

## Lyophilizer

### Description/Parameters

This series of laboratory freeze dryers is designed for both routine applications and advanced drying processes, offering programmable semi-automatic control. The instruments provide a freeze-drying capacity of 2–4 kg/24 h with a condenser temperature of  $-110\text{ }^{\circ}\text{C}$ . The condenser and top plate are made of chemically resistant stainless steel and welded as a single unit with the cooling circuit embedded in the condenser wall. This design provides a large condensation surface and, thanks to its smooth construction without seals or strips, ensures long service life and easy cleaning.

The system also allows automatic vacuum regulation, process recording to a USB drive, control via 25 drying programs, and communication through RS232 or Ethernet.

- Condenser temperature:  $-110\text{ }^{\circ}\text{C}$ , condenser capacity: 2 kg/24 h
- Total ice capacity: 3 kg
- Condenser volume: 4 L, power supply: 230 V, 50 Hz
- Heated shelf control system
- Electrical condenser defrost
- Two-stage rotary vacuum pump ( $\approx 80\text{ L/min}$ )
- Acrylic drying chamber with heated shelves and closing mechanism
- Vertical manifold for connecting additional accessories
- Sensor for sample temperature measurement

### Utilization/Services

Lyophilizer is suitable for both routine tasks and advanced drying, with the option of programmable semi-automatic control.

