

LAB1ST

LAB1ST FDH-3Lite Freeze Dryer

0.3m²





Commercial Freeze Dryer For Food Applications

Freeze dryer, also known as a lyophilizer, is designed to remove moisture from products at low temperatures. Compared with conventional drying methods, freeze drying better preserves the product's original shape, color, flavor, and nutritional value, making freeze-dried foods increasingly popular among consumers worldwide.

With over 30 years of industry experience, Labfirst Scientific specializes in the design and manufacture of robust, reliable, and regulation-compliant freeze-drying systems. Our freeze dryers are widely used for processing fruits, vegetables, pet food, and other food products.

Backed by a team of experienced engineers, we provide professional support for customized system design and production. Whether you need a freeze dryer for home use or testing your samples on a small scale, our freeze-drying solutions are designed to meet your essential application needs.



Key Facts

- **Cost-Effective Home Freeze Dryer:** 0.3 m² Drying area, 3 L fresh liquid capacity, and condenser temperature down to $\leq -40^{\circ}\text{C}$, delivering an ideal balance of performance, footprint, and cost.
- **User-Friendly Design:** Compact structure and plug-and-play operation ensure a simplified workflow for easy daily use.
- **Integrated Chamber and Condenser:** Shorter sublimation path improves vapor transfer efficiency and accelerates the freeze-drying process.
- **International Refrigeration Compressor:** High cooling efficiency with low noise, extended lifespan, and reduced energy consumption.

- **High-Transparency Acrylic Door:** Allows real-time monitoring of sample conditions and the entire freeze-drying process.



- **Built-In Recipe Programs:** Preloaded with three freeze-drying recipe categories, supporting multi-stage temperature control and one-touch automatic operation.
- **APP Remote Monitoring:** Enables users to monitor equipment operating status anytime, anywhere, for greater convenience and process control.
- **Shelf Temperature Control:** Ensures precise temperature regulation for consistent freeze-drying performance while reducing energy usage.

- **304 Stainless Steel Trays:** Food-grade trays with handles designed for safe sample handling.



- **One-Touch Rapid Defrosting:** Safe and efficient defrosting design that minimizes waiting time.

Key Facts

Model	FDH-3Lite
Type	Benchtop
Drying Area	0.3 m ²
Batch Capacity	3L (liquid)
Sample Temperature Monitoring	1 Pcs
Shelf Dimensions	360 x 205mm
Number of Shelves	4+1 pcs
Shelf Spacing	44mm
Cold Trap Temperature	≤-40°C (No load)
Maximum Condensation Capacity	≥3Kg
Ultimate Vacuum Level	≤5Pa (No load)
Heating Method	Electric heating
Defrosting Method	Electric defrosting
Rated Power	Approx. 1.6Kw
Power Supply Requirements	220V, 50Hz
Main Unit Dimensions	690*760*940mm
Net Weight of Main Unit	Approx. 100kg
Control System	Manual + Automatic (Control system with 3 types of built-in recipe processes)



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