



TEST REPORT

Ecodesign Requirements for Off Mode, Standby Mode, and Networked Standby Energy Consumption of Electrical and Electronic Household and Office Equipment

Report Reference No.....:	NBEE230800091851
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Testing Laboratory.....:	SGS-CSTC Standards Technical Services Co., Ltd. Ningbo Branch
Address	No.1177, Lingyun Road, Hi-Tech Zone, Ningbo, Zhejiang, China
Applicant's name	Ningbo Jinchang Electronics Co., Ltd
Address	Guangming East Road 17, Ditang Street, Yuyao, Ningbo, 315491, Zhejiang, China
Test specification:	
Test procedure.....:	STR: COMMISSION REGULATION (EU) 2023/826
Non-standard test method.....:	None
Test Report Form No.....:	EEC_(EU) No 2023/826
Test Report Form(s) Originator.....:	SGS-CSTC
Master TRF.....:	2023-05
Test item description.....:	Grill
Model/Type reference	BQ231-abcd(a= blank, S; b= blank, W; c= blank, G; d=blank, F)
Ratings	230 V, 50 Hz, 2200 W, Class I
Manufacturing site (factory).....:	Same as applicant

Test item particulars:

Classification of installation and use : Hand-held appliance

Supply Connection : Type Y attachment (non-detachable cord with plug)

Networked equipment.....: No

Availability of Standby mode.....: No

Availability of off mode.....: Yes

Availability of display function in standby-mode.....: No

Availability of any 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.....: No

Availability of power management function.....: No

Summary of testing:

All the required tests were performed on BQ231-SWGF.

Tests performed:

The sample(s) tested complies with the requirements of COMMISSION REGULATION (EU) 2023/826. These tests fulfil the requirements of standard ISO/IEC 17025.

When determining the test conclusion, the Measurement Uncertainty of test has been considered.

The maximum permitted uncertainty of measurement depends on the size of the load and the characteristics of the load. The key characteristic of the load used to determine the maximum permitted uncertainty is the Maximum Current Ratio (MCR), which is calculated as follows:

$$\text{Maximum Current Ratio (MCR)} = \frac{\text{Crest Factor (CF)}}{\text{Power Factor (PF)}}$$

where

- the Crest Factor (CF) is the measured peak current drawn by the product divided by the measured r.m.s. current drawn by the product;
- the Power Factor (PF) is a characteristic of the power consumed by the product. It is the ratio of the measured real power to the measured apparent power.

a) Permitted uncertainty for values of MCR ≤10

For measured power values of greater than or equal to 1,0 W, the maximum permitted relative uncertainty introduced by the power measurement equipment, U_{mr} , shall be equal to or less than 2 % of the measured power value at the 95 % confidence level.

For measured power values of less than 1,0 W, the maximum permitted absolute uncertainty introduced by the power measurement equipment, U_{ma} , shall be equal to or less than 0,02 W at the 95 % confidence level.

b) Permitted uncertainty for values of MCR >10

The value of U_{pc} shall be determined using the following equation:

$$U_{pc} = 0,02 \times [1 + (0,08 \times \{MCR - 10\})]$$

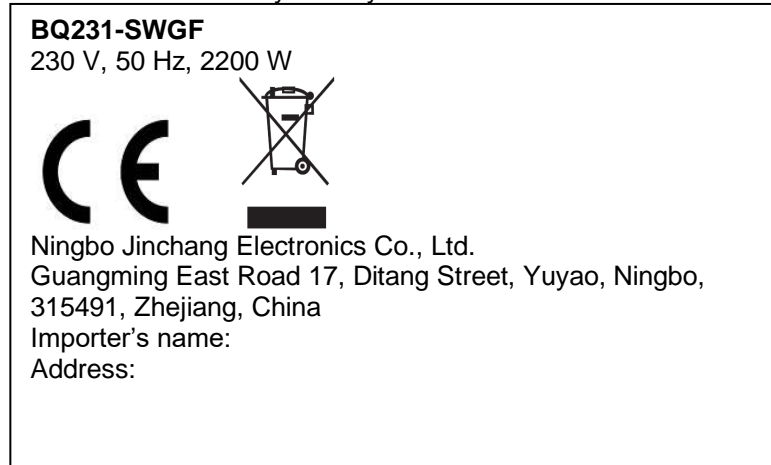
where U_{pc} is the maximum permitted relative uncertainty for cases where the MCR is > 10 .

For measured power values of greater than or equal to 1,0 W, the maximum permitted relative uncertainty introduced by the power measurement equipment shall be equal to or less than U_{pc} at the 95 % confidence level.

For measured power values of less than 1,0 W, the permitted absolute uncertainty shall be the greater of U_{ma} (0,02 W) or U_{pc} when expressed as an absolute uncertainty in W (U_{pc} measured value) at the 95 % confidence level.

Copy of marking plate

The artwork below may be only a draft.



The marking plate of other models were same as above except the model name.

1. As declared by the applicant, the importer's name, registered trade name or registered trademark and the postal address were not decided at the time of application, but will be marked on the products before being place on the market. The contact details shall be in a language easily understood by end-users and market surveillance authorities.
2. Marking on the packaging or in a document accompanying the electrical equipment is only acceptable if it is not possible to place such markings on the product.

Possible test case verdicts:

- test case does not apply to the test object.....: N (or 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.....: 2023-08-01

Date (s) of performance of tests.....: 2023-08-01 to 2023-10-09

General remarks:

The test results presented in this report relate only to the object tested.

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"(see Annex #)" refers to additional information appended to the report.

"(see appended table)" refers to a table appended to the report.

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

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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:

The appliances are for household and indoor use only.

All the models in this report were the same except the accessories.

COMMISSION REGULATION (EU) 2023/826 ANNEX III Ecodesign requirements			
Cl.	Requirement-Test	Result-Remark	Verdict
1	Energy efficiency requirements:		—
1(a)	Power consumption in off mode:		—
	Power consumption of equipment in off mode shall not exceed 0,50 W.		P
	Two years after the application of this Regulation, the power consumption of equipment in off mode shall not exceed 0,30 W.		N/A
1(b)	Power consumption in standby mode:		—
	The power consumption of equipment in any condition providing only a reactivation function, or providing only a reactivation function and an indication of enabled reactivation function, shall not exceed 0,50 W.		N/A
	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, or providing only a reactivation function and an indication of enabled reactivation function and information or status display shall not exceed 0,80 W,		N/A
	except for household tumble driers covered by Commission Regulation (EU) No 932/2012(1) for which this value shall be 1,00 W.		N/A
	Networked equipment that has one or more standby modes shall comply with the requirements for those standby modes when all wired network ports are disconnected and all wireless network ports are deactivated.		N/A
1(c)	Power consumption in networked standby:		—
	The power consumption of HiNA equipment or equipment with HiNA functionality, in networked standby shall not exceed 8,00 W.		N/A
	Two years after the application of this Regulation, the power consumption of HiNA equipment or equipment with HiNA functionality in networked standby shall not exceed 7,00 W.		N/A
	The power consumption of networked equipment, other than HiNA equipment or equipment with HiNA functionality, in networked standby shall not exceed 2,00 W.		N/A
	The power consumption limits shall not apply to: — large format printing equipment;		N/A
	— desktop thin clients, workstations, mobile workstations, and small-scale servers as defined in Regulation (EU) No 617/2013.		N/A

COMMISSION REGULATION (EU) 2023/826 ANNEX III Ecodesign requirements			
Cl.	Requirement-Test	Result-Remark	Verdict
2	Functional requirements:		—
2(a)	Availability of off mode and standby mode:		—
	Unless this is inappropriate for the intended use, equipment shall provide one or more of the following conditions: — off mode, — standby mode, — another condition which does not exceed the applicable power consumption requirements for off mode or standby mode when the equipment is connected to the mains power source.		P
2(b)	Power management function for all equipment other than networked equipment:		—
	(1) Unless inappropriate for the intended use, equipment shall provide a power management function. When equipment is not providing a main function, and another energy-related product is not dependent on its functions, the power management function shall switch equipment, after the shortest possible period appropriate for the intended use of the equipment, automatically into either of the following conditions: — standby mode, — off mode, — another condition which does not exceed the applicable power consumption requirements for off mode or standby mode when the equipment is connected to the mains power source.		N/A
	(2) For household coffee machines, the period referred to in point (1) shall be as follows: — for drip filter household coffee machines storing the coffee in an insulated jug, a maximum of five minutes; — for drip filter household coffee machines storing the coffee in a non-insulated jug, a maximum of 40 minutes; — for household coffee machines other than drip filter household coffee machines, a maximum of 30 minutes.		N/A
	(3) For other equipment, the period referred to in point (1) shall not exceed 20 minutes.		N/A
	(4) The power management function described in point (1) shall be activated 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.		N/A

COMMISSION REGULATION (EU) 2023/826 ANNEX III Ecodesign requirements			
Cl.	Requirement-Test	Result-Remark	Verdict
	(5)The equipment may offer the user the option to deactivate the power management function. In such cases the users shall be warned about the increased energy consumption of that action. That warning shall be included in the instruction manuals and, where applicable, be made available on the displays integrated in or connected to the equipment, excluding information or status displays. That option shall not be part of the installation procedure of the equipment and shall require a separate user action on the equipment.		N/A
2(c)	Power management for networked equipment:		—
	Unless inappropriate for the intended use, equipment shall provide a power management function. When equipment is not performing a main function, and another energy-related product is not dependent on its functions, the power management function shall switch equipment, after the shortest possible period appropriate for the intended use of the equipment, automatically into networked standby. That period shall not exceed 20 minutes.		N/A
	In networked standby, the power management function may switch equipment automatically into standby mode or off mode or another condition, which does not exceed the applicable power consumption requirements for standby or off mode.		N/A
	The power management function shall be available for all network ports of the networked equipment.		N/A
	Unless all network ports are deactivated, the power management function shall be activated when the equipment is placed on the market or put into service. After the equipment is reset to its factory default settings, the power management function shall be activated if any of the network ports is activated.		N/A
	The equipment may offer the user the option to deactivate the power management function. In such cases, the user shall be warned about the increased energy consumption of that action. That warning shall be included in the instruction manuals and, where applicable, be made available on the displays integrated in or connected to the equipment. That option shall not be part of the installation procedure of the equipment and shall require a separate user action on the equipment.		N/A
	Networked equipment other than HiNA equipment shall comply with the requirements set out in point 2(b) when all wired network ports are disconnected and all wireless network ports are deactivated.		N/A
2(d)	Possibility of deactivating wireless network connections:		—

COMMISSION REGULATION (EU) 2023/826 ANNEX III Ecodesign requirements			
Cl.	Requirement-Test	Result-Remark	Verdict
	Any networked equipment that can be connected to a wireless network shall offer the user the possibility to deactivate the wireless network connections. That requirement does not apply to equipment that relies on a single wireless network connection for intended use and have no wired network connection.		N/A
2(e)	The indication 'standby' and its translations in all Union official languages shall not be used in describing, either alone or in combination with other information, any condition in which the equipment is not compliant with the requirements set out in points 1(b) or 1(c).		N/A
3	Information requirements		—
3(a)	The instruction manuals for end-users, and free access websites of manufacturers, importers or authorised representatives shall include the following information for all equipment, as applicable:		—
	(1) for each off mode, standby mode (or another condition which does not exceed the applicable power consumption requirements for off mode or standby mode) and networked standby into which the equipment is switched by the power management function or similar function:		P
	— the power consumption expressed in watts rounded to the first decimal place; — the period after which the equipment reaches automatically standby mode, off mode or networked standby in minutes and rounded to the nearest minute;		P
	(2) the power consumption of the equipment in networked standby if all wired network ports are connected and all wireless network ports are activated;		N/A
	(3) For equipment that needs an external power supply, but it is placed on the market without one, the manufacturer, importer or authorised representative shall provide information on the technical characteristics of the product model of the external power supply to be used with that equipment.		N/A
	(4) guidance on how to activate and deactivate wireless network ports.		N/A
	As an alternative, information in points (1), (2) and (3) can be provided in the instruction manuals for end-users in the form of a link to this information in the free access websites of manufacturers, importers or authorised representatives.		P
3(b)	The technical documentation for the purposes of conformity assessment pursuant to Article 4 shall contain the following elements:		—

COMMISSION REGULATION (EU) 2023/826 ANNEX III Ecodesign requirements			
Cl.	Requirement-Test	Result-Remark	Verdict
	(1)category of equipment: — specification whether it is networked or non-networked equipment; — for networked equipment, specification whether it is HiNA equipment, equipment with HiNA functionality, or other networked equipment; where no information is provided, the equipment is not considered HiNA equipment or equipment with HiNA functionality;		P
	(2)for each off mode, standby mode and networked standby: — the declared value of the power consumption in watts rounded to the first decimal place; — the measurement method used; — a description of how the equipment mode was selected or programmed; — the sequence of events leading to the condition where the equipment automatically changes modes; — any notes regarding the operation of the equipment, e.g. information on how the user switches the equipment into networked standby; — if applicable, the default time needed for the equipment to reach the applicable low power mode or condition in minutes and rounded to the nearest minute;		P
	(3)for networked equipment: — the number and type of network ports and, with the exception of wireless network ports, where those ports are located on the equipment; in particular it shall be declared if the same physical network port accommodates two or more types of network ports; — whether all network ports are deactivated before the equipment is placed on the market or put into service; — whether there are ports relying on active wired connections for the intended use, and the procedure used for deactivating those ports; — the power consumption of the equipment in networked standby if all wired network ports are connected and all wireless network ports are activated; — guidance on how to activate and deactivate wireless network ports;		N/A

COMMISSION REGULATION (EU) 2023/826 ANNEX III Ecodesign requirements			
Cl.	Requirement-Test	Result-Remark	Verdict
	(4)for each type of network port: — the period after which the power management function switches the equipment into networked standby; — the remotely initiated trigger that is used to reactivate the equipment; — the (maximum) performance specifications; — the (maximum) power consumption of the equipment in networked standby into which the power management function will switch the equipment, if only that port is used for remote activation; — the communication protocol used by the equipment;		N/A
	(5)test conditions for measurements: — ambient temperature; — test voltage in V and frequency in Hz; — total harmonic distortion of the electricity supply system; — description of the instrumentation, set-up and circuits used for electrical testing;		P
	(6)the equipment characteristics relevant for assessing conformity with the requirements set out in points 2(a), 2(b) and 2(c), as applicable, including the declared value of the time taken to automatically reach networked standby, standby mode or off mode, or another condition which does not exceed the applicable power consumption requirements for off mode or standby mode in minutes, rounded to the nearest minute.		N/A

COMMISSION REGULATION (EU) 2023/826 ANNEX III Ecodesign requirements			
Cl.	Requirement-Test	Result-Remark	Verdict
	<p>(7)If applicable, a technical justification shall be provided that the requirements set out in point 2(a), 2(b), 2(c) and 2(d) are inappropriate for the intended use of equipment. The need to maintain one or more network connections or to wait for a remotely initiated trigger is not considered a technical justification for exemption from the requirements set out in point 2(b) in the case of equipment that is not defined as networked equipment by the manufacturer. For the requirements set out in point 2(c), the technical justification shall, in particular, provide evidence on why a main function needs to remain always active. In addition, where applicable, the packaging shall mention explicitly that:</p> <p>(a) the equipment does not have a standby mode or other equivalent state in terms of energy efficiency requirements, power management function or the ability to deactivate wireless network connections mode;</p> <p>(b) the power consumption of the equipment is likely to be higher than other equipment models meeting these functional requirements.</p>		N/A
	(8)the description of the equipment's main functions.		P

Table 1	Test parameters for measurements
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The measurement method used.....:	EN 50564:2011
Test ambient temperature (°C).....:	20,8 °C
Test voltage in V and frequency in Hz.....:	230 V; 50 Hz
Total harmonic distortion (THD) of the electricity supply system.....:	0,82 %
Power consumption was determined by.....:	Direct meter reading method
Description of how the appliance mode was selected or programmed.....:	Plug connected without thermostat turned on, the appliance entered into off mode
Sequence of events to reach the mode where the equipment automatically changes modes.....:	N/A
Other notes regarding the operation of the equipment.....:	N/A

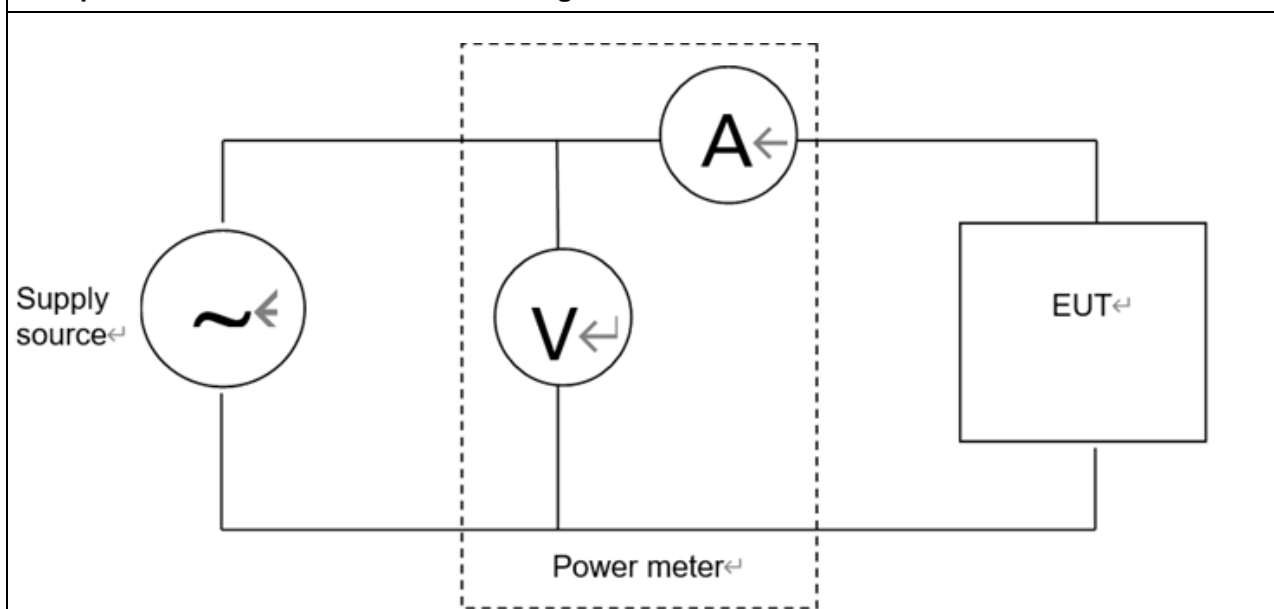
Set-up and circuits used for electrical testing:


Table 2	Test result for equipment other than networked equipment or network equipment without network connection		P
Operating mode(s)	Measured (W)	Limit (W)	
		Stage 1	Stage 2
Off-mode condition.....:	0,00	0,50	0,30
Power consumption in 'standby mode(s)' in			
Any condition providing only a reactivation function, or providing only a reactivation function and an indication of enabled reactivation function.....:	—	0,50	
Any condition providing only information or status display, or providing only a combination of reactivation function and information or status display, or providing only a reactivation function and an indication of enabled reactivation function and information or status display.....:	—	0,80	

Operating mode(s)	Measured (W)	Limit (W)	
		Stage 1	Stage 2
For household tumble driers covered by Commission Regulation (EU) No 932/2012.....:	—	1,00	

Table 3	Test result for networked equipment with network connection			N/A
Power consumption in networked standby mode(s)	Measured (W)	Limit (W)		
		Stage 1	Stage 2	
Networked standby (HiNA equipment or equipment with HiNA functionality)	—	8,00	7,00	
Networked standby (other than HiNA equipment or equipment with HiNA functionality,)	—	2,00		

Result:	The EUT complies with the ecodesign requirements Stage 1 / Stage 2 of Annex III of COMMISSION REGULATION (EU) 2023/826
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Table 4	Test instruments			
Name	Brand	Model	Last cal. date	Next cal. date
Power Meter	YOKOGAWA	WT210	2023/06/30	2024/06/29
Temperature and Humidity Datalogging Module	HUATO	S320TH	2023/04/10	2024/04/09

Photo documents:

Products General:



BQ231-SWGF

— End of test report —