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TESTING
CNAS L0095



Deutsche
Akkreditierungsstelle
D-PL-17198-01-00

Test Report No.:
RZCE2019-0121EMC-M2

TEST REPORT

EUT : Compressor Refrigerator

MODEL/TYPE : BG-115, BC-49, BC-93, BC-93A ,SC-93, BG-93, BC-85,
BC-85A2, BG-85, BG-85A2, CW-85, CW-85A2, BD-70,
BC-65, CW-65, CW-65SS, BG-65, BG-65SS, BC-50, CW-50,
BG-50, BD-36, BG-36, BC-35, CW-35, BG-35, BG-49,
SC-49, CW-49, BC-20, BG-20, BC-35A, BG-35A, BG-115A,
BG-49K, BG-49K1, BG-43, BG-53, BG-48, BG-58, BG-70,
BG-82, BG-115C, BG-93C, BG-85C, BG-49C, BG-70C,
BG-82C, BG-48C, BG-58C, BG-53C, BG-43C

CLIENT : Da Pan Electric Appliance Ind. Co., Ltd.

Classification of Test : COMMISSION TEST

Vkan Certification & Testing Co., Ltd.

威凯检测技术有限公司

Add.: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, 510663, P. R. China
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Test Report No. RZCE2019-0121EMC-M2		Page 2 of 28	
Client	Name: Da Pan Electric Appliance Ind. Co., Ltd. Address: No. 18 Xinhui Road, Daliang, Shunde, Foshan, Guangdong, China		
Manufacturer	Name: Da Pan Electric Appliance Ind. Co., Ltd. Address: No. 18 Xinhui Road, Daliang, Shunde, Foshan, Guangdong, China		
Equipment Under Test	Name : Compressor Refrigerator Model/Type : BG-115C Trade mark : — Serial no. : — Sampling : —		
Date of Receipt.	2020-03-30	Date of Testing	2020-03-30~2020-04-22
Test Specification			Test Result
EN 55014-1: 2017 Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission			PASS
EN 55014-2: 2015 Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2: Immunity - Product family standard			PASS
EN IEC 61000-3-2:2019 Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)			PASS
EN 61000-3-3: 2013 Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection			PASS
Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied. Issue Date: 2020.4.22		
Tested by:  Lai Jinquan Name Signature	Reviewed by:  Feng Yanhang Name Signature	Approved by:   Zeng Bo Name Signature	
Other Aspects: NONE			
Abbreviations: OK, Pass = passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested			
This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.			

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1. General Product Information

This report covers the following models: BG-115, BC-49, BC-93, BC-93A, SC-93, BG-93, BC-85, BC-85A2, BG-85, BG-85A2, CW-85, CW-85A2, BD-70, BC-65, CW-65, CW-65SS, BG-65, BG-65SS, BC-50, CW-50, BG-50, BD-36, BG-36, BC-35, CW-35, BG-35, BG-49, SC-49, CW-49, BC-20, BG-20, BC-35A, BG-35A, BG-115A, BG-49K, BG-49K1, BG-43, BG-53, BG-48, BG-58, BG-70, BG-82, BG-115C, BG-93C, BG-85C, BG-49C, BG-70C, BG-82C, BG-48C, BG-58C, BG-53C, BG-43C. These models have the same function and construction. The differences among them see the report NO.:RZCE2019-0121LVD-M2. The tests were performed on BG-115C.

This report is expanded from the report NO. :RZCE2018-0121EMC and RZCE2019-0121EMC-M1. One compressor and ten new models, BG-115C, BG-93C, BG-85C, BG-49C, BG-70C, BG-82C, BG-48C, BG-58C, BG-53C, BG-43C, added. The test standards are upgraded to EN 55014-1:2017, EN 55014-2:2015, EN IEC 61000-3-2:2019, EN 61000-3-3:2013. This report embodies one full tests, which including Continuous Disturbance Voltage test, Disturbance Power test, Harmonics on AC Mains test and Voltage Fluctuations on AC Mains test . This report must be used with the report NO.:RZCE2019-0121EMC and RZCE2019-0121EMC-M1.

1.1 Product Function

Refer to the operation instruction.

1.2 Ratings and System Details

System input voltage	:	220-240V
Frequency	:	50Hz
Rated current	:	see 6.1 Nameplate
Protection class	:	I
Power wire	:	Unshielded
Interconnecting wires	:	Unshielded
Details see 6.1 Nameplate.		

1.3 Independent Operation Modes

The basic operation modes are:

1. Refrigerate
2. Off

1.4 Submitted Documents

Operating Instructions and Installation Manual
Structural Parts
Rating Label
Wiring Diagram
Construction Drawing
Photographs of EUT
Material Bill (Parts List)

2. Test Sites

2.1 Test Facilities

The tests and measurements refer to this report were performed by EMC testing Lab. of Vkan Certification & Testing Co., Ltd.

Add.: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, 510663, P. R. China

Telephone : +86-20-32293888

Fax : +86-20-32293889

The EMC testing laboratory has been recognized by CNAS, and authorized by Nemko of Norway since 1997, and accredited by DAKKS of Germany since 2007, and assessed and found eligible to participated in the TDAP of VDE testing and certification Institute since 2004, and registered by FCC since 2001.

2.2 Description of Non-standard Method and Deviations

The testing and measurement methods used in this report are applied by all standard methods. Not any non-standard method or deviation from the used standards was used.

2.3 List of Test and Measurement Instruments

Refer to **Appendix A**.

3. Test Set-up and Operation Modes

3.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.

Immunity: The equipment under test (EUT) was configured to the representative operating mode and conditions.

3.2 Physical Configuration For Testing

Refer to relative descriptions in this test report.

3.3 Test Operation Mode and Test Software

Refer to **Test Setup** in clause 4 and clause 5.

3.4 Special Accessories and Auxiliary Equipment

None.

3.5 Countermeasures to Achieve EMC Compliance

None.

4. Emission Test Results

4.1 Emission in Radio Frequency Range

4.1.1 Continuous Disturbance Voltage

RESULT : **Pass**

Test Setup

Test procedure	:	EN 55014-1: 2017
Frequency range	:	0.15~30MHz
Limits	:	EN 55014-1: 2017 , clause 4.1.1, table 1
Test Site	:	Shielding Room;
Artificial Hand	:	Not applied
Voltage Probe	:	Not applied
Earthing	:	Applied

The GRP (Ground Reference Plate) is 2m×3m.

The EUT was placed on a wooden support, 0.1m high, standing on the GRP, at a distance of 0.8m from artificial mains V-network, to simulate the really situation.

The EUT was kept more than 0.8m from any other earthed conducting surface.

Test Conditions

Ambient Temperature : 25 °C / 25 °C (Before Test /After Test);
 Relative Humidity : 60 %/ 60 % (Before Test /After Test);
 Mains voltage determined
 at 160 kHz : 230 V / 50 Hz;
 Operating Mode of the EUT : Refrigerating

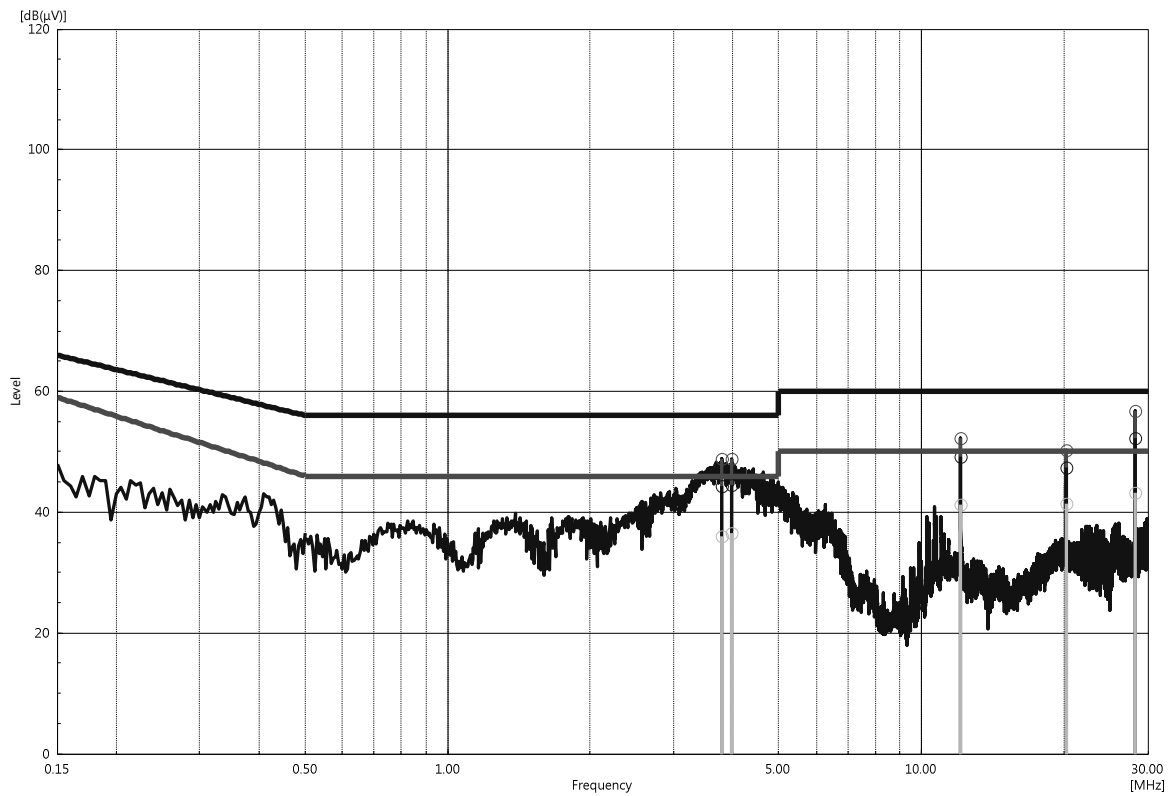
Continuous Disturbance Voltage				
Port: AC Power Line(L line)				
Freq. (MHz)	QP Reading (dBμV)	QP Limits (dBμV)	AV Reading (dBμV)	AV Limits (dBμV)
3.785	44.2	56.0	35.9	46.0
3.985	44.5	56.0	36.5	46.0
12.100	49.3	60.0	41.3	50.0
28.235	52.3	60.0	43.1	50.0
20.170	47.5	60.0	41.4	50.0
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Note: Where PK reading is less than relevant limit decrease 25dB, the QP reading and AV reading will not be recorded.

Where QP reading is less than relevant AV limit, the AV reading will not be measured.

The measurement uncertainty for mains terminal disturbance voltage from 150kHz to 30MHz: 3.460dB

Scan Graph and Scan Settings



Note: Terminal disturbance voltage measurement on L line of AC mains

Test Conditions

Ambient Temperature : 25 °C / 25 °C (Before Test /After Test);
 Relative Humidity : 60 % / 60 % (Before Test /After Test);
 Mains voltage determined
 at 160 kHz : 230 V / 50 Hz;
 Operating Mode of the EUT : Refrigerating

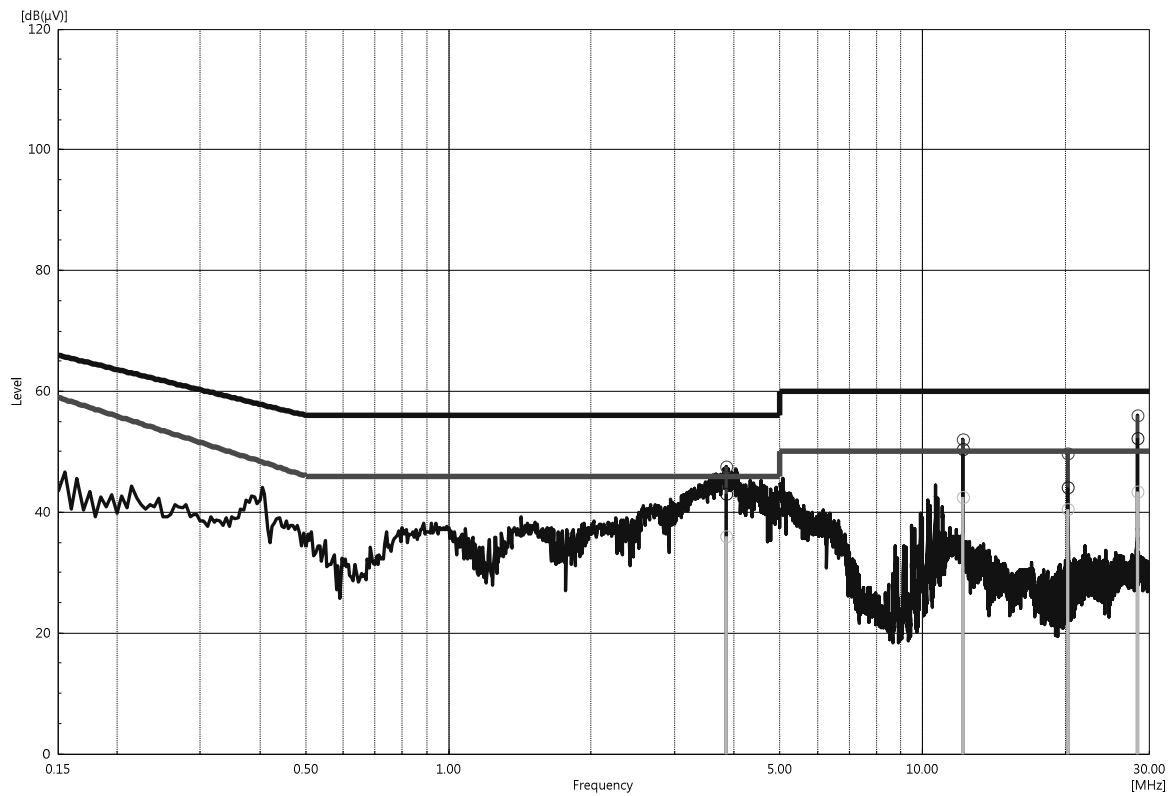
Continuous Disturbance Voltage				
Port: AC Power Line(N line)				
Freq. (MHz)	QP Reading (dBμV)	QP Limits (dBμV)	AV Reading (dBμV)	AV Limits (dBμV)
3.855	43.0	56.0	36.1	46.0
12.150	50.4	60.0	42.5	50.0
28.350	52.2	60.0	43.3	50.0
20.250	44.1	60.0	40.4	50.0
/	/	/	/	/
/	/	/	/	/
/	/	/	/	/
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Note: Where PK reading is less than relevant limit decrease 25dB, the QP reading and AV reading will not be recorded.

Where QP reading is less than relevant AV limit, the AV reading will not be measured.

The measurement uncertainty for mains terminal disturbance voltage from 150kHz to 30MHz: 3.460dB

Scan Graph and Scan Settings



Note: Terminal disturbance voltage measurement on N line of AC mains.

4.1.2 Disturbance Power

RESULT : **Pass**

Test Setup

Test procedure : EN 55014-1: 2017
Frequency range : 30 ~ 300MHz
Limits : EN 55014-1: 2017 ,
clause 4.1.2, table 2
Test Site : Shielding Room
Artificial Hand : Not applied
Earthing : Applied

The EUT was placed on a wooden fence of 0.1m high and kept at least 0.8m from other metallic objects, to simulate the really situation.

The power cord had been stretched in a straight line laying horizontal on the clamp track to a length of 6m and routed through an absorber clamp. The clamp was moved along the cable to find the maximum emission.

Test Conditions

Ambient Temperature : 25 °C / 25 °C (Before Test/After Test);
 Relative Humidity : 60 % / 60 % (Before Test/After Test);
 Mains voltage determined
 at 50 MHz : 230 V / 50 Hz ;
 Operating Mode of the EUT : Refrigerating

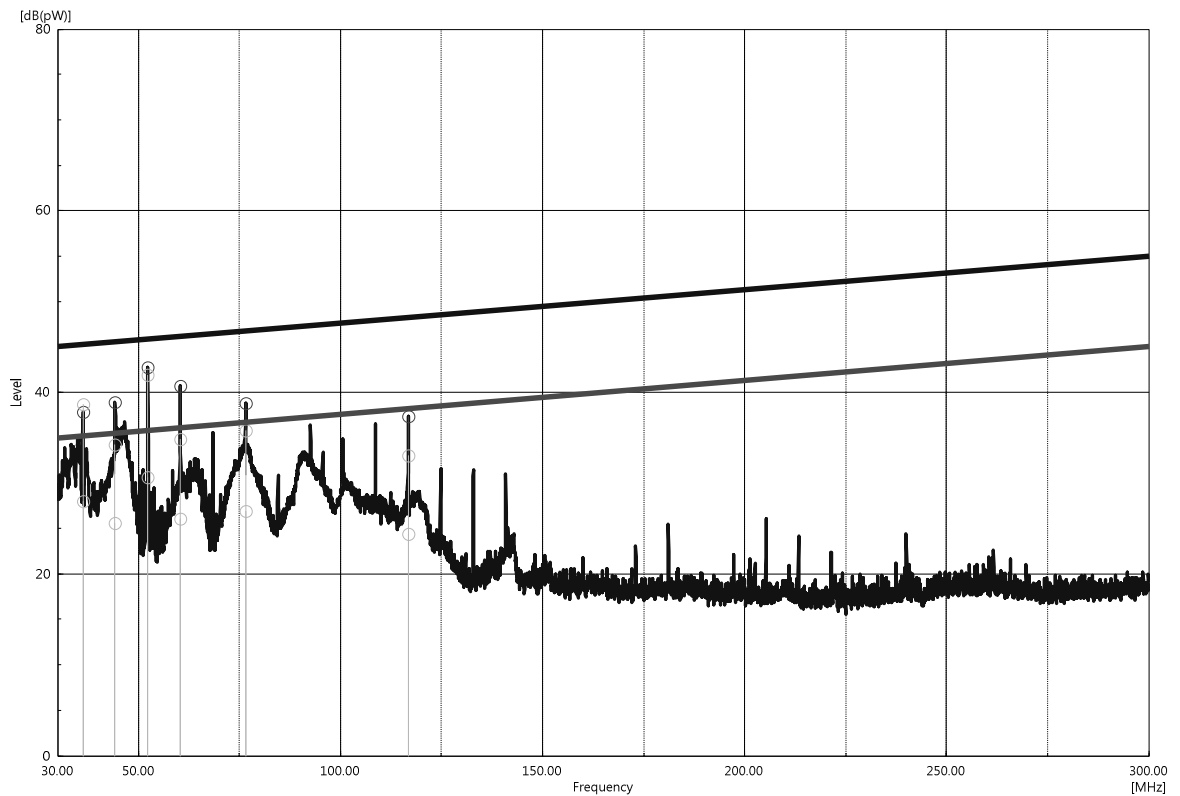
Disturbance Power						
Port: AC Power Line						
Freq. (MHz)	QP Reading (dBpW)	QP Limits (dBpW)	QP Margin (dB pW)	QP Margin limit (dB pW)	AV Reading (dBpW)	AV Limits (dBpW)
52.320	41.9	45.8	/	/	30.6	35.8
60.420	34.8	46.1	/	/	26.1	36.1
76.500	35.8	46.7	/	/	26.9	36.7
44.280	34.2	45.5	/	/	25.6	35.5
36.240	38.7	45.2	/	/	28.0	35.2
116.740	33.1	48.2	/	/	24.4	38.2
/	/	/	/	/	/	/
/	/	/	/	/	/	/
/	/	/	/	/	/	/
/	/	/	/	/	/	/
/	/	/	/	/	/	/
/	/	/	/	/	/	/

Note: Where PK reading is less than relevant limit decrease 25dB, the QP reading and AV reading will not be recorded.

Where QP reading is less than relevant AV limit, the AV reading will not be measured.

The measurement uncertainty for disturbance power from 30MHz to 300MHz: 4.072dB.

Scan Graph and Scan Settings



Note: Disturbance power measurement on AC power line

4.1.3 Radiated Disturbance (30MHz~1000MHz)

RESULT : N/A

Remark:

1. Additional margin (200MHz to 300MHz) meets the margin requirement in 4.1.2 disturbance power table.
2. Clock frequency of the EUT is less than 30MHz.

4.1.4 Discontinuous Disturbance

RESULT : N/A

Test Setup

Test procedure	:	EN 55014-1: 2017
Frequency range	:	0.15 ~ 30MHz
Limits	:	EN 55014-1: 2017 , clause 4.2
Test Site	:	Shielding Room
Artificial Hand	:	Not applied
Earthing	:	Applied

The GRP (Ground Reference Plate) is 2m×3m.

The EUT was placed on a wooden support, 0.1m high, standing on the GRP, at a distance of 0.8m from artificial mains V-network, to simulate the really situation.

The EUT was kept more than 0.8m from any other earthed conducting surface.

Test Conditions

Ambient Temperature : _____ (Before Test/After Test);
 Relative Humidity : _____ (Before Test/After Test);
 Power Supply : _____;
 Operating Mode of the EUT : _____;

Frequency	150 kHz	500 kHz	1.4 MHz	30 MHz
Attenuation (dB μ V)	66	56	56	60
Short Clicks (<10ms)				
Middle Clicks (10ms-20ms)				
Long Clicks (20ms-200ms)				
Continuous Disturbance				
Switching Operation				
Factor: f				
Observation Time: T(min)				
Click Rate: N				
Limit: Lq (dB μ V)				
Permitted Clicks Exceeding Lq				

☒ Because the click rate is no more than 5, none of the caused clicks has a duration longer than 20ms, 90% of the caused clicks have a duration less than 10ms. So it complied with the limits.

4.1.5 Frequency band 9 kHz to 30MHz (loop antenna method)

RESULT : N/A

Remark:

According to Annex B of EN 55014-1: 2017, This test is only applicable for induction cooker.

4.1.6 Frequency range 9kHz to 30MHz (Small loop method)

RESULT : N/A

Remark:

According to Annex B of EN 55014-1: 2017, This test is only applicable for induction cooker.

4.2 Harmonics on AC Mains

RESULT : Pass

Test Setup

Test procedure : EN IEC 61000-3-2:2019
Measured harmonics : 2 ~ 40th
Equipment Class : A
Limits : EN IEC 61000-3-2:2019, CLASS A

Test Conditions:

Ambient Temperature : 25 °C / 25 °C (Before Test/After Test);
 Relative Humidity : 60 % / 60 % (Before Test/After Test);
 Power Supply : 230 V / 50 Hz ;
 Operating Mode of the EUT : Refrigerating

Measurement type: Class A

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.023	1.080	2.2	0.025	1.620	1.5	Pass
3	0.065	2.300	2.8	0.067	3.450	2.0	Pass
4	0.007	0.430	1.7	0.008	0.645	1.3	Pass
5	0.029	1.140	2.5	0.029	1.710	1.7	Pass
6	0.003	0.300	N/A	0.003	0.450	N/A	Pass
7	0.010	0.770	1.2	0.010	1.155	0.9	Pass
8	0.001	0.230	N/A	0.002	0.345	N/A	Pass
9	0.013	0.400	3.2	0.013	0.600	2.2	Pass
10	0.001	0.184	N/A	0.001	0.276	N/A	Pass
11	0.012	0.330	3.7	0.013	0.495	2.5	Pass
12	0.001	0.153	N/A	0.001	0.230	N/A	Pass
13	0.010	0.210	4.6	0.010	0.315	3.2	Pass
14	0.001	0.131	N/A	0.001	0.197	N/A	Pass
15	0.008	0.150	5.1	0.008	0.225	3.6	Pass
16	0.001	0.115	N/A	0.001	0.173	N/A	Pass
17	0.007	0.132	5.4	0.007	0.198	3.6	Pass
18	0.001	0.102	N/A	0.001	0.153	N/A	Pass
19	0.007	0.118	5.7	0.007	0.178	3.9	Pass
20	0.001	0.092	N/A	0.001	0.138	N/A	Pass
21	0.005	0.107	4.8	0.005	0.161	3.4	Pass
22	0.001	0.084	N/A	0.001	0.125	N/A	Pass
23	0.004	0.098	N/A	0.004	0.147	N/A	Pass
24	0.001	0.077	N/A	0.001	0.115	N/A	Pass
25	0.004	0.090	N/A	0.004	0.135	N/A	Pass
26	0.001	0.071	N/A	0.001	0.107	N/A	Pass
27	0.003	0.083	N/A	0.003	0.125	N/A	Pass
28	0.000	0.066	N/A	0.001	0.099	N/A	Pass
29	0.003	0.078	N/A	0.003	0.116	N/A	Pass
30	0.000	0.061	N/A	0.001	0.092	N/A	Pass
31	0.003	0.073	N/A	0.003	0.109	N/A	Pass
32	0.000	0.058	N/A	0.001	0.086	N/A	Pass
33	0.003	0.068	N/A	0.003	0.102	N/A	Pass
34	0.000	0.054	N/A	0.001	0.081	N/A	Pass
35	0.002	0.064	N/A	0.002	0.096	N/A	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.002	0.061	N/A	0.002	0.091	N/A	Pass
38	0.000	0.048	N/A	0.000	0.073	N/A	Pass
39	0.002	0.058	N/A	0.002	0.087	N/A	Pass
40	0.000	0.046	N/A	0.000	0.069	N/A	Pass

Note: The measurement uncertainty for harmonic test is under consideration according to CISPR 16-4-2:2003.

4.3 Voltage Fluctuations on AC Mains

RESULT : **Pass**

Test Setup

Test procedure : EN 61000-3-3:2013
Limits : EN 61000-3-3:2013, Clause 5

Test Conditions

Ambient Temperature : 25 °C / 25 °C (Before Test/After Test);
Relative Humidity : 60 % / 60% (Before Test/After Test);
Power Supply : 230 V/ 50 Hz;
Operating Mode of the EUT : Refrigerating, nothing inside.

Voltage Fluctuation	Limit	Value
Relative Voltage Change Characteristic d(t)	500ms	0.02ms
Maximum Relative Voltage Change dmax	4%	/
	6%	0.55%
	7%	/
Relative Steady-state Voltage Change dc	3.3%	0%

Flicker	Limit	Value
Short-term Flicker Indicator Pst	1.0	/
Long-term Flicker Indicator Plt	0.65	/

5. Immunity Test Results

RESULT : N/A

Remark:

The EUT contains no electronic control circuit.

According to EN 55014-2:2015 the EUT is a category I appliance and is deemed to fulfill the relevant immunity requirements without test.

6. Photographs & Nameplates of the EUT

6.1 Nameplate:

See the report NO.: RZCE2019-0121LVD-M2

6.2 Outlook of the EUT:



6.3 Structure of internal wires:



7. Photograph of the test setup

Continuous Disturbance Voltage



Disturbance Power



Harmonics



Flicker, Voltage Dips



8. Key components list

KEY COMPONENTS RELATIVE WITH EMC PERFORMANCE				
Component	Manufacture	Type	Parameter	Certification
Compressor (alter-)	HuaYi Compressor (Jingzhou)Co., Ltd.	B35CA	220-240V~, 50Hz, R600a	VDE 40026266
The End				

Appendix A: Test equipment list

Test Equipment	Type/Mode	SERIAL NO.	Equipment No.	Manufacturer	Cal. Due	Used
Conducted emission						
EMI Test Receiver	ESI26	834000/009	EM-0087	R&S	2021.03.15	✓
EMI Test Receiver	ESR3	102394	VG DY-0705	R&S	2021.03.15	
LISN	NSLK 8127	8127644	VG DY-0150	SCHWARZBECK	2020.11.08	✓
LISN	NSLK 8128	8128-316	VG DY-0149	SCHWARZBECK	2020.11.08	
DC LISN	PVDC8301-017	PVDC8301#17	VG DY-0692	SCHWARZBECK	2020.07.18	
LISN	NSLK 8129	8129-268	EM-000388	SCHWARZBECK	2021.03.11	
Plus Limiter	VTSD 9561 F-N	00515	EM-000549	SCHWARZBECK	2021.03.11	
Plus Limiter	37-10-34	CF3049	EM-000503	AEROFLEX	2020.11.08	✓
Plus Limiter	VTSD 9561	9561-F017	VG DY-0152	SCHWARZBECK	2020.08.30	
Impedance Stabilization Network	ISN T800	27095	WKNE-0195	TESEQ	2020.11.08	
Impedance Stabilization Network	NTFM8158	8158-0092	VG DY-0356	SCHWARZBECK	2020.07.19	
Impedance Stabilization Network	NTFM8131	#184	EM-000498	SCHWARZBECK	2020.06.14	
Voltage Probe	TK9420	9420-499	VG DY-0128	SCHWARZBECK	2021.03.11	
Power Divider	4901.17.B	22643830	DB-0016	HUBER+SUHNER	2020.11.08	
Shielding Room(#1)	GP1A	002	WKNF-0001	LEINING	2024.08.08	✓
Shielding Room(#2)	GP1A	/	WKNF-0006	LEINING	2024.08.08	
Radiation emission						
EMI Test Receiver	N9038A-508	MY532290079	EM-000397	Agilent	2021.03.15	
EMI Test Receiver	ESR3	102084	VG DY-0569	R&S	2021.03.15	
EMI Test Receiver	N9038A-508	MY53290078	EM-000396	Agilent	2021.03.15	
Broadband Antenna	VULB 9163	9163-530	EM-000342	SCHWARZBECK	2020.07.12	
Broadband Antenna	VULB 9163	9163-676	EM-000382	SCHWARZBECK	2020.07.28	
Broadband Antenna	VULB 9163	9163-675	EM-000381	SCHWARZBECK	2020.07.12	
Loop Antenna	HLA 6121	540046	EM-000546	TESEQ	2020.07.12	
Loop Antenna	FMZB1513	1513-170	EM-000384	SCHWARZBECK	2020.07.12	
Monopole antenna	VAMP9243	9243226	EM-000183	SCHWARZBECK	2020.05.17	
Waveguide Horn Antenna	BBHA9120B	602	EM-000383	SCHWARZBECK	2021.03.15	
Waveguide Horn Antenna	HF906	360306/008	WKNA-0024-8	R&S	2021.03.15	
Semi-Anechoic Chamber (3m)	FACT-4	ST08035	WKNA-0024	ETS	2024.12.12	
Semi-Anechoic Chamber (5m)	SAC-5	SAC-5-2.0	EM-000557	COMTEST	2024.11.02	
Semi-Anechoic Chamber (10m)	10m-SAC	P25904	EM-000460	Albatross	2024.06.30	
Disturbance power						
EMI Test Receiver (#1)	ESI26	834000/009	EM-0087	R&S	2021.03.15	✓
Absorbing Clamp	MDS21B	48052	VG DY-0689	TESEQ	2021.04.07	✓
Intermittent interference						
Click Analyzer	DDA55	14041630071	EM-000527	AFJ	2020.07.19	
LISN (CLICK)	LS-16C	16011624394	EM-000528	AFJ	2020.07.19	
CDN radiation substitution						
EMI Test Receiver	ESR3	102394	VG DY-0705	R&S	2021.03.15	
CDN	M016	26143	EM-000300	TESEQ	2020.07.19	
CDNE	CDNE M2	CDNE-M2-020	VG DY-0291	SCHWARZBECK	2020.06.06	
CDNE	CDNE M3	CDNE-M3-017	VG DY-0292	SCHWARZBECK	2021.03.15	
Plus Limiter(6dB))	1W6	93459	EM-000499	Aeroflex	2020.12.11	
Three loop antenna						
EMI Test Receiver	ESR3	102394	VG DY-0705	R&S	2021.03.15	
Three Loop Antenna	HXYZ9170	9170-232	VGDS-0085	SCHWARZBECK	2021.03.15	
Harmonics, voltage flicker, voltage drop test system						
45kVA three-phase harmonic voltage scintillating	NSG1007	1404A01259	VGDS-0116	TESEQ	2021.03.15	✓

voltage sags test system						
Immunity to conducted disturbances induced by RF fields						
RF conduction immunity test system	NSG 4070	32821	VGDS-0093	TESEQ	2021.03.05	
Low frequency RF field induced conduction disturbance immunity						
Low frequency rf field induction conducted disturbance immunity test system	PSG300/PSGE300/CDN M2345-32	124B1220/133 A1108/124CN1106	VGDS-0190	FRANKONIA	2020.7.12	
Surge and EFT test system						
EFT And Surge Testing System	NSG3060/CDN3063	1376/1994	VGDS-0014	TESEQ	2021.03.11	
Radio frequency electromagnetic field radiation immunity						
Radiofrequency electromagnetic field radiation immunity testing system	E4432B	MY43350242	VG DY-0222	Agilent	2020.12.10	
Electrostatic discharge						
ESD Generator	NSG437	1318	VG DY-0757	TESEQ	2021.01.06	
ESD Generator	NSG438	996	NA-0091	TESEQ	2020.12.11	
Power Frequency Magnetic Field						
Power frequency magnetic field generator	EMS61000-8K	11030001	EM-000332	EVERFINE	2020.07.19	
Ringing wave						
Ring wave test system	HOCS	145001	VG DY-0304	HTEC	2020.07.11	
EMF						
EMF Protection Network	VDHH9502	9502-036	EM-000341	SCHWARZBECK	2020.11.08	
Electromagnetic Radiation Tester	ELT-400	D-0007/M-0194	KA-0101	NARDA	2021.04.20	

End of the document.



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TESTING
CNAS L0095



Deutsche
Akkreditierungsstelle
D-PL-17198-01-00

Test Report No.:
RZCE2019-0121EMF-M2

TEST REPORT

EUT : Compressor Refrigerator

MODEL/TYPE : BG-115, BC-49, BC-93, BC-93A ,SC-93, BG-93, BC-85,
BC-85A2, BG-85, BG-85A2, CW-85, CW-85A2, BD-70,
BC-65, CW-65, CW-65SS, BG-65, BG-65SS, BC-50, CW-50,
BG-50, BD-36, BG-36, BC-35, CW-35, BG-35, BG-49,
SC-49, CW-49, BC-20, BG-20, BC-35A, BG-35A, BG-115A,
BG-49K, BG-49K1, BG-43, BG-53, BG-48, BG-58, BG-70,
BG-82, BG-115C, BG-93C, BG-85C, BG-49C, BG-70C,
BG-82C, BG-48C, BG-58C, BG-53C, BG-43C

CLIENT : Da Pan Electric Appliance Ind. Co., Ltd.

Classification of Test : COMMISSION TEST

Vkan Certification & Testing Co., Ltd.

威凯检测技术有限公司

Add.: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, 510663, P. R. China
Telephone: +86-20-32293888 Fax: +86-20-32293889
E-mail: emc@cvc.org.cn

Test Report No. RZCE2019-0121EMF-M2		Page 2 of 15	
Client	Name: Da Pan Electric Appliance Ind. Co., Ltd. Address: No. 18 Xinhui Road, Daliang, Shunde, Foshan, Guangdong, China		
Manufacturer	Name: Da Pan Electric Appliance Ind. Co., Ltd. Address: No. 18 Xinhui Road, Daliang, Shunde, Foshan, Guangdong, China		
Equipment Under Test	Name : Compressor Refrigerator Model/Type : BG-115C Trade mark : — Serial no. : — Sampling : —		
Date of Receipt.	2020-03-30	Date of Testing	2020-03-30~2020-04-22
Test Specification			Test Result
EN 62233:2008 Measurement methods for electromagnetic fields of household appliances and similar apparatus with Regard to human exposure			PASS
Evaluation of Test Result	The equipment under test was found to comply with EN 62233:2008 for measuring the magnetic field in the frequency range 10Hz-400kHz.  Issue Date: 2020.4.22		
Tested by:  _____ Lai Jinqun Name Signature	Reviewed by:  _____ Feng Yanhang Name Signature	Approved by:  _____ Zeng Bo Name Signature	
Other Aspects:			
NONE			
Abbreviations: OK, Pass = passed Fail = failed N/A = not applicable EUT = equipment, sample(s) under tested			
This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.			

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1. General Product Information

This report covers the following models: BG-115, BC-49, BC-93, BC-93A, SC-93, BG-93, BC-85, BC-85A2, BG-85, BG-85A2, CW-85, CW-85A2, BD-70, BC-65, CW-65, CW-65SS, BG-65, BG-65SS, BC-50, CW-50, BG-50, BD-36, BG-36, BC-35, CW-35, BG-35, BG-49, SC-49, CW-49, BC-20, BG-20, BC-35A, BG-35A, BG-115A, BG-49K, BG-49K1, BG-43, BG-53, BG-48, BG-58, BG-70, BG-82, BG-115C, BG-93C, BG-85C, BG-49C, BG-70C, BG-82C, BG-48C, BG-58C, BG-53C, BG-43C. These models have the same function and construction. The differences among them see the report NO.:RZCE2019-0121LVD-M2. The tests were performed on BG-115C.

This report is expanded from the report NO. :RZCE2018-0121EMC and RZCE2019-0121EMC-M1. One compressor and ten new models, BG-115C, BG-93C, BG-85C, BG-49C, BG-70C, BG-82C, BG-48C, BG-58C, BG-53C, BG-43C, added. The test standards are upgraded to EN 55014-1:2017, EN 55014-2:2015, EN IEC 61000-3-2:2019, EN 61000-3-3:2013. This report embodies one Electromagnetic Fields test result. This report must be used with the report NO.:RZCE2019-0121EMC and RZCE2019-0121EMC-M1.

1.1 Product Function

Refer to the operation instruction.

1.2 Ratings and System Details

System input voltage	:	220-240V~
Frequency	:	50Hz
Rated current	:	see 5.1 Nameplate
Protection class	:	I
Power wire	:	Unshielded
Interconnecting wires	:	Unshielded

Details see 5.1 Nameplate.

1.3 Independent Operation Modes

The basic operation modes are:

1. Refrigerate
2. Off

1.4 Submitted Documents

Operating Instructions and Installation Manual
Structural Parts
Rating Label
Wiring Diagram
Construction Drawing
Photographs of EUT
Material Bill (Parts List)

2. Test Sites

2.1 Test Facilities

The tests and measurements refer to this report were performed by EMC testing Lab. of Vkan Certification & Testing Co., Ltd.

Add.: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, 510663, P. R. China

Telephone : +86-20-32293888

Fax : +86-20-32293889

The EMC testing laboratory has been recognized by CNAS, and authorized by Nemko of Norway since 1997, and accredited by DAKKS of Germany since 2007, and assessed and found eligible to participated in the TDAP of VDE testing and certification Institute since 2004, and registered by FCC since 2001.

2.2 Description of Non-standard Method and Deviations

The testing and measurement methods used in this report are applied by all standard methods. Not any non-standard method or deviation from the used standards was used.

2.3 List of Test and Measurement Instruments

Refer to **Appendix A**.

3. Test Set-up and Operation Modes

3.1 Test Operation Mode and Test Software

Refer to **Test Setup** in clause 4.

3.2 Special Accessories and Auxiliary Equipment

None.

3.3 Physical Configuration For Testing

None.

4. Test Results

RESULT : **Pass**

Test Setup

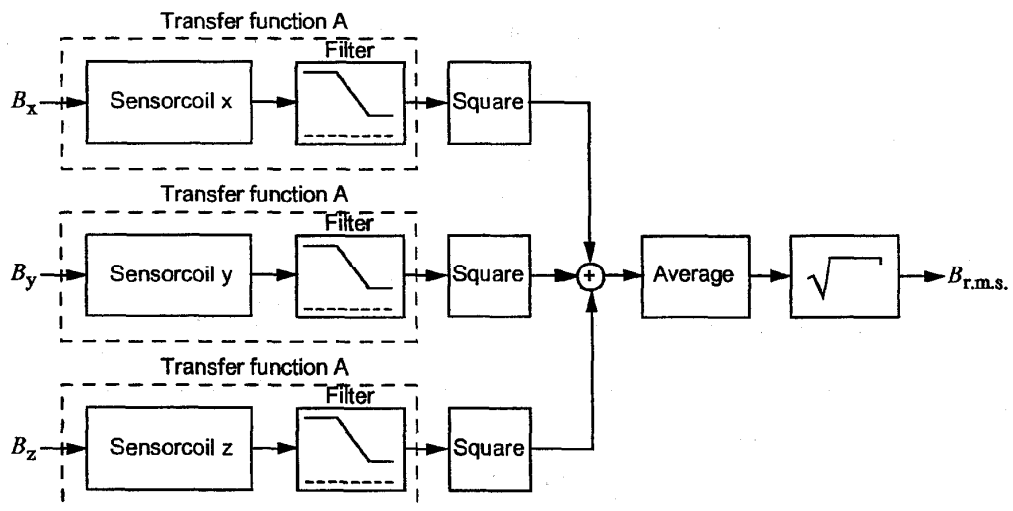
Test procedure : EN 62233:2008
 Frequency range : 10Hz to 400 kHz
 Limits : EN 62233:2008
 Sensor Location : Around the EUT

Test Methods

Frequency range of the used field-probe is 10 Hz – 400 kHz, area of probe is 100 cm².

Directly on the enclosure of the EUT (distance = 30 cm) the maximum magnetic field strength was searched. At these points the measurements are done in the distance given by the standard. Observation time is in minimum 3 s on each point.

The schematic diagram of the reference method is as follows:



The weighted result is obtained from the following formula:

$$W = \frac{a_c(r_1)B_{r.m.s.}}{B_{RL}}$$

Test Conditions

Ambient Temperature : 25°C / 25°C (Before Test /After Test);
 Relative Humidity : 60% / 60% (Before Test /After Test);
 Background noise level(%×limit) : 0.200%;
 Couple factor : N/A;
 Power Supply : 230 V / 50 Hz;
 Operating Mode of the EUT : Refrigerating, middle temperature setting, nothing inside

Sensor Location	Measure distance	$B_{r.m.s} / B_{RL}$
Around	30cm	0.588%
/	/	/
/	/	/
/	/	/
/	/	/

Note:

The limits are the reference levels taken from the EU-COUNCIL RECOMMENDATION in accordance with the requirements of the standard EN 62233.

$B_{r.m.s}$ is the r.m.s. value of the magnetic flux density;

B_{RL} is the reference level of the magnetic flux density at 50 Hz.

5. Photographs & Nameplates of the EUT

5.1 Nameplate:

See the report RZCE2019-0121LVD-M2.

5.2 Outlook of the EUT:



5.3 Structure of internal wires:



6. Photograph of the test setup



7. Key components

KEY COMPONENTS RELATIVE WITH EMC PERFORMANCE				
Component	Manufacture	Type	Parameter	Certification
Compressor (alter-)	HuaYi Compressor (Jingzhou)Co., Ltd.	B35CA	220-240V~, 50Hz, R600a	VDE 40026266
The end				

Appendix A

List of Test and Measurement Equipment

Test Equipment	Type/Mode	SERIAL NO.	Equipment No.	Manufacturer	Cal. Due	Used
EMF						
EMF Protection Network	VDHH9502	9502-036	EM-000341	SCHWARZBECK	2020.11.08	
Electromagnetic Radiation Tester	ELT-400	D-0007/M-0194	KA-0101	NARDA	2021.04.20	✓

Appendix B

Compliance Criteria

Appliances are deemed to comply with the basic restriction if the reference levels are not exceeded.

If a value exceeds the reference level, the coupling factor can be taken into account to show compliance with the basic restriction. The coupling factor has been determined to cover the worst case for the same type of appliances.

If the value still exceeds the reference level, this does not necessarily mean that the basic restriction is exceeded. Calculation methods can be used to verify whether the basic restriction is fulfilled.

End of Document

APPENDIX TO TEST REPORT (CE)

Original Ref. No.: RZCE2019-0121LVD

Date: Apr. 11, 2019

No.: RZCE2019-0121LVD-M1

M1: Jun. 12, 2019

Compiled by: Li Tie 2020.4.23

Signature Date

Approve by: Li Yunmei 2020.4.23

Signature Date



Testing Laboratory: Vkan Certification & Testing Co., Ltd.(CVC)

Address: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, Guangdong, 510663, P.R.China.

■ Modification on the appliances:

The reports ref. No. RZCE2019-0121LVD and RZCE2019-0121LVD-M1, have been modified after the certificate was issued. The applicant has added some contents in original test reports. The add contents report Ref. No. is RZCE2019-0121LVD-M2.

Details of the contents are as follows:

——One alternative Compressor and Lamp holder were added.

——Ten new models BG-115C, BG-93C, BG-85C, BG-49C, BG-70C, BG-82C, BG-48C, BG-58C, BG-53C, BG-43C were added.

——

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■ Modification to clause concerned.

• Added:

—— Clauses 7, 8, 10, 11, 13, 22 and 24.

• Removed:

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——

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Page 2 of 43

No.: RZCE2019-0121LVD-M2

检测报告

TEST REPORT

产品名称: Compressor Refrigerator
NAME OF SAMPLE

委托单位: Da Pan Electric Appliance Ind. Co., Ltd.
CLIENT

检测类别: Commission Test
CLASSIFICATION OF TEST

威凯检测技术有限公司

Vkan Certification & Testing Co., Ltd. (CVC)

检验检测专用章

检测报告

TEST REPORT

Page 3 of 43 Report reference No.: RZCE2019-0121LVD-M2

Name of product: Compressor Refrigerator	Trade mark: N
Type/Model: BG-115, BC-49, BC-93, BC-93A, SC-93, BG-93, BC-85, BC-85A2, BG-85, BG-85A2, CW-85, CW-85A2, BD-70, BC-65, CW-65, CW-65SS, BG-65, BG-65SS, BC-50, CW-50, BG-50, BD-36, BG-36, BC-35, CW-35, BG-35, BG-49, SC-49, CW-49, BC-20, BG-20, BC-35A, BG-35A, BG-115A, BG-49K, BG-49K1, BG-43, BG-53, BG-48, BG-58, BG-70, BG-82, BG-115C, BG-93C, BG-85C, BG-49C, BG-70C, BG-82C, BG-48C, BG-58C, BG-53C, BG-43C 220-240 V ~ 50 Hz Rated input: 0,6 A	Sample status: N
Manufacturer: Da Pan Electric Appliance Ind. Co., Ltd.	Manufacturer: Da Pan Electric Appliance Ind. Co., Ltd.
Manufacturer address: No. 18 Xinhui Road, Daliang, Shunde, Foshan, Guangdong, China	Manufacturer address: No. 18 Xinhui Road, Daliang, Shunde, Foshan, Guangdong, China
Quantity of sample: One unit	Sampled by: N
Sample identification: 1 [#]	Sampling at (place): N
Means of receiving: Submitted by the manufacturer	Means of sampling: N
Classification of test: Commission test	Sampling date: N
Receiving date: 2020-03-30	Completing date: 2020-04-22
Tested according to: EN 60335-1:2012+AC:2014+A11:2014+A13:2017 EN 60335-2-24:2010+A1:2019+A2:2019	Test item: Clauses 7, 8, 10, 11, 13, 22 and 24
Test conclusion: The compressor refrigerator submitted by Da Pan Electric Appliance Ind. Co., Ltd. was tested according to: EN 60335-1:2012+AC:2014+A11:2014+A13:2017 Safety of household and similar electrical appliances Part 1: General requirements and EN 60335-2-24:2010+A1:2019+A2:2019 Safety of household and similar electrical appliances—Part 2-24: Particular requirements for refrigerating appliances, ice-cream appliances and ice-makers. Test result: pass  Seal of CVC Date of issue: 2020.4.23	

Approved by: Li Yunmei, Director

Reviewed by: Li Tie, Manager

Tested by: Zhang Junfeng, Engineer

Li Yunmei

Li Tie

Zhang Junfeng

LTC-R-3330-EN60335-2-24-A0

Description and illustration of the sample:

Class of equipment: Class I

Protection against ingress of water: IPX0

Type of power connection: Type Y attachment

Climatic class: Class SN/N/ST/T

The tests of Clause 7, 8, 10, 11, 13, 22 and 24 were performed on model BG-115C with comp. model B35CA for a rated voltage of 220-240 V~ and rated frequency 50 Hz.. Tests were carried out at an ambient temperature of 43 °C for clauses 10, 11 and 13 according to the ambient temperature requirement for climatic class: Class T. Other tests were carried out at an ambient temperature of 20 °C $\pm$ 5 °C.

Description of the sampling procedure:

—

Description of the deviation from the standard, if any :

—

Remarks:

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

The first factory is Homesun Electric Appliance Co., Ltd.

The second factory is Da Pan Electric Appliance Ind. Co., Ltd.

The address of the first factory is (Shunde Industrial Park) No.18 Xinhui Road ,Daliang ,Shunde Foshan Guangdong ,China

The address of the second factory is No. 18 Xinhui Road, Daliang, Shunde, Foshan, Guangdong, China

Total page of this report is 43.

Modification-2:

The original test report Ref. No.: RZCE2019-0121LVD, date Apr. 11, 2019 was modified on Jun. 12, 2019 and the original test report ref. No.: RZCE2019-0121LVD-M1, date Jun. 12, 2019 was modified on Apr. 22, 2020 to one alternative compressor and lamp holder. And ten new models BG-115C, BG-93C, BG-85C, BG-49C, BG-70C, BG-82C, BG-48C, BG-58C, BG-53C, BG-43C were added.

After reviews, tests of clauses 7, 8, 10, 11, 13, 22 and 24 were considered to carry out.

This report must be used in conjunction with the original CE report with the report number of RZCE2019-0121LVD and RZCE2019-0121LVD-M1.

All construction photos: see the original test report.

General product information:

Description of differences of the models:

Models BG-115, BC-49, BC-93, BC-93A, SC-93, BG-93, BC-85, BC-85A2, BG-85, BG-85A2, CW-85, CW-85A2, BD-70, BC-65, CW-65, CW-65SS, BG-65, BG-65SS, BC-50, CW-50, BG-50, BD-36, BG-36, BC-35, CW-35, BG-35, BG-49, SC-49, CW-49, BC-20, BG-20, BC-35A, BG-35A, BG-115A, BG-49K, BG-49K1, BG-43, BG-53, BG-48, BG-58, BG-70, BG-82, BG-115C, BG-93C, BG-85C, BG-49C, BG-70C, BG-82C, BG-48C, BG-58C, BG-53C, BG-43C are compressor refrigerators. These models are basically identical, and there is no other difference except for the volume (see nameplates), appearance and the differences as follows:

Model	Filament lamp	LED lamp	Compressor
BC-93, BC-93A, BG-93, BC-85, BC-85A2, BG-85, BG-85A2, CW-85, CW-85A2, SC-93, BG-115	✓	✓	B43CB (efficient) B43CB (common) B35C QD35Y QD43Y D53CY1 L22CL B35CA
BD-36, BG-36, BD-70, BC-49	--	--	
CW-65, CW-65SS, BG-65, BG-65SS, BC-50, CW-50, BG-50, BC-35, CW-35, BG-35, BC-65, BG-49, SC-49, CW-49, BC-20, BG-20, BC-35A, BG-35A, BG-115A, BG-49K, BG-49K1, BG-43, BG-53, BG-48, BG-58, BG-70, BG-82, BG-115C, BG-93C, BG-85C, BG-49C, BG-70C, BG-82C, BG-48C, BG-58C, BG-53C, BG-43C	--	✓	

Model with letter "BC, BD" stands for "Foam door"; Model with letter "SC, CW, BG" stands for "glass door"; Different numbers stand for different capacity. The illuminant of model BC-93, BC-93A, BG-93, BC-85, BC-85A2, BG-85, BG-85A2, CW-85, CW-85A2, SC-93 and BG-115 is filament or LED.

Model BG-115C, BG-93C, BG-85C, BG-49C, BG-70C, BG-82C, BG-48C, BG-58C, BG-53C, BG-43C are respectively same as the model BG-115, BG-93, BG-85, BG-49, BG-70, BG-82, BG-48, BG-58, BG-53, BG-43, except for the position of thermostat, switch and LED lamp board. And the LED lamp board of them is same as BG-49.

Copy of marking plate:

See the appended remarks.

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
7	MARKING AND INSTRUCTIONS		P
7.1	Rated voltage or voltage range (V)	220-240 V	P
	Addition: Single-phase appliances:230 V covered	220-240 V ~	P
	Multi-phase appliances:400 V covered		N
	Nature of supply	~	P
	Rated frequency (Hz)	50 Hz	P
	Rated power input (W)		P
	Rated current (A)	0,6 A	P
	Manufacturer's or responsible vendor's name, trademark or identification mark		P
	Model or type reference	BG-115C	P
	Symbol 5172 of IEC 60417, for Class II appliances	Class I appliance	N
	IP number, other than IPX0:	IPX0	N
	Symbol IEC 60417-5180, for class III appliances, unless	Class I appliance	N
	the appliance is operated by batteries only		N
	Symbol IEC 60417-5036, for the enclosure of electrically-operated water valves in external hose-sets for connection of an appliance to the water mains, if the working voltage exceeds extra-low voltage		N
	Power input of heating systems, if greater than 100 W, (W) (EN 60335-2-24)		N
	Defrosting input, in W, if greater than the rated power input, (W) (EN 60335-2-24)		N
	Rated power input in Watts (EN 60335-2-24)		N
	Rated current in Amperes for compression-type appliances (EN 60335-2-24)	0,6 A	P
	Climatic class of the appliance (SN, N, ST or T) (EN 60335-2-24)	SN/N/ST/T	P
	Maximum rated input of lamps in Watts (EN 60335-2-24)	1 W	P
	Total mass of the refrigerant (EN 60335-2-24)	20 g	P
	For a single component refrigerant, at least one of the following (EN 60335-2-24) :		—
	- the chemical name		N
	- the chemical formula		N
	- the refrigerant number	R600a	P
	For a blended refrigerant, at least one of the following (EN 60335-2-24) :		—

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
	- the chemical name and nominal proportion of each of the components		N
	- the chemical formula and nominal proportion for each of the components		N
	- the refrigerant numbers and nominal proportion of each of the components		N
	- the refrigerant number of the refrigerant blend		N
	The chemical name or refrigerant number of the insulation blowing gas (EN 60335-2-24)	Cyclopentane	P
	Battery voltage for appliances which can be mains and battery operated (EN 60335-2-24)		N
	Max. power input for incorporated ice-maker, if greater than 100 W (EN 60335-2-24)		N
	Ice-makers shall be marked with the maximum permissible water level (EN 60335-2-24)		N
	Compression-type refrigerating systems appliance shall be marked with mass of the refrigerant for each separate refrigerant circuit (EN 60335-2-24)		N
	Compression-type appliances flammable which use refrigerants shall be marked the symbol ISO 7010 W021 (EN 60335-2-24)		P
	Appliances employing R-744 in a transcritical refrigeration system shall be marked with the substance of the following: (EN 60335-2-24)		—
	Warning: System contains refrigerant under high pressure. Do not tamper with the system. It must be serviced by qualified persons only.		N
	Appliances employing R-744 in a transcritical refrigeration system shall be marked with symbol ISO 7000 – 1701 (2004-01). (EN 60335-2-24)		N
	Symbol IEC 60417-5036, for the enclosure of electrically-operated water valves in external hose-sets for connection of an appliance to the water mains, if the working voltage exceeds extra-low voltage		N
7.2	Warning for stationary appliances for multiple supply		N
	Warning placed in vicinity of terminal cover		N
7.3	Range of rated values marked with the lower and upper limits separated by a hyphen	220-240 V	P
	Different rated values marked with the values separated by an oblique stroke		N
7.4	Appliances adjustable for different rated voltages, the voltage setting is clearly discernible		N
	No frequent voltage settings changes and wiring diagram fixed to the appliance		N

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
7.5	Appliances with more than one rated voltage or one or more rated voltage ranges, marked with rated input or rated current for each rated voltage or range, unless		N
	the power input is related to the arithmetic mean value of the rated voltage range		P
	Relation between marking for upper and lower limits of rated power input or rated current and voltage is clear		P
7.6	Correct symbols used		P
	 Symbol IEC 60417-5005 (2002-10) Plus; positive polarity (EN 60335-2-24)		N
	 Symbol IEC 60417-5006 (2002-10) Minus; negative polarity (EN 60335-2-24)		N
	 Symbol ISO 7010 W021 Warning: risk of fire / flammable materials (EN 60335-2-24)		P
	 Symbol ISO 7000-1701 (2004-01) Pressure (EN 60335-2-24)		N
7.7	Connection diagram fixed to appliances to be connected to more than two supply conductors and appliances for multiple supply		N
7.8	Except for type Z attachment, terminals for connection to the supply mains indicated as follows:		—
	- marking of terminals exclusively for the neutral conductor (N)	Type Y	P
	- marking of protective earthing terminals (symbol 5019 of IEC 60417)		P
	- marking not placed on removable parts		P
7.9	Marking or placing of switches which may cause a hazard		N
7.10	Indications of switches on stationary appliances and controls on all appliances by use of figures, letters or other visual means. Switch for controls too		P
	This applies also to switches which are part of a control		P
	The figure 0 indicates only OFF position, unless no confusion with the OFF position		P
	See Note (EN 60335-2-24)		P
	Devices used to start/or operational functions of the appliance, if any, shall be distinguished from other manual devices by means of shape, or size, or surface texture, or position, etc.		N
	An indication that the device has been operated shall be given by:		N

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Clause	Requirement – Test	Result – Remark	Verdict
	A tactile feedback or		N
	An audible and visual feedback		N
	A selector switch with an off-position clearly identifiable is allowed		N
	An ON/OFF switch, if any, is considered a suitable device to stop operational functions. A plug is not considered a suitable device to stop operational functions, as it can be difficult to be reached by vulnerable persons.		N
7.11	Indication for direction of adjustment of controls		P
7.12	Instructions for safe use provided		P
	If it necessary to take precautions during user maintenance, appropriate details given		N
	The instructions include the substance of the following:		P
	This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.		P
	Instructions for class III appliances state that it must only be supplied at SELV, unless		N
	it is a battery-operated appliance, the battery being charged outside the appliance		N
	Instructions for refrigerating appliances and ice-makers for camping or similar use include the substance of the following (EN 60335-2-24) :		—
	- suitable for camping use		N
	- the appliances connected to more than one source of energy		N
	- the appliances shall not be exposed to rain unless at least IPX4		N
	For ice-makers not intended to be connected to the water supply WARNING:fill with potable water only (EN 60335-2-24)		N
	For compression-type appliances which use flammable refrigerants, instructions shall include information pertaining to the installation, handling, servicing (EN 60335-2-24)		P
	Children aged from 3 to 8 years are allowed to load and unload refrigerating appliances (EN 60335-2-24)		P

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
	For compression-type appliances that use flammable refrigerants shall additionally include the substance of the warnings listed below: (EN 60335-2-24)		—
	- WARNING – Keep ventilation openings, in the appliance enclosure or in the built-in structure, clear of obstruction		P
	- WARNING – Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer		P
	- WARNING – Do not damage the refrigerant circuit		P
	- WARNING – Do not use electrical appliances inside the food storage compartments of the appliance, unless they are of the type recommended by the manufacturer		P
	Appliances which use flammable insulation blowing gases, instructions shall include information regarding disposal of the appliance (EN 60335-2-24)		P
	Instructions for ice-cream appliances shall include ingredients and max. quantity of mixtures that can be used in the appliance (EN 60335-2-24)		N
	The instructions shall state the substance of the following (EN 60335-2-24)		—
	Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.		P
	If symbol ISO 7000–1701 (2004-01) is used, its meaning shall be explained.		N
	The instructions shall include the substance of the following (EN 60335-2-24)		—
	This appliance is intended to be used in household and similar applications (list)		P
	If symbol ISO 7010–W021 is used, its meaning shall be explained (EN 60335-2-24)		N
	The instructions for refrigerating appliances and ice-makers shall include the substance of the following (EN 60335-2-24):		—
	WARNING: When positioning the appliance, ensure the supply cord is not trapped or damaged.		P
	WARNING: Do not locate multiple portable socket-outlets or portable power supplies at the rear of the appliance		P
7.12.1	Sufficient details for installation supplied		P
	For an appliance intended to be permanently connected to the water mains and not connected by a hose-set, this is stated		N
	The method for replacing illuminating lamps included, if they can be replaced by the user (EN 60335-2-24)		P

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
	Appliances designed for incorporating ice-makers, the types of ice-makers (EN 60335-2-24)		N
	Information on the installation of incorporated ice-makers as optional accessories (EN 60335-2-24)		N
	Incorporated ice-makers installed only by the manufacturer or its service agent (EN 60335-2-24)		N
	Ice makers intended to be connected to the water supply (EN 60335-2-24) :		—
	WARNING: connect to potable water supply only		N
	Instructions for fixed appliances shall include the following warning (EN 60335-2-24) :		—
	WARNING: To avoid a hazard due to instability of the appliance, it must be fixed in accordance with the instructions		N
	In appliances employing R-744 in a transcritical refrigeration system the instructions shall include the substance of the following (EN 60335-2-24) :		—
	WARNING: The refrigeration system is under high pressure. Do not tamper with it. Contact qualified service personal before disposal.		N
7.12.2	Stationary appliances not fitted with means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III, the instructions state that means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules	Supply cord and plug	N
7.12.3	Insulation of the fixed wiring in contact with parts exceeding 50 K during clause 11; instructions stating that the fixed wiring must be protected		N
7.12.4	Instructions for built-in appliances:		—
	- dimensions of space		N
	- dimensions and position of supporting means		N
	- distances between parts and surrounding structure		N
	- dimensions of ventilation openings and arrangement		N
	- connection to supply mains and interconnection of separate components		N
	- necessity to allow disconnection of the appliance from the supply after installation, unless the appliance incorporates a switch complying with 24.3		N
	- The disconnection may be achieved by having the plug accessible or by incorporating a switch in the fixed wiring in accordance with the wiring rules		N

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Clause	Requirement – Test	Result – Remark	Verdict
	Applicable to fixed appliances (EN 60335-2-24)		N
7.12.5	Replacement cord instructions, type X attachment with a specially prepared cord		N
	Replacement cord instructions, type Y attachment	Type Y	P
	Replacement cord instructions, type Z attachment		N
7.12.6	Caution in the instructions for appliances incorporating a non-self-resetting thermal cut-out that is reset by disconnection of the supply mains, if this cut-out is required to comply with the standard		N
7.12.7	The instructions for fixed appliances shall state how the appliance is to be fixed to its support.		N
7.12.8	The instructions for appliances connected to the water mains shall state		N
	- the maximum inlet water pressure, in pascals;		N
	- the minimum inlet water pressure, in pascals, if this is necessary for the correct operation of the appliance.		N
	The instructions for appliances connected to the water mains by detachable hose-sets shall state that the new hose-sets supplied with the appliance are to be used and that old hose-sets should not be reused.		N
7.12.Z1	The specific instructions related to the safe operation of this appliance (as given in 7.12 of this standard) shall be collated together in the front section of the user instructions. The height of the characters, measured on the capital letters, shall be at least 3 mm		P
	These instructions shall also be available in an alternative format, e.g. on a website		P
7.13	Instructions and other texts in an official language		P
7.14	Markings required by the standard shall be clearly legible and durable		P
	checked by inspection and by rubbing the marking by hand for 15 s with a piece of cloth soaked with water and again for 15 s with a piece of cloth soaked with petroleum spirit		P
	The height of the triangle in the symbol ISO 7010–W021 shall be at least 15 mm (EN 60335-2-24)		P
	The height of the letters used for the marking of the type of flammable blowing insulation gas shall be at least 40 mm (EN 60335-2-24)		P
7.15	Marking on a main part		P
	Marking clearly discernible from the outside, if necessary after removal of a cover		P

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Clause	Requirement – Test	Result – Remark	Verdict
	For portable appliances, cover can be removed or opened without a tool		N
	For stationary appliances, name, trademark or identification mark and model or type reference visible after installation		P
	For fixed appliances, name, trademark or identification mark and model or type reference visible after installation according to the instructions		N
	Indications for switches and controls placed on or near the components. Marking not on parts which can be positioned or repositioned in such a way that the marking is misleading		P
	Max. rated input of lamps discernible that can be replaced by the user (EN 60335-2-24)		P
	Compression-type appliances the marking of the type of flammable refrigerant and of the flammable insulation blowing gas, as well as the symbol ISO 7010–W021, shall be visible when gaining access to the motor-compressors (EN 60335-2-24)		P
7.16	Marking of a possible replaceable thermal link or fuse link clearly visible with regard to replacing the link		N
7.101	For appliances which can be battery operated, the supply terminals or terminations for connections to the battery shall be clearly indicated by symbols. (EN 60335-2-24)		N
	The positive terminal shall be indicated by symbol IEC 60417-5005 (2002-10) and the negative terminal by symbol IEC 60417-5006 (2002-10). (EN 60335-2-24)		N
7.Z101	The instructions shall contain details on the use of the appliance to ensure the safe preservation of foodstuffs (EN 60335-2-24)		P
	Manufacturers should give details on the most appropriate part in the compartment of the appliance where specific types of food shall be stored, considering the distribution of temperature that can be present in the different compartments of the appliance (EN 60335-2-24).		P
	The instructions shall include the substance of the following (EN 60335-2-24):		—
	To avoid contamination of food, please respect the following instructions (EN 60335-2-24):		—
	- Opening the door for long periods can cause a significant increase of the temperature in the compartments of the appliance.		P
	- Clean regularly surfaces that can come in contact with food and accessible drainage systems.		P

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Clause	Requirement – Test	Result – Remark	Verdict
	- Clean water tanks if they have not been used for 48 h; flush the water system connected to a water supply if water has not been drawn for 5 days.		N
	- Store raw meat and fish in suitable containers in the refrigerator, so that it is not in contact with or drip onto other food.		P
	- Two-star frozen-food compartments are suitable for storing pre-frozen food, storing or making icecream and making ice cubes.		P
	- One-, two- and three-star compartments are not suitable for the freezing of fresh food.		P
	- If the refrigerating appliance is left empty for long periods, switch off, defrost, clean, dry, and leave the door open to prevent mould developing within the appliance.		P

8	PROTECTION AGAINST ACCESS TO LIVE PARTS		P
8.1	Adequate protection against accidental contact with live parts		P
8.1.1	Requirement applies for all positions, detachable parts removed		P
	Insertion or removal of lamps, protection against contact with live parts of the lamp cap		N
	Use of test probe B and probe 18 of EN 61032: no contact with live parts		P
	Removal of lamps: protection against contact with live parts (EN 60335-2-24)		N
8.1.2	Use of test probe 13 of IEC 61032 through openings in class 0 appliances and class II appliances/ constructions: no contact with live parts		P
	Test probe 13 also applied through openings in earthed metal enclosures having a non-conductive coating: no contact with live parts		P
8.1.3	For appliances other than class II, use of test probe 41 of IEC 61032: no contact with live parts of visible glowing heating elements		N
8.1.4	Accessible part not considered live if:		—
	- safety extra-low a.c. voltage: peak value not exceeding 42.4 V		N
	- safety extra-low d.c. voltage: not exceeding 42.4 V		N
	- or separated from live parts by protective impedance		N
	If protective impedance: d.c. current not exceeding 2 mA, and		N
	a.c. peak value not exceeding 0.7 mA		N

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Clause	Requirement – Test	Result – Remark	Verdict
	- for peak values over 42.4 V up to and including 450 V, capacitance not exceeding 0,1 μ F		N
	- for peak values over 450 V up to and including 15 kV, discharge not exceeding 45 μ C		N
	- for voltages having a peak value over 15 kV, the energy in the discharge shall not exceed 350 mJ.		N
8.1.5	Live parts protected at least by basic insulation before installation or assembly:		—
	- built-in appliances		N
	- fixed appliances		N
	- appliances delivered in separate units		N
8.2	Class II appliances and constructions constructed so that there is adequate protection against accidental contact with basic insulation and metal parts separated from live parts by basic insulation only		P
	Only possible to touch parts separated from live parts by double or reinforced insulation		P

10	POWER INPUT AND CURRENT		P
10.1	Power input at normal operating temperature, rated voltage and normal operation not deviating from rated power input by more than shown in table 1	(see appended table)	N
	The permissible deviations apply for both limits of the range for appliances marked with a rated voltage range having limits differing by more than 10 % of the arithmetic mean value of the range.		N
	Appliances being operated under normal operation, user adjustable temperature controls are set to give the lowest temperature (EN 60335-2-24:2010)		N
	The power input stabilized, steady conditions established (EN 60335-2-24:2010)		N
	A period between the making and the breaking of the temperature control, or highest and lowest values of power input measured excluding starting power input but including the power input of the incorporated ice-maker, if any (EN 60335-2-24:2010)		N
10.2	Current at normal operating temperature, rated voltage and normal operation not deviating from rated current by more than shown in table 2	(see appended table)	P
	The permissible deviations apply for both limits of the range for appliances marked with a rated voltage range having limits differing by more than 10 % of the arithmetic mean value of the range.		P
	The appliance being operated under normal operation, user adjustable temperature controls are set to give the lowest temperature (EN 60335-2-24:2010)		P

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Clause	Requirement – Test	Result – Remark	Verdict
	The appliance is operated for 1 h. The max. value of the current averaged over any 5 min period is obtained. The interval shall not exceed 30s. Starting after 1 min (EN 60335-2-24:2010)		P
10.101	The power input of the defrosting system, deviation shown in table 1 (EN 60335-2-24:2010)		N
10.102	The power input of any heating system, deviation shown in table 1 (EN 60335-2-24:2010)		N

11	HEATING		P
11.1	No excessive temperatures in normal use		P
	If the winding temperatures of motor-compressors exceed the values given in table 101, compliance is checked by the test of 11.101 (EN 60335-2-24:2010)		N
	The winding temperatures of motor-compressors conforming IEC 60335-2-34 (incl. Annex AA) are not measured (EN 60335-2-24:2010)	Motor-compressors complying with IEC 60335-2-34	P
11.2	Placing and mounting of appliance as described (EN 60335-2-24:2010)		P
	- according to instructions for installation		P
	- in a test corner		P
	- test enclosure		N
11.3	Temperature rises, other than of windings, determined by thermocouples		P
	Temperature rises of windings determined by resistance method, unless		P
	the windings makes it difficult to make the necessary connections		N
11.4	Heating appliances operated under normal operation at 1.15 times rated power input:		N
11.5	Motor-operated appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage:	254,4 V	P
11.6	Combined appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage:		N
11.7	The appliances is operated until steady conditions are established (EN 60335-2-24:2010)		P
11.8	Temperature rises not exceeding values in table 3	(see appended table)	P
	During the test protective devices do not operate (EN 60335-2-24:2010)		P
	During the test sealing compound doesn't flow out (EN 60335-2-24:2010)		P
	During the test temperatures are monitored continuously (EN 60335-2-24:2010)		P

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Clause	Requirement – Test	Result – Remark	Verdict
	For (SN) and (N) class, the temperature rises not exceeding values in table 3 (EN 60335-2-24:2010)		N
	For (ST) and (T) class, the temperature rises not exceeding values in table 3 reduced by 7 K (EN 60335-2-24:2010)		P
	For motor-compressors not conforming to IEC 60335-2-34 (incl. its Annex AA), the temperatures of (EN 60335-2-24:2010)		—
	- housings of motor-compressors and		N
	- windings of motor-compressors		N
	shall not exceed the values given in Table 101		N
	For motor-compressors conforming to IEC 60335-2-34 (including its Annex AA), the temperatures are not measured (EN 60335-2-24:2010)	Motor-compressors complying with IEC 60335-2-34	P
	The temperature rise of the external enclosure of motor-operated appliances not applicable for: (EN 60335-2-24:2010)		—
	- built-in appliances		N
	- other appliances (distance from a wall ≤ 75 mm)		N
	- max. temperature rises specified in table 101		N
A	The temperature of ballast windings and their associated wiring shall not exceed the values specified in 12.4 of IEC 60598-1, when measured under the conditions stated. (EN 60335-2-24:2010)		N
11.101	If the temperatures exceed the limits, the test is carried out again (EN 60335-2-24:2010) :		—
	- winding temperatures at the end of a running cycle not higher than the limits given in table 101		N
11.102	Any defrosting system, temperature rises don't exceed the values given in 11.8 (EN 60335-2-24:2010)		N
	Manual defrosting (EN 60335-2-24:2010)		N
	Automatic defrosting (EN 60335-2-24:2010)		N
11.103	Heating systems, other than defrosting, temperature rises don't exceed the values given in 11.8 (EN 60335-2-24:2010)		N

13	LEAKAGE CURRENT AND ELECTRIC STRENGTH AT OPERATING TEMPERATURE		P
13.1	Leakage current not excessive and electric strength adequate		P
	Heating appliances operated at 1.15 times rated power input:		N

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Clause	Requirement – Test	Result – Remark	Verdict
	Motor-operated appliances and combined appliances supplied at 1.06 times rated voltage:		P
	Protective impedance and radio interference filters disconnected before carrying out the tests		N
	The test of 13.2 does not apply to battery circuit (EN 60335-2-24:2010)		N
13.2	Leakage current measured by means of the circuit described in figure 4 of IEC 60990		P
	Leakage current measurements and limits (EN 60335-2-24:2010)	(see appended table)	P
13.3	Electric strength tests according to table 4	(see appended table)	P
	No breakdown during the tests		P
	The test voltage for reinforced insulation is applied between separate circuits for battery operation and mains supply operation (EN 60335-2-24:2010)		N
	The appliance is disconnected from the supply and the insulation is immediately subjected to a voltage having a frequency of 50 Hz or 60 Hz for 1 min, in accordance with IEC 61180-1		P
	The high-voltage source used for the test is to be capable of supplying a short circuit current I_s between the output terminals after the output voltage has been adjusted to the appropriate test voltage		P
	The overload release of the circuit is not to be operated by any current below the tripping current I_r . The values of I_s and I_r are given in Table 5 for various high-voltage sources.		P

22	CONSTRUCTION		P
22.1	Appliance marked with the first numeral of the IP system, relevant requirements of IEC 60529 are fulfilled	IPX0	P
22.2	Stationary appliance: means to provide all-pole disconnection from the supply provided, the following means being available:		—
	- a supply cord fitted with a plug		P
	- a switch complying with 24.3		N
	- a statement in the instruction sheet that a disconnection incorporated in the fixed wiring is to be provided		N
	- an appliance inlet		N

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
	Single-pole switches and single-pole protective devices that disconnect heating elements from the supply mains in single-phase, permanently connected class 0I appliances and class I appliances shall be connected to the phase conductor		N
22.3	Appliance provided with pins: no undue strain on socket-outlets		N
	Applied torque not exceeding 0.25 Nm		N
	Pull force of 50N to each pin after the appliance has being placed in the heating cabinet; when cooled to room temperature the pins are not displaced by more than 1mm		N
	Each pin subjected to a tork of 0.4Nm; the pins are not rotating unless rotating does not impair compliance with the standard		N
22.4	Appliance for heating liquids and appliance causing undue vibration not provided with pins for insertion into socket-outlets		N
22.5	No risk of electric shock when touching the pins of the plug, for appliances having a capacitor with rated capacitance exceeding 0,1μF, the appliance being disconnected from the supply at the instant of voltage peak		P
	The voltage shall not exceed 34 V		P
22.6	Electrical insulation not affected by condensing water or leaking liquid		P
	Electrical insulation of Class II appliances not affected in case of a hose rupture or seal leak		P
	Thermostats are not in contact with the evaporator unless they are adequately protected. Fluids don't flow along parts such as stems and tubes of thermostats (EN 60335-2-24)		P
22.7	Compression-type appliances, including protective enclosures of a protected cooling system, using flammable refrigerants shall withstand (EN 60335-2-24)		—
	- a pressure of 3,5 times the saturated vapour pressure (70 °C)		P
	- a pressure of 5 times the saturated vapour pressure (20 °C)		P
22.8	Electrical connections not subject to pulling during cleaning of compartments to which access can be gained without the aid of a tool, and that are likely to be cleaned in normal use		N
22.9	Insulation, internal wiring, windings, commutators and slip rings not exposed to oil, grease or similar substances, unless		P
	the substance has adequate insulating properties		N

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Clause	Requirement – Test	Result – Remark	Verdict
22.10	It shall not be possible to reset voltage-maintained non-self-resetting thermal cut-outs by the operation of an automatic switching device incorporated within the appliance, if:		N
	- a non-self-resetting thermal cut-out is required by the standard, and		N
	- a voltage maintained non-self-resetting thermal cut-out is used to meet it		N
	Non-self-resetting thermal motor protectors shall have a trip-free action unless they are voltage maintained		N
	Reset buttons of non-self-resetting controls shall be located or protected so that their accidental resetting is unlikely to occur if this could result in a hazard		N
22.11	Reliable fixing of non-detachable parts that provide the necessary degree of protection against electric shock, moisture or contact with moving parts		P
	Obvious locked position of snap-in devices used for fixing such parts		P
	No deterioration of the fixing properties of snap-in devices used in parts that are likely to be removed during installation or servicing		P
	Tests as described		P
22.12	Handles, knobs etc. fixed in a reliable manner		P
	Fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible		P
	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied		N
	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied		P
22.13	Unlikely that handles, when gripped as in normal use, make the operators hand touch parts having a temperature rise exceeding the value specified for handles which are held for short periods only		P
22.14	No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance	No ragged or sharp edges	P
	No exposed pointed ends of self-tapping screws etc., liable to be touched by the user in normal use or during user maintenance	No exposed pointed ends	P
22.15	Storage hooks and the like for flexible cords smooth and well rounded	No storage hooks	N
22.16	Automatic cord reels cause no undue abrasion or damage to the sheath of the flexible cord, no breakage of conductors strands, no undue wear of contacts	No automatic cord reel	N
	Cord reel tested with 6000 operations, as specified		N

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
	Electric strength test of 16.3, voltage of 1000 V applied		N
22.17	Spacers not removable from the outside by hand or by means of a screwdriver or a spanner		N
	Not applicable to refrigeration appliances and ice-makers (EN 60335-2-24)		—
22.18	Current-carrying parts and other metal parts resistant to corrosion		P
22.19	Driving belts not used as electrical insulation		N
22.20	Direct contact between live parts and thermal insulation effectively prevented, unless material used is non-corrosive, non-hygroscopic and non-combustible		P
	Compliance is checked by inspection and, if necessary, by appropriate test		P
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless impregnated	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used	N
22.22	Appliances not containing asbestos	Asbestos not used	P
22.23	Oils containing polychlorinated biphenyl (PCB) not used	Not used	P
22.24	Bare heating elements adequately supported	No bare heating elements	N
	In case of rupture, the heating conductor is unlikely to come in contact with accessible metal parts		N
22.25	Sagging heating conductors cannot come into contact with accessible metal parts		N
22.26	The insulation between parts operating at safety extra-low voltage and other live parts complies with the requirements for double or reinforced insulation		N
22.27	Parts connected by protective impedance separated by double or reinforced insulation		N
22.28	Metal parts of Class II appliances conductively connected to gas pipes or in contact with water: separated from live parts by double or reinforced insulation		N
22.29	Class II appliances permanently connected to fixed wiring so constructed that the required degree of access to live parts is maintained after installation		N
22.30	Parts serving as supplementary or reinforced insulation fixed so that they cannot be removed without being seriously damaged, or		P
	so constructed that they cannot be replaced in an incorrect position, and so that if they are omitted, the appliance is rendered inoperable or manifestly incomplete		P

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Clause	Requirement – Test	Result – Remark	Verdict
22.31	Neither clearances nor creepage distances over supplementary and reinforced insulation reduced below values specified in clause 29 as a result of wear		P
	Neither clearances nor creepage distances between live parts and accessible parts reduced below values for supplementary insulation if wires, screws etc. become loose		P
22.32	Supplementary and reinforced insulation designed or protected against deposition of dirt or dust		P
	Supplementary insulation of natural or synthetic rubber resistant to ageing, or arranged and dimensioned so that creepage distances are not reduced below values specified in 29.2		N
	Ceramic material not tightly sintered, similar material or beads alone not used as supplementary or reinforced insulation		N
	Insulating material in which heating conductors are embedded is considered to be basic insulation and not reinforced insulation		N
	Oxygen bomb test at 70 °C for 96 h and 16 h at room temperature		N
22.33	Conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts are not in direct contact with live parts		P
	Electrodes not used for heating liquids		P
	For class II constructions, conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts, not in direct contact with basic or reinforced insulation, (or 3 layers of reinforced insulation)	Conductive liquids are not in contact with live parts	P
	For class II constructions, conductive liquids which are in contact with live parts, not in direct contact with reinforced insulation, (or 3 layers)	Conductive liquids are not in contact with live parts	P
	An air layer not used as basic or supplementary insulation in a double insulation system if likely to be bridged by leaking liquid		N
	Heating conductors having only one layer of insulation are not in direct contact with water or ice during normal use (EN 60335-2-24)		N
	NOTE : Frozen water is regarded as a conducting liquid (EN 60335-2-24)		N
22.34	Shafts of operating knobs, handles, levers etc. not live, unless the shaft is not accessible when the part is removed		P

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
22.35	If these handles, levers and knobs are of metal and if their shafts or fixings are likely to become live in the event of a failure of basic insulation, they shall be adequately covered by insulating material or their accessible parts shall be separated from their shafts or fixings by supplementary insulation		P
	This requirement does not apply to handles, levers and knobs on stationary appliances other than those of electrical components, provided they are either reliably connected to an earthing terminal or earthing contact, or separated from live parts by earthed metal		N
22.36	Handles continuously held in the hand in normal use are so constructed that when gripped as in normal use, the operators hand is not likely to touch metal parts, unless they are separated from live parts by double or reinforced insulation		N
22.37	Capacitors in Class II appliances not connected to accessible metal parts, unless complying with 22.42	Class I appliance	N
	Metal casings of capacitors in Class II appliances separated from accessible metal parts by supplementary insulation, unless complying with 22.42		N
22.38	Capacitors not connected between the contacts of a thermal cut-out		P
22.39	Lamp holders used only for the connection of lamps		N
22.40	Motor-operated appliances and combined appliances intended to be moved while in operation, or having accessible moving parts, fitted with a switch to control the motor. The actuating member of the switch being easily visible and accessible	No moving parts	N
	Unless the appliance can operate continuously, automatically or remotely without giving rise to a hazard, appliances for remote operation shall be fitted with a switch for stopping the operation of the appliance. The actuating member of this switch shall be easily visible and accessible		N
	Ice-cream appliances and ice-makers shall be fitted with an accessible switch to stop all functions of the appliance.		N
22.41	No components, other than lamps, containing mercury	Appliance not contain mercury	N
22.42	Protective impedance consisting of at least two separate components	No protective impedance	N
	Values specified in 8.1.4 not exceeded if any one of the components are short-circuited or open-circuited		N
	Resistors checked by the test of 14.1 a) in IEC 60065		N
	Capacitors checked by the tests for class Y capacitors in IEC 60384-14		N

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
22.43	Appliances adjustable for different voltages, accidental changing of the setting of the voltage unlikely to occur	Only one voltage range	N
22.44	Appliances shall not have an enclosure that is shaped or decorated like a toy		P
22.45	When air is used as reinforced insulation, clearances not reduced below the values specified in 29.1.4 due to deformation as a result of an external force applied to the enclosure		P
22.46	For programmable protective electronic circuits used to ensure compliance with the standard, the software contains measures to control the fault/error conditions in table R.1		N
	Software that contains measures to control the fault/error conditions specified in table R.2 is to be specified in parts 2 for particular constructions or to address specific hazards		N
	These requirements are not applicable to software used for functional purpose or compliance with clause 11		N
22.47	Appliances connected to the water mains withstand the water pressure expected in normal use		N
	No leakage from any part, including any inlet water hose		N
22.48	Appliances connected to the water mains constructed to prevent backsiphonage of non-potable water (tests according to IEC 61770)		N
22.49	For remote operation, the duration shall be set before the appliance can be started unless the appliance switches off automatically at the end of a cycle or it can operate continuously without giving rise to a hazard.		N
22.50	Controls incorporated in the appliance take priority over controls actuated by remote operation		N
22.51	There is a control on the appliance manually adjusted to the setting for remote operation before the appliance can be operated in this mode. There is a visual indication showing that the appliance is adjusted for remote operation		N
	These requirements not necessary on appliances that can operate as follows, without giving rise to a hazard:		—
	- continuously, or		N
	- automatically, or		N
	- remotely		N
22.52	Socket-outlets on appliances accessible to the user in accordance with the socket-outlet system used in the country in which the appliance is sold		N

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
22.101	Lampholders properly fixed (EN 60335-2-24)		P
	NOTE: Normal use includes replacement of lamps (EN 60335-2-24)		N
	Test with torque of (EN 60335-2-24) :		P
	Lampholders for a fluorescent lamp shall comply with the test of 4.4.4 i) in IEC 60598-1 (EN 60335-2-24)		N
22.102	Insulated wire heaters and their joints protected against entry of water (EN 60335-2-24)		N
	3 heating elements: 24 h immersion in water with 1% NaCl; electric strength test between heating conductor and water (1250 V 15 min) (EN 60335-2-24)		N
22.103	Appliances employing a transcritical refrigeration system shall in the high pressure side of the refrigeration system include a pressure relief device on the compressor or between the compressor and the gas cooler. There shall be no shut off devices or other components except piping between the compressor and the pressure relief device, which could introduce a pressure drop. (EN 60335-2-24)		N
	Pressure relief device installed as described (EN 60335-2-24)		N
	Test of pressure relief device as described (EN 60335-2-24)		N
22.104	Appliances with two or more temperature control devices controlling the same motor-compressor don't cause undue operation of the thermal motor-protector (EN 60335-2-24)		N
	The test is carried out separately with each combination of control devices (EN 60335-2-24)		N
22.105	Appliances which can also be battery operated, the battery circuit is insulated from live parts by double insulation or reinforced insulation (EN 60335-2-24)		N
	It is not possible to touch live parts when making the connections to the battery (EN 60335-2-24)		N
	Specified for double insulation or reinforced insulation (EN 60335-2-24)		N
22.106	The mass of flammable refrigerant shall not exceed 150g (EN 60335-2-24)		P
22.107	Compression-type appliances with a protected cooling system and which use flammable refrigerants shall be constructed to avoid any fire or explosion hazard, in the event of leakage of the cooling system (EN 60335-2-24)		N

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
22.107.1	A leakage is simulated at the most critical point of the cooling system (tested as specified) (EN 60335-2-24)		N
	The measured value shall not exceed 75% LEL of the refrigerant (table 102) and shall not exceed 50% LEL for a period exceeding 5 min. (EN 60335-2-24)		N
22.107.2	All accessible surfaces of protected cooling system components, are scratched using the tool whose tip is shown in figure 102 (EN 60335-2-24)		N
	The tool is applied using the following parameters (EN 60335-2-24) :		—
	- force at right angles to the surface to be tested $35 \text{ N} \pm 3 \text{ N}$		N
	- force parallel to the surface to be tested 250 N		N
	The appropriate part shall withstand the test of 22.7 reduced by 50% (EN 60335-2-24)		N
22.107.3	If aluminium having a purity of less than 99,5 % according to ISO 209 is used in a protected cooling system that is embedded in thermal insulation, a sample of the cooling system is subjected to the salt mist test of IEC 60068-2-11 for a test duration of 48 h. (EN 60335-2-24)		N
22.108	Compression-type appliances with unprotected cooling systems and which use flammable refrigerants, any electrical apparatus other than non-self-resetting protective devices, shall be tested and found to comply with the requirements in Annex CC for group IIA gases or the refrigerant used (EN 60335-2-24)		P
	Refrigerant leakage into food storage shall not result in an explosive atmosphere outside the food storage compartment in areas where electrical apparatus are mounted, except in those areas which contain only non-self-resetting protective devices, necessary for compliance with the requirements in Annex CC for group IIA gases or the refrigerant used (EN 60335-2-24)		P
	The measured value shall not exceed 75% LEL of the refrigerant (table 102) and shall not exceed 50% LEL for a period exceeding 5 min (EN 60335-2-24)		P
22.109	Compression-type appliance which use flammable refrigerants shall be constructed so that leaked refrigerant will not stagnate so as to cause a fire hazard in areas outside the food storage compartments where the appliance's electrical components, other than non-self-resetting protective devices necessary for compliance with clause 19, are fitted (EN 60335-2-24)		P

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
	Unless the electrical components comply least with the requirements in Annex CC for group IIA gases or the refrigerant used (EN 60335-2-24)		P
	Test: A quantity equal to $50\% \pm 1,5\text{g}$ of the refrigerant charge is injected into the considered area (EN 60335-2-24)		P
	The measured value shall not exceed 75% LEL of the refrigerant (table 102) and shall not exceed 50% LEL for a period exceeding 5 min (EN 60335-2-24)		P
22.110	Temperatures on surfaces be exposed to leakage of flammable refrigerants shall not exceed the auto-ignition temperature (table 102) reduced by 100 K (EN 60335-2-24)		P
22.111	In compression-type appliances which use flammable refrigerant: Prevention from galvanic coupling in contact points between uncoated aluminium and copper pipes (or similar metals) by positive means such as the use of insulated sleeving or spacers. (EN 60335-2-24)		P
22.112	Doors and lids of compartments in appliances with a free space shall be capable of being opened from the inside (EN 60335-2-24)		P
	The door shall open before the force exceeds 70 N (EN 60335-2-24)		P
22.113	Drawers which are only accessible after openings a door or lid shall not contain a free space (EN 60335-2-24)		N
22.114	Drawers which are accessible without opening a door and which contain a free space shall have an opening in their rear wall and be capable of being opened from the inside (EN 60335-2-24)		N
	The drawers shall open before the force exceeds 70 N (EN 60335-2-24)		N
22.115	Appliances for household use which contain compartments with a free space any door or drawer shall not be fitted with a self-latching lock (EN 60335-2-24)		N
	Key operated locks shall require two independent movements to actuate the lock or be of a type that automatically ejects the key when unlocked (EN 60335-2-24)		N
22.116	Accessible glass panels with an area having any two orthogonal dimensions exceeding 75 mm shall be made from (EN 60335-2-24)		P
	glass that breaks into small pieces when it fractures, or		P

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
	glass that is not released or dropped from its normal position when broken		N
	This requirement does not apply to glass panels inside the appliance with enhanced mechanical strength		N
	a) glass that breaks tested as specified		N
	b) glass that is not released or dropped tested as specified		N
	c) glass with enhanced mechanical strength tested as specified		N
22.Z101	Drawers of refrigerating appliances that are provided with sliding devices shall be fitted with stops to prevent them inadvertently falling out (EN 60335-2-24)		N
22.Z102	Appliances shall be constructed so that lubricants are prevented from polluting food compartments (EN 60335-2-24)		P
22.Z104	All surfaces that can get in contact with food (including “splash areas”) shall be durable, cleanable, without breaks, resistant to cracking, chipping, flaking and abrasion (EN 60335-2-24)		P
	All other surfaces shall be durable and cleanable (EN 60335-2-24)		P
	Internal angles, seams and corners that can get in contact with food shall be effectively cleanable (EN 60335-2-24)		P
	Joints that can get in contact with food shall be sealed and hygienic (EN 60335-2-24)		P
22.Z105	Any internal water dispensing system shall be (EN 60335-2-24):		—
	- accessible for cleaning; or		N
	- designed to permit manual cleaning or flushing with water or other appropriate liquid in accordance with the manufacturer's instructions.		N
	The above requirements are not applicable to self-cleaning systems or chemical dosing systems (EN 60335-2-24)		N

24	COMPONENTS		P
24.1	Components comply with safety requirements in relevant IEC standards		P
	List of components	(see appendix components)	P
	Components not tested and found to comply with relevant IEC standard for the number of cycles specified are tested in accordance with 24.1.1 to 24.1.6 (no additional tests specified in the relevant component standard are necessary other than those specified in 24.1.1 to 24.1.9)		P

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
	Components not tested and found to comply with relevant IEC standard and components not marked or not used in accordance with its marking, tested under the conditions occurring in the appliance		P
	Motor-compressors are not required to be separately tested according to IEC 60335-2-34 nor are they required to meet the requirements of IEC 60335-2-34 if they meet the requirements of this standard (EN 60335-2-24:2010)	Motor-compressor complying with IEC 60335-2-34	N
	Lampholders and starterholders that have not being tested and found to comply with the relevant IEC standard, tested as a part of the appliance and additionally according to the gauging and interchangeability requirements of the relevant IEC standard		N
	No additional tests specified for nationally standardized plugs such as those detailed in IEC/TR 60083 or connectors complying with the standard sheets of IEC 60320-1 and IEC 60309		N
24.1.1	Capacitors likely to be permanently subjected to the supply voltage and used for radio interference suppression or for voltage dividing, complying with IEC 60384-14, or		N
	tested according to annex F		N
24.1.2	Safety isolating transformers complying with IEC 61558-2-6, or		N
	tested according to annex G		N
24.1.3	Switches complying with IEC 61058-1, the number of cycles of operation being at least 10 000, or		P
	tested according to annex H		N
	The number of operations for other switches (EN 60335-2-24:2010) :		—
	- quick-freeze switches:	300	N
	- manual and semi-automatic defrost switches	300	N
	- door switches	50'000	P
	- on/off switches	300	N
	If the switch operates a relay or contactor, the complete switching system is subjected to the test		N
	If the switch only operates a motor starting relay complying with IEC 60730-2-10 with the number of cycles of a least 10 000 as specified, the complete switching system need not be tested		N
24.1.4	Automatic controls complying with IEC 60730-1 with relevant part 2		P
	The number of cycles of operation being:		—
	- thermostats:	10'000	N

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
	- temperature limiters:	1'000	N
	- self-resetting thermal cut-outs:	300	N
	- non-self-resetting thermal cut-outs:	30	N
	- voltage maintained non-self-resetting thermal cut-outs:	1'000	N
	- other non-self-resetting thermal cut-outs:	30	N
	- timers:	3'000	N
	- energy regulators:	10'000	N
	- self-resetting thermal cut-outs which may influence the test results of 19.101 and which are not short-circuited during this test: (EN 60335-2-24:2010)	100'000	N
	- thermostats which control the motor-compressor: (EN 60335-2-24:2010)	100'000	P
	- motor-compressor starting relays: (EN 60335-2-24:2010)	100'000	P
	- automatic thermal motor-protectors for motor-compressors of the hermetic and semi-hermetic type: (EN 60335-2-24:2010)	the number of operations during the locked-rotor test (but minimum 2000)	P
	- manual reset thermal motor-protectors for motor-compressors of the hermetic and semi-hermetic type: 50 (EN 60335-2-24:2010)	50	N
	- other automatic thermal motor-protectors: except for fan-motors (EN 60335-2-24:2010)	2000	N
	- other manual test thermal motor protectors: (EN 60335-2-24:2010)	30	N
	- for pressure relief devices of the bursting disc type, three separate samples of the appropriate parts of the refrigeration system are tested and the bursting disc shall operate in the same way for each sample tested (EN 60335-2-24:2010)		N
	- electrical pressure relief devices for automatic operation: (EN 60335-2-24:2010)	30'000	N
	- electrical pressure relief devices for manual reset: (EN 60335-2-24:2010)	300	N
	The number of cycles for controls operating during clause 11 need not be declared, if the appliance meets the requirements of this standard when they are short-circuited		N
	Thermal motor protectors are tested in combination with their motor under the conditions specified in Annex D		N
	For water valves containing live parts and that are incorporated in external hoses for connection of an appliance to the water mains, the degree of protection declared for subclause 6.5.2 of IEC 60730-2-8 is IPX7		N

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
	Electrical pressure relief devices shall comply with IEC 60730-2-6 and shall be of type 2B and type 2N, shall have a trip free mechanism of type 2E and the deviation and drift shall not exceed + 0%.		N
24.1.5	Appliance couplers complying with IEC 60320-1		N
	However, appliances classified higher than IPX0, the appliance couplers complying with IEC 60320-2-3		N
	The relevant standard for interconnection couplers is IEC 60320-2-2		N
24.1.6	Small lamp holders similar to E10 lampholders complying with IEC 60238, the requirements for E10 lampholders being applicable		P
24.1.7	If the remote operation of the appliance is via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is IEC 62151		N
24.1.8	The relevant standard for thermal links is IEC 60691. Thermal links that do not comply with IEC 60691 are considered to be an intentionally weak part for the purposes of Clause 19		N
24.1.9	Contactors and relays, other than motor starting relays, tested as part of the appliance. They are also tested in accordance with Clause 17 of IEC 60730-1. Number of cycles of operations defined in 24.1.4		P
24.2	No switches or automatic controls in flexible cords		P
	No devices causing the protective device in the fixed wiring to operate in the event of a fault in the appliance		N
	No thermal cut-outs that can be reset by soldering		P
24.3	Switches intended for all-pole disconnection of stationary appliances are directly connected to the supply terminals and having a contact separation in all poles, providing full disconnection under overvoltage category III conditions		N
	Voltage selection switches used in appliances for camping or similar use shall have a contact separation in all poles that provide full disconnection from the supply under overvoltage category III conditions (EN 60335-2-24:2010)		N
24.4	Plugs and socket-outlets for extra-low voltage circuits and heating elements, not interchangeable with plugs and socket-outlets listed in IEC 60083 or IEC 60906-1 or with connectors and appliance inlets complying with the standard sheets of IEC 60320-1		N
24.5	Capacitors in auxiliary windings of motors marked with their rated voltage and capacitance and used accordingly		P

EN 60335-2-24			
Clause	Requirement – Test	Result – Remark	Verdict
	Voltage across capacitors in series with a motor winding does not exceed 1,1 times rated voltage, when the appliance is supplied at 1,1 times rated voltage under minimum load		P
	For starting capacitors, the voltage across the capacitors shall not exceed 1,3 times the rated voltage of the capacitor at $1.1 \times U_n$ (EN 60335-2-24:2010)		N
24.6	Working voltage of motors connected to the supply mains and having basic insulation that is inadequate for the rated voltage of the appliance, not exceeding 42V.		N
	In addition, the motors are complying with the requirements of Annex I		N
24.7	Detachable hose-sets for connection of appliances to the water mains comply with IEC 61770		N
	Appliances intended to be permanently connected to the water mains not connected by a detachable hose-set		N
24.8	Motor running capacitors in appliances for which 30.2.3 is applicable and that are permanently connected in series with a motor winding, not causing a hazard in event of a failure		P
	One or more of the following conditions are to be met		—
	- class P2 according to IEC 60252-1		P
	- housed within a metallic or ceramic enclosure		N
	- the distance of separation of the outer surface to adjacent non-metallic parts exceeds 50 mm		N
	- adjacent non-metallic parts within 50 mm withstand the needle-flame test of Annex E		N
	- adjacent non-metallic parts within 50 mm classified as at least V-1 according to IEC 60695-11-10		N
24.101	Lampholders shall be of the insulated type (EN 60335-2-24:2010)		P
24.102	The discharge capacity of the pressure relief device shall be such that it is able to release an adequate amount of refrigerant so that the pressure during the release of the refrigerant does not increase beyond the pressure setting of the pressure relief device even if the compressor is operating (EN 60335-2-24:2010)		N

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10.1	TABLE: Power input deviation					N
Input deviation of/at:	P rated (W)	P measured (W)	dP	Required dP	Remark	

10.2	TABLE: Current deviation					P
Current deviation of/at:	I rated (A)	I measured (A)	dI	Required dI	Remark	
BG-115C with comp. model B35CA	0,60	0,57	-5,0%	≤+20%	230 V 50 Hz	
BG-115C with comp. model B35CA	--	0,60	--	--	220 V 50 Hz (Reference)	
BG-115C with comp. model B35CA	--	0,55	--	--	240 V 50 Hz (Reference)	
--						

10.101	TABLE: Power input deviation					N
Input deviation of/at:	P rated (W)	P measured (W)	dP	Required dP	Remark	
N						

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11.8	TABLE: Heating test, thermocouples on model BG-115C refrigerating with comp. model B35CA				P	
	t1 (°C) :	43,0				
	t2 (°C) :	43,0				
	test voltage (V) :	254,4				
temperature rise Dt of part/at:		Dt (K)			required Dt (K)	
Compressor top		42,4			107	
Power cord		5,3			43	
Power cord sheath		4,0			28	
Internal wire		9,3			43	
LED cover		0,9°C			For clause 30,1	
X2 capacitor		8,4			53	
Door switch		1,0°C			53	
LED PCB		2,1			113	
Metal enclosure		4,3			53	
Test corner		2,8			53	
	Winding temperature rise measurements :					
temperature rise Dt of winding:		R ₁ (Ω)	R ₂ (Ω)	Dt (K)	required Dt (K)	insulation class
Winding of transformer(max. result)		2024	2323	41,0	88	B
--						

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13.2	TABLE: Leakage current, BG-115C with comp. model B35CA		P
	Heating appliances: 1.15 x rated input.....:		
	Motor-operated and combined appliances: 1.06 x rated voltage.....:	254,4 V	
Leakage current between		I (mA)	Max. allowed I (mA)
Any pole of the supply and accessible metal parts intended to be connected to protective earth		0,28	3,5
Any pole of the supply and metal foil is in contact with accessible surfaces of insulating material and metal parts not intended to be connected to protective earth		0,03	0,35 peak
L1/L2/L3 (Switches a, b and c in ON position)		N	N
L1 (Switch a is opened)		N	N
L2 (Switch b is opened)		N	N
L3 (Switch c is opened)		N	N

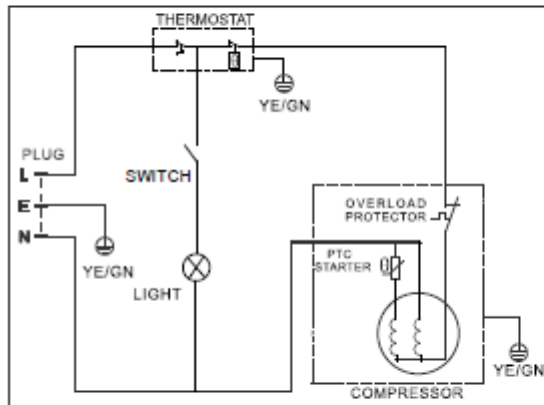
13.3	TABLE: Electric strength		P
Test voltage applied between:		Voltage (V)	Breakdown (Yes/No)
Live part and accessible parts(basic insulation)		500	No
Live part and accessible parts(basic insulation)		1000	No
Live part and accessible parts(reinforced insulation)		1750	No
Intermediate metal and accessible parts(supplementary insulation)		3000	No

24.1	TABLE: Components				P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
Compressor (alter-)	HuaYi Compressor(Jingzho u)Co., Ltd.	B35CA	220-240V~, 50Hz, R600a	IEC 60335-1 IEC 60335-2-34	VDE 40026266
Lamp holder (alter-)	Shenzhen Goodpal Electronics Co., Ltd.	707,LHE14	250 V 50Hz; 2 A; E14;T140;	IEC/EN 60238	TUV-SUD B 15 04 62585 010 N8A 15 04 62582 011

EN 60335-2-24

Remarks

COMPRESSOR REFRIGERATOR

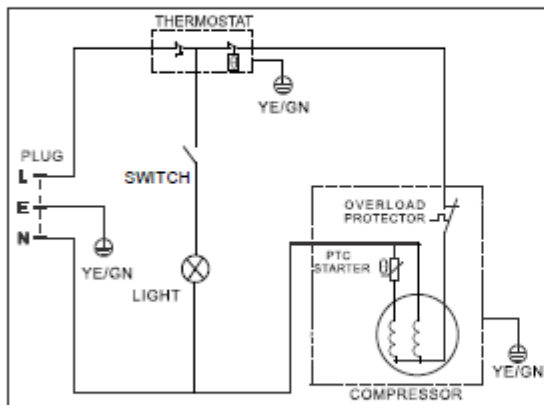


MODEL	BG-115C
VOLUME	115L
RATED VOLTAGE	220-240V~ 50Hz
RATED CURRENT	0.6A
REFRIGERANT	R600a(20g)
LAMP POWER	1W
CLIMATE CLASS	N,SN,ST,T
FOAMING GAS	cyclopentane

Da Pan Electric Appliance Ind. Co., Ltd.
No.18 Xinhui Road, Daliang, Shunde, Foshan,Guangdong, China.

MADE IN CHINA

COMPRESSOR REFRIGERATOR



MODEL	BG-93C
VOLUME	91L
RATED VOLTAGE	220-240V~ 50Hz
RATED CURRENT	0.6A
REFRIGERANT	R600a(24g)
LAMP POWER	1W
CLIMATE CLASS	N,SN,ST,T
FOAMING GAS	cyclopentane

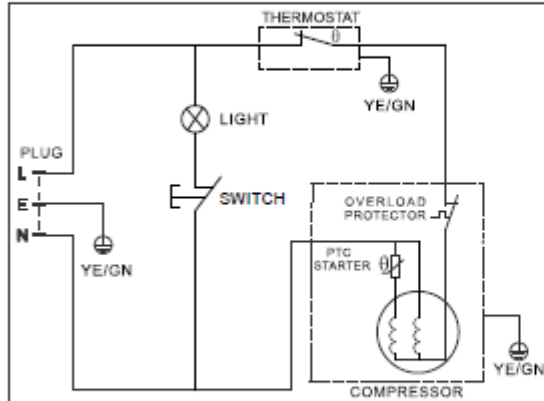
Da Pan Electric Appliance Ind. Co., Ltd.
No.18 Xinhui Road, Daliang, Shunde, Foshan,Guangdong, China.

MADE IN CHINA

EN 60335-2-24

Remarks

COMPRESSOR REFRIGERATOR

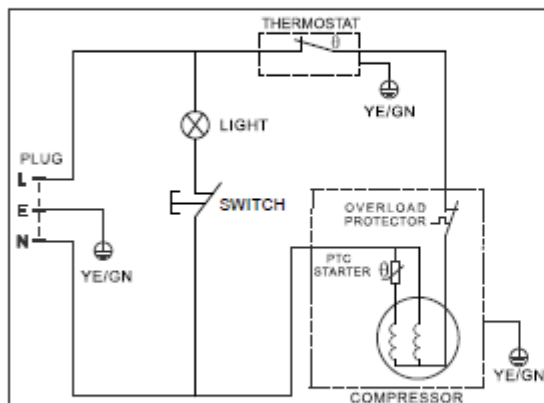


MODEL	BG-85C
VOLUME	80L
RATED VOLTAGE	220-240V~ 50Hz
RATED CURRENT	0.6A
REFRIGERANT	R600a(20g)
LAMP POWER	1W
CLIMATE CLASS	N,SN,ST,T
FOAMING GAS	cyclopentane

Da Pan Electric Appliance Ind. Co., Ltd.
No.18 Xinhui Road, Daliang, Shunde, Foshan,Guangdong, China.

MADE IN CHINA

COMPRESSOR REFRIGERATOR



MODEL	BG-49C
VOLUME	46L
RATED VOLTAGE	220-240V~ 50Hz
RATED CURRENT	0.6A
REFRIGERANT	R600a(20g)
LAMP POWER	1W
CLIMATE CLASS	N,SN,ST,T
FOAMING GAS	cyclopentane

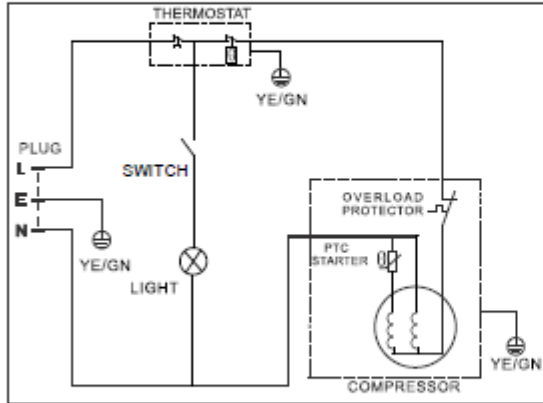
Da Pan Electric Appliance Ind. Co., Ltd.
No.18 Xinhui Road, Daliang, Shunde, Foshan,Guangdong, China.

MADE IN CHINA

EN 60335-2-24

Remarks

COMPRESSOR REFRIGERATOR

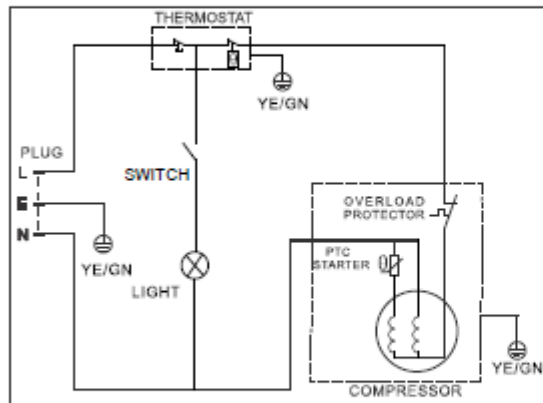


MODEL	BG-82C
VOLUME	80L
RATED VOLTAGE	220-240V~ 50Hz
RATED CURRENT	0.6A
REFRIGERANT	R600a(21g)
LAMP POWER	1W
CLIMATE CLASS	N,SN,ST,T
FOAMING GAS	cyclopentane

Da Pan Electric Appliance Ind. Co., Ltd.
No.18 Xinhui Road, Daliang, Shunde, Foshan,Guangdong, China.

MADE IN CHINA

COMPRESSOR REFRIGERATOR



MODEL	BG-70C
VOLUME	67L
RATED VOLTAGE	220-240V~ 50Hz
RATED CURRENT	0.6A
REFRIGERANT	R600a(21g)
LAMP POWER	1W
CLIMATE CLASS	N,SN,ST,T
FOAMING GAS	cyclopentane

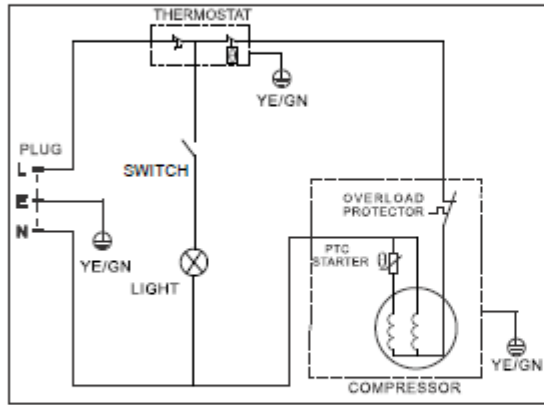
Da Pan Electric Appliance Ind. Co., Ltd.
No.18 Xinhui Road, Daliang, Shunde, Foshan,Guangdong, China.

MADE IN CHINA

EN 60335-2-24

Remarks

COMPRESSOR REFRIGERATOR

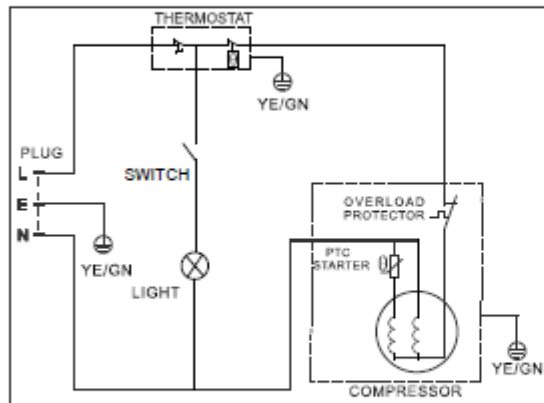


MODEL	BG-58C
VOLUME	57L
RATED VOLTAGE	220-240V~ 50Hz
RATED CURRENT	0.6A
REFRIGERANT	R600a(21g)
LAMP POWER	1W
CLIMATE CLASS	N,SN,ST,T
FOAMING GAS	cyclopentane

Da Pan Electric Appliance Ind. Co., Ltd.
No.18 Xinhui Road, Daliang, Shunde, Foshan,Guangdong, China.

MADE IN CHINA

COMPRESSOR REFRIGERATOR



MODEL	BG-48C
VOLUME	46L
RATED VOLTAGE	220-240V~ 50Hz
RATED CURRENT	0.6A
REFRIGERANT	R600a(21g)
LAMP POWER	1W
CLIMATE CLASS	N,SN,ST,T
FOAMING GAS	cyclopentane

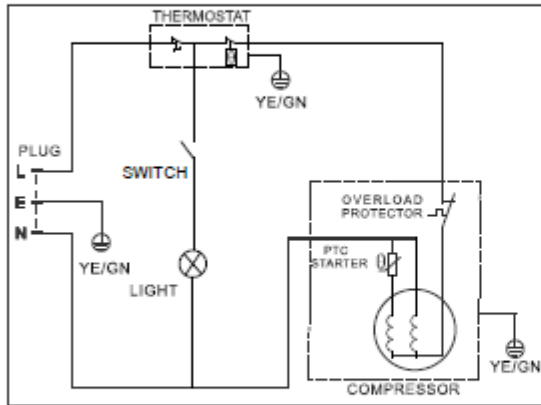
Da Pan Electric Appliance Ind. Co., Ltd.
No.18 Xinhui Road, Daliang, Shunde, Foshan,Guangdong, China.

MADE IN CHINA

EN 60335-2-24

Remarks

COMPRESSOR REFRIGERATOR

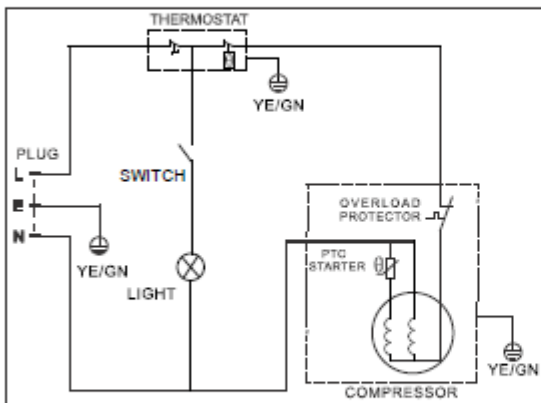


MODEL	BG-53C
VOLUME	54L
RATED VOLTAGE	220-240V~ 50Hz
RATED CURRENT	0.6A
REFRIGERANT	R600a(21g)
LAMP POWER	1W
CLIMATE CLASS	N,SN,ST,T
FOAMING GAS	cyclopentane

Da Pan Electric Appliance Ind. Co., Ltd.
No.18 Xinhui Road, Daliang, Shunde, Foshan,Guangdong, China.

MADE IN CHINA

COMPRESSOR REFRIGERATOR



MODEL	BG-43C
VOLUME	47L
RATED VOLTAGE	220-240V~ 50Hz
RATED CURRENT	0.6A
REFRIGERANT	R600a(21g)
LAMP POWER	1W
CLIMATE CLASS	N,SN,ST,T
FOAMING GAS	cyclopentane

Da Pan Electric Appliance Ind. Co., Ltd.
No.18 Xinhui Road, Daliang, Shunde, Foshan,Guangdong, China.

MADE IN CHINA

EN 60335-2-24
Remarks



BG-115C



EN 60335-2-24
Remarks



Important

1. The test report is invalid without the official stamp of CVC;
2. Any part photocopies of the test report are forbidden without the written permission from CVC;
3. The test report is invalid without the signatures of Approval and Reviewer;
4. The test report is invalid if altered;
5. Objections to the test report must be submitted to CVC within 15 days;
6. Generally, commission test is responsible for the tested samples only;
7. As for the test result, “—”or “N” means “not applicable” , “ / ”means “not test”“P” means “pass” and “F” means “fail”.

Address: No.3, Tiantai 1st Road, Kaitai Avenue, Science City, Guangzhou,
Guangdong, China

Post Code: 510663

Tel: 020 32293888

Fax: 020 32293889

E-mail: office@cvc.org.cn

<http://www.cvc.org.cn>



Vkan Certification & Testing Co., Ltd.

Certificate of Compliance

No. EMC19-4145-M2

About the EMC Directive 2014/30/EU

Applicant:

Da Pan Electric Appliance Ind. Co., Ltd.
No. 18 Xinhui Road, Daliang, Shunde,
Foshan, Guangdong, China

Product/Material:

Compressor Refrigerator

Trade Mark:

—

Model/Type:

See appendix

Rated Specification:

220-240V~ 50Hz Rated input:0,6A

Tested According to:

EN 55014-1:2017, EN 55014-2:2015,
EN IEC 61000-3-2:2019, EN 61000-3-3:2013

Referred to the
Technical Report:

RZCE2019-0121EMC-M2

This certificate of conformity is based on an evaluation of a tested sample of the product mentioned above. It does not imply assessment of series-production of the product. The applicant should hold the whole technical report at the disposal of the competent authority.

Provided it is also confirmed with any other EU directives, the manufacturer or its authorized European representative may draw up an EC/EEA Declaration of Conformity and affix the CE-mark shown below to each conforming product.



中国认可
国际互认
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TESTING
CNAS L0095



Deutsche
Akkreditierungsstelle
D-PL-17198-01-00



Signed by:

Xie haojiang

Xie haojiang

Director of CVC

Date of Issue: Apr. 30, 2020

Vkan Certification & Testing Co., Ltd.

No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, 510663, P.R. China

Tel.: +86-20-32293888, Fax: +86-20-32293889. E-mail: office@cvc.org.cn

www.cvc.org.cn

LTC-C-0006-EMC-G2



Vkan Certification & Testing Co., Ltd.

Certificate of Compliance

APPENDIX to C.O.C No. EMC19-4145-M2

Model/Type:

BG-115, BC-49, BC-93, BC-93A, SC-93, BG-93,
BC-85, BC-85A2, BG-85, BG-85A2, CW-85,
CW-85A2, BD-70, BC-65, CW-65, CW-65SS,
BG-65, BG-65SS, BC-50, CW-50, BG-50, BD-36,
BG-36, BC-35, CW-35, BG-35, BG-49, SC-49,
CW-49, BC-20, BG-20, BC-35A, BG-35A, BG-115A,
BG-49K, BG-49K1, BG-43, BG-53, BG-48, BG-58,
BG-70, BG-82, BG-115C, BG-93C, BG-85C, BG-49C,
BG-70C, BG-82C, BG-48C, BG-58C, BG-53C, BG-43C



中国认可
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检测
TESTING
CNAS L0095



Deutsche
Akkreditierungsstelle
D-PL-17198-01-00



Signed by:

Xie haojiang

Director of CVC

Date of Issue: Apr. 30, 2020

Vkan Certification & Testing Co., Ltd.

No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, 510663, P.R. China

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LTC-C-0006-EMC-G2



Vkan Certification & Testing Co., Ltd.

Certificate of Compliance

No. LVD19-7831-M2

About the Low Voltage Directive 2014/35/EU

Applicant:

Da Pan Electric Appliance Ind.Co., Ltd.
No.18 Xinhui Road, Daliang, Shunde,
Foshan, Guangdong, China

Product/Material:

Compressor Refrigerator

Trade Mark:

—

Model/Type:

See appendix

Rated Specification:

220-240V~ 50Hz Rated current input:0,6A R600a

Tested According to:

EN 60335-1:2012+AC:2014+A11:2014+A13:2017,
EN 60335-2-24:2010+A1:2019+A2:2019, EN 62233:2008

**Referred to the
Technical Report:**

RZCE2019-0121LVD-M2, RZCE2019-0121EMF-M2

This certificate of conformity is based on an evaluation of a tested sample of the product mentioned above. It does not imply assessment of series-production of the product. The applicant should hold the whole technical report at the disposal of the competent authority.

Provided it is also confirmed with any other EU directives, the manufacturer or its authorized European representative may draw up an EC/EEA Declaration of Conformity and affix the CE-mark shown below to each conforming product.



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国际互认
检测
TESTING
CNAS L0065



Signed by:

Xie haojiang

Xie haojiang

Director of CVC

Date of Issue: Apr. 30, 2020

Vkan Certification & Testing Co., Ltd.

No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, 510663, P.R. China

Tel.: +86-20-32293888, Fax: +86-20-32293889. E-mail: office@cvc.org.cn

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LTC-C-0001-LVD-G2



Vkan Certification & Testing Co., Ltd.

Certificate of Compliance

APPENDIX to C.O.C No. LVD19-7831-M2

Model/Type:

BG-115, BC-49, BC-93, BC-93A, SC-93, BG-93,
BC-85, BC-85A2, BG-85, BG-85A2, CW-85,
CW-85A2, BD-70, BC-65, CW-65, CW-65SS,
BG-65, BG-65SS, BC-50, CW-50, BG-50, BD-36,
BG-36, BC-35, CW-35, BG-35, BG-49, SC-49,
CW-49, BC-20, BG-20, BC-35A, BG-35A,
BG-115A, BG-49K, BG-49K1, BG-43, BG-53, BG-48,
BG-58, BG-70, BG-82, BG-115C, BG-93C,
BG-85C, BG-49C, BG-70C, BG-82C, BG-48C,
BG-58C, BG-53C, BG-43C



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TESTING
CNAS L0095



Deutsche
Akkreditierungsstelle
D-PL-17198-01-00



Signed by:

Xie haojiang
Director of CVC

Date of Issue: Apr. 30, 2020

Vkan Certification & Testing Co., Ltd.
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www.cvc.org.cn

LTC-C-0001-LVD-G2