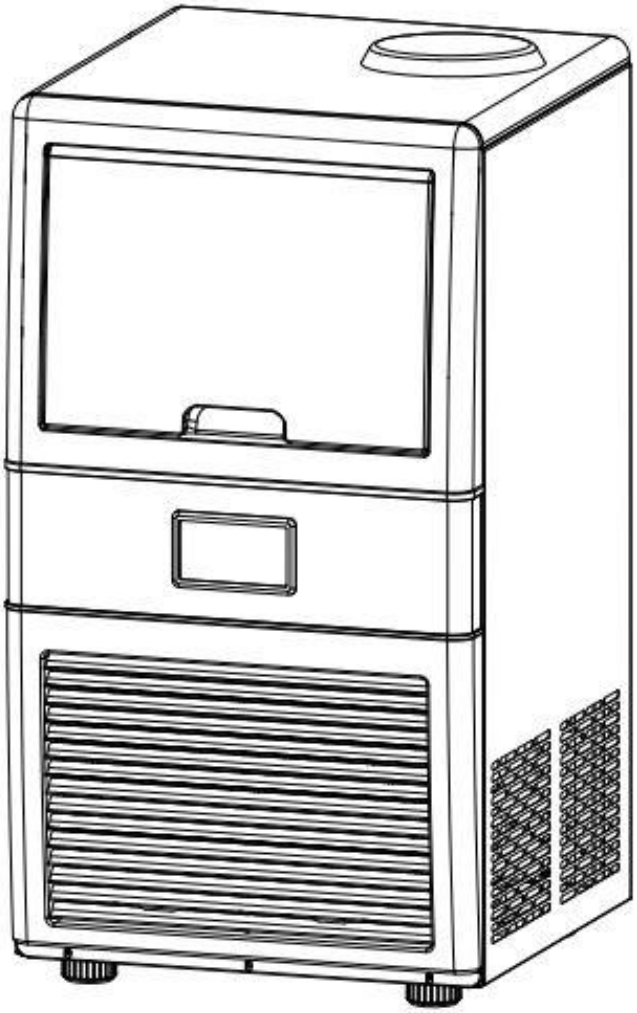
Commercial Ice Maker Installation and Operation manual



Model：LS-IM004

Thank you for purchasing our ice maker!

Glad to provide you with the best quality products and complete after-sales service.

To ensure your satisfactory use and proper cleaning & maintenance of this appliance, please read all following instructions carefully before operating, and keep it for future use.

·General Information

1. The production of this appliance uses advanced production technology and skilled processes, as well as the strict quality inspection, guarantees the excellent performance of the appliance.
2. The core component of the ice maker "compressor" we use well-known brand product, coupled with a reasonable configured refrigeration system, it makes refrigerant cooling more reliable and lower energy consumption.
3. The metal spray encloser is elegant and fashion, corrosion-resistant and easy to clean.
4. The automatic microcomputer control system can make the ice making and harvest process automatically. It has

fault detection function, which makes it more convenient to use and maintain.

·Receiving and inspection

Thank you for choosing our automatic ice maker, to protect your legitimate rights, please note the following when sign for the receiving:

1. Whether the appliance outer package is in good condition; 2. Whether the body of the appliance is in good condition; 3. Whether the accessories attached are completed.

During the transportation of the appliance, the refrigerant inside the compressor is possible not injected into the refrigeration pipe due to the dumps and handling. Once the power resource is connected, the compressor may be damaged in a short time. Therefore, after its receiving, it is strongly suggested the customers to allow the appliance correctly located and “stay for 24 hours”, to allow the refrigerant return to the compressor, and then to install and use it.

·Warning pictograms and operating safety instructions

·Precautions for safe operation

Just after receiving the appliance, allow 24 hours for the Lubricating oil of the compresser fluid to settle before starting to use, otherwise the compressor will be easily damaged.

⊘Do not use the ice maker outdoor. It may cause leakage or electric shock after the ice maker is wet by rain.

⊘ Do not disassemble, repair or modify the ice maker without permission. Fire hazard or personal injury may be caused by work errors without professors or professional guidance.

⊘ Do not directly spray water on the ice maker, it may cause electric shock or short circuit.

⊘ Do not locate the ice maker in a humid place or a place

prone to splashing water, to avoid the damage to the insulating material, so to prevent leakage or electric shock.

⊘ Do not earth the ice maker through a gas pipe, a water main, a telephone line, or a lightning rod.

⊘ Do not insert metallic materials such as wires into the air vents, passage or exhaust vents of the ice maker, to avoid electric shock or personal injury due to accidental movement of active parts.

⊘ Do not put volatile or flammable substances into the ice maker. Storage of such substances may cause explosion or fire hazard.

⚠ The ice maker should be repaired or installed by professional technicians or under their guidance.

⚠ Please locate the ice maker on a solid ground. To avoid a hazard due to tilting of the appliance.

⚠ Please use a power supply that is specified on the ice maker's nameplate.

⚠ Disconnect the main plug from the supply socket when the ice maker gets failures. Continued abnormal operation may cause electric shock or fire hazard.

⚠ Please remove the dust from the supply socket before plugging the power plug into it, to avoid fire hazard.

⚠ Keep the ice maker free of obstructions and keep the ventilation open.

⚠ Do not store combustion sprays, volatile or flammable substances in the ice maker. Storage of such substances may cause an explosion or fire hazard.

⚠ Do not use the ice maker when handling toxic or hazardous materials or radioactive materials, as it may harm health and damage the environment.

⚠ Disconnect from the main socket before cleaning, maintaining or servicing the appliance. To prevent electric shock or personal injury.

⚠ Do not use electrical appliances in the ice bucket of the ice maker, except the ones recommended by the manufacturer.

⚠This appliance contains flammable materials, and must be handled and recycled by qualified personnel and institutions when discarded.

⚠ Do not damage the refrigeration circuit.

⚠ Use a grounded outlet to prevent electric shock. If there is no, the grounded socket device must be assembled by a professional technician. The unit must be positioned so that the plug is accessible.

 Some models use flammable refrigerants and flammable foaming agents, so beware of fire (The product is marked  "Warning fire"). When the appliance is abnormal, it must be repaired by professional personnel and institutions.

·Safety Precautions

1. The voltage of this appliance is: 120V~ / 60Hz. If the voltage is unstable or with large fluctuation, please install a voltage regulator.
2. Make sure the appliance is earthed, and ensure effective earthing, as well as the earth wire must not be connected to the water pipe or gas pipe.
3. In order to protect the compressor, do not start the appliance again within 5 minutes after power off.
4. Do not connect other appliances to the same socket.
5. If the power cord is damaged, in order to avoid danger, it must be repaired or replaced by professionals.
6. The electrical control system has a voltage of more than 36V. If maintenance is required during using, please have it handled by a professional technician.

WARNING: Do not operate the ice maker when there is a gas leak in its environment. Fire hazard may occur due to sparks caused by unplugging or plugging or the start-stop controlled by the temperature controller, the air source should be cut off first, and allow air to circulate.

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·Correct operation

When using the appliance for the first time or using it continuously, please follow below rules!

1. Connect the ice maker to a power supply that complies with the nameplate.

2. Connect the water inlet pipe of the ice maker to the drinking water source, and the drain pipe to the sewage outlet.

3. The ice maker is surrounded by ventilation channels, and it is forbidden to block it by excess items.

4. After the inspection of the ice maker, turn on the power and water supply, and start making ice.

·Use an independent water source for the ice maker, and check regularly to prevent low water, fluctuations, or blocked filters.

·Do not store anything in the refrigerator, and even worse

to freeze or freeze any food in the refrigerator, to keep the ice shovel clean.

·When closing the plastic door of the refrigerator, open or close it gently, and do not hit the door, and please also close the sliding door after taking the ice out.

·The ice maker should be kept away from heat sources, strictly forbidden to use it in high or low temperature environment. Away from direct sunlight to avoid affecting the heat dissipation of the appliance.

·Do not wash the ice maker surfaces with water directly, which may cause short circuit and leakage.

·If the ice maker is suspended for a long time after using it for a period of time, it should be powered on for 4-6 hours every two months.

Avoid sun and rain

Good ventilation

Placement should be stable

·Environment

This unit is designed according to the following conditions:

1. Household Use

2. No more than 2000 meters above sea level

3. Temperature is not higher than 32 ℃, the maximum relative humidity is 80%, and the maximum relative temperature decreases linearly with the increase of temperature.

4. The main transformer power supply voltage fluctuation does not exceed 10% of the rated voltage.

5. Meet the equipment installation level (over voltage level) transient over voltage.

6.Accordance with ICE664 standard.

This appliance is used for similar purposes, such as:

·Staff kitchen areas in shops, offices and other working environments;

·Farm houses and by clients in hotels, motels and other residential type environment;

·Family hotel environment;

·Catering and similar non-retail applications.

·Installation location requestment

Transporting and moving conditions:

When transporting, keep the tank as upright as possible, and the inclination does not exceed 45 °maximum. Do not locate it upside down or horizontally. To operate the ice maker properly and get the best performance, please locate the ice maker as the following conditions.

1.Level & flat floor: Put the ice maker on a level & flat floor, to avoid excessive vibration and noise.

2.Keep away from heat resource: Avoid locating the ice maker near hot equipment, such as gas stoves or stoves. The ice making performance will decrease when the ice maker is heated.

3.Avoid direct sunlight: If the ice maker is located in direct sunlight, it may cause abnormal performance and may shorten its working life.

4.Dry area: Avoid locating the ice maker in a wet area, such as near a faucet or a sink.

WARNING：

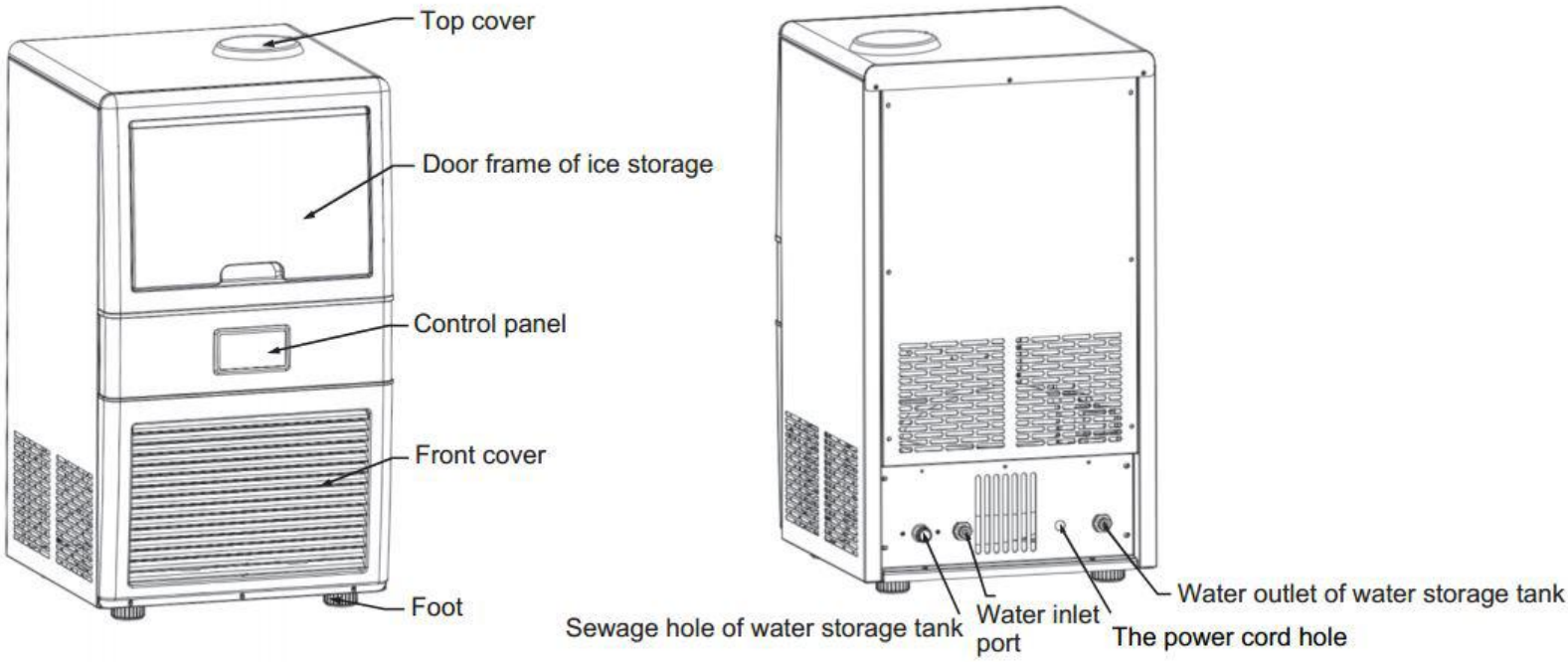
⚠ Make sure to use a plug with a grounding structure and ground the ice maker, to prevent electric shock in the event of a leakage.

⊘Replacing the ground terminal with a water pipe will not provide effective ground protection in many situations, because plastic pipes are often used as water pipes.

⊘Do not ground the ice machine through a gas pipe, very dangerous.

Do not ground the ice machine through a telephone line or lightning protection, because lightning strike will create generate large currents, very dangerous.

⚠Install a disconnect switch: If locate the ice maker in a wet area, a disconnect switch must be installed and the ice maker must be earthed. Install the disconnect switch in the power circuit. For further information, please consult the ice maker retailer or electrical technician.



·Installation & Location

Base installation:

1. Locate the ice maker in a level & flat fllor.
2. Adjust the height of the feet to make the ice maker level.
3. The ice maker is not suitable for outdoor use. The normal use environment temperature is 10℃～32℃, and the water temperature is 5℃～30℃. High temperature will seriously decrease the ice making performance.
4. The ice maker should not be installed in an environment where there is no sewer and water is not allowed, and it should be away from high temperature equipment (such as

refrigerators or ovens).

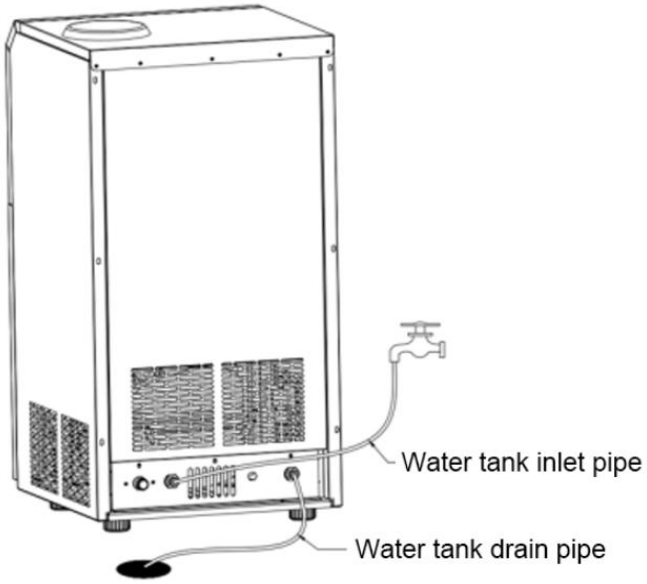
5.Air-cooled ice makers rely on air circulation to dissipate heat. Therefore, it need at least 15cm of space between the front, back, left, and right of your ice maker and wall, good for heat dissipation.

Water Connection：

1. The ice maker must use room temperature filtered drinking water.
2. The water pressure of the water supply must be controlled between 100kpa and 800kpa. A pressure relief valve is required for overpressure. Do not squeeze the water inlet hose.
3. At the same time of feeding the tap water, the bucket water inlet valve must be closed.
4. When using bucket water, please plug the inlet valve with a plug to prevent water leakage.
5. Please note the "Water inlet port" and "Water draining port" signs at the interface.
6. The ice maker's drainage depends on gravity, so the drainage pipe must have sufficient slope and drop.

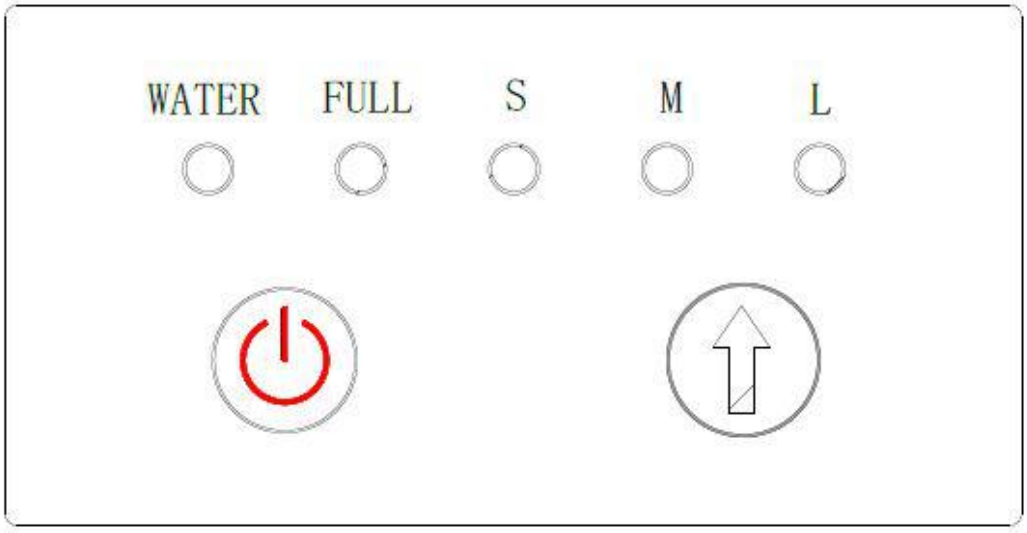
Warning: Please only use drinking water.

Installation



The pipe connections on the unit are marked. In case of conflict, the identification on the unit shall prevail.

Operation



Indicator light display (5)

1. Ice full display light (red) When the ice full alarm is on, it always lights red.

2. The water shortage indicator (red) lights red when the water shortage alarm occurs.

3. After the thin ice indicator (green) is selected, the standby state flashes, and it always lights green when it is turned on.

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Function keys (2)

1. The on / off button controls the power on and off, long press for 3 seconds to enter the forced de-icing mode.

2. Ice type selection button click to select ice type, long press for 3 seconds to start cleaning mode.

Ice machine working steps

1. Ice making: Connect the water source, turn on the power, press the on / off button, the fan starts, and the ice making time is judged according to the ambient temperature. The compressor starts, the circulating water pump starts, and ice making begins. When making ice, the water pump continues to work, and the water flow will flow down from the top of the ice tray into the sink, and the water will slowly cool down until it freezes. When the ice cube reaches the predetermined time, the program will shift to the de-icing step.

2. De-icing: In the de-icing procedure, when the reversing valve is opened, the ice tray will be heated, and the connection between the ice cube and the ice tray will be melted. When the ice cube cannot be attached to the ice tray due to its own weight, it will be Will fall down and complete one-time de-icing process. When the ice falls, it will flip the flap, and then the flap will be reset due to its own weight, and then the machine will start the next ice making. When too many ice cubes in the refrigerator cause the ice cubes to press against the water baffle and make it impossible to reset, the control chip judges that the ice is

full and stops temporarily, and cannot start until the water baffle is reset.

3. Forced de-icing: During the ice-making process, press and hold the on key for 3 seconds, the machine will enter the de-icing procedure in advance, and after the de-icing will continue the next round of ice making.

4. Cleaning function: turn on the power, turn on the water source, long press the selection button, the machine will enter the automatic cleaning program, it will automatically shut down after 10 minutes. After the cleaning procedure is completed, please unplug the drain port to drain the sewage.

Note: In summer and hot environment, it is recommended to adjust the ice thickness range: 15 ~ 29 min. In winter and cold environment, it is recommended to adjust the ice thickness range: 10 ~ 18 min.

Fault indication: ice full light flashes quickly: ambient temperature (sensor) fault, shutdown

The ice full indicator and the water shortage indicator flash alternately: the open and closed signals of the ice full switch cannot be detected for 3 consecutive times, the machine stops working and reports a mechanical failure.

Fault self-diagnosis

1. The pump-can directly observe whether there is water flowing down from the ice tray. If not, the pump may malfunction.

2. Refrigeration-After the ice making operation lasts for 10 minutes, the water in the sink will become significantly colder. You can directly touch the ice tray or running water to feel the water temperature.

3. Inlet water-during the automatic cleaning process, water can be observed in the overflow pipe of the sink continuously flowing into the ice storage bucket. During the ice-making process, you can reach into the sink by hand to feel the amount of water. Normally, it accounts for more than half of the sink. Note: In summer and hot environment, medium and large ice stalls are recommended. In winter and cold environments, small ice and medium ice stalls are recommended.

Troubleshooting

Problem	Possible cause	Solution
Ice maker does not start	Bad socket contact	Change socket
	The refrigerator is full of ice cubes	Remove the ice cubes and start it manually
	The flap is not reset	Adjust the flap to enable free reset
Ice maker stops after running	Water source is not turned on or connected not strong	Recheck water resource
	Ice maker is not located horizontally	Adjust the feet and locate them horizontally
	Over temperature shutdown protection	Remove the front panel and clean the condenser
Significant reduction in ice cubes production	Not cleaned up for more than two months	Remove the front panel and clean the condenser
	High water temperature (Possible in summer)	
	Ambient temperature is too high	Clean up the surrounding
	Small or closed environmental spaces	Clean surrounding and allow air to circulate

	Sink overflow	Check the water inlet valve or mechanical float
The transparency of the ice cube is not very good or ice cube shape is irregular	Improper adjustment of ice thickness	Reset ice thickness
	Water quality is bad	Install filter and replace filter element
	Ice maker water tank or the ice tray is very dirty	Clean the ice maker and replace the filter
	Uneven water flow above the ice tray	The shunt tube needs to be cleaned or the unit is not level.
	Too much water above the ice tray	Tie the water pump silicone tube
Can't take off ice	Ice cube is too thin or too thick	Adjust ice thickness
Excessive noise	The ice maker is not stable and the soles of the feet are floating	Locate the ice maker on a stable surface
	The ice maker touches other objects	Avoid touching other objects
Condensation on the case	The refrigerator door is not completely closed	Close the refrigerator door completely
	Working in high	Normal

	temperature and high humidity environment	

·Maintenance

Please follow this manual to maintain the ice maker, in order to improve its reliability and service life. And while maintaining hygiene, avoid the increasement of energy consumption coefficient for the ice production.

1. Always clean the surroundings of the appliance to keep it clean. Do not block the shutters of it.
2. The exterior can be cleaned with a neutral detergent solution, and then wiped clean with a soft cloth. If necessary, commercial stainless steel cleaners and polishing agents can be used.
3. The filter element should be checked regularly. Most common filter elements are replaced half a year, and advanced filter elements should be replaced on time in accordance with the instructions.
4. It can use a water pipe to flush directly, when cleaning the inside of the ice maker's water tank and refrigerator. Never overpressure, and never flush the pump and above

the ice tray directly, to prevent the circuit parts from being immersed.

5. Maintenance of condenser for air-cooled ice maker: Clean the air-cooled condenser every three months. Use a soft brush or a vacuum cleaner with a brush to scrub the condenser fins up and down in the direction of the fins to avoid damaging the fins and affecting the cooling performance.

Overwintering maintenance: In addition to turning off the power resource, drain the residual water in the ice maker's water tank, inlet pipe and drain pipe.

Cleaning and maintenance of the ice maker is not included in the free service. Please replace the filter regularly.

If severe scale is inside the ice maker, or the waterway is blocked, which causes the abnormal performance, please clean it in time.

Before cleaning and maintenance, please make sure to turn off the water and power and unplug.

The edges of the air-cooled condenser fins are sharp, so please be careful when cleaning.

Check the water source, please turn off the water resource before unplugging the water inlet port of the ice maker, to prevent high-pressure water jets.

Machine consumables are not covered by the warranty

Please use genuine consumables, such as filters, filter elements, ice shovels, water pipes, etc.

On-site service charges will be charged when there is a failure due to user errors (such as no water, no electricity, environmental factors, etc.).

If the ice maker is abnormal, please confirm the following before calling:

1. Check if the water supply to the ice maker is normal

Checking method: Unplug the ice-making water inlet port on the back of the unit, the water resource is normal if the water leaks for a long time, otherwise it means no water.

2. The ice maker produced by our company is fully

automatic and does not require manual operation. So please check if the machine is powered on with an electrician, and focus on checking the socket.

3. Check the model and number of the ice maker.

The model nameplate is on the back of the unit.

·Technical parameters

Model	LS-IM004
Grade of protection against electric shock	I
Ice Tray	32
Rated voltage/frequency	120V/60Hz
Rated current	1.4A
Type of thermal insulation	C5H10
Tap water inlet pressure	100-800KPa
Net weight	21kgs
Product size	390×384×662in