

Climatic Cabinet

KB 9400 F



| | |
|---------------------------|--|
| Outside dimension: | W = 830 mm D = 720 mm H = 1840 mm |
| Inside dimension: | W = 630 mm D = 592 mm H = 1073 mm |
| Capacity: | 400 l |
| Temperature range: | -2°C to 70°C |
| Humidity range: | 30% r.h. to 96% r.h. |

Housing

galvanised steel sheet, epoxy-resin-coated, RAL. 7035. Unit on four castors, lockable.

Interior space

Made of high-grade **stainless steel**. Cleaning friendly by rounded corners, slippery surface in the interior, meets highest hygiene requirements

The **thermo-jacket circulation system** ensures even temperature and humidity distribution in the chamber and prevents drying of the samples. The air flow is outside the workspace. The circulation fan stops about 40 seconds after opening the door, though the internal temperature is near the outside temperature. Simply removing the inner casing for intensive cleaning.

Door

Double-walled insulation door, hinged on the right-hand side. Magnetic, all-round sealing strip, resistant to laboratory cleaning agents.

Optional: - **Inspection window** in the front door, triple glazed with cover, dim: W: 32cm, H: 77cm – see photo
- with **door lock**

Interior fittings

Standard: 3 pcs. perforated stainless steel shelves (max. 22 pcs.)

Max. load per shelf: 30 kg in case of constant distribution – total load: 120 kg

Shelf dimension: W = 610 mm, D = 580 mm

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Control and instrument panel,

located above the door incl. temperature controller with digital indication



Microprocessor PID-controller with OLED display. Temperature and time are entered via touch button below the display. Time values can be set in minutes from 1 to 999.

Temperature operating range **from -2°C to 70° C.**

Temperature accuracy: temporal: +/-0.2°C, spatial: +/-0.3°C

Programmable automatic operating cycles for temperature, humidity and time.

Humidification by ultrasonic humidifier. Humidity conditioning outside the usable space

Humidity operating range from 30% r.H. to 96% r.H. (45°C)

at a working temperature of 4°C to 55°C

Humidity accuracy: temporal: +/-2°C, spatial: +/-2°C

Water quality: Demineralised water, max. water pressure: 4 bar. Inlet and outlet at the rear of the unit.

The KB series is easy to use, while still offering extensive programmability and numerous ramp options. The intelligent design enables fast and precise temperature control, as well as fast recovery and defrost phases.

A potential-free alarm output is fitted as standard.

Abnormal operating states are signalled directly.

Optional:

- *Integrated data logger readable via PC or gateway*

Cooling unit

with partially automatic load-demand control, fan-ventilated compressor set, fully hermetically sealed coolant circuit, built-in automatic defrosting facility arranged in the bottom cabinet section, large-surface evaporator with built-in, low-noise air ventilator and capillary injection facility.

Refrigerant: R600a or similar

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Electrical Data

| | |
|-------------------|----------------------------------|
| Power supply | 230 V/50 Hz a.A. 60 Hz / 1phasig |
| Power consumption | 1200 W |
| Fuse | 16 A |
| Power cable | 1,5 m with Schuko plug |

Packing (palletized)

| | |
|-------------------------|-----------------------|
| Dimensions: | approx. 106x83x204 cm |
| Net weight: | approx. 210 kg |
| Gross weight: | approx. 240 kg |
| Customs clearance code: | 8419 8998 |
| Country of origin: | European Union |

Special Equipment and Accessories:

CO₂ electronic control unit (infrared measurement)

Working range of 1 - 10% (20%), accuracy + / - 0.5%

Actual digitally displayed permanently, set point adjustable by buttons and digital readable

Temperature range: 5°C to 50°C



Door lock including 2 keys



Main socket

Installed inside the cabinet, 230 V, 50 Hz
ON/OFF by switch on control panel



Cable port with cover

Approx. 30 mm Ø. For example, to create access for operator measurement lines, etc.

Water tank for demineralised water

(If no corresponding water pipe is available)

Capacity: 10 litres

For placing the container on the climate cabinet, with screwable filler neck, outlet tap and spout.

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 must 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 must 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 climatic cabinet (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).

The humidity is measured simultaneously with a measuring point (in the centre of the unit).

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)