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EMC TEST REPORT

Application No:	UC2307066302-E
Applicant:	FOSHAN SHUNDE ZEALUX ELECTRICAL APPLIANCES CO., LTD.
Address of Applicant:	No.2-8, No.9 Road, Science and Technology Zone, Xingtan Industrial Park, Xingtan Town, Shunde District, Foshan City, Guangdong Province, China
Product Description:	FAN COIL
Model No.:	ZFC030
Series Model No.:	ZFC020, AFC020, AFC030
Standards:	EN IEC 55014-1:2021
	EN IEC 55014-2:2021
	EN IEC 61000-3-2:2019+A1:2021
	EN 61000-3-3:2013+A1:2019+A2:2021
Date of Receipt:	2023-07-06
Date of Test:	2023-07-06 to 2023-07-20
Date of Issue:	2023-07-21
Test Result:	Pass*

^{*} In the configuration tested, the EUT (Equipment Under Test) complied with the standards specified above.

For and on behalf of Guangdong UC Testing Lab.

Test By:

Jerry Liang Project Manager Approval By:

Aaron Zhou

Lab Manager

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.





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1 Test Summary

Electromagnetic Interfe	rence (EMI)			
Test	Test Requirement	Test Method	Class / Severity	Result
Conducted Emission on AC (150kHz to 30MHz)	EN IEC 55014-1:2021	EN IEC 55014-1:2021	Table 1 Columns 2&3	PASS
Disturbance Power (30MHz to 300MHz)	EN IEC 55014-1:2021	EN IEC 55014-1:2021 EN IEC 55014-1:2021		PASS
Discontinuous Disturbance (150kHz-30MHz)	EN IEC 55014-1:2021	EN IEC 55014-1:2021	Table 7 & Table 8	PASS**
Harmonic Emission on AC	EN IEC 61000-3-2: 2019+A1:2021	EN IEC 61000-3-2: 2019+A1:2021	Class A	PASS**
Flicker Emission on AC	EN 61000-3-3:2013+ A1:2019+A2:2021	EN 61000-3-3:2013+ A1:2019+A2:2021	Clause 5 of EN 61000-3-3	PASS
Electromagnetic Suscep	otibility(EMS)			
Test	Test Requirement	Test Method	Class / Severity	Result
Electrostatic Discharge (ESD)	EN IEC 55014-2:2021	EN 61000-4-2:2009	Contact ±4 kV Air ±8 kV	PASS
Electrical Fast Transients (EFT) on AC	EN IEC 55014-2:2021	EN 61000-4-4:2012	AC ± 0.5kV & ± 1.0kV	PASS
Surge Immunity on AC	EN IEC 55014-2:2021	EN 61000-4-5:2014+ A1:2017	±1kV D.M.†	PASS
Injected Currents on AC (150kHz to 230MHz)	EN IEC 55014-2:2021	EN 61000-4-6:2014	3V r.m.s (emf), 80% 1kHz Amp. Mod.	PASS
Voltage Dips and Interruptions on AC	EN IEC 55014-2:2021	EN IEC 61000-4-11:2020	$0 \% U_{T}^{*}$ for 0.5per $40 \% U_{T}^{*}$ for 10per $70 \% U_{T}^{*}$ for 25per	PASS

Remark:

- * U_T is the nominal supply voltage.
- † D.M. Differential Mode.
- → Disturbance Power test is applied to the EUT only since:
 - 1) All the measurement result are lower than the applicable limits (Table 2a) minus the corresponding margin (Table 2b); or the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector.
 - 2) No clock frequency or oscillator frequency of the EUT is more than or equal to 30 MHz.
 - **: Please refer to Sections 5.3 & 5.4 of this report for details.



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3 General Information

3.1 Client Information

Applicant: FOSHAN SHUNDE ZEALUX ELECTRICAL APPLIANCES CO., LTD.

Address of Applicant: No.2-8, No.9 Road, Science and Technology Zone, Xingtan Industrial Park,

Xingtan Town, Shunde District, Foshan City, Guangdong Province, China

Manufacturer: FOSHAN SHUNDE ZEALUX ELECTRICAL APPLIANCES CO., LTD.

Address of Manufacturer: No.2-8, No.9 Road, Science and Technology Zone, Xingtan Industrial Park,

Xingtan Town, Shunde District, Foshan City, Guangdong Province, China

3.2 General Description of E.U.T.

Product Description: FAN COIL
Test Model No.: ZFC030

Series Model No.: ZFC020, AFC020, AFC030

Rating: 220-240V~, 50Hz,

ZFC020, AFC020: 36W, ZFC030, AFC030: 56W

Remark for this report:

According to the declaration of the applicant, all models were identical, except for rated power and outer decoration. Detail were shown as below:

Model	Rated power
ZFC020	2011
AFC020	36W
ZFC030	E0/1/
AFC030	56W

Therefore only to one model **ZFC030** was tested as client's requirement.

3.3 Details of E.U.T.

Power Supply: AC 230V, 50Hz

Power Cable: 1.8m x 3 wires unscreened AC mains cable.

3.4 Description of Support Units

The EUT has been tested as an independent unit.

3.5 Deviation from Standards

N/A

3.6 Abnormalities from Standard Conditions

N/A

3.7 Monitoring of EUT for All Immunity Test

Working.



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3.8 Test Location

All tests were performed at:
Guangzhou Customs District Technology Center
No.3, Desheng East Road, Shunde Daliang, Foshan, Guangdong, China

3.9 Test Facility

USA	FCC Listed Lab No. 597719
China	CNAS NO.L2322



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4 Equipment Used during Test

		List of Tes	t Site and Instr	uments		
Test	Site					
No.	Asset No.	Model/Type	Manufacturer	Description	Cal. due date	Used
1	201044CK0128-2	NP-HJ2	Changzhou Nanping	Shielding Room	2023.12.27	V
2	/	10m*6m*3m	/	Measurement Room	/	√
Test	Instrument					
No.	Asset No.	Model/Type	Manufacturer	Description	Cal. due date	Used
1	201644CK0028	ESR3	Rohde & Schwarz	EMI Receiver	2023.07.26	V
2	201044CK0123	L3-32	PMM	LISN	2023.12.16	$\sqrt{}$
3	201644CK0028-1	ESH3-Z2	Rohde & Schwarz	10dB Pulse Limiter	2023.07.26	√
4	201644CK0026	MDS-21	Rohde & Schwarz	Power Absorbing Clamp	2023.12.14	V
5	202044CK0016	DDA55+	AFJ	Click Analyser	2023.07.26	$\sqrt{}$
6	0944BK2166SD	WT3000-HAR	YOKOGAWA	Precision Power Analyzer	2023.12.27	V
7	1544BK0009SD	SIII-45KVA	Sophpower	Programmable Liner AC Source	2023.12.27	V
8	202144CK0002	EDS30V	3ctest	ESD Generator	2023.12.18	$\sqrt{}$
9	1444BK0017SD	NSG3060 (FTM3425)	Teseq	EFT/Burst Module	2023.07.22	√
10	1444BK0017SD	NSG3060 (CWM3650)	Teseq	Combination Wave Module	2023.07.22	V
11	1344BK0015SD	NSG4070	Teseq	Injected Current Test System	2023.12.16	V
12	1344BK0020SD	ATN 6075	Teseq	6dB Attenuator	2023.12.16	√
13	1344BK0018SD	CDN M532	Teseq	CDN	2023.12.16	√

Remark

- 1. The Symbol " $\sqrt{}$ " means the spot was used in the test.
- 2. During the testing, all used spots and instruments were in the value calibrating date.



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5 Electromagnetic Interference Test Results

5.1 Conducted Emissions on Mains Terminals, 150 kHz to 30MHz

Test Requirement: EN IEC 55014-1
Test Method: EN IEC 55014-1
Frequency Range: 150KHz to 30MHz
Detector: Peak for pre-scan

Quasi-Peak or (and) Average for final measurement

Limit:

Frequency range MHz	At mains terminals dB (μV)			
IVII IZ	Quasi-peak	Average		
0.15 to 0.50	66 to 56	59 to 46		
0.50 to 5	56	46		
5 to 30	60	50		

Note1: The limit decreases linearly with the logarithm of the frequency in the range $0.15\ \text{MHz}$ to $0.50\ \text{m}$

MHz.

Note2: The lower limit is applicable at the transition frequency.

5.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23 °C Humidity: 53 % RH Atmospheric Pressure: 1010 mbar

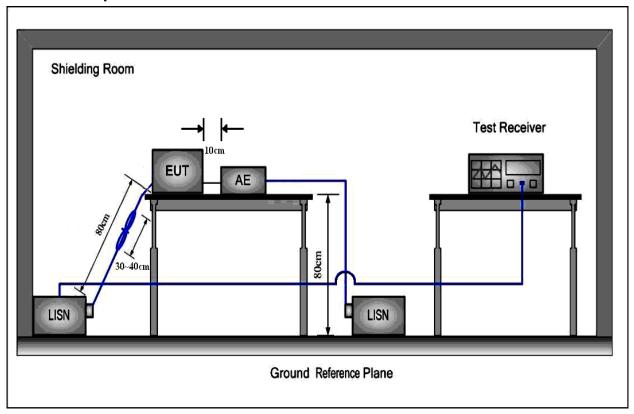
Test Mode: a: Test the EUT in motor running mode.



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5.1.2 Test Setup and Procedure



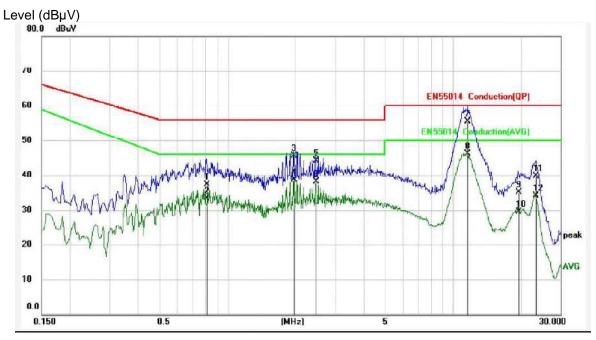


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5.1.3 Measurement Data

Live Line



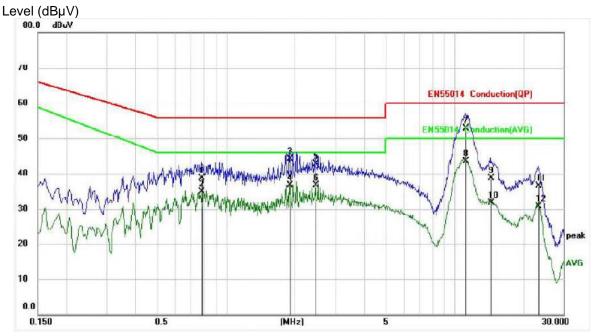
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.8100	9.87	27.44	37.31	56.00	-18.69	QP	Р
2	0.8100	9.87	23.44	33.31	46.00	-12.69	AVG	Р
3	1.9620	9.87	35.54	45.41	56.00	-10.59	QP	Р
4	1.9620	9.87	28.88	38.75	46.00	-7.2 5	AVG	Р
5	2.4500	9.87	34.17	44.04	56.00	-11.96	QP	P
6	2.4500	9.87	28.15	38.02	46.00	-7.98	AVG	P
7	11.6140	9.92	45.63	55.55	60.00	-4.45	QP	Р
8	11.6140	9.92	36.27	46.19	50.00	-3.81	AVG	Р
9	19.4980	9.98	25.04	35.02	60.00	-24.98	QP	Р
10	19.4980	9.98	19.47	29.45	50.00	-20.55	AVG	Ρ
11	23.3180	10.00	29.75	39.75	60.00	-20.25	QP	Р
12	23.3180	10.00	24.08	34.08	50.00	-15.92	AVG	Р



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Neutral Line



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.7820	9.87	28.82	38.69	56.00	-17.31	QP	Р
2	0.7820	9.87	24.94	34.81	46.00	-11.19	AVG	Р
3	1.8900	9.87	34.22	44.09	56.00	-11.91	QP	Р
4	1.8900	9.87	26.84	36.71	46.00	-9.29	AVG	P
5	2.4500	9.87	32.77	42.64	56.00	-13.36	QP	Р
6	2.4500	9.87	26.83	36.70	46.00	-9.30	AVG	Р
7	11.1940	9.92	43.08	53.00	60.00	-7.00	QP	Р
8	11.1940	9.92	33.52	43.44	50.00	-6.56	AVG	Р
9	14.3660	9.94	28.83	38.77	60.00	-21.23	QP	Р
10	14.3660	9.94	21.84	31.78	50.00	-18.22	AVG	Р
11	23.2580	10.00	26.52	36.52	60.00	-23.48	QΡ	Р
12	23.2580	10.00	20.74	30.74	50.00	-19.26	AVG	Р



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5.2 Disturbance Power Test, 30MHz to 300MHz

Test Requirement: EN IEC 55014-1
Test Method: EN IEC 55014-1
Frequency Range: 30MHz to 300MHz
Detector: Peak for pre-scan

Quasi-Peak and Average at frequency with maximum peak

(120kHz resolution bandwidth)

Limit:

Table 2a, Columns 2&3 for household and similar appliances

Disturbance power limits for the frequency range 30 MHz to 300 MHz

Frequency range MHz	At mains terminals (dB (pW))			
	Quasi-peak	Average		
30 to 300	45 to 55	35 to 45		
Note1: The limit increases linearly with the frequency in the range 30 MHz to 300 MHz.				

Table 2b, Columns 2&3 for household and similar appliances

Margin when performing disturbance power measurement in the frequency range 30 MHz to 300 MHz

Frequency range MHz	Margin (dB)			
	Quasi-peak	Average		
200 to 300	0 to 10 dB			

NOTE 1: Appliances are deemed to comply in the frequency range from 300 MHz to 1 000 MHz if both of the following conditions (1) and 2)) are fulfilled:

- 1) All the measurement result are lower than the applicable limits (Table 2a) minus the corresponding margin (Table 2b); or the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector.
- 2) No clock frequency or oscillator frequency of the EUT is more than or equal to 30 MHz.

NOTE 2: The measured result at a particular frequency shall be less than the relevant limit minus the corresponding margin (at that frequency).

5.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23 °C Humidity: 53 % RH Atmospheric Pressure: 1010 mbar

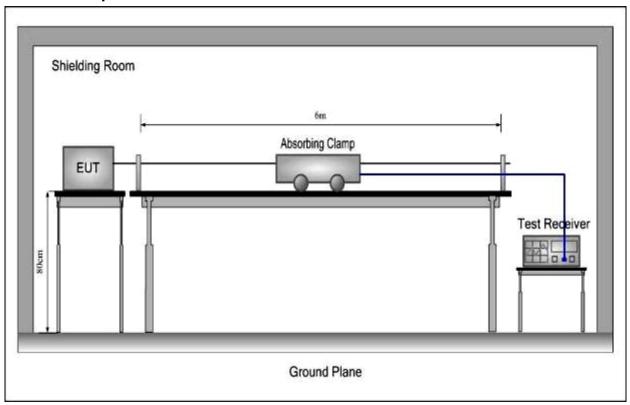
Test Mode: a: Test the EUT in motor running mode.



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5.2.2 Test Setup





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5.2.3 Measurement Data

AC Mains



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBpW)	Limit (dBpW)	Margin (dB)	Detector	P/F
1	39.1200	8.77	29.43	38.20	45.34	-7.14	QP	Р
2	39.1200	8.77	16.28	25.05	35.34	-10.29	AVG	Р
3	74.5600	7.22	18.90	26.12	46.65	-20.53	QP	Р
4	74.5600	7.22	9.55	16.77	36.65	-19.88	AVG	Р
5	103.7600	5.90	36.19	42.09	47.73	-5.64	QP	Р
6	103.7600	5.90	18.33	24.23	37.73	-13.50	AVG	Р
7	123.5600	5.54	27.71	33.25	48.47	-15.22	QP	Р
8	123.5600	5.54	14.51	20.05	38.47	-18.42	AVG	Р
9	181.8800	3.81	26.18	29.99	50.63	-20.64	QP	Р
10	181.8800	3.81	14.21	18.02	40.63	-22.61	AVG	Р
11	203.4800	3.77	23.87	27.64	51.08	-23.44	QP	Р
12	203.4800	3.77	11.68	15.45	41.43	-25.98	AVG	Р



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5.3 Discontinuous Disturbance (150kHz-30MHz)

Test Requirement: EN IEC 55014-1
Test Method: EN IEC 55014-1
Frequency Range: 150kHz to 30MHz

Remark:

Not applicable. The EUT belongs to exceptions from the click definition in clause 4.2.3.1,

"4.2.3.1 Individual switching operations

The disturbance from individual switching operations, caused directly or indirectly, manually or by similar activities on a switch or a control which is included in an appliance or otherwise to be used for:

a) the purpose of mains connection or disconnection only;

- b) the purpose of programme selection only;
- c) the control of energy or speed by switching between a limited number of fixed positions;
- d) the changing of the manual setting of a continuously adjustable control such as a variable speed device for water extraction or electronic thermostats, is to be disregarded for the purpose of testing the appliance for compliance with the limits of radio disturbance set out in this standard.

Examples of switches included in this subclause are the on/off switches for apparatus (including foot activated), for instance the switch for an electric typewriter, manual switches for heat and air flow control in fan heaters and hair dryers, as well as the indirectly operated switch in a cupboard, wardrobe or refrigerator, and sensor-operated switches, etc. Switches which usually will be repeatedly operated are not included in this subclause, e.g. for sewing machines, calculating machines, soldering equipment, etc. (see 7.2.3. and 7.3.2.4.c).

Also the disturbance caused by the operation of any switching device or control which is included in an appliance for the purpose of mains disconnection for safety only, is to be disregarded for the purpose of testing the appliance for compliance with the limits of radio disturbance as described in this standard."



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5.4 Harmonics Test Result

Test Requirement: EN IEC 61000-3-2
Test Method: EN IEC 61000-3-2
Frequency Range 100Hz to 2kHz

Remark:

Since the EUT was belong to exception of clause 7 and Annex C, according to EN IEC 61000-3-2 figure 1, it was deemed to conform to the requirements of this standard without further testing.

"7 Harmonic current limits

The procedure for applying the limits and assessing the results is shown in Figure 1.

For the following categories of equipment, limits are not specified in this standard:

NOTE 1 Limits may be defined in a future amendment or revision of the standard.

- equipment with a rated power of 75 W or less, other than lighting equipment.

NOTE 2 This value may be reduced from 75 W to 50 W in the future, subject to approval by National Committees at that time.

- professional equipment with a total rated power greater than 1 kW.
- symmetrically controlled heating elements with a rated power less than or equal to 200 W.
- independent dimmers for incandescent lamps with a rated power less than or equal to 1 kW.

NOTE 3 See also C.5.3."

and

No limit applies for all LED lighting equipments with active input power ≤25 W except Discharge lighting equipment (refer to 7.3 b))

Kitchen machines as listed in the scope of IEC 60335-2-14 are deemed to conform to the harmonic current limits of this standard without further testing.

Please read clause 7 & Annex C of this standard for reference.



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5.5 Flicker Test Result

Test Requirement: EN 61000-3-3 Test Method: EN 61000-3-3

Measurement Time: 10 mins

Class / Severity: Clause 5 of EN 61000-3-3

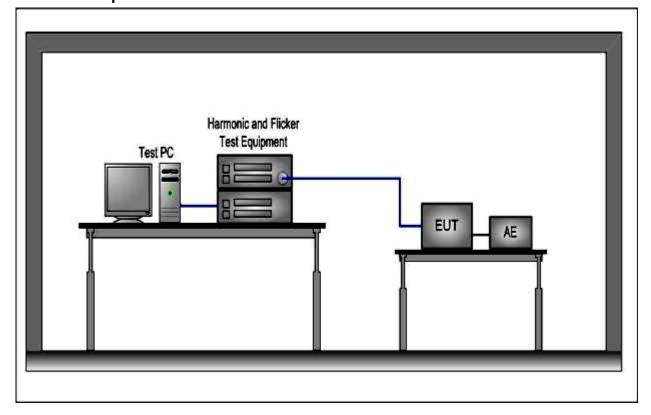
5.5.1 E.U.T. Operation

Operating Environment:

Temperature: 23 °C Humidity: 55 % RH Atmospheric Pressure: 1009 mbar

Test Mode: a: Test the EUT in motor running mode.

5.5.2 Test Setup and Procedure





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5.5.3 Measurement Data

No.	dc[%]	dmax[%]	Tmax[ms]	Pst
1	0.51	0.65	0.00	0.13
2	0.33	0.71	0.00	0.12
3	0.54	0.78	0.00	0.10
4	0.33	0.63	0.00	0.13
5	0.27	0.59	0.00	0.12
6	0.41	0.60	0.00	0.13
7	0.50	0.84	0.00	0.12
8	0.34	0.58	0.00	0.13
9	0.58	0.87	0.00	0.11
10	0.42	0.77	0.00	0.12
11	0.33	0.56	0.00	0.11
12	0.34	0.68	0.00	0.12

Plt 0.12

Test result: Pass.



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6 Electromagnetic Susceptibility Test Results

6.1 Performance Criteria Description in Clause 6 of EN IEC 55014-2

Criterion A:	The apparatus shall continue to operate as intended during the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.
Criterion B:	The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. During the test, degradation of performance is allowed, however. No change of actual operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation and from what the user may reasonably expect from the apparatus if used as intended.
Criterion C:	Temporary loss of function is allowed, provided the function is self recoverable or can be restored by the operation of the controls, or by any operation specified in the instructions for use.



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6.2 ESD

Test Requirement: EN IEC 55014-2
Test Method: EN 61000-4-2

Criterion Required: B

Discharge Impedance: $330 \Omega / 150 pF$

Discharge Voltage: Air Discharge: 8 kV

Contact Discharge: 4 kV VCP: 4 kV

Polarity: Positive & Negative

Number of Discharge: Minimum 10 times at each test point

Discharge Mode: Single Discharge
Discharge Period: 1 second minimum

6.2.1 E.U.T. Operation

Test Mode:

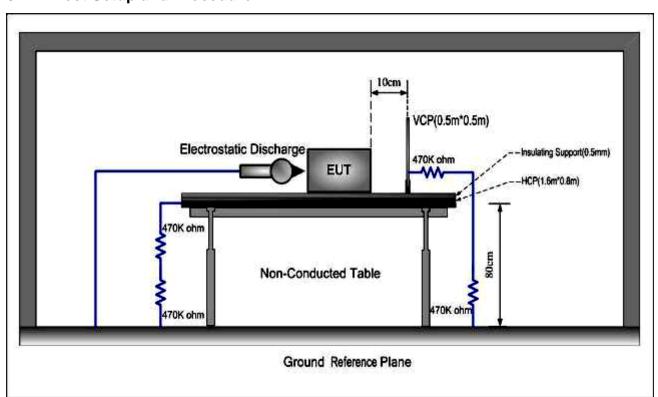
Operating Environment:

Temperature: 22 °C Humidity: 54 % RH Atmospheric Pressure: 1009 mbar

a: Test the EUT in motor running mode.

b: Test the EUT in idle mode.

6.2.2 Test Setup and Procedure





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6.2.3 Test Results

Direct Application Test Results

Observations: Test Point

1. All insulated enclosure & seams.

2. All accessible metal parts of the enclosure.

Direct	Application		Test Results		
Discharge Level (kV) Polarity (+/-)		Test Point	Contact Discharge Air Discharge		
8	+/-	1	N/A	А	
4	+/-	2	А	N/A	

Indirect Application Test Results

Observations: Test Point:

1. All sides.

Indirect	Application		Test Results		
Discharge Level (kV) Polarity (+/-)		Test Point	Horizontal Coupling Vertical Coupling		
4	+/-	1	N/A	А	

Results:

A: No degradation in the performance of the EUT was observed.

N/A: Not applicable (floor mounted EUT or not requested by Standard).



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6.3 Electrical Fast Transients (EFT)

Test Requirement: EN IEC 55014-2
Test Method: EN 61000-4-4

Criterion Required: B

Test Level: 0.5, 1.0kV on AC
Polarity: Positive & Negative

Repetition Frequency: 5kHz
Burst Duration: 300ms

Test Duration: 2 minute per level & polarity

6.3.1 E.U.T. Operation

Test Mode:

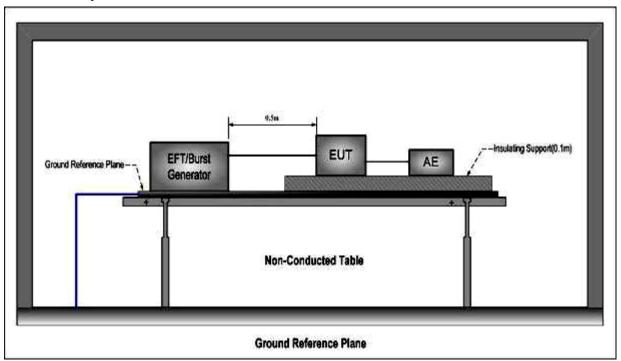
Operating Environment:

Temperature: 24 °C Humidity: 54 % RH Atmospheric Pressure: 1009 mbar

a: Test the EUT in motor running mode.

b: Test the EUT in idle mode.

6.3.2 Test Setup and Procedure



6.3.3 Test Results On AC Supply

Lead under Test	Level (±kV)	Coupling Direct/Clamp	EUT operating mode	Observations (Performance Criterion)
Live + Neutral	± 0.5, 1.0	Direct	All modes	(A)

A: No degradation in the performance of the EUT was observed.



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6.4 Surge

Test Requirement: EN IEC 55014-2
Test Method: EN 61000-4-5

Criterion Required:

Test Level: $\pm 1 \text{kV}$ Live to Neutral Polarity: Positive & Negative

Generator source impedance: 2Ω

Trigger Mode: Internal

No. of surges: 5 positive at 90°, 5 negative at 270°.

6.4.1 E.U.T. Operation

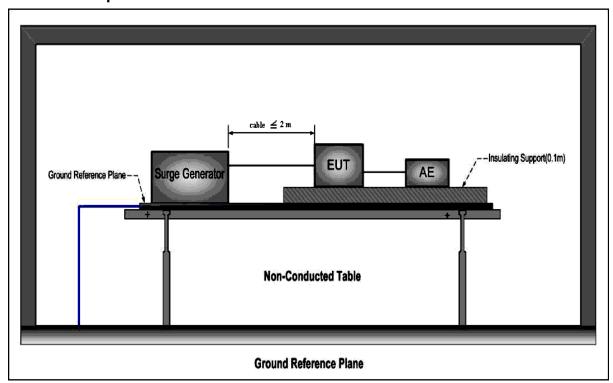
Operating Environment:

Temperature: 24 °C Humidity: 54 % RH Atmospheric Pressure: 1009 mbar

a: Test the EUT in motor running mode.

b: Test the EUT in idle mode.

6.4.2 Test Setup and Procedure





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6.4.3 Test Results:

Test Line	Level (kV)	Polarity	Phase (deg)	Result / Observations
L-N	1	+	90°	А
L-N	1	-	270°	А
L-PE	2	+	90°	А
L-PE	2	-	270°	А
N-PE	2	+	90°	А
N-PE	2	-	270°	А

Results:

A: No degradation in the performance of the EUT was observed.



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6.5 Conducted Immunity 0.15MHz to 230MHz

Test Requirement: EN IEC 55014-2
Test Method: EN 61000-4-6

Criterion Required: A

Frequency Range: 0.15MHz to 230MHz

Test level: 3V r.m.s on AC Ports (unmodulated emf into 150 Ω)

Modulation: 80%, 1kHz Amplitude Modulation

6.5.1 E.U.T. Operation

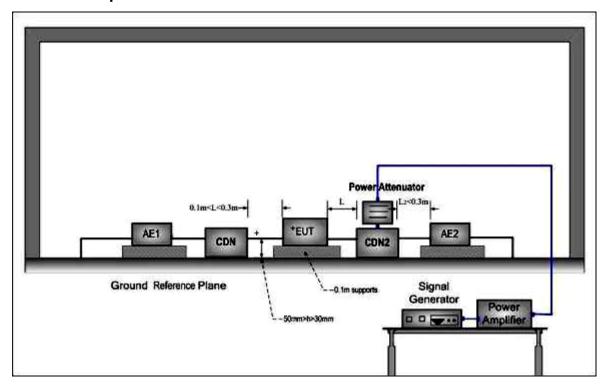
Operating Environment:

Temperature: 24 °C Humidity: 54 % RH Atmospheric Pressure: 1009 mbar

a: Test the EUT in motor running mode.

Test Mode:
b: Test the EUT in idle mode.

6.5.2 Test Setup and Procedure



6.5.3 Test Results:

Frequency	Line	Test Level	Modulation	Step Size	Dwell Time	Observation (Performance Criterion)
	Wires AC	3V r.m.s	80%, 1 kHz Amp. Mod.	1%	1s	No Loss of Function (A)

A: No degradation in the performance of the EUT was observed.



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6.6 Voltage Dips and Interruptions

Test Requirement: EN IEC 55014-2
Test Method: EN IEC 61000-4-11

Criterion Required: C

Test Level: 0% of U_T (Supply Voltage) for 0.5 Periods

40 % of U_T (Supply Voltage) for 10 Periods 70 % of U_T (Supply Voltage) for 25 Periods

No. of Dips / Interruptions: 3 per Level

6.6.1 E.U.T. Operation

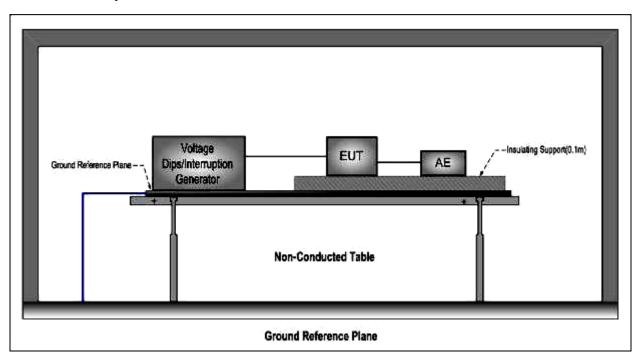
Operating Environment:

Temperature: 23 °C Humidity: 54 % RH Atmospheric Pressure: 1009 mbar

Test Mode: a: Test the EUT in motor running mode.

b: Test the EUT in idle mode.

6.6.2 Test Setup and Procedure





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6.6.3 Test Results

Test Level % U _T	Phase	Duration of drop out in Periods	No of drop out	Time between drop out	Observations (Performance Criterion)
0	0°	0.5	3	10s	(A)
40	0°	10	3	10s	(A)
70	0°	25	3	10s	(A)

Remark:

 $\mathbf{U}_{\mathsf{T=}}$ the nominal supply voltage.

A: No degradation in the performance of the EUT was observed.



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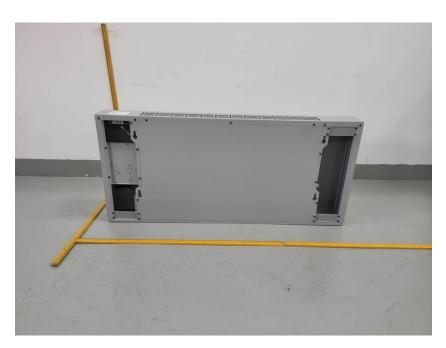
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6.7 EUT Constructional Details

Photos of model ZFC030



Pic 1



Pic 2



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Pic 3



Pic 4



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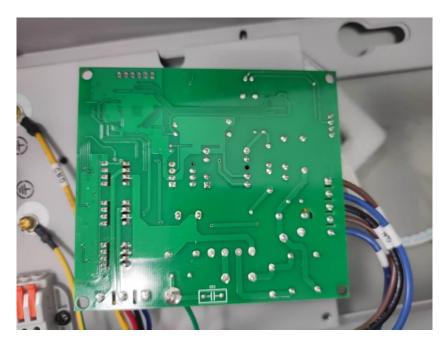
Pic 5



Pic 6



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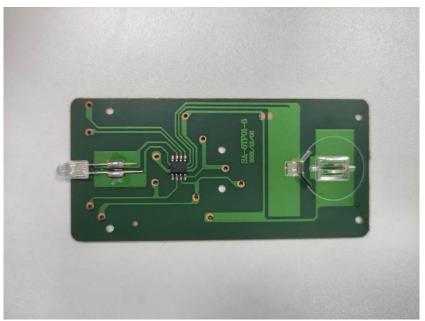
Pic 7



Pic 8



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Pic 9



Pic 10

--End of Report--