




中国认可
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检测
TESTING
CNAS L0095



TEST REPORT

Energy efficiency tests for the EU standards of refrigerating appliances with a direct sales function

Applicant Name.....	Guangdong Sansheng Appliances Co.,Ltd.		
Address.....	No.22 Xinhui Road, Shunde Science &Technology Industrial Park, Wusha, Daliang, Shunde, Foshan, Guangdong, China		
Manufacturer.....	Same as the applicant.		
Address.....	Same as the applicant's.		
Factory.....	Same as the applicant.		
Address.....	Same as the applicant's.		
Product name / Trademark.....	BACK BAR COOLER / —		
Model / Rating	LG-208HE / 220-240 V~ 50 Hz Rated current: 0,63 A		
Date of receipt of test item.....	2020-07-20	Date(s) of test	2020-07-20 ~ 2020-08-05
Test specification / Standard.....	EN 16902:2016, Directive (EU) 2017/1369, Regulation (EU) No. 2019/2018 and Regulation (EU) No. 2019/2024		
Test item.....	Gross volume, Electrical energy consumption test		
Test result	Gross volume (L)	208,1	
	Electrical energy consumption (kWh/24h)	1,338	
	Energy efficiency index (EEI)	37,4	
	Energy efficiency class	D	
Tested by: Engineer	Jie Huixia <i>Jie Huixia</i>	
Reviewed by: Manager	Li Tie <i>Li Tie</i>	
Approved by: Director	Li Yunmei <i>Li Yunmei</i>	
Date of issue	2020-08-11		
Testing laboratory			
Vkan Certification & Testing Co., Ltd.(CVC) Address: No.3, Tiantai 1st Road, Kaitai Avenue, Science City, Guangzhou, Guangdong, China http://www.cvc.org.cn Tel: (086)-20-32293888 Fax:(086)-20-32293889 E-mail: office@cvc.org.cn			
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Energy efficiency tests for the EU standards of refrigerating appliances with a direct sales function

Test case verdicts	
Test case does not apply to the test object	N
Test item does meet the requirement	P
Test item does not meet the requirement	F
Procedure deviation	N
Non-standard test method	N

General remarks

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

The test report is invalid without the official stamp of CVC.

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

Summary of the testing

All tests are performed on model LG-208HE, the test voltage is 230 V / 50 Hz.

Nameplates of the tested sample:

BACK BAR COOLER

ELECTRIC CIRCUIT DIAGRAM

MODEL	LG-208HE
TEST ROOM CLIMATE CLASS	CC2
M-CAN TEMPERATURE CLASS	K1
PROTECTIVE CLASSIFICATION OF ELECTRIC SHOCK RESISTANCE	I
DEGREE OF PROTECTION AGAINST INGRESS OF WATER	IP X0
RATED VOLTAGE	220-240V~
RATED FREQUENCY	50Hz
NET VOLUME	196L
GROSS VOLUME	207L
RATED INPUT POWER	160W
RATED CURRENT	0.78A
LAMP POWER	MAX 5W
REFRIGERANT	R600a(22g)
ENERGY CONSUMPTION	1.35kWh/24h
INSULATION BLOWING GAS	CYCLOPENTANE
NET WEIGHT	55kg

Guangdong Sansheng Appliances Co., Ltd.
No.22 Xinhui Road, Shunde Science & Technology Industrial Park, Wusha, Daliang, Shunde District, Foshan City, Guangdong PRC.

Photos of tested sample:

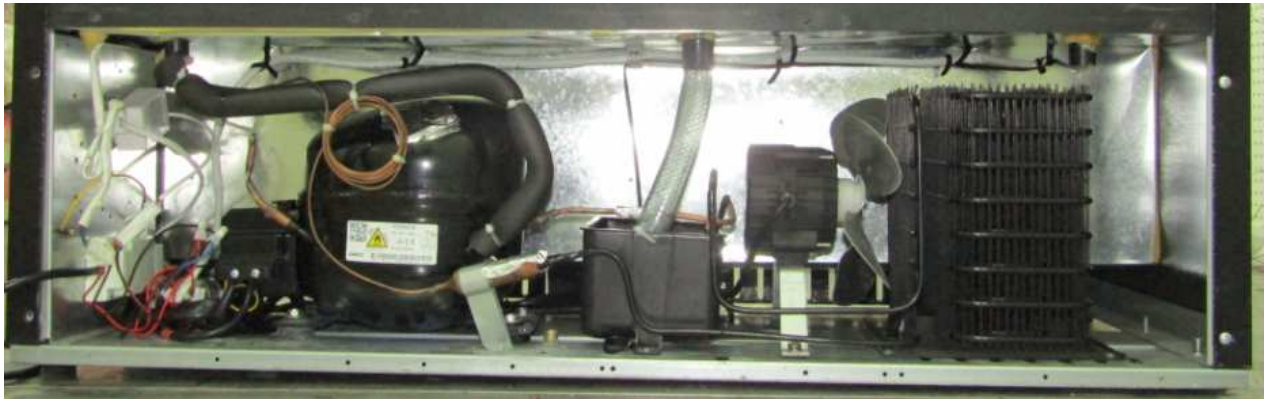


Front view



Back view

Photos of tested sample:



Compressor model



Temperature controller

1 INTRODUCTION

This report presents the results of test conducted for purposes of energy labelling approval on the refrigerating appliances with a direct sales function listed in section 2. The tests for electrical energy consumption test are given in sections 3. The details of gross volume calculations are given in section 4. The process followed to calculate the appliance's efficiency class are showed in section 5 All tests were conducted at CVC laboratories, in accordance with EN 16902:2016, Directive (EU) 2017/1369, Regulation (EU) No. 2019/2018 and Regulation (EU) No. 2019/2024.


2 APPLIANCE TESTED

The descriptions for the refrigerating appliances are as follows:

Manufacture:	Guangdong Sansheng Appliances Co.,Ltd.
Address of manufacture:	No.22 Xinhui Road,Shunde Science &Technology Industrial Park, Wusha,Daliang, Shunde,Foshan, Guangdong,China
Model name:	BACK BAR COOLER
Model identifier:	LG-208HE
Use:	Display and sale
Type of refrigerating appliance with a direct sales function:	Beverage cooler
Cabinet family code	BCSTn (Semi Vertical, Closed transparent door, EMD no)
Brand name:	—
Serial number:	—
Rated voltage:	220-240 V~
Rated frequency:	50 Hz
Rated current:	0,63 A
Total volume:	207 L(gross) / 196 L(net)
Rated energy consumption:	1,35 kWh/24h
Lamp power:	5 W
Test room climate class:	CCG
M-can temperature class:	K1
Number of glass doors:	2
Internal fittings	Shelves
Overall external dimensions at installation	Width: 900 mm Depth: 520 mm Height: 895 mm
Overall external dimensions in service	Width: 1770 mm Depth: 914 mm Height: 895 mm

3 ELECTRICAL ENERGY CONSUMPTION TEST

Electical energy consumption test was measured in accordance with EN 16902:2016, Directive (EU) 2017/1369, Regulation (EU) No. 2019/2018 and Regulation (EU) No. 2019/2024.

Test conditions	
Ambient temperature:	25 °C 60%RH
Power supply:	230 V 50 Hz
Temperature control settings:	2,3 °C
Other test conditions	EN 16902:2016, Directive (EU) 2017/1369, Regulation (EU) No. 2019/2018 and Regulation (EU) No. 2019/2024.
Test results	
Highest temperature of warmest M-cans, θ_{ah} (°C)	6,1
Lowest temperature of coldest M-cans, θ_b (°C)	0,2
The average mean temperature of M-cans, θ_m (°C)	3,3
Energy consumption of 12h with lamp switch on (kWh/12h)	0,680
Energy consumption of 12h with lamp switch off (kWh/12h)	0,658
Daily energy consumption (kWh/24h)	1,338
Compressor switching on/off frequency (min/ min)	0,9
Relative running time	45,0%
Load plan:	
	

4 GROSS VOLUME TEST

Gross volume was calculated in accordance with EN 16902:2016.

Item	Rated (L)	Measured (L)
Total gross volume	207	208,1

5 CALCULATIONS OF ENERGY EFFICIENCY INDEX

Energy efficiency index was calculated, in accordance with Directive (EU) 2017/1369, Regulation (EU) No. 2019/2018 and Regulation (EU) No. 2019/2024.

Items	Rated value	Measured value	Limit	Deviation and Verdict
Total gross volume, (L)	207	208,1	≥-3%	+0,53% P
Average compartment temperature \bar{T}_C , (°C)	3,5	3,5	—	—
Climate class factor CC	1,0I	1,€I	—	—
Equivalent volume of the compartments Y, (L) $Y = \text{GrossVolume} \times ((25 - T_C) / 20) \times CC$	244,8	246,1	—	—
Modelling parameters M	2,1	2,1	—	—
Modelling parameters N	0,006	0,006	—	—
Temperature coefficient C	1,00	1,00	—	—
Correction factor P	1,00	1,00	—	—
Standard annual energy consumption SAE, (kWh/a) $SAE = 365 \times P \times (M + N \times Y) \times C$	1302,56	1305,41	—	—
E_{daily} , (kWh/24h)	1,35	1,338	≤+10%	-0,89% P
Annual energy consumption AE, (kWh/a) $AE = 365 \times E_{\text{daily}}$	492,75	488,37	≤+10%	-0,89% P
EEl, Energy efficiency index, $EEl = \frac{AE}{SAE}$	37,8	37,4	—	—
Energy efficiency class: EEI < 10 A 10 ≤ EEI < 20 B 20 ≤ EEI < 35 C 35 ≤ EEI < 50 D 50 ≤ EEI < 65 E 65 ≤ EEI < 80 F EEI ≥ 70 G	D	D	—	—

I m p o r t a n t

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and “ / ” means “not test”.

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