

# Laboratory Deep-Freezer, static cooling

## Internally spark resistant

# TC 1006-ex



**External Dimension:** B = 600 mm  
D = 615 mm  
H = 1840 mm

**Inside Dimension:** B = 420 mm  
D = 400 mm  
H = 1587 mm

**Capacity:** 310 l

**Temperature range:** -9°C to -30°C

### Housing

galvanized sheet steel with white coating. Isolated door supplied as standard with right hand hinge (reversible). Grease resistant magnetic seal.

### Interior space

of high quality plastic. Cleaning friendly by rounded corners, slippery surface in the interior, meets highest hygiene requirements

### Isolation

Polyurethane, free of CFCS

### Interior fittings

8 pcs. Drawers of cold resistant plastic (height 185 mm)  
With 7 fixed mounted evaporator plates (max. load 24 kg per plate)

**Control system** located above door.



### High quality electronic temperature controller.

Actual and set value display digital.  
Actual value permanently readable  
Set value digital adjustable by switch  
**Working range from -9°C to -30°C**

- Temperature differences are displayed visually and acoustically,
- Door open Alarm
- Potential free alarm output for remote transmission
- Power failure alarm when mains power returns (optical)
- RS 485 interface
- Min/max temperature

### Refrigerating unit

Refrigerating unit fully hermetically sealed, forced ventilation, fitted on vibration - absorbing mounts (ambient temperature max. 32°C), low noise, energy saving compressor with high quality vaporisation system. Refrigerant: environment friendly R600

# Laboratory Deep-Freezer, static cooling

## Internally spark resistant

# TC 1006-ex

### Defrost

Manually

### Electrical dates

Power supply 230 V/50 Hz / single-phase  
Energy consumption 1,3 KW (24 Std.)  
Power cable 1,5 m with schuko plug

### Packing details (palletized)

Dimensions: approx 80x80x180 cm  
Net weight: 87 kg  
Gross weight: 92 kg  
**Country of Origin: European Community**  
Customs clearance code: 8418 5090

### Technical indication:

This refrigerator is classified as “**internally spark resistant**” and have no electrical components in the interior, reducing the risk of fire or explosion. (The class of explosion protection provided by this equipment meets Federal German safety regulations for laboratory equipment DGUV Information 213-850. The appropriate regulations must be observed in other countries).

# Laboratory Deep-Freezer, static cooling

## Internally spark resistant

**TC 1006-ex**



## 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 cabinet

**1 Temperature on 3 different measuring points** (measured with calibrated PT 100 sensor) evenly located on the shelves. Inspection time 6 hours, open door after that of 30 seconds. The inside temperature of the cabinet must have been stabilized itself within 1 hour on the set point temperature.

The measurements are carried out in the empty state.

The temperature measures are carried out in our company, represented graphically and provided to you.

The values may not dropping below or above the tolerances given by us.

(Additional measuring points 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.

The values may not dropping below or above the tolerances given by us.