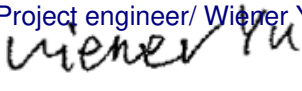
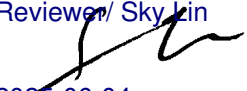




The following samples were submitted and identified on behalf of the client as:

TEST REPORT COMMISSION REGULATION (EU) 2024/1103 of 19 April 2024 implementing Directive 2009/125/EC of the European Parliament and of the Council as regards ecodesign requirements for local space heaters	
Report Reference No.	GZEE250500270231
Tested by (name + signature)	Project engineer/ Wiener Yu 
Approved by (name + signature) :	Reviewer/ Sky Lin 
Date of issue.....	2025-06-04
Testing Laboratory	SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch
Address.....	Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China
Applicant's name	Zhongshan Luoqi Appliance Co., Ltd.
Address.....	No.33, Deyou Street, Dongfeng Town, Zhongshan City, Guangdong, China
Test specification:	
Standard	COMMISSION REGULATION (EU) 2024/1103
Test procedure	STR: EU Directive 2009/125/EC
Non-standard test method.....	None
Test Report Form No.	2024/1103_01
Test Report Form(s) Originator	SGS-CSTC
Master TRF.....	2024-05-09
This test report is issued under SGS general terms of delivery (available on request and accessible at www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. Unless otherwise stated: (a) the results shown in this document refer only to the sample(s) tested and (b) such sample(s) are retained for 30 days. This document cannot be reproduced except in full, without prior approval of SGS.	
Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law	
Test item description	Gas & Electric Heater
Trade Mark	—
Manufacturer	Same as applicant
Model/Type reference.....	LQ-HE01F, LQ-HE01, LQ-HE01A(ALVA-GH309), LQ-HE01B, LQ-KB1B, LQ-HE01C, LQ-HE02, LQ-HE03, LQ-HE08, LQ-H002C, LQ-HE08F
Ratings.....	See marking plate for detail
Factory.....	Same as applicant

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

COMMISSION REGULATION (EU) 2024/1103
(See also: EN 50564:2011, EN
60675:1995+A1:1998+ A2:2018+A11:2019)

Test power supply: 230 V, 50Hz;

This report only consider the electric part of
appliance.

Testing location:

See page one

Copy of marking plate

Appliance name	Gas & electric heater				 2531-22 2531CS-0066 
Model No.	LQ-HE01F				
Trade name	luoqi				
Heat Input	4.2kW 306g/h (MAX)				
Heat Range	3 levels (4200W/ 2750W/ 1500W)				
Electric power	220V~240V, 50/60Hz, 1200W				
Gas Type	Butane/ propane	Butane, Propane or their mixtures			
Gas Category	I ₃ +(28~30/37)	I ₃ B/P(30)	I ₃ B/P(37)	I ₃ B/P(50)	
Gas Pressure	(28~30/37)mbar	(28~30)mbar	37mbar	50mbar	
Destination Countries	BE, FR, IT, LU, IE, GB, GR, PT, ES, CY, CZ, LT, CH, SI, LV, TR, SK	LU, NL, DK, FI, SE, CY, CZ, EE, LT, MT, SK, SI, BG, IS, NO, HR, RO, IT, HU, LV, BE, GB, FR,	PL	AT, DE, CH, SK	
Serial No.					
Manufacturer: Zhongshan Luoqi Appliance Co., Ltd					
Read the instructions before using this appliance This appliance require a hose and regulator, check with gas supplier Use the appliance only in a well ventilation area, position the appliance close to the wall, furniture, hangings, net curtains, bed lines and other inflammable materials maybe bring fire; Do not use in leisure vehicle such as caravans and auto caravans; The gas container shall be changed after the gas inside is getting to the end. If there is leakage gas, please do not use it again, bring the appliance to the supplier; Shut off the gas container valve after use.					
Operation Instructions (For gas heating): The heater can be regulated to three different heat input stages: LOW, MEDIUM and HIGH. The ignition is operated by piezoelectric push button. ●Open the valve on the gas cylinder 1 ½ turns. ●Press down and turn the control knob to LOW position and hold for 5-10 seconds. ●While still pressing down the control knob, press once or twice on the ignition button until the pilot flame ignited at the bottom of the burner. Continue to hold the control knob down for another 5-10 seconds more, if on releasing the button, the pilot flame goes out, repeat the operation. ●Push down a half of the control knob and then turn to the medium position. ●Push down the control knob and then turn to the HIGH position. ● After use turn off the appliance at the gas container valve. ●Turn to the "🔥" position and turn off the Gas Heater.					
Operation instructions (For electrical heating): ● Make sure plug is normally earthed, put plug in the socket; ● press switch---to start the top quartz tube; ● press switch---to start the other two quartz tubes; ● press switch---and = to start all quartz tubes, heat load reaches to peak; ● Turn all switches off after use; Remove the plug from the socket					

Remark:

1. The above marking plate maybe only a draft for reference.
2. The marking plate of other models is the same as above except for the model number.

Test item particulars	
Classification of installation and use.....	Free standing
Supply Connection	Non-detachable power cord fitted 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	2025-05-30
Date (s) of performance of tests	2025-05-30 to 2025-06-03
General remarks:	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a comma 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.	
General product information:	
Gas & Electric Heater is electric visibly glowing radiant local space heaters for household and indoor use. Models LQ-HE01F, LQ-HE01, LQ-HE01A(ALVA-GH309), LQ-HE01B, LQ-KB1B, LQ-HE01C, LQ-HE02, LQ-HE03, LQ-HE08, LQ-H002C, LQ-HE08F are the same except for the model name or colour of appearance. LQ-HE01F was subjected with full tests.	

COMMISSION REGULATION (EU) 2024/1103			
Cl.	Requirement-Test	Result-Remark	Verdict
ANNEX II	Ecodesign requirements referred to in Article 3		—
1.	REQUIREMENTS FOR SEASONAL SPACE HEATING ENERGY EFFICIENCY		P
(1)	Local space heaters shall meet the following requirements:		P
	(a) seasonal space heating energy efficiency of open fronted local space heaters and open to chimney local space heaters shall not be less than 40,3%;		N/A
	(b) seasonal space heating energy efficiency of closed fronted open combustion local space heaters shall not be less than 63,6%;		N/A
	(c) seasonal space heating energy efficiency of balanced flue local space heaters shall not be less than 63,6%;		N/A
	(d) seasonal space heating energy efficiency of electric portable local space heaters shall not be less than 44,7%;		N/A
	(e) seasonal space heating energy efficiency of electric fixed local space heaters with a nominal heat output above 250 W, except towel rails, shall not be less than 47,5%;		N/A
	(f) seasonal space heating energy efficiency of electric fixed local space heaters with a nominal heat output equal or below 250 W, except towel rails, shall not be less than 43,1%;		N/A
	(g) seasonal space heating energy efficiency of electric storage local space heaters shall not be less than 47,3%;		N/A
	(h) seasonal space heating energy efficiency of electric underfloor local space heaters shall not be less than 47,5%;		N/A
	(i) seasonal space heating energy efficiency of electric visibly glowing radiant local space heaters with a nominal heat output above 1,2 kW, except electric visibly glowing radiant portable local space heaters, shall not be less than 46,8%;		N/A
	(j) seasonal space heating energy efficiency of electric visibly glowing radiant local space heaters with a nominal heat output equal or below 1,2 kW, except electric visibly glowing radiant portable local space heaters, shall not be less than 40,5%;		P
	(k) seasonal space heating energy efficiency of electric visibly glowing radiant portable local space heaters shall not be less than 39,5%;		N/A
	(l) seasonal space heating energy efficiency of luminous local space heaters shall not be less than 90,0%;		N/A
	(m) seasonal space heating energy efficiency of tube local space heaters shall not be less than 80,0%.		N/A
	(n) seasonal space heating energy efficiency of towel rails with a nominal heat output above 250 W shall not be less than 46,0%;		N/A

COMMISSION REGULATION (EU) 2024/1103			
Cl.	Requirement-Test	Result-Remark	Verdict
	(o) seasonal space heating energy efficiency of towel rails with a nominal heat output above 60 W and equal or below 250 W shall not be less than 42,1%.		N/A
(2)	Electric storage local space heaters shall be equipped with electronic heat charge control with room and/or outdoor temperature feedback and fan assisted heat output.		N/A
(3)	Towel rails with a nominal heat output equal or below 60 W shall only be operable through a working time limitation with a maximum pre-set period of time no longer than 6 hours.		N/A
(4)	Electric local space heaters placed on the market without control shall not be able to provide heat output without control.		N/A
2.	Specific ecodesign requirements for emissions		N/A
	Emissions of nitrogen oxides (NO _x) from liquid and gaseous fuel local space heaters shall not exceed the following values, based on GCV:		N/A
	(1) emissions of NO _x by open fronted local space heaters, open to chimney local space heaters, closed fronted open combustion local space heaters, balanced flue local space heaters and flueless local space heaters shall not exceed 120 mg/kWh _{input} ;		N/A
	(2) emissions of NO _x by luminous local space heaters and tube local space heaters shall not exceed 180 mg/ kWh _{input} .		N/A
3.	REQUIREMENTS FOR LOW POWER MODES		P
	Local space heaters with controls, and separate related controls, shall meet the following requirements:		P
	(1) they shall have an off-mode or a standby mode or both. The power consumption in off-mode (P _o) shall not exceed 0,50 W and the power consumption in standby mode (P _{sm}) shall not exceed 0,50 W;		P
	as from 9 May 2027, the power consumption in off-mode shall not exceed 0,30 W;		N/A
	(2) if the standby mode includes the display of information or status, the power consumption of that mode shall not exceed 1,00 W;		N/A
	(3) if the standby mode provides for a connection to a network and provides networked standby as defined in Article 2, point (10) of Regulation (EU) 2023/826, the power consumption of this mode (P _{ns}) shall not exceed 2,00 W; if the communication between the heat generator and the control is wireless or through powerline carrier the power consumption of this mode shall not exceed 3,00 W;		N/A

COMMISSION REGULATION (EU) 2024/1103			
Cl.	Requirement-Test	Result-Remark	Verdict
	(4) if they provide for an idle mode, the power consumption of the idle mode (P _{idle}) shall not exceed 1,00 W as average over 1 hour, except if the idle mode depends on the input from a network connection to automatically provide heat to the room, in which case the power consumption shall not exceed 3,00 W as average over 1 hour.		P
4	PRODUCT INFORMATION REQUIREMENTS		—
(1)	The instruction manuals for installers and users, and free access websites of manufacturers, their authorised representatives and importers, shall contain the following elements:		P
	(a) for gaseous fuel local space heaters or liquid fuel local space heaters, including flueless local space heaters and excluding commercial local space heaters, the information set out in Table 1 or, in case of local space heaters placed on the market without control, in Table 2 of this Annex, with the technical parameters measured and calculated in accordance with Annex III and showing the significant figures indicated in those tables;		N/A
	(b) for electric local space heaters, the information set out in Table 3 or, in case of local space heaters placed on the market without control, in Table 4 of this Annex, with its technical parameters measured and calculated in accordance with Annex III and showing the significant figures indicated in those tables;		N/A
	(c) for domestic local space heaters placed on the market without control, Table 7 as displayed in this Annex and without any modification;		N/A
	(d) for commercial local space heaters, the information set out in Table 5 of this Annex, with its technical parameters measured and calculated in accordance with Annex III and showing the significant figures indicated in that Table;		N/A
	(e) any specific precautions that shall be taken when the local space heater is assembled, installed or maintained;		N/A
	(f) information relevant to disassembly, recycling and/or disposal at end-of-life;		P
	(g) for local space heaters placed on the market without control, the information in Tables 2 and Table 4 shall be drawn up for at least one combination of local space heater and control functions that make the product compliant with this Regulation;		N/A
	(h) for separate related controls, Table 7 as displayed in this Annex and without any modification, and the information in Table 6.		N/A

COMMISSION REGULATION (EU) 2024/1103			
Cl.	Requirement-Test	Result-Remark	Verdict
(2)	The instruction manual for installers and users, free access websites of manufacturers, their authorised representatives and importers, and the product packaging shall incorporate the following product information in such a way to ensure clear visibility and legibility and in a language easily understood by the users of the Member State where the product is marketed:		P
	(a) for local space heaters placed on the market without control:		N/A
	'This product is a [insert product category in accordance with point 1(1) of this Annex] and, in order to be compliant with the mandatory ecodesign requirements set out in Commission Regulation (EU) 2024/1103, needs to be complemented with a control providing at least the following control functions:		N/A
	[list of control function codes in accordance with the format according to Table 7. When several combinations of control functions are provided, each combination shall be placed in a different row. The format of the code is TC (f1/f2/f3/f4/f5/f6/f7/f8), where TC is the code for the F(2) function and f1 to f8 are the codes of the respective F(3) function if this function is present, or otherwise a "0"];		N/A
	(b) for flueless local space heaters and open to chimney local space heaters only:		N/A
	'This product is not suitable for primary heating purposes';		N/A
	(i) for the instruction manual for users this sentence shall be on the cover page of the manual; (ii) for free-access websites of manufacturers this sentence shall be displayed together with the other characteristics of the product; (iii) for the product packaging the sentence shall be placed in a prominent position on the packaging;		N/A
	(c) for electric portable local space heaters and electric visibly glowing radiant portable local space heaters:		P
	'This product is only suitable for well insulated spaces or occasional use.';		P
	(i) for the instruction manual for users this sentence shall be on the cover page of the manual; (ii) for free-access websites of manufacturers this sentence shall be displayed together with the other characteristics of the product; (iii) for the product packaging the sentence shall be placed in a prominent position on the packaging.		P
(3)	For separate related controls the instruction manuals for installers and users free access websites of manufacturers, their authorised representatives and importers, and the product packaging shall incorporate the following product information in such a way to ensure clear visibility and legibility and in a language easily understood by the users of the Member State where the product is marketed:		N/A

COMMISSION REGULATION (EU) 2024/1103			
Cl.	Requirement-Test	Result-Remark	Verdict
	'This control has the following control functions':		N/A
	[list of control function codes in accordance with the format according to Table 7. The format of the code is TC (f1/ f2/f3/f4/f5/f6/f7/f8), where TC is the code for the F(2) function and f1 to f8 are the codes of the respective F(3) function if this function is present, or otherwise a '0'].		N/A
(4)	The instructions manuals for installers and users, the free access websites of manufacturers, their authorised representatives and importers, and the product packaging may contain additional information about the characteristics of the product that may be useful to installers and users, including information about the compatibility of heaters and controls to fulfil the requirements in points 1 and 3 of this Annex.		P
5	RESOURCE EFFICIENCY REQUIREMENTS	Declared by applicant	—
(1)	Availability of spare parts:		P
	(a) For all models, for which units are placed on the market as from 1 July 2025, manufacturers, importers or authorised representatives of electric local space heaters shall make available to professional repairers at least the following spare parts:		P
	(i) for electric portable local space heaters and electric visibly glowing radiant portable local space heaters: — control; — ambient thermostat (only for electric portable local space heaters); — motor for heaters equipped with a fan (only for electric portable local space heaters); — printed circuit boards; — display or status indicators; — impellers; — control sensors; — buttons and switches; — remote control sensors;		P
	(ii) for electric fixed local space heaters, towel rails and electric underfloor local space heaters: — control; — ambient thermostat; — floor sensor (only for electric underfloor local space heaters); — repair kit for heating cables (only for electric underfloor local space heaters); — fixation brackets, if needed; — printed circuit boards; — display or status indicators; — impellers; — control sensors; — buttons and switches; — remote control sensors;		N/A

COMMISSION REGULATION (EU) 2024/1103			
Cl.	Requirement-Test	Result-Remark	Verdict
	(iii) for electric storage local space heaters: — heating elements; — control; — safety switches; — connection cables; — housing for mechanical parts; — fixation brackets; — fans and impellers; — printed circuit boards; — display or status indicators; — control sensors; — buttons and switches; — remote control sensors;		N/A
	(iv) for electric visibly glowing radiant local space heaters, except electric visibly glowing radiant portable local space heaters: — control; — heating elements; — connection cables; — fixation brackets; — printed circuit boards; — display or status indicators; — impellers; — control sensors; — buttons and switches; — remote control sensors;		N/A
	(b) availability of spare parts referred to in point (a), shall be ensured for a minimum period starting at the latest on 1 July 2025 or two years after the placing on the market of the first unit of the model, whichever is the latest, and ending at least, 10 years after placing the last unit of the concerned model on the market. For this purpose, the list of spare parts and the procedure for ordering them shall be publicly available on the free access website of the manufacturer, importer or authorised representative, at least during the minimum period indicated above;		P
	(c) for all models, for which units are placed on the market as from 1 July 2025, manufacturers, importers or authorised representatives of local space heaters shall make available to professional repairers and users at least the following spare parts: — remote control;		P
	(d) availability of spare parts, under point (c), shall be ensured for a minimum period starting at the moment of placing that unit on the market and ending at least 10 years after placing the last unit of the concerned model on the market. For this purpose, the list of spare parts, the procedure for ordering them and the repair and maintenance information shall be publicly available on the free access website of the manufacturer, importer or authorised representative, at least during the minimum period indicated above;		P

COMMISSION REGULATION (EU) 2024/1103			
Cl.	Requirement-Test	Result-Remark	Verdict
	(e) manufacturers, importers or authorised representatives of local space heaters shall ensure that the spare parts mentioned in points (a) and (c) can be replaced with the use of commonly available tools and without permanent damage to the local space heater;		P
	(f) during the periods referred to in points (b) and (d), manufacturers, importers or authorised representatives shall provide indicative pre-tax prices at least in euro for spare parts listed in points (a) and (c), including the indicative pre-tax price of fasteners and tools, if supplied with the spare part on the free access website of the manufacturer, importer or authorised representative;		P
	(g) manufacturers, importers or authorised representatives of local space heaters using software shall make available software and firmware updates for a minimum of 10 years after placing the product on the market, and these updates shall be provided free of charge.		P
(2)	Maximum delivery time of spare parts:	Declared by applicant	—
	During the period of availability of spare parts, the manufacturer, importer or authorised representative shall ensure the delivery of the spare parts within 10 working days after having received the order.		P
(3)	Access to repair and maintenance information:	Declared by applicant	—
	During the period mentioned under point 1(b) the manufacturer, importer or authorised representative shall provide access to the appliance repair and maintenance information to professional repairers in the following conditions:		P
	(a) the manufacturer's, importer's or authorised representative's website shall indicate the process for professional repairers to request access to information; in order to accept such a request, the manufacturers, importers or authorised representatives may only require the professional repairer to demonstrate that:		P
	(i) the professional repairer has the technical competence to repair local space heaters and complies with the applicable regulations for repairers of local space heaters in the Member States where it operates. Reference to an official registration system as professional repairer, where such system exists in the Member States concerned, shall be accepted as proof of compliance with this point;		P
	(ii) the professional repairer is covered by insurance covering liabilities resulting from its activity regardless of whether this is required by the Member State;		P
	(b) manufacturers, importers or authorised representatives shall accept or refuse the registration within 5 working days from the date of request;		P

COMMISSION REGULATION (EU) 2024/1103			
Cl.	Requirement-Test	Result-Remark	Verdict
	(c) manufacturers, importers or authorised representatives may charge reasonable and proportionate fees for access to the repair and maintenance information or for receiving regular updates. A fee is reasonable if it does not discourage access by failing to take into account the extent to which the professional repairer uses the information;		P
	(d) once registered, a professional repairer shall have access, within one working day after requesting it, to the requested repair and maintenance information. The information may be provided for an equivalent local space heater model or local space heater model of the same family, if relevant;		P
	(e) the repair and maintenance information shall include:		P
	(i) the unequivocal local space heater identification; (ii) a disassembly map or exploded view; (iii) technical manual of instructions for repair; (iv) list of necessary repair and test equipment; (v) component and diagnosis information (such as minimum and maximum theoretical values for measurements); (vi) wiring and connection diagrams; (vii) diagnostic fault and error codes (including manufacturer-specific codes, where applicable); (viii) instructions for installation of relevant software and firmware including reset software; (ix) information on how to access data records of reported failure incidents stored on the local space heater (where applicable); and (x) electronic board diagrams;		P
	(f) except for gaseous and liquid fuel local space heaters, without prejudice to intellectual property rights, third parties shall be allowed to use and publish unaltered repair and maintenance information initially published by the manufacturer, importer or authorised representative and covered by point (e) once the manufacturer, importer or authorised representative terminates access to that information after the end of the period of access to repair and maintenance information.		P
(4)	Requirements for dismantling for material recovery and recycling while avoiding pollution:	Declared by applicant	—
	(a) manufacturers, importers or authorised representatives shall ensure that local space heaters are designed in such a way that the materials and components referred to in Annex VII to Directive 2012/19/EU of the European Parliament and of the Council ⁽¹⁾ can be removed from the appliance with the use of commonly available tools;		P
	(b) manufacturers, importers or authorised representatives shall fulfil the obligations laid down in Article 15(1) of Directive 2012/19/EU.		P

COMMISSION REGULATION (EU) 2024/1103			
Cl.	Requirement-Test	Result-Remark	Verdict
6	TECHNICAL DOCUMENTATION		—
ANNEX III	Measurement methods and calculations referred to in Article 3		—
	For the purposes of compliance and verification of compliance with the requirements of this Regulation, measurements and calculations shall be made using harmonised standards the reference numbers of which have been published for this purpose in the Official Journal of the European Union, or using other reliable, accurate and reproducible methods that take into account the generally recognised state-of-the-art methods.	EN 50564:2011, EN 60675:1995+A1:1998 +A2:2018+A11:2019	P
1	GENERAL CONDITIONS FOR MEASUREMENTS AND CALCULATIONS		P
(1)	Declared values for seasonal space heating energy efficiency shall be rounded to the nearest one decimal place.		P
(2)	For electric local space heaters, declared values for nominal heat output shall be rounded to the nearest third decimal place. For all other local space heaters, declared values for nominal heat output shall be rounded to the nearest one decimal place.		P
(3)	Declared values for emissions shall be rounded to the nearest integer.		P
(4)	Where a parameter is declared pursuant to Article 4, its declared value shall be used by the manufacturer, importer or authorised representative for the calculations in this Annex.		P
(5)	For gas and liquid fuel local space heaters except commercial local space heaters, the flue gas temperature and the combustion air temperature shall be measured for the minimum total flue duct pipe length declared by the manufacturer in the installation manual but not more than 1,5 meters (sum of vertical and horizontal pipe length). If no declaration is available the measurement shall be performed with a total pipe length of 1,5 meters.		N/A
(6)	For separate related controls the correct functioning of the control functions shall be checked.		N/A
2	GENERAL CONDITIONS FOR SEASONAL SPACE HEATING ENERGY EFFICIENCY		P
(1)	The seasonal space heating energy efficiency (η_S) shall be calculated as the seasonal space heating energy efficiency in active mode ($\eta_{S,on}$), corrected by contributions accounting for heat output control, auxiliary electricity consumption and permanent pilot flame energy consumption.		P
(2)	For local space heaters that are placed on the market together with the control, the seasonal space heating energy efficiency shall be measured and calculated with the control contained in the packaging.		N/A

COMMISSION REGULATION (EU) 2024/1103			
Cl.	Requirement-Test	Result-Remark	Verdict
(3)	For local space heaters placed on the market without control, the seasonal space heating energy efficiency shall be measured and calculated for each different combination of local space heater and control functions indicated by the manufacturer, importer or authorised representative according to Annex II, point 4(2)(a).		N/A
3	GENERAL CONDITIONS FOR EMISSIONS		N/A
	For gaseous and liquid fuel local space heaters the emissions of nitrogen oxides (NO _x) shall be calculated as the sum of the measured nitrogen monoxide and nitrogen dioxide, and expressed in nitrogen dioxide. The measurement of nitrogen oxides emissions shall be concurrent with the measurement of the space heating energy efficiency. For declaration and verification purposes the emission at full load NO _x (max) applies.		N/A
4	SPECIFIC CONDITIONS FOR SEASONAL SPACE HEATING ENERGY EFFICIENCY		P
(1)	The seasonal space heating energy efficiency of local space heaters is defined as: (a) for gaseous fuel local space heaters and liquid fuel local space heaters, except commercial local space heaters: $\eta_s = \eta_{s,on}$		N/A
	Where — η_s is the seasonal space heating energy efficiency, expressed in %; — $\eta_{s,on}$ is the seasonal space heating energy efficiency in active mode, expressed in %;		—
	(b) for electric local space heaters $\eta_s = \frac{\eta_{s,on}}{CC}$		P
	where: — η_s is the seasonal space heating energy efficiency, expressed in %; — $\eta_{s,on}$ is the seasonal space heating energy efficiency in active mode, expressed in %; — CC is the conversion coefficient;		—
	(c) for commercial local space heaters $\eta_s = \eta_{s,on} - F(1) - F(4) - F(5)$		N/A
	where: — η_s is the seasonal space heating energy efficiency, expressed in %; — $\eta_{s,on}$ is the seasonal space heating energy efficiency in active mode, expressed in %; — F(1) is a correction factor accounting for a negative contribution to seasonal space heating efficiency due to adjusted contributions for options for the heat output, expressed in %; — F(4) is a correction factor accounting for a negative contribution to the seasonal space heating energy efficiency by auxiliary electricity consumption, expressed in %; — F(5) is a correction factor accounting for a negative contribution to the seasonal space heating energy efficiency by energy consumption of a permanent pilot flame, expressed in %;		—

COMMISSION REGULATION (EU) 2024/1103			
Cl.	Requirement-Test	Result-Remark	Verdict
(2)	the seasonal space heating energy efficiency in active mode $\eta_{S,on}$ is calculated as:		P
	(a) for all local space heaters except commercial local space heaters: $\eta_{S,on} = \eta_{th,nom} \cdot (0,75 + F(2) + F(3)) \cdot F(4) \cdot F(5)$		P
	where: — $\eta_{th,nom}$ is the useful efficiency at nominal heat output, expressed in %; — for electric local space heaters, $\eta_{th,nom} = 100\%$; — for gaseous fuel local space heaters and liquid fuel local space heaters, $\eta_{th,nom}$ is the useful efficiency at nominal heat output based on NCV; — F(2) is a correction factor accounting for a positive contribution to the seasonal space heating energy efficiency due to adjusted contributions of controls of indoor heating comfort, the values of which are mutually exclusive, cannot be added to each other; — F(3) is a correction factor accounting for a positive contribution to the seasonal space heating energy efficiency due to adjusted contributions of controls for indoor heating comfort, the values of which can be added to each other; — F(4) is a correction factor accounting for a negative contribution to the seasonal space heating energy efficiency by auxiliary electricity consumption; — F(5) is a correction factor accounting for a negative contribution to the seasonal space heating energy efficiency by energy consumption of a permanent pilot flame;		—
	(b) for commercial local space heaters: $\eta_{S,on} (\%) = \frac{\eta_{S,th} \cdot \eta_{S,RF}}{100}$		N/A
	where: — $\eta_{S,th}$ is the weighted thermal efficiency, expressed in %; — $\eta_{S,RF}$ is the emission efficiency, expressed in %;		—
	(i) the weighted thermal efficiency ($\eta_{S,th}$) is calculated as follows: — for luminous local space heaters, $\eta_{S,th}$ is 85,6%; — for tube local space heaters: $\eta_{S,th} (\%) = (0,15 \cdot \eta_{th,nom} + 0,85 \cdot \eta_{th,min}) - F_{env}$		N/A
	where: — $\eta_{th,nom}$ is the thermal efficiency at nominal heat output, expressed in %, based on GCV; — $\eta_{th,min}$ is the thermal efficiency at minimum heat output, expressed in %, based on GCV; — F_{env} are the envelope losses of the heat generator, expressed in %;		—
	if the heat generator of the tube local space heater is specified by the manufacturer to be installed in the indoor space to be heated, the envelope losses are 0 (zero);		N/A
	if the heat generator of the tube local space heater is specified by the manufacturer to be installed outside the heated area, the envelope loss factor depends on the thermal transmittance of the envelope of the heat generator according to Table 8;		N/A

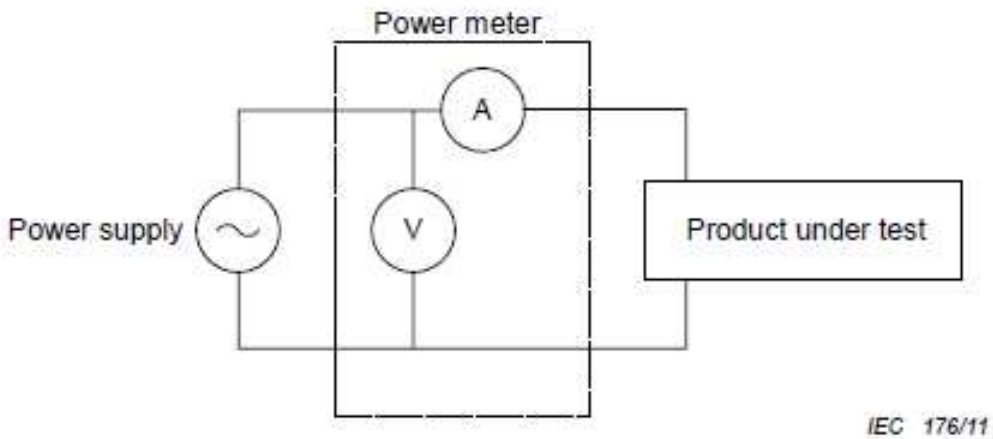
COMMISSION REGULATION (EU) 2024/1103															
Cl.	Requirement-Test	Result-Remark	Verdict												
	Table 8: Envelope loss factor of the heat generator <table><tr><td>Thermal transmittance of envelope (U)</td><td>F_{env}</td></tr><tr><td>U ≤ 0,5</td><td>2,2%</td></tr><tr><td>0,5 < U ≤ 1,0</td><td>2,4%</td></tr><tr><td>1,0 < U ≤ 1,4</td><td>3,2%</td></tr><tr><td>1,4 < U ≤ 2,0</td><td>3,6%</td></tr><tr><td>U>2,0</td><td>6,0%</td></tr></table>	Thermal transmittance of envelope (U)	F _{env}	U ≤ 0,5	2,2%	0,5 < U ≤ 1,0	2,4%	1,0 < U ≤ 1,4	3,2%	1,4 < U ≤ 2,0	3,6%	U>2,0	6,0%		—
Thermal transmittance of envelope (U)	F _{env}														
U ≤ 0,5	2,2%														
0,5 < U ≤ 1,0	2,4%														
1,0 < U ≤ 1,4	3,2%														
1,4 < U ≤ 2,0	3,6%														
U>2,0	6,0%														
	(ii) the emission efficiency (η S,RF) is calculated as follows: $\eta_{S,RF}(\%) = \frac{(0,94 \cdot RF_S) + 19}{(0,46 \cdot RF_S) + 45}$		N/A												
	where RFS is the radiant factor of the commercial local space heater, expressed in %;		—												
	for all commercial local space heaters except tube heater systems: $RF_s(\%) = (0,15 \cdot RF_{nom} + 0,85 \cdot RF_{min})$		N/A												
	where: — RFnom, is the radiant factor at nominal heat output, expressed in %; — RFmin, is the radiant factor at minimum heat output, expressed in %;		—												
	for tube heater systems: $RF_s(\%) = \sum_{i=1}^n (0,15 \cdot RF_{nom,i} + 0,85 \cdot RF_{min,i}) \cdot \frac{P_{heater,i}}{P_{system}}$		N/A												
	where: — RFnom,i, is the radiant factor per tube segment at nominal heat output, expressed in %; — RFmin,i, is the radiant factor per tube segment at minimum heat output, expressed in %; — Pheater,i, is the heat output per tube segment, expressed in kW, based on GCV; — Psystem, is the heat output of the complete tube system, expressed in kW, based on GCV;		—												
	the above equation only applies if the construction of the burner, tubes and reflectors of the tube segment as applied in the tube heater system is identical to a single tube local space heater and the settings that determine the performance of the tube segment are identical to those of a single tube local space heater;		N/A												
(3)	the correction factor F(1) is calculated as follows:		N/A												
	Table 9: Correction factor F(1) for commercial local space heaters		—												
	<table><tr><td>If the heat output control type of the products is:</td><td>F(1) [%]</td><td>With the following limits</td></tr><tr><td>Single stage</td><td>F(1) = 5</td><td></td></tr><tr><td>Two stage</td><td>$F(1) = 5 - \left(2,5 \cdot \frac{P_{nom} - P_{min}}{0,3 \cdot P_{nom}}\right)$</td><td>2,5% ≤ F(1) ≤ 5,0%</td></tr><tr><td>Modulating</td><td>$F(1) = 5 - \left(5,0 \cdot \frac{P_{nom} - P_{min}}{0,4 \cdot P_{nom}}\right)$</td><td>0% ≤ F(1) ≤ 5,0%</td></tr></table>	If the heat output control type of the products is:	F(1) [%]	With the following limits	Single stage	F(1) = 5		Two stage	$F(1) = 5 - \left(2,5 \cdot \frac{P_{nom} - P_{min}}{0,3 \cdot P_{nom}}\right)$	2,5% ≤ F(1) ≤ 5,0%	Modulating	$F(1) = 5 - \left(5,0 \cdot \frac{P_{nom} - P_{min}}{0,4 \cdot P_{nom}}\right)$	0% ≤ F(1) ≤ 5,0%		
If the heat output control type of the products is:	F(1) [%]	With the following limits													
Single stage	F(1) = 5														
Two stage	$F(1) = 5 - \left(2,5 \cdot \frac{P_{nom} - P_{min}}{0,3 \cdot P_{nom}}\right)$	2,5% ≤ F(1) ≤ 5,0%													
Modulating	$F(1) = 5 - \left(5,0 \cdot \frac{P_{nom} - P_{min}}{0,4 \cdot P_{nom}}\right)$	0% ≤ F(1) ≤ 5,0%													

COMMISSION REGULATION (EU) 2024/1103									
Cl.	Requirement-Test	Result-Remark					Verdict		
(4)	the correction factor F(2), is equal to one of the factors according to Table 10, depending on which control function applies. Only one value can be selected; the functions mentioned in Table 10 shall be activated and functional when the equipment is placed on the market or put into service and activated with its initial setup after the equipment is reset to its factory default settings	F(2)= 0,050					P		
	Table 10: Correction factor F(2)						—		
	If the product is placed on the market with (only one option may apply)	F(2)							
		for electric local space heaters						for gaseous and liquid fuel local space heaters	
		Portable	Fixed	Storage	Under-floor	Visibly glowing radiant			Towel rails
	single stage heat output, no room temperature control	0	0	0	0	0		0	0
	two or more manual stages, no temperature control	0,025	0	0	0	0,050		0,030	0,025
	with mechanic thermostat room temperature control	0,100	0,025	0,025	0,025	0,025		0,030	0,050
	with electronic room temperature control	0,160	0,050	0,050	0,050	0,080		0,030	0,100
	with electronic room temperature control plus day timer	0,170	0,095	0,095	0,095	0,100		0,095	0,125
	with electronic room temperature control plus week timer	0,190	0,150	0,150	0,150	0,120		0,150	0,150
(5)	the correction factor F(3) is calculated as the summation of the values according to Table 11, depending on which control function(s) applies; the functions mentioned in Table 11 shall be activated and functional when the equipment is placed on the market or put into service and activated with its initial setup after the equipment is reset to its factory default settings;	F(3)=0					P		

COMMISSION REGULATION (EU) 2024/1103									
Cl.	Requirement-Test				Result-Remark		Verdict		
	Table 11: Correction factor F(3)						—		
	If the product is placed on the market with (multiple options may apply):	F(3)							
		for electric local space heaters						for gaseous and liquid fuel local space heaters	
		Portable	Fixed	Storage	Underfloor	Visibly glowing radiant			Towel rails
	room temperature control with presence detection	0,005	0	0	0	0,040		0	0,025
	room temperature control with open window detection	0,005	0,020	0,020	0,020	0,020		0,020	0,025
	with distance control option	0	0,020	0,020	0,020	0		0	0,025
	with adaptive start control	0,005	0,020	0,020	0,020	0		0,020	0
	with working time limitation	0,005	0	0	0	0,020		0,020	0
	with black bulb sensor	0	0	0	0	0,040		0	0
	with self-learning functionality	0	0,020	0,020	0,020	0,010		0,020	0,0125
	Control accuracy with CA < 2 Kelvin and CSD < 2 Kelvin	0,020	0,020	0,020	0,020	0		0,020	0,0125
(6)	the correction factor F(4) is calculated as:				F(4) = 1		P		
	(a) for gaseous and liquid fuel local space heaters except commercial local space heaters: $F(4) = \frac{1}{1 + \left(CC \cdot \frac{0,2 \cdot el_{max} - 0,8 \cdot el_{min}}{P_{nom}} \right)}$						N/A		
	where: — elmax is the electric power consumption at nominal heat output, expressed in kW; — elmin is the electric power consumption at minimum heat output, expressed in kW. In case the product does not offer a minimum heat output, the value for the electric power consumption at nominal heat output shall be used; — Pnom is the nominal heat output of the product, expressed in kW;						—		
	(b) for commercial local space heaters: $F(4)[\%] = CC \cdot \frac{0,15 \cdot el_{max} + 0,85 \cdot el_{min}}{P_{nom}} \cdot 100$						N/A		
	(c) for electric local space heaters F(4) = 1;						P		
(7)	the correction factor F(5) is calculated as follows:				F(5) = 1		P		
	(a) for gaseous or liquid fuel local space heaters except commercial local space heaters: $F(5) = \frac{1}{1 + \left(0,5 \cdot \frac{P_{pilot}}{P_{nom}} \right)}$						N/A		
	where: — Ppilot is the pilot flame consumption, expressed in kW; — Pnom is the nominal heat output of the product, expressed in kW;						—		
	(b) for commercial local space heaters: $F(5)[\%] = 4 \cdot \frac{P_{pilot}}{P_{nom}} \cdot 100$						N/A		

COMMISSION REGULATION (EU) 2024/1103			
Cl.	Requirement-Test	Result-Remark	Verdict
	where: — P _{pilot} is the pilot flame consumption, expressed in kW; — P _{nom} is the nominal heat output of the product, expressed in kW; in case the product has no permanent pilot light (flame) P _{pilot} is 0 (zero);		—
	(c) For electric local space heaters F(5) = 1.		P
5	LOW POWER MODES		P
(1)	The power consumption of the off mode (P _o), standby mode (P _{sm}), and where applicable the idle mode (P _{idle}) and the networked standby mode (P _{nsm}) are measured, expressed in W and rounded to two decimal places.		P
	During measurements of the power consumption in low power modes, the following functions shall be checked and recorded: (a) the display or not of information; (b) the activation or not of a network connection. If the standby mode includes the display of information or status, this function shall also be provided when the networked standby is provided.		P
(2)	For separate related controls, the power consumption of the low power modes shall be measured at the mains voltage. If the power consumption of the low power modes can only be measured at a DC voltage level, the results of these measurements for each low power mode shall be multiplied with a factor 1,5, representing an average AC-DC power conversion of 67%, to arrive at the values that shall comply with the requirements for low power modes.		N/A
6	CONTROL ACCURACY AND CONTROL TO SETPOINT DEVIATION		N/A
	For local space heaters and for separate related controls, CA and CSD shall be measured whenever the manufacturer declares a CA < 2K and a CSD < 2K.		N/A
ANNEX V	Verification procedure for the purpose of market surveillance referred to in Article 5		N/A

Table 3 for information requirements for electric local space heaters					P
Contact details:	Zhongshan Luoqi Appliance Co., Ltd. No.33, Deyou Street, Dongfeng Town, Zhongshan City, Guangdong, China				
Model identifier(s):	LQ-HE01F	equivalent models:	LQ-HE01, LQ-HE01B, LQ-HE01A(ALVA-GH309), LQ-KB1B, LQ-HE01C, LQ-HE02, LQ-HE03, LQ-HE08, LQ-H002C, LQ-HE08F		
Item	Symbol	Value	Unit	Item	Unit
Heat output				Type of heat output/room temperature control (select one)	
Nominal heat output	P _{nom}	1,100	kW	Single stage heat output and no room temperature control	[no]
Minimum heat output (indicative)	P _{min}	0,370	kW	Two or more manual stages, no room temperature control	[yes]
Maximum continuous heat output	P _{max}	1,100	kW	With mechanic thermostat room temperature control	[no]
Power consumption				With electronic room temperature control	[no]
In off mode	P _o	0	W	Electronic room temperature control plus day timer	[no]
In standby mode	P _{sm}	N/A	W	Electronic room temperature control plus week timer	[no]
In Idle mode	P _{idle}	0	W	Other control options (multiple selections possible)	
In network standby	P _{nsm}	N/A	W	Room temperature control, with presence detection	[no]
Standby mode with display information or status			no	Room temperature control, with open window detection	[no]
Seasonal space heating energy efficiency in active mode	$\eta_{S,on}$	80,0	%	distance control option	[no]
				adaptive start control	[no]
				working time limitation	[no]
				black bulb sensor	[no]
				self-learning functionality	[no]
				control accuracy	[no]
Remark: For electric local space heaters, the declared seasonal space heating energy efficiency $\eta_{S,on}$ cannot be higher than the measured value at the nominal heat output of the unit.					

Low power mode		P	
The measurement method used.....:	EN 50564:2011		
Test ambient temperature (°C).....:	23,2 °C		
Test voltage in V and frequency in Hz.....:	230 V; 50 Hz		
Total harmonic distortion (THD) of the electricity supply system.....:	1,196 %		
Power consumption was determined by.....:	Average reading method		
Description of how the appliance mode was selected or programmed.....:	Off mode with mechanical switch off		
Sequence of events to reach the mode where the equipment automatically changes modes.....:	Connect to the circuits below, select the function without start operation, waiting appliance off automatic and allow at least 30 min for the stable conditions.		
Other notes regarding the operation of the equipment.....:	Measure at least one hour after stable condition.		
Set-up and circuits used for electrical testing:			
			
Test result for equipment other than networked equipment or network equipment without network connection			
Operating mode(s)	Measured (W)	Limit (W)	
		Stage 1	Stage 2 (from 2027.05.09)
Off-mode conditon			
Any condition which does not exceed the applicable power consumption requirements for off mode when the equipment is connected to the mains power source.....:	0	☒0,5	☒0,3
Power consumption in 'standby mode(s)' in			
Any condition providing only a reactivation function, or providing only a reactivation function and a mere indication of enabled reactivation function.....:	—	0,5	

Any condition providing only information or status display, or providing only a combination of reactivation function and information or status display.....:	No display	1,0
Test result for networked equipment with network connection		N/A
Power consumption in networked standby mode(s)	Measured (W)	Limit (W)
Networked standby.....:	—	2,00
Test result for idle mode		P
Power consumption in idle mode for average over 1 hour	Measured (W)	Limit (W)
Idle mode power.....:	0	1,00
Idle mode power depends on network connection.....:	—	3,00

CI.16	EN 60675:1995+A1:1998+A2:2018+A11:2019	
Model identification: LQ-HE01F		
Requirement-Test		Measured (W)
A) Maximum continuous heat output The heater is operated until steady conditions are established. The energy consumed during 1 h of stable operation or for at least 10 complete cycles of operation of any self-resetting thermal cut-out is measured. If necessary, the test is continued for further complete cycles to ensure that the time during which the energy measurement is carried out is at least 1 h. The maximum continuous heat output is determined by dividing the energy consumed by the time taken: - If the maximum continuous heat output is ≤ 90 % of the rated power input the maximum continuous heat output is declared as described in the above test. - If the maximum continuous heat output is > 90 % of the rated power input the maximum continuous heat output shall be equal to the rated power input as declared by the manufacturer.		A) 1100 W
B) Minimum heat output If the product has more than one setting for the heat output the test is performed at the setting of lowest heat output. The heater is operated until steady state conditions are established. The energy consumed during 1 h of stable operation or for at least 10 cycles of operation of any self-resetting thermal cut-out is measured. If necessary, the test is continued for further complete cycles to ensure that the time during which the energy measurement is being carried out is at least 1 h. The value of minimum heat output is determined by dividing the energy consumed by the time taken. If the measured value is within the limits of + 5 % and -10 % of the minimum heat output declared by the manufacturer, the minimum heat output will be declared as being the same as that declared by the manufacturer.		B) 370 W

Cl. 17.4	EN 60675:1995+A1:1998+A2:2018+A11:2019	
Model identification: LQ-HE01F		
Requirement-Test		Verdict
SUB-CLAUSE 17 Requirements to comply with functions according to ecodesign regulation 17.3 Product equipped with two or more manual stages, no room temperature control To check for two or more manual stages function - switch the control to the alternative power positions and check that the appliance power stages are equal to the rating plate or user instruction information. Test all possible positions of the controls to verify that no other functions are available.		P

Test results					
Model identification: LQ-HE01F					
Item	F1	F2	F3	F4	F5
Measured values (%)	-	F(2) = 0,050	F(3) = 0	F(4)=1	F(5)=1
seasonal space heating energy efficiency in active mode $\eta_{s,on}$	80,0%				
seasonal space heating energy efficiency η_s	42,1%				

Ecodesign requirements according to (EU) No 2024/1103			P
Model identification		LQ-HE01F	
Declared application		electric visibly glowing radiant local space heaters	
Items	Measured value	Stage	Verdict
seasonal space heating energy efficiency η_s	42,1%	☒ From 2025.07.01 $\geq 40,5\%$	Pass

Table for: Test instruments				
Name	Brand	Model	Last cal. date	Next cal. date
Digital Power Analyzer	Yokogawa	WT310E	2024-11-15	2025-11-15

Circuit documents:

Circuit diagram

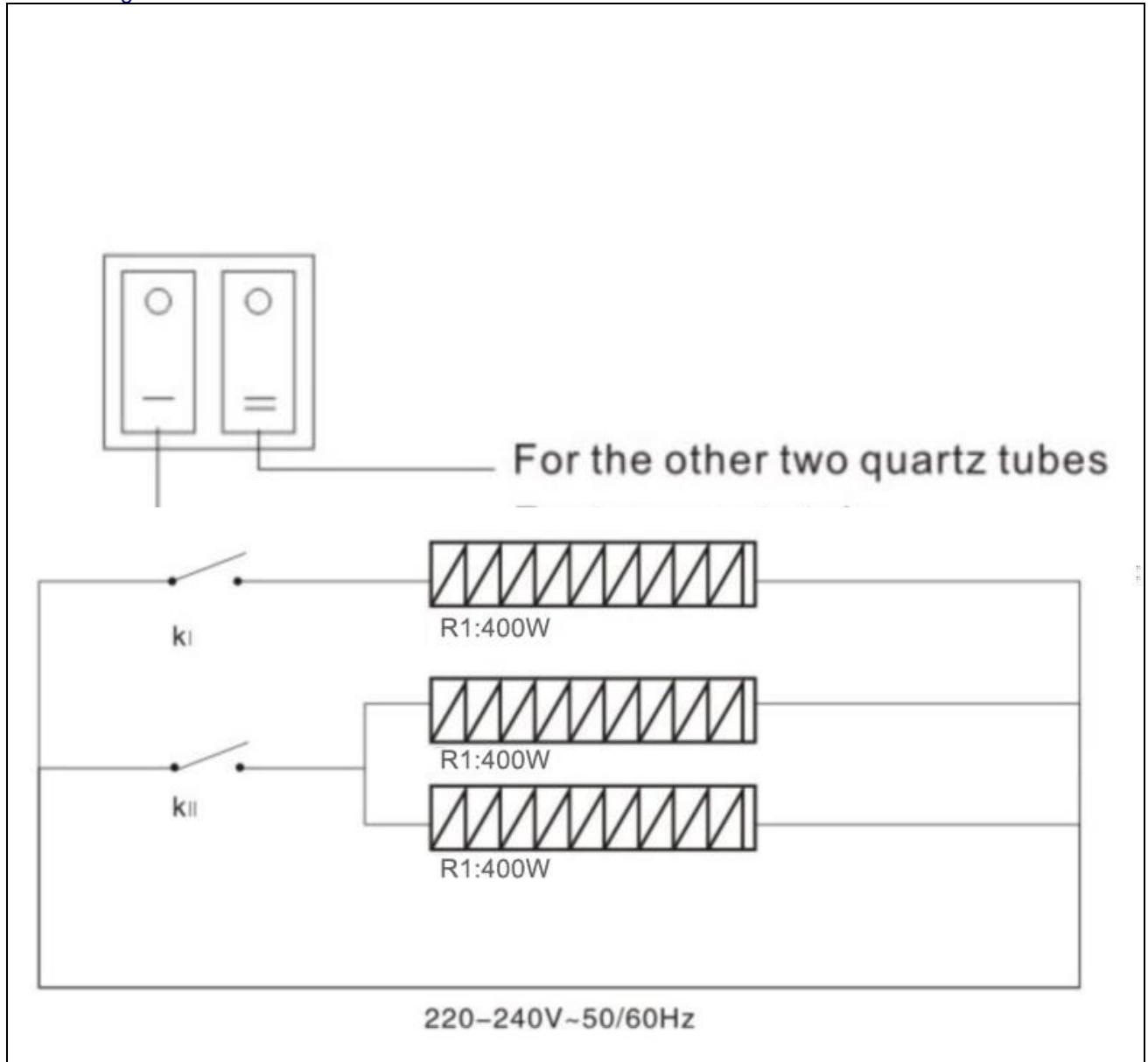


Photo documents:

Products General	Products General
	
Products General	Control panel
	

--- End of Report ---