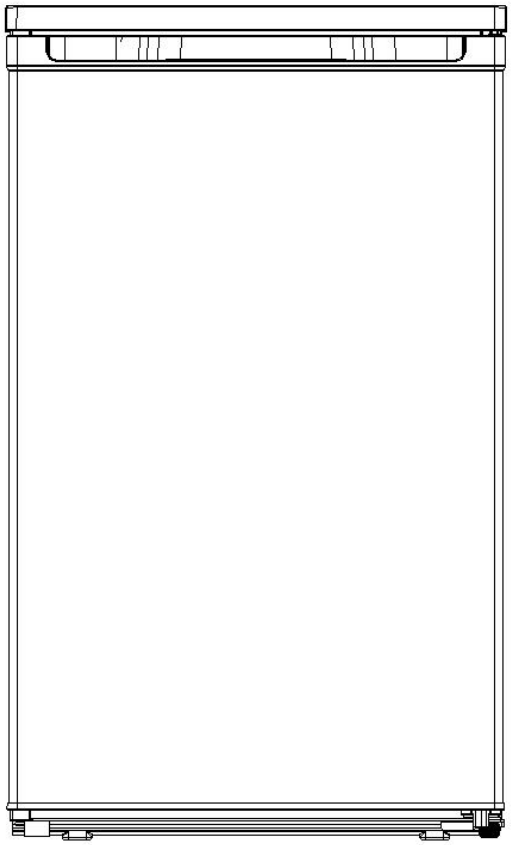
Service Manual

COMPACT SERIES

Applicable Models	Model Code	Applicable Models
HS-108FN	CE-BD83CM-JQ	22031010004122



The picture in this service manual is only for reference, and specific appearance and configuration are subject to the real product.
This manual mainly teaches the method, the specific work skill needs engineer to accumulate through the daily work.

⚠ WARNING

Important Safety Notice

There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

⚠ WARNING

Important Safety Notice

The Maintenance Manual is only for the use of maintenance personnel with certain experience and background in electrical, electronic and mechanical field.

Any attempt to repair main devices may lead to personal injury and property loss.

Manufacturers or distributors are not responsible for the content of the Manual and interpretation thereof.

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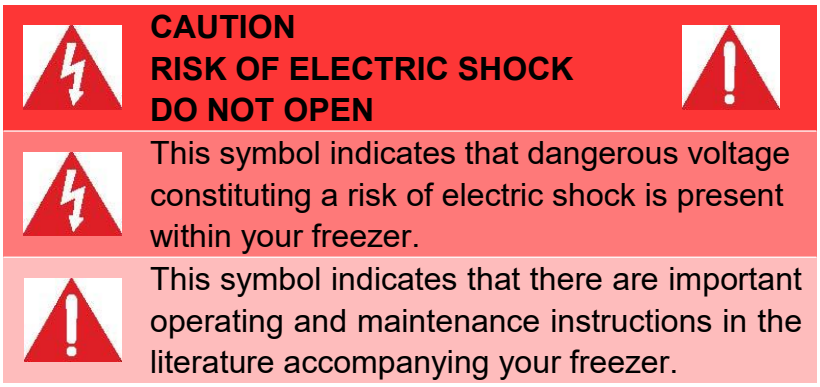
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1. Significant update notes (None)

2. Safety Warning Code

2.1 Warning for operation safety

Important Safety Instructions



WARNING

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this appliance near water.

6) Clean only with a damp cloth.

7) Do not block any ventilation openings.

8) Install in accordance with the manufacturer's instructions.

9) Do not install near any heat sources, such as radiators, heat registers, stoves, or other apparatus that produce heat.

10) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

11) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the appliance.

12) Do not attempt to modify or extend the power cord of this appliance.

13) Unplug this appliance during lightning storms or when it will not be used for long periods of time.

14) Make sure that the available AC power matches the voltage requirements of this appliance.

CONNECTING ELECTRICITY

WARNING Electrical Shock Hazard.

Plug into a grounded 3-prong outlet.
Do not remove the ground prong.
Do not use an adapter.

Failure to follow these instructions can result in death, fire, or electrical shock.

WARNING

Electric Shock Hazard
Failure to follow these instructions can result in electric shock, fire, or death.

1) WARNING–Keep ventilation openings, in both the freezer and the built-in structure, clear of obstruction.

2) WARNING–Do not touch the interior of the freezer with wet hands. This could result in frost bite.

3) WARNING–Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.

4) WARNING–Do not damage the refrigerant circuit.

5) WARNING–Do not damage the refrigerant tubing when handling, moving, or using the freezer.

6) WARNING–DANGER–Never allow children to play with, operate, or crawl inside the freezer. Risk of child entrapment. Before you throw away your old freezer:

6-1) Take off the doors

6-2) Leave the shelves in place so that children may not easily climb inside

7) Unplug the freezer before carrying out user maintenance on it.

8) This freezer can be used by children age eight years and older and persons with reduced physical or mental capabilities or lack of experience and knowledge if they are given supervision or instruction concerning the use of the freezer in a safe way and understand the hazards involved. Children should not play with the freezer. Cleaning and maintenance should not be performed by children without supervision.

9) If a component part is damaged, it must be replaced by the manufacturer, its service agent, or similar qualified persons in order to avoid a hazard.

10) Please dispose of the freezer according to local regulations as the freezer contains flammable gas and refrigerant.

11) Follow local regulations regarding disposal of the freezer due to flammable refrigerant and gas. All refrigeration products contain refrigerants, which under the guidelines of federal law must be removed before disposal. It is the consumer's responsibility to comply with federal and local regulations when disposing of this product.

12) This freezer is intended to be used in household and similar environments.

13) Do not store or use gasoline or any flammable liquids inside or in the vicinity of this freezer.

14) Do not use extension cords or ungrounded (two-prong) adapters with this freezer. If the power cord is too short, have a qualified electrician install an outlet near the freezer. Use of an extension cord can negatively affect the freezer's performance.

Grounding requirement

This freezer must be grounded. This freezer is equipped with a cord having a grounding wire with a grounding plug. The plug must be inserted into an outlet that is properly installed and grounded.

Improper use of the grounding plug can result in a risk of electric shock. Consult a qualified electrician or service person if the grounding instructions are not completely understood, or if doubt exists as to whether the freezer is properly grounded.

2.2 Safety instruction for refrigerant



Explosion Hazard.

Keep flammable materials and vapors, such as gasoline, away from freezer. Failure to do so can result in fire, explosion, or death.

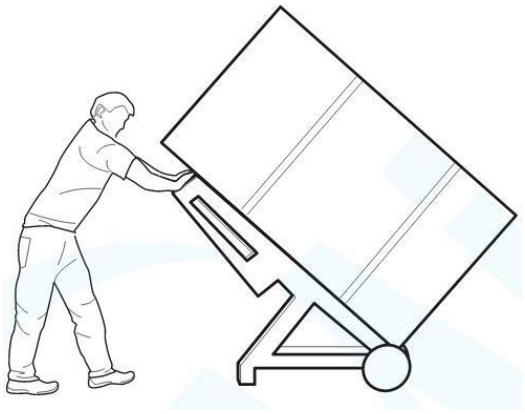


Safety instruction for refrigerant

DANGER–Risk of Fire or Explosion. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Use Mechanical Devices. Do Not Puncture Refrigerant Tubing. CAUTION–Risk of Fire or Explosion. Flammable Refrigerant Used. Consult Repair Manual/Owner's Guide Before Attempting To Service This Product. All Safety Precautions Must be Followed. CAUTION–Risk of Fire or Explosion. Dispose of Properly In Accordance With Federal Or Local Regulations. Flammable Refrigerant Used. CAUTION–Risk of Fire or Explosion Due To Puncture Of Refrigerant Tubing; Follow Handling Instructions Carefully. Flammable Refrigerant Used.

3. Transport

3.1 Handling

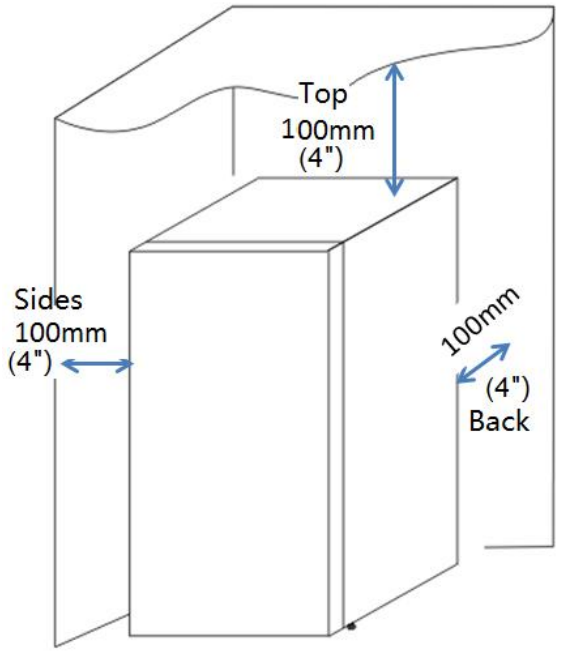
Handling	
1)Protect the refrigerator in moving it,Same as shown as lef t photo, please move it by handcart with cushion 2)Remove all packing materials and bottom cushion, the m ove into house for placement 3)After moving it to appropriate location, wait for 2 hours bef ore power on.	

4. Installation and commissioning

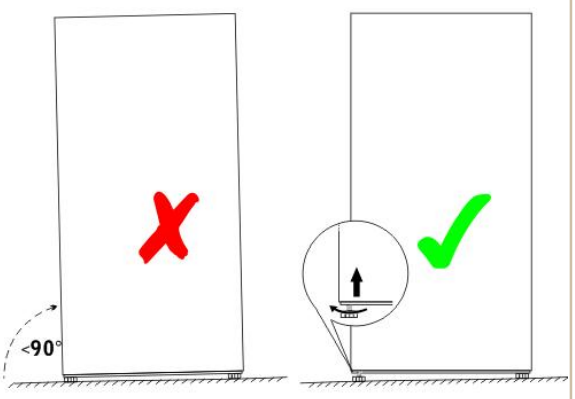
4.1 Door Disassembly and Assembly

The refrigerator door needs to be dismantled if it cannot enter the room in the whole.

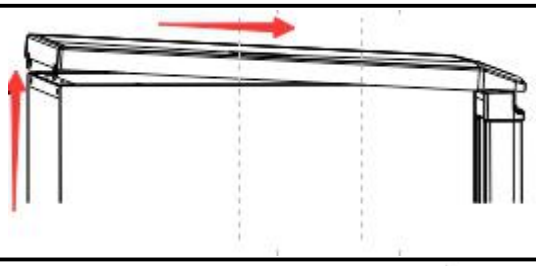
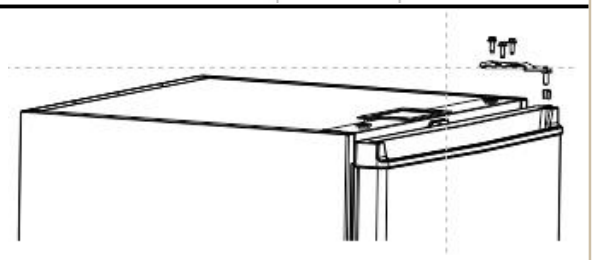
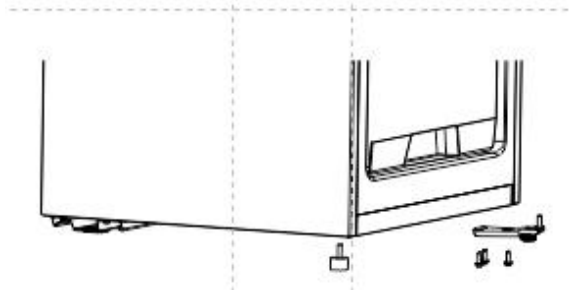
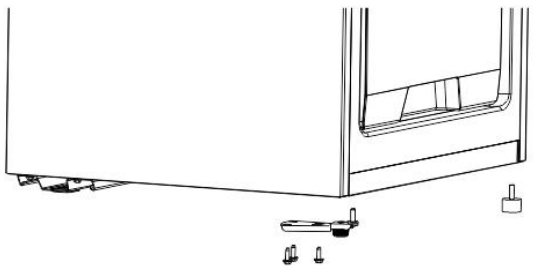
4.2 Installation location

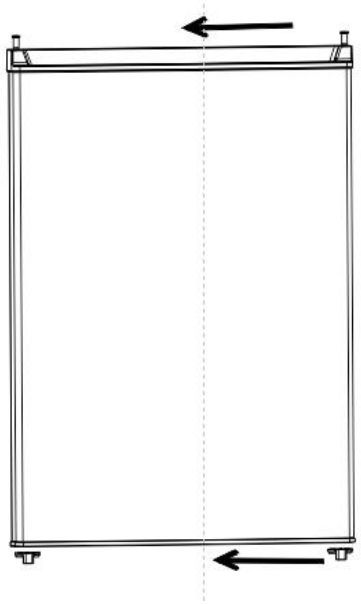
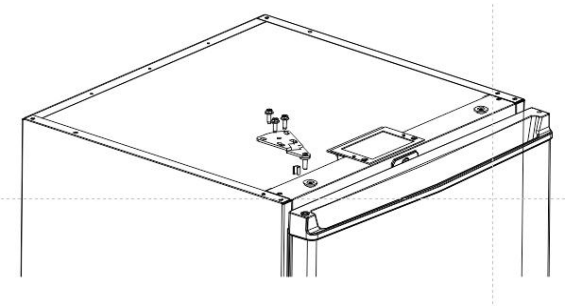
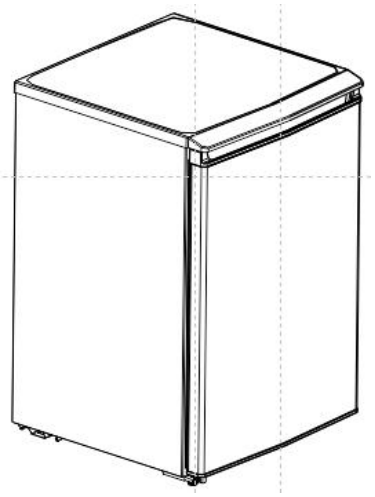
Installation location	
Location that is easy for ventilation shall be chosen to facilitate heat dissipation, enhance its performance and reduce the energy consumption.	

4.3 Leveling of the refrigerator

Leveling of the refrigerator	
If the refrigerator cannot be placed steadily, adjust the footing to level it.	

4.4 Left or right open door reversal

Door reversal	
1) Unscrew the top cover screws	
2) Remove the top cover	
3) Remove the hinge cover. Unscrew screws. Remove the upper hinge.	
4) Remove the door. Unscrew screws and levelling feet. Remove the lower hinge adjust feet assembly.	
5) Fix the levelling feet, lower hinge adjust feet assembly and screws in the opposite side.	

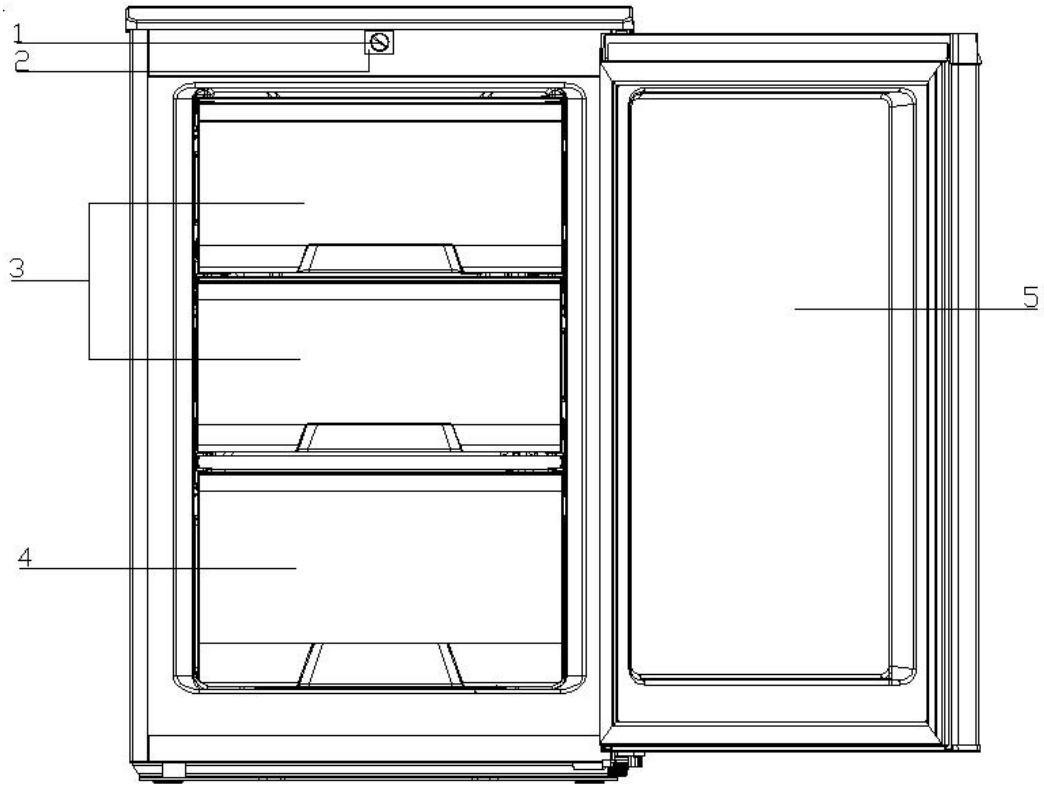
6) Place the door stopper and axle sleeve in the opposite side.	
7) Place the F door. Place and fix the upper hinge. Fix the hinge cover.	
8) Place the top cover.	

4.5 Installation of handle（None）

4.6 Installation of door lock（None）

5. Product configuration and dimension

5.1 Main parts and their names

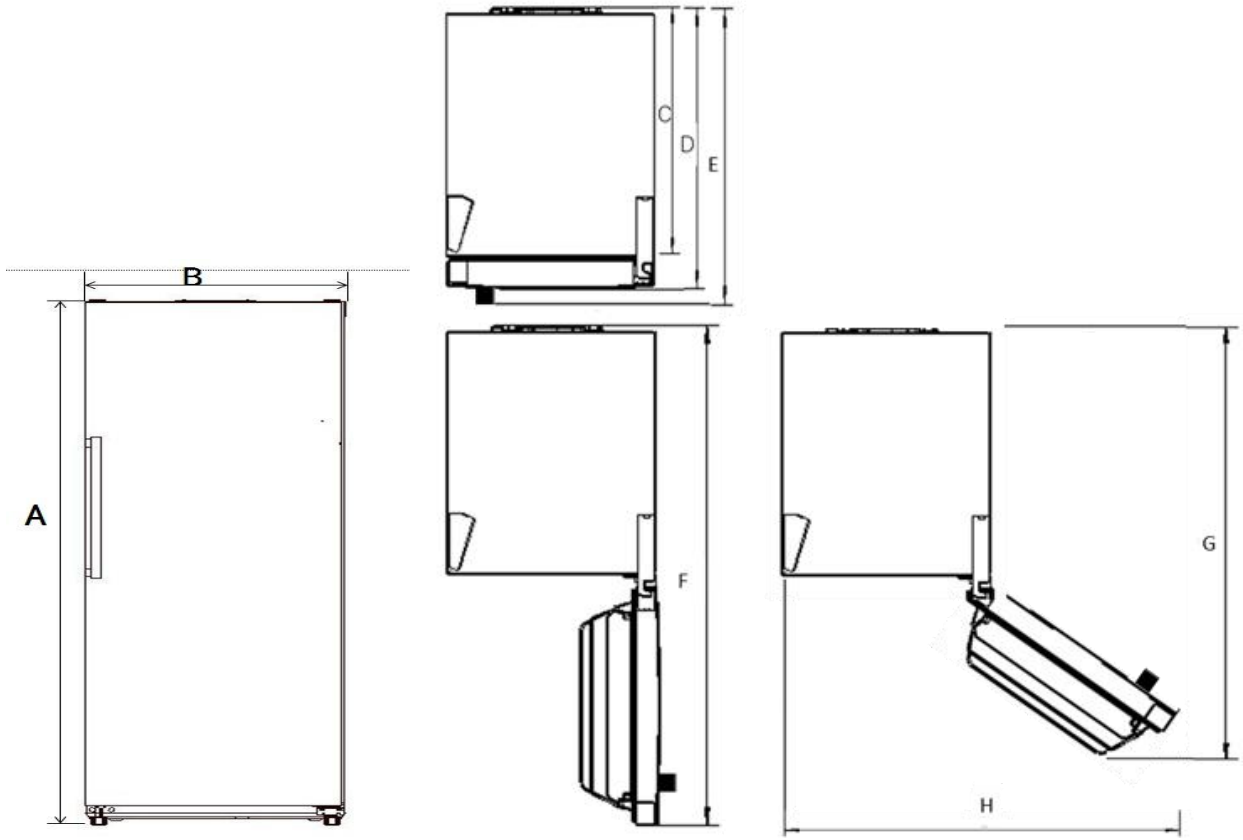


(The picture is only for reference, and specific appearance and configuration are subject to the real product)

Freezer chamber	Refrigerator chamber
1.Screen printing knob2.Temperature control panel 3.F upper drawer4.F bottom drawer5.Freezer door assembly	None

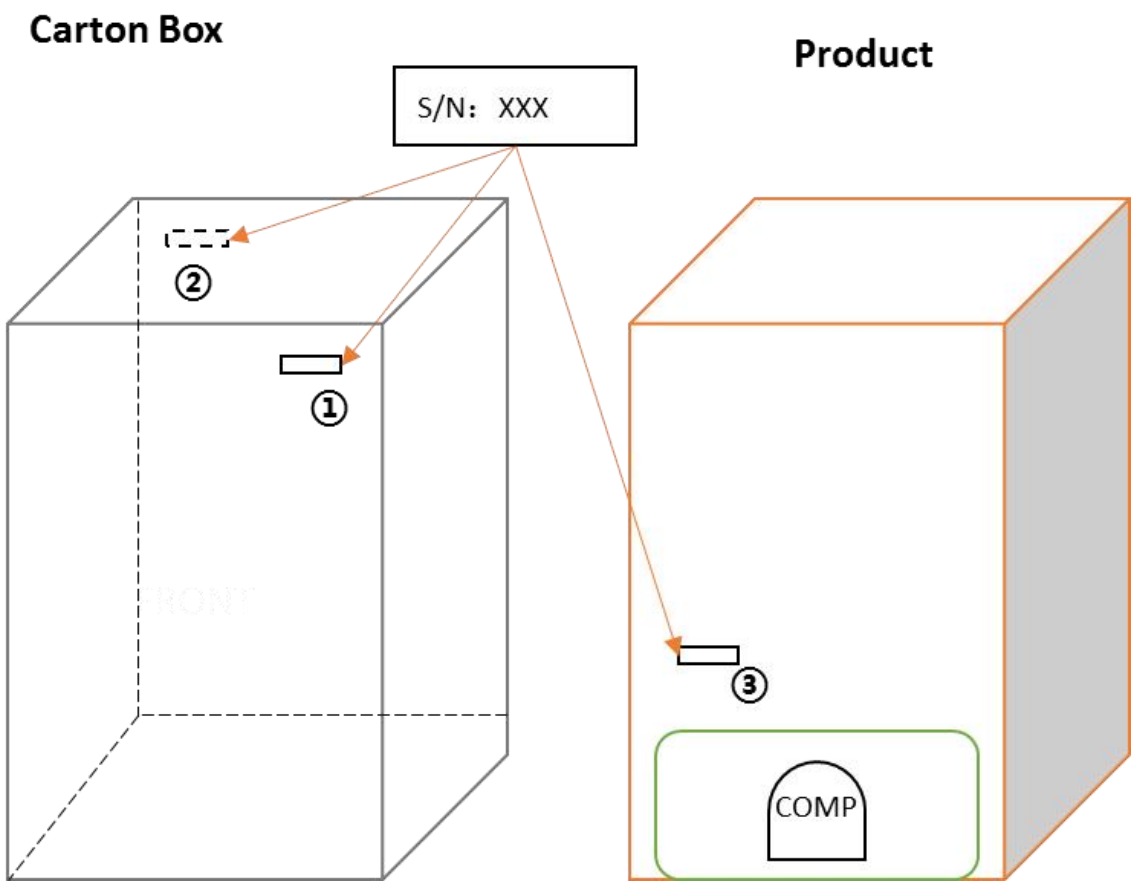
5.2 External dimension

Description	Code	Size (mm)
Height to Top of Case	A	845
Width	B	553
Depth w/Cabinet	C	500
Depth w/Door	D	574
Depth w/Handle	E	574
Depth (Door open 90 deg. w)	F	1078
Depth (Door open 135 deg. w)	G	885
Width (Door open 135 deg. w)	H	930



(The picture is only for reference)

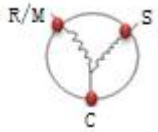
5.3 Location of S/N



Some products also have S/N on the lower part of the right side of the Cabinet.

6. Product specification

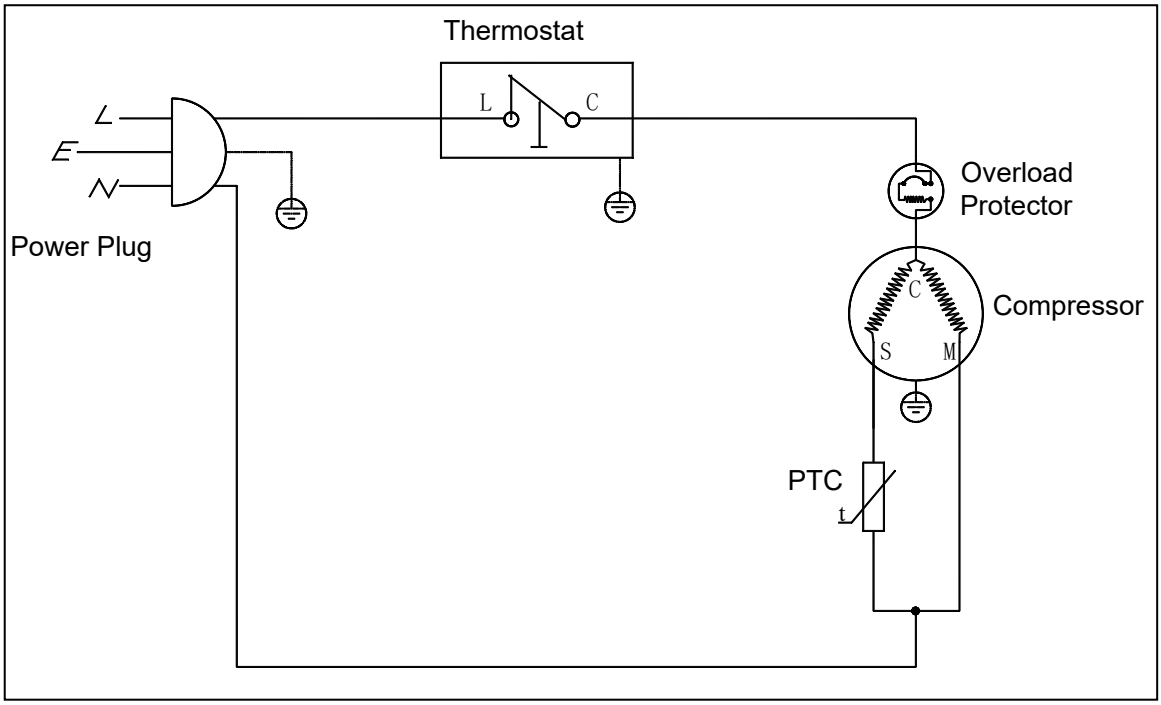
6.1 Electrical parameters

Product Name	CE-BD83CM-JQ
Applicable Models	HS-108FN
Item	**Specification**
Refrigerant	R600a
Compressor	SZ45Y1J
Starter(PTC)	QPS2-B15MG1
Overload protector(OLP)	DRB12N61A1
Integrate PTC+OLP	ZHB31-120P15
Variable frequency driver board	None
Capacitor	/
Power filter	None
Winding resistance of compressor wiring terminal	Rmc：51.5±7%Ω Rsc：14.0±7%Ω Rms=Rmc+Rsc
Winding resistance picture	
The input power of compressor	54.7 W
Lights inside the refrigerator	
Lights inside the refrigerating chamber	None
Switch of the refrigerator door	None

6.2 Cooling temperature setting range

Compartment	The highest (ºC)	Lowest (ºC)
Freezing	-12	-26
Refrigerating	None	None

6.3 Circuit diagram



8. Dismantling of parts

8.1 Parts on the door

Door seal	
Door seal is installed into door liner groove. 1） Open the refrigerator door; Take the door seal ①out of door liner;	
Door tray	
	None

8.2 Parts inside the refrigerator

Drawer flip	
	None
Shelves	
	None
Freezer Drawer	
Remove the freezer drawer according to below steps: Pull the drawer out completely; Lift it up slightly and take it out from the refrigerator.	