Cooling Incubator with lighting KB 9400-LL

Outside dimension:	**W = 960 mm** **D = 730 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 (without lighting)** **5°C to 55°C (with lighting)**

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 work space. The circulation fan stops about 40 seconds after opening the door, though who 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: 32 cm, H: 77 cm – 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

Control and instrument panel,
located above the door incl. temperature controller with digital indication

Microprocessor PID-controller touchscreen display. Time values can be given in minutes from 1 to 999.

tritec ®
Gesellschaft für Labortechnik
und Umweltsimulation mbH
Hüttenstraße 9
D-30165 Hannover

Homepage www.tritec-klima.com
E-mail info@tritec-klima.de
Phone ++49-511/3523508
Fax ++49-511/3521715
technische Änderungen vorbehalten

Cooling Incubator with lighting KB 9400-LL

Temperature without lighting
working range from -2°C to 70° C.
accuracy temporal: +/-0,3°C, spatial: +/-0,6°C

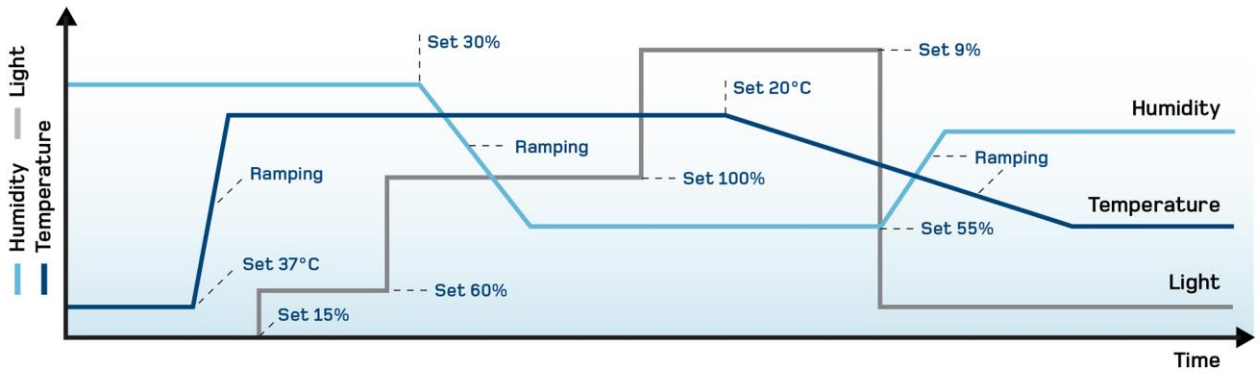
Temperature with lighting
working range from 5°C to 55° C.
accuracy temporal: +/-0,7°C, spatial: +/-1,0°C

Programmable automatic operating sequences for temperature and time (real time program)
The KB series is easy to operate, yet offers 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

Light "high intensive"
The KB 9400 F-LL offers a lighting system for day/night simulation. The powerful light sources are placed on each side of the cabinet to maximise the usable space in the chamber. The system provides a maximum illuminance of 25 000 lux on the sides and an average of 12 000 lux in the centre and is fully programmable.



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

Electrical Data

Power supply	230 V/50 Hz a.A. 60 Hz / 1phasig
Power consumption	1200 W
Fuse	10 A
Power cable	1,5 m with Schuko plug

Packing (palletized)

Dimensions:	approx. 106x83x204 cm
Net weight:	230 kg
Gross weight:	255 kg
Country of origin:	**European Union**

Customs clearance code: 8419 8998

tritec ®
Gesellschaft für Labortechnik und Umweltsimulation mbH
Hüttenstraße 9
D-30165 Hannover

Homepage www.tritec-klima.com
E-mail info@tritec-klima.de
Phone ++49-511/3523508
Fax ++49-511/3521715
technische Änderungen vorbehalten

Cooling Incubator with lighting KB 9400-LL

Special Equipment and Accessories:

CO_2 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 55°C

Door lock including 2 keys

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

Cable port with cover
Approx. 30 mm or 50 mm ∅. For example, to create access for operator measurement lines, etc.

tritec ®
Gesellschaft für Labortechnik
und Umweltsimulation mbH
Hüttenstraße 9
D-30165 Hannover

Homepage www.tritec-klima.com
E-mail info@tritec-klima.de
Phone ++49-511/3523508
Fax ++49-511/3521715
technische Änderungen vorbehalten

Cooling Incubator with lighting KB 9400-LL

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 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 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)

tritec ®
Gesellschaft für Labortechnik
und Umweltsimulation mbH
Hüttenstraße 9
D-30165 Hannover

Homepage www.tritec-klima.com
E-mail info@tritec-klima.de
Phone ++49-511/3523508
Fax ++49-511/3521715
technische Änderungen vorbehalten