

## Cooling Incubator (air circulated)

**KB 9202**



(Fig. similar)



**External Dimension:**      W = 600 mm  
    D = 600 mm  
    H = 1920 mm

**Internal Dimension:**      W = 500 mm  
    D = 500 mm  
    H = 1300 mm

**Capacity:**                      400 l

**Temperature range:**      2°C to 50°C

### Housing

galvanized sheet steel with high quality white coating, antibacterial coated. With 4 feet, height adjustable.

**Optional:** of **stainless steel** (Backplane, as well as top and bottom side of the cabinet of galvanised sheet steel)

**Set of 4 castors, 2 lockable**

### Interior space

Inner case of galvanized sheet steel with high quality white coating, antibacterial coated. Cleaning friendly by rounded corners, slippery surface in the interior, meets highest hygiene requirements

**Optional:** of **stainless steel**

### Insulation

high density foamed-in-place polyurethane, with a thickness of 50 mm. CFC-free

### Circulation air cooling

for rapid and uniform temperature control, reducing temperature gradients to a minimum. When the door is "open" the circulating fan is switched off automatically by a micro switch in order to prevent warmer ambient air being drawn in.

### Door

Solid door, supplied as standard with right hand hinge, also available with left hand hinge at no extra cost.

Grease resistant magnetic seal.

**Optional:** - with **door lock, or electronic door lock**

- with **glass door**

### Interior fittings

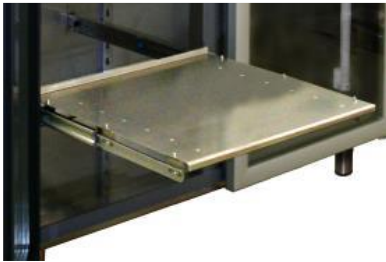
**3 pcs. Grating-type shelves** (dim.: 460x470 mm), white coated (max. 11 shelves possible)

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### Optional:

- **Interior lighting** with automatic ON/OFF micro switch
- **Stainless-steel drawer compartments** with **2 lengthwise dividers** (max. 7 drawers possible) with telescopic-type guides on rollers with stops, (lengthwise dividers easily removable)  
Drawer dimensions: 430x400x77 mm (WxDxH) Usable width between the lengthwise dividers: 126 mm
- **Socket** (230 V, 50 Hz), located in the usable space, ON/OFF button
- **cable port**, piped  $\varnothing$  40 mm, or  $\varnothing$  13.5 mm, for insertion of operator's own measuring lines



### **Optional:**

#### **telescope leaf**

made of galvanized sheet steel.

**(max. load 50 kg / or heavy load up to 100 kg)**

**Control system** located above the door

### **Microprocessor controlled PID controller,**

which is operated with soft touch pads and LCD display and allows control of all functions and operating status of the cooling incubator (including alarms). The control panel is battery operated to ensure alarm function even in case of power failure.

### The main functions of the control panel are:

- Large LCD display (2 lines), white backlit colour with black characters, indicating the
- operating status of the appliance (defrosting, alarm running, current temperature, etc.).
- Digital temperature setting and display with an accuracy of 0,1°C
- Password-protected with automatic lock
- Battery-powered with automatic recharging that keeps the control panel self-sufficient for up to 48 hours in the event of a power failure
- RS 485 interface
- potential free contact
- Visual and audible alarm signalling (with automatic reset) for:
  - Over-temperature and under-temperature with user-programmable limits.
  - "Door open" alarm (with time delay of 3 minutes)
  - Power failure
  - Battery discharged
  - Condenser dirty
  - Icing of evaporator
  - Sensor error
- Mute option (for 3 minutes) for audible alarms, with continuous warning on display
- Battery and alarm test
- Alarm memory (cannot be deleted) for the last 30 alarm conditions
- Event memory
- NTC sensors for temperature control accuracy

### **Operating range from 2°C to 50°C**

Temperature accuracy +/- 1.5°C after stabilisation (b. 50% filling)

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### Refrigerating unit

fully hermetically sealed, forced ventilation, fitted on vibration - absorbing mounts (ambient temperature max. 32°C), low noise (48 dBa/1m), energy saving compressor with high quality vaporisation system.  
Refrigerant: R290 or equivalent

### Defrost

automatically with thermal and time limit. Condensate evaporation in heated tray. During the defrost period, the temperature inside the cabinet (only the air temperature – not the stored goods) will arise for a short time.

### Heating element

Mounted in the interior, installed in the stainless-steel housing together with the interior fan.

### Electrical Data

Power supply	230 V/50 Hz /single phase	<b>Optional: 60 Hz</b>
Fuse	16 A	
Power cable:	2,0 m with schuko plug	

### Packing details (palletized)

Dimensions:	approx. 70x80x212 cm
Net weight:	90 kg
Gross weight:	110 kg
<b>Country of Origin:</b>	<b>European Union</b>
Customs clearance code:	8418 5090

## Special Equipment and Accessories:



### GSM Modul

Connecting to the potential-free output. In case of an alarm either a message or a call will be sent automatically. Archiving of 1000 phone numbers is possible. The GSM module is equipped with a rechargeable battery. Automatic alert via SMS when the credit has been used on the SIM card. 6 units can be connected per module. The SIM card is not included

### Wireless data logger, complete

For independent temperature recording

## Qualifications



### DQ (Design Qualification)

*Definition: Documented proof that the quality-related, GMP-related requirements has been adequately addressed in the design of equipment, including buildings, premises and auxiliary equipment*

The user-requirement profiles (specifications) are documented and confirmed by us. On request, a specification can be created by us.

### IQ (Installation Qualification)

*Definition: Documented proof that critical equipment and systems have been delivered and installed in accordance with the set requirements and government regulations.*

The IQ documentation is worked out by us especially for the delivered machine and is made available to you. The IQ documentation has to be carried out by the customer itself.

### OQ (Operational Qualification)

*Definition: Documented proof that critical equipment and systems in accordance with the set requirements in the whole operating range are working as intended in accordance with predetermined limits.*

The OQ documentation is worked out by us especially for the delivered machine and is made available to you. The OQ documentation has to be carried out by the customer itself.

### CQ (Calibration Qualification)

*Definition: Documented proof that critical measuring equipment in the intended range in accordance with predetermined tolerances operate reliably under current operating conditions*

#### **Checking the temperature in the unloaded incubator (after reaching steady state)**

**1 temperature on 2 measuring levels with 4 measuring points each and one measuring point in the centre of the unit.** (Measurement with calibrated PT 1000 sensors). Test time 4 hours, then open door for 30 seconds.

During this time, the stated tolerances must not be exceeded.

The temperature measurements are carried out on our premises. The measurement evaluation, including graphical representation, is provided in written form. (Other measuring methods possible on request)

### PQ (Performance-Qualification)

*Definition: Documented proof that critical equipment and systems in accordance with the set requirements in the whole workspace under current working conditions (with product) provide the requested services*

The calibration described above is carried out under real conditions on site. Optionally, the measurement can be carried out in a loaded or unloaded state. The measurement evaluation, including graphical representation, is carried out in written form. During this time, the stated tolerances must not be exceeded.

(Other measuring methods possible on request)