

## Electric Heating Cover Type Freeze Dryer



### Application:

Vacuum freeze dryers are widely used in the fields of medicine, biological research, chemical industry and food. Items that have been freeze-dried are easy to store for a long time. After adding water, they can be restored to the pre-freeze-dried state and maintain their original biochemical properties.

BK-FD10FD (electric heating) freeze dryer, in-situ freeze drying. It changes the cumbersome operation of the drying process in the past, prevents the contamination of materials, and realizes the automation of drying and sublimation.

This model has shelf heating and programmable functions, can memorize freeze-drying curves, and has a built-in USB disk extraction function, which is convenient for users to observe the freeze-drying process of materials.

### Features:

1. Pre-freezing and drying are completed in situ, easy to operate, and good drying effect.
2. The drying chamber door is made of ACRYLIC material, which is colorless, transparent, and the whole freeze-drying process can be observed.
3. The inflation (drainage) valve adopts a safety diaphragm valve, which can be connected to an inert gas source. After drying, it is filled with inert gas to extend the shelf life of the material.
4. Professional gas diversion technology, cold trap ice capture is uniform, and ice capture capacity is strong.
5. Internationally renowned brand compressor, high efficiency and energy saving, long service life, low noise.
6. Patented partition technology and partition temperature fuzzy control technology, small shelf temperature difference, high temperature control accuracy, and uniform drying effect.
7. Freeze-drying curve optimization control technology, which can control the cooling rate in the pre-freezing stage, and control the sample heating rate in the sublimation and analytical drying stages.
8. Powerful sensor calibration function to ensure the accuracy of long-term measurement values.
9. 7-inch true color industrial embedded touch screen + SH-HPSC-II modular controller, high control accuracy, stable and reliable performance.
10. The professionally designed FD-EMB control system can save hundreds of process recipes, each of which contains 50 temperature control sections, improving the process optimization rate.
11. The intelligent data recording system records and displays the cold trap temperature curve, sample temperature curve, and vacuum curve in real time. The exported data can be browsed, printed, and operated by the computer, which is convenient for process optimization and drying effect verification.
12. Flexible manual + automatic control mode, manual is used to explore the process, and automatic is used for batch production.
13. Real-time alarm display and historical alarm query function are convenient for fault diagnosis and equipment maintenance.
14. User levels and passwords can be set to decentralize operation management."

### Technical Parameters:

Model	BKC-TL5COM
Freeze Drying Area	0.1 m <sup>2</sup>
Shelf Size	400×270mm
Material Tray Size	395×265mm
Number of Material Trays	1
Plate Spacing	70mm
Shelf Temperature Range	-50°C~+70°C, optional -70°C~+70°C
Cold Trap Temperature	≤-60°C (no load), optional ≤-80°C (no load)
Water Capture Capacity	≥6kg/24h
Vacuumsing Rate	4L/s
Ultimate Vacuum	≤5Pa (no load)
Installed Power	2000w
Cooling Method	air cooling
Plate Material	1L (material thickness 10mm)
Vial Quantity	Vial Φ12mm: 777 pieces; Vial Φ16mm: 434 pieces; Vial Φ22mm: 220 pieces
Net Weight	210kg
Optional Functions	· Cold trap temperature -80°C; · Eutectic point tester · Vacuum pump oil return prevention device; · Oil mist filtration system · Vacuum adjustment system; · Automatic backfill/drainage system · LYO-MEGA software system; · Mobile APP monitoring system; · Backfill filter · External bottle hanging device; · Non-standard customization"