

CHUZHOU HANSHANG

DOE TEST REPORT

SCOPE OF WORK

<PERFORMANCE TESTING –REFRIGERATOR– MODELS (See models listed in page two) >

REPORT NUMBER

210101275SHA-002

ISSUE DATE

13-September-2021

[REVISED DATE]

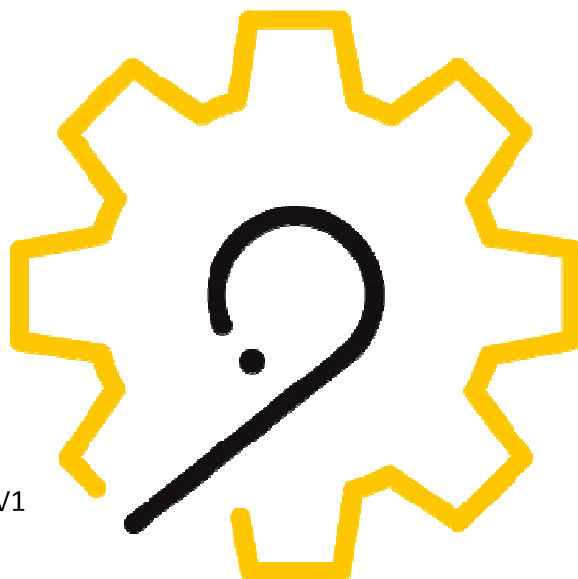
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DOCUMENT CONTROL NUMBER

TTRF_10CFR 430 SUBPART B APPENDIX A/B _V1





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DOE TEST REPORT

INTERTEK TESTING SERVICES SHANGHAI LIMITED

7F, BUILDING 51, NO.1089, QINZHOU NORTH ROAD, SHANGHAI, CHINA.

WWW.INTERTEK.COM

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Intertek Report No. 210101275SHA-002

Intertek Project No. 210101275SHA

PERFORMANCE TEST OF REFRIGERATOR RENDERED TO

Chuzhou Hangshang Electrical Appliances Co., Ltd
CHINA

GENERAL: This Report gives the results of Performance Tests of refrigerator, Model: BC-70AN; Brand Name: **RICHOME**. Model: FTC25R; Brand name: Frestec. This investigation was authorized by Ms. SHAO XIAOYAN on January 20, 2021. The investigation was begun on January 25, 2021 and completed on February 05, 2021. Each of prototype samples in good condition was provided by the client on January 20, 2021 and tested at Intertek Testing Services Shanghai Limited. (7F, Building 51, No.1089, Qinzhou North Road, Shanghai, China.)

10 CFR 430 SUBPART B, APPENDIX A

Applicant:
Chuzhou Hangshang Electrical Appliances Co., Ltd.

Manufacturer:
Chuzhou Hangshang Electrical Appliances Co., Ltd.

Address:
NO. 555, CHANGJIANG EAST ROAD, CHENG Dong
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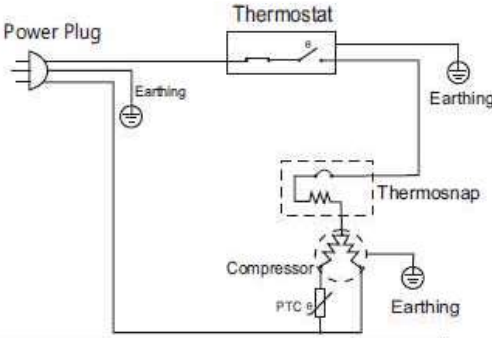
Sample Descriptions:	
Model:	BC-70AN
Product:	Refrigerator
Door:	Solid door, hinged type
Refrigerant:	R600a, 17g
Evaporator fan motor:	NO
Condenser fan motor:	NO
Defrost heater:	NO
Anti-sweat heater:	NO
Defrost mode:	Manual defrost
Ice maker:	NO
Refrigerator compartment volume(L/cu.ft):	71/2.5
Freezer compartment volume(L/cu.ft):	0
Total volume(L/cu.ft):	71/2.5
Total adjusted volume(L/cu.ft):	71/2.5
Remark: None.	

Marking Plate:

RICHME

Refrigerator

Circuit Diagram



Model	BC-70AN
Rated Voltage (V)	115~
Rated Frequency (Hz)	60
Rated Current (A)	0.8
Refrigerant	R600a
Refrigerant Weight (g/oz)	17/0.60
Design Pressure: High Side (PSIG)	250
Design Pressure: Low Side (PSIG)	88



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5011097

Conforms to UL Std.
60335-1 & 60335-2-24
Cert. to CSA Std. C22.2
No. 60335-1 & 60335-2-24

CHUZHOU HANSHANG ELECTRICAL APPLIANCES CO., LTD.

MADE IN CHINA

Frestec

Refrigerator

Model	FTC25R
Rated Voltage (V)	115~
Rated Frequency (Hz)	60
Rated Current (A)	0.8
Refrigerant	R600a
Refrigerant Weight (g/oz)	17/0.60
Design Pressure: High Side (PSIG)	250
Design Pressure: Low Side (PSIG)	88



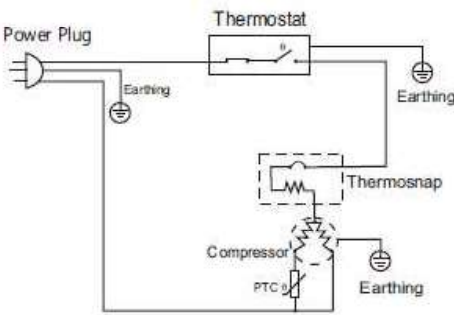
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No. 60335-1 & 60335-2-24

CHUZHOU HANSHANG ELECTRICAL APPLIANCES CO., LTD.

MADE IN CHINA

Circuit Diagram



Photos:





Critical Components Table:

Object / part No.	Manufacturer/ trademark	Type / model	Technical data
Compressor	HUAYI	L35C5L	110-120V, 60Hz, R600a

Test results:

Appended table for energy consumption:

Sample number (Sample 1)		Temperature control position			
		Median position		Warmest position	
Test conditions	Frequency(HZ)	60		60	
	Voltage(V)	114.8		115.0	
	Ambient temperature(° C)	32.2		32.2	
	The relative humidity	51%		50%	
Fresh food compartment temperature (° C)		TR1	7.53	TR1	4.90
		TR2	3.60	TR2	0.45
		TR3	4.05	TR3	0.96
		Average	5.06	Average	2.10
Freezer compartment temperature (° C)		TF1	--	TF1	--
		TF2	--	TF2	--
		TF3	--	TF3	--
		Average	--	Average	--
ET		0.464(ET1)		0.534 (ET2)	
IET		0			
E1(Target temperature is 3.9 for fresh food compartment)		0.491			
E2(Target temperature is -17.8 for freezer compartment)		NA			
Energy consumption for Sample 1 (kWh/day)		0.491			
Energy consumption (kWh/year)		179.2			

Sample number (Sample 2)		Temperature control position			
		Median position		Coldest position	
Test conditions	Frequency(HZ)	60		60	
	Voltage(V)	115.1		115.1	
	Ambient temperature(° C)	32.1		32.2	
	The relative humidity	51%		51%	
Fresh food compartment temperature (° C)		TR1	6.58	TR1	3.05
		TR2	1.95	TR2	-2.01
		TR3	3.54	TR3	-0.19
		Average	4.02	Average	0.28
Freezer compartment temperature (° C)		TF1	--	TF1	--
		TF2	--	TF2	--
		TF3	--	TF3	--
		Average	--	Average	--
ET		0.527(ET1)		0.644 (ET2)	
IET		0			
E1(Target temperature is 3.9 for fresh food compartment)		0.531			
E2(Target temperature is -17.8 for freezer compartment)		NA			
Energy consumption for Sample 2 (kWh/day)		0.531			
Energy consumption (kWh/year)		193.8			

Sample number (Sample 3)		Temperature control position			
		Median position		Coldest position	
Test conditions	Frequency(HZ)	60		60	
	Voltage(V)	115.0		115.1	
	Ambient temperature(° C)	32.2		32.2	
	The relative humidity	50%		49%	
Fresh food compartment temperature (° C)		TR1	7.76	TR1	4.52
		TR2	5.63	TR2	2.04
		TR3	5.32	TR3	1.71
		Average	6.24	Average	2.76
Freezer compartment temperature (° C)		TF1	--	TF1	--
		TF2	--	TF2	--
		TF3	--	TF3	--
		Average	--	Average	--
ET		0.513(ET1)		0.563 (ET2)	
IET		0			
E1(Target temperature is 3.9 for fresh food compartment)		0.547			
E2(Target temperature is -17.8 for freezer compartment)		NA			
Energy consumption for Sample 3 (kWh/day)		0.547			
Energy consumption (kWh/year)		199.7			



Total Quality. Assured.

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Sampling Plan:

Sample no.	Energy consumption(kWh/year)
Sample 1	179.2
Sample 2	193.8
Sample 3	199.7
Sample mean	190.9
UCL/1.1 (95%confidence)	189.8
Rated	212

Verification of DOE

Model(s):	BC-70AN; FTC25R
Product Class:	11A. Compact All Refrigerator-manual defrost
Total adjusted volume	71L
Maximum Energy use(kWh/year)	$0.277av + 219.1 = 238.8$
Verdict	Pass

Conclusion:

From the results of our testing on the submitted samples, we are of the opinion that the samples comply with the requirements of DOE.

Report prepared by:

Project Engineer
Wendy Wang

Report approved by:

Technical Supervisor
Vicent Ni