

Heating cabinet

Technical White Paper

Hefei Medicoool Medical Equipment Co., Ltd

I Product Introduction

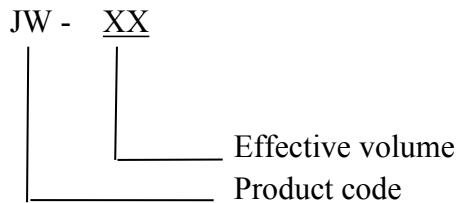
1.1 Main purposes and scope of application

It is suitable for constant temperature storage and warming of various liquids such as saline, irrigation fluid, dialysis fluid, mannitol, contrast medium, as well as clothing, towels, and infusion bags (both bottle and bag types); it makes people feel comfortable. It can achieve batch warming, saving time and facilitating clinical practice.

Professional equipment designed for low-temperature storage of drugs, vaccines, biologics, and other medical supplies in operating rooms, infusion rooms, emergency rooms, neurology departments, ICUs, intravenous injection centers, and other departments; compliant with medical cold chain standards such as the Chinese Pharmacopoeia, GSP/GMP, CDC, and WHO; suitable for refrigerating items in hospitals, pharmacies, disease control centers, laboratories, and other scenarios;

1.2 Composition and representative significance of varieties, specifications, and models

The model and naming rules for warming cabinets are as follows:



Model naming example: JW-150 indicates a warming cabinet with an effective volume of 150

1.3 Operating environmental conditions, working conditions, and transportation conditions

Operating environmental conditions:

- (1) Applicable only indoors;
- (2) Ambient temperature: 10°C -32°C ;
- (3) Relative humidity: ≤80%;
- (4) Atmospheric pressure range: 86 kPa to 106 kPa;
- (5) Power supply voltage: AC220 V±22 V;
- (6) Voltage frequency: 50 Hz ± 1 Hz.

Working conditions:

- (1) The product should be used indoors, and direct sunlight or other sources of heat or cold should be avoided.
- (2) A certain amount of space should be reserved around the product.

(3) There is no strong vibration or corrosive gas around the heating cabinet;.

Transportation conditions:

The heating cabinet is packaged in a cardboard box with a wooden pallet, suitable for transportation by general vehicles. During transportation and storage, it should be handled strictly in accordance with the packaging and storage instructions. Collision, overturning, exposure to rain and snow are strictly prohibited to avoid damage and corrosion.

II Structural Features

The product consists of a box body, a door body (glass door structure or foam door structure), a heating system, and a control system.

III Working principle

The precise control of internal temperature is primarily achieved through built-in sensors, heaters, fans, and other devices. A heating cabinet typically consists of a heating system and a fan. The rotating fan installed inside the cabinet discharges air into the cabinet, achieving gas circulation and balancing the temperature inside the cabinet. The data collected by the temperature sensor built into the cabinet is transmitted to the temperature controller (micro information processor) for editing and processing, and temperature adjustment instructions are issued. The air heating and evaporation unit jointly completes the adjustment task.

IV Technical characteristics

4.1 Main performance

1. Intelligent temperature control system

Microcomputer digital control, digital display of temperature and humidity, with a display accuracy of 0.1℃; power-off setting memory function;

The temperature inside the box is adjustable, and the temperature difference for starting and stopping the machine can be set;

Multi-channel temperature and humidity sensor ensures more uniform temperature control inside the box;

Intelligent humidity control mode, automatically adjusting the humidity inside the box;

High and low temperature alarm function, with alarm temperature values adjustable as needed;

2. Temperature system

High-power fan, equipped with shock-absorbing cotton, boasts stable and long-lasting performance, and produces low noise;

Thermostatic ceramic PTC heating module, maintaining a constant temperature;

3. Safety system

Multiple fault alarms: high and low temperature alarms, sensor fault alarms, and power failure alarms (optional)

Multiple alarm modes: audible buzzer alarm, code flashing alarm;

Multiple protection functions: power-off start delay protection, lighting delay protection, shutdown interval delay protection, and memory proportional on-off protection;

4. Humanized design

The safety door lock design prevents unauthorized opening;

Wide voltage design, suitable for use under 187~242V voltage;

LOW-E coated glass; LED lighting, energy-saving and environmentally friendly;
 The height of the shelf can be adjusted freely; the castor brake design facilitates easy movement and fixation;

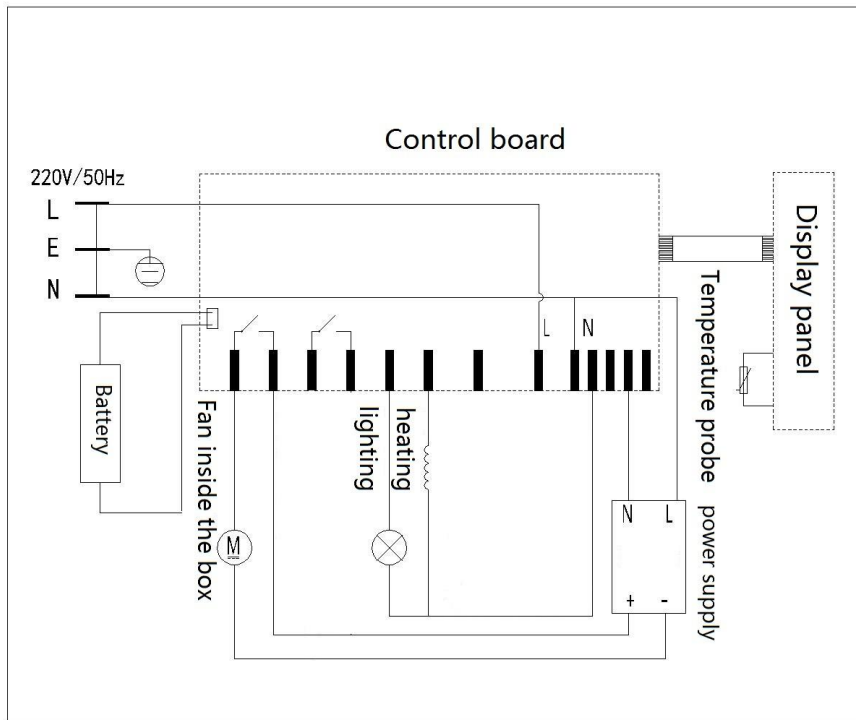
4.2 Main parameters

model Technical Parameter	JW-90	JW-150	JW-220	JW-280	JW-400	JW-600	JW-800	JW-1200
External dimensions (mm)	595*470*900	595*570*900	590*500*1700	595*570*1500	610*650*1920	900*650*1920	1210*650*1920	1810*650*1920
Internal dimensions (mm)	515*330*630	515*430*630	510*390*1100	515*440*1210	520*505*1460	810*505*1460	1120*505*1460	1720*505*1460
Effective volume (L)	90	150	220	280	400	600	800	1200
Input power (W)	130	135	180	450	280	560	580	825
Current (A)	0.6	1.0	1.7	1.7	1.7	1.8	1.9	3.4
Noise (dB(A))	42	55	55	55	55	55	58	60
Weight (Kg)	42	52	71	80	85	110	120	220
Packaging size (mm)	650*560*1010	650*660*1010	650*600*1770	650*660*1610	760*750*2000	960*750*2000	1260*750*2000	1870*750*2100
control system	Microcomputer intelligent controller							
Display mode	LED digital display							
Alarm	High and low temperature alarms, sensor fault alarms, and power failure alarms (optional)							
Alarm method	audible and visual alarm							
Plug connection type	Y							
Anti electric shock protection category	I							
supply voltage	AC 220V~ 50Hz							
Temperature control range	20 ~ 55℃							
temperature fluctuation	≤4.5℃							
Temperature uniformity	≤4 (+ 2/-2) ℃							

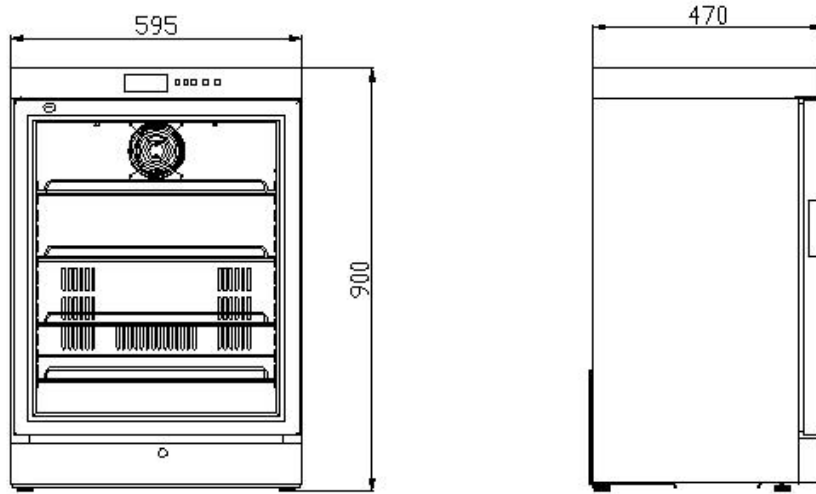
Display temperature deviation	$\leq 2^{\circ}\text{C}$							
Door lock	have							
Lighting	LED							
Caster wheels	There are (2 universal self-locking, 2 directional)							
Layer frame	3 of them	3 of them	4 of them	4 of them	6 of them	6 of them	6 of them	6 of them
Material	Interior: aluminum plate (white); shell: pre coated steel plate (white); foam material: cyclopentane; door: double-pane tempered coated insulated glass							

Note: All relevant data were measured under the conditions of an ambient temperature of 25°C and a relative humidity not exceeding 85%. The parameters listed in the table are subject to the actual product.

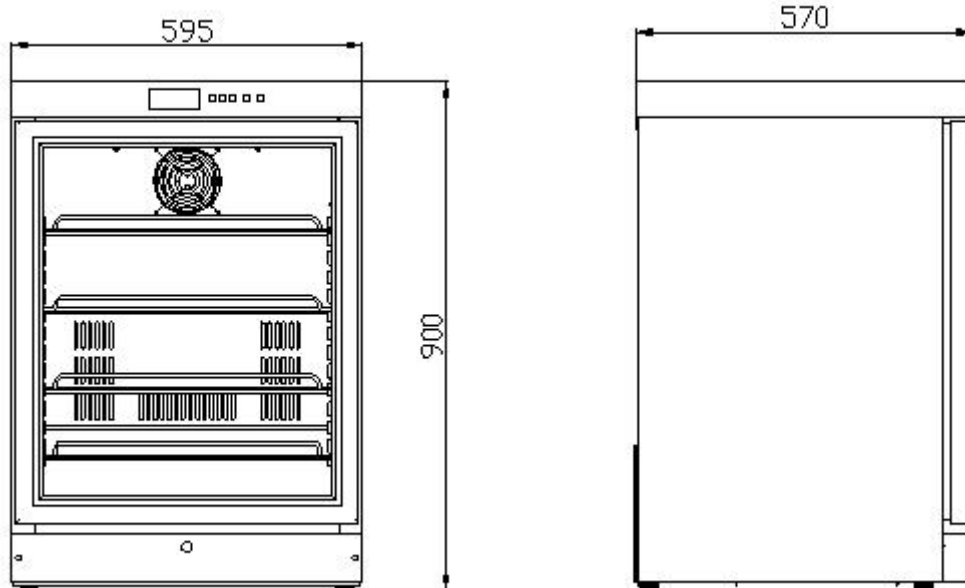
V Circuit diagram



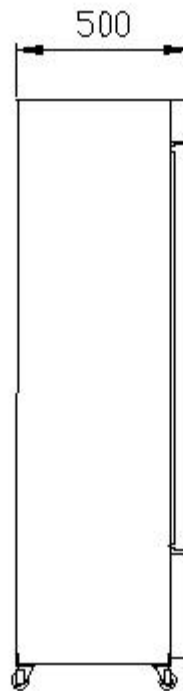
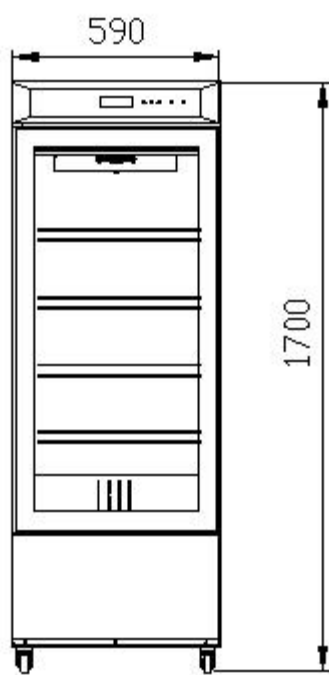
VI Product Dimensional Drawing



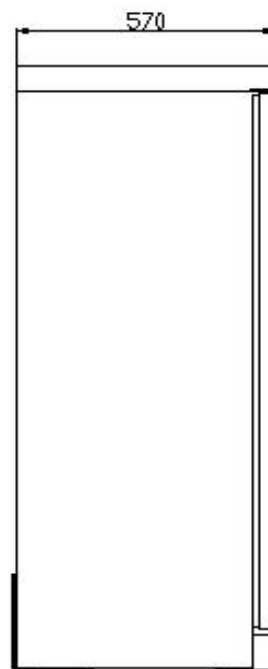
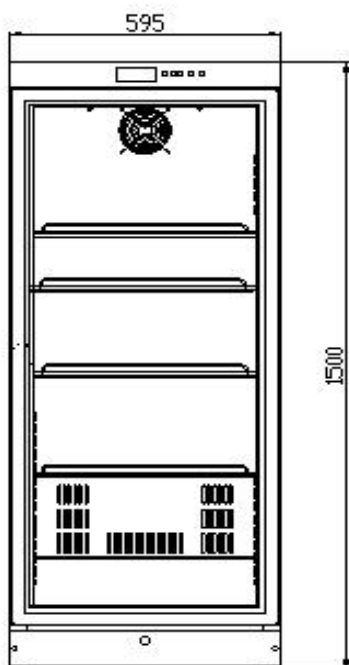
JW-90



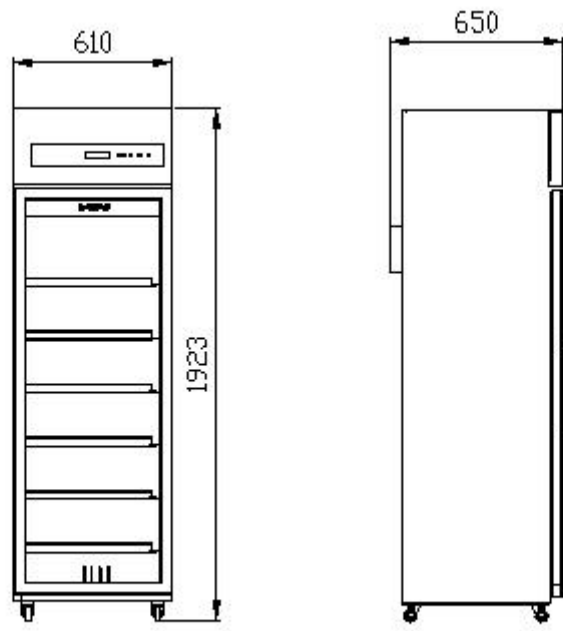
JW-150



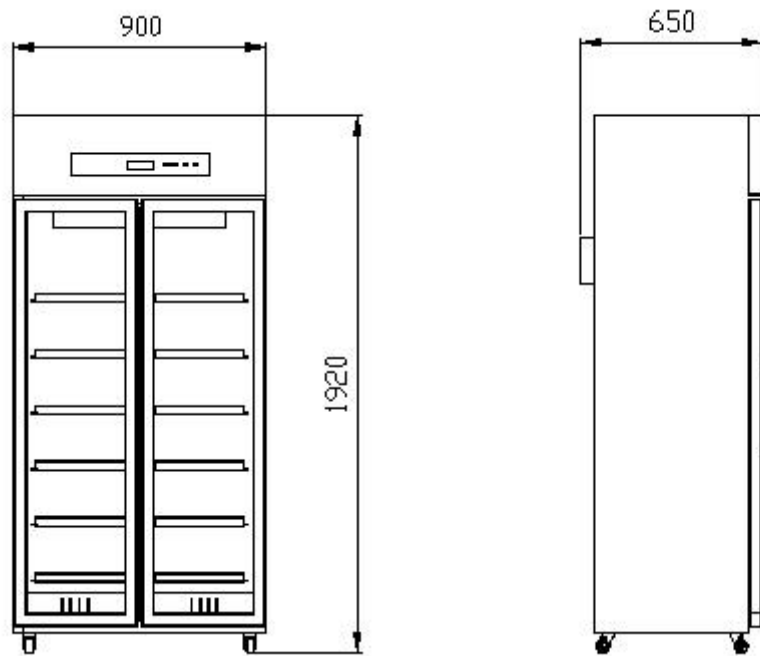
JW-220



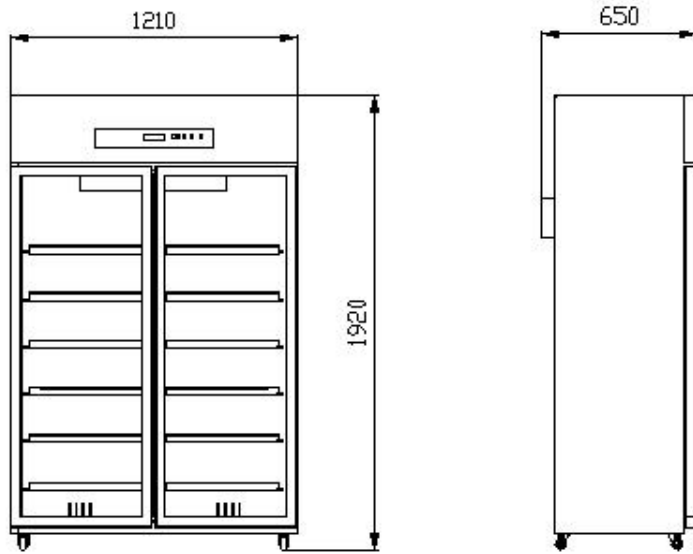
JW-280



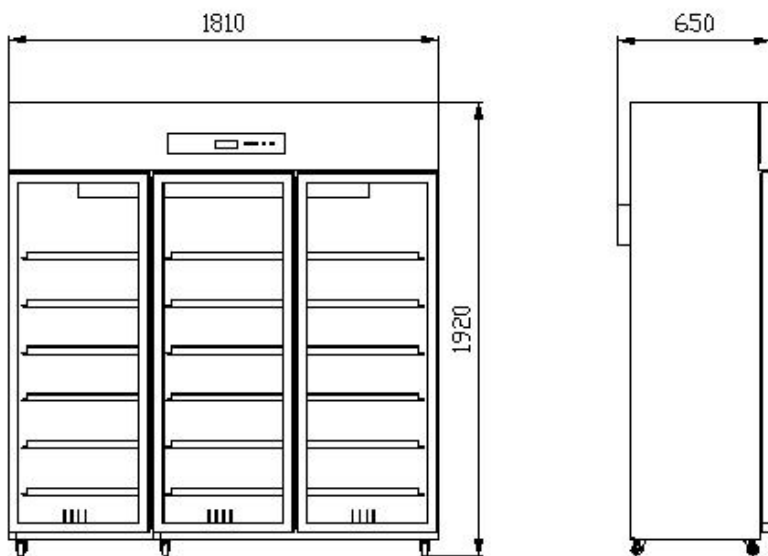
JW-400



JW-600



JW-800



JW-1200