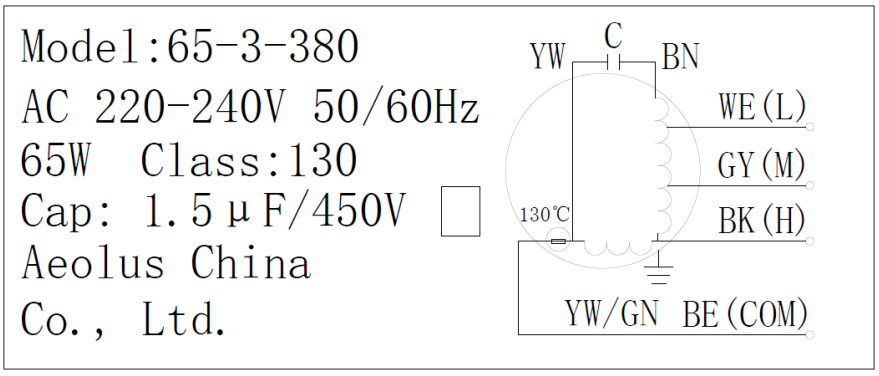


Motor label

Motor



Motor label



Motor label

Motor

(End of report)