


ALC-Scientific

 LAB-GRADE ENGINEERING. OEM-SCALE RELIABILITY.
 SCIENTIFIC INSTRUMENTS • OEM MANUFACTURING • LAB SOLUTIONS

PRODUCT BROCHURE

SAMPLE PREPARATION / LYOPHILIZATION

FREEZE DRYER / LYOPHILIZER

ALC-FD Series

Preserve samples with reliable freeze-drying performance.

The ALC Freeze Dryer / Lyophilizer Series is designed for dependable dehydration of biological samples, pharmaceuticals and research materials while preserving structure and stability.


CONDENSER TEMP

-50 to -86 °C

CAPACITY

2–12 L (models)

APPLICATION

Research / Pharma

MODEL

ALC-FD Series

CATALOGUE NUMBER

To be confirmed



OVERVIEW & FEATURES

PRODUCT OVERVIEW

Reliable freeze-drying architecture for research and bioprocess laboratories.

The ALC-Scientific Freeze Dryer / Lyophilizer Series is designed for the dehydration and preservation of biological samples, pharmaceuticals and research materials, with transparent chambers, refrigerated condenser systems and intuitive control. Built for reliable performance, it helps maintain sample integrity while delivering consistent freeze-drying results.



CONDENSER TEMP

-50 to -86 °C

CAPACITY

2–12 L (models)

APPLICATION

Research / Pharma

Key Features

- Transparent chamber**
Clear view of samples during the freeze-drying process.
- Touchscreen control**
Intuitive interface for easy operation and monitoring.
- Shelf / tray system**
Supports a variety of sample formats and configurations.
- Stable low-temperature operation**
High-performance refrigerated condenser system.
- Compact benchtop footprint**
Space-saving design for modern laboratories.
- Multiple model capacities**
Choose from 2–12 L to match your application needs.

Working Principle

The freeze dryer removes moisture from frozen samples by sublimation under vacuum. Ice in the sample is converted directly from solid to vapor, and the water vapor is captured in a low-temperature condenser, preserving the structure, activity and stability of the sample.

TYPICAL APPLICATIONS

- Research laboratories
- Pharmaceutical drying
- Biological sample preparation
- Process development
- Academic R&D



REFERENCE TECHNICAL DATA

Product-family values require model-specific confirmation.

PARAMETER	REFERENCE SPECIFICATION
Product type	Freeze Dryer / Lyophilizer
Condenser temperature	-50 to -86 °C
Capacity	2–12 L, depending on model
Chamber type	Transparent cylindrical chamber with shelf/tray system
Control interface	Integrated digital touchscreen
Vacuum system	External or integrated pump, model dependent
Application range	Research / Pharma / sample preparation
Power supply	220–240 V AC, 50 Hz
Construction	Powder-coated or coated-metal housing with lab-grade chamber components
Customization	Model capacity, chamber layout, accessories and vacuum package selectable



STANDARD SUPPLY

- Main unit (Freeze Dryer / Lyophilizer)
- Transparent chamber with shelf/tray system (model dependent)
- Integrated control system (touchscreen)
- User manual and basic accessories
- Power cable



OPTIONAL / MODEL-DEPENDENT

- External vacuum pump
- Alternative chamber sizes and configurations
- Sample trays, flasks and adapters
- Inert gas backfill option
- Data export / software upgrades
- IQ/OQ documentation package



TO BE CONFIRMED

- Exact model and capacity (2–12 L)
- Final technical specifications
- Selection of vacuum system (integrated or external)
- Required accessories and options
- Regulatory / qualification documentation needs
- Delivery timeline and commercial terms



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APPLICATIONS & ENQUIRY

LABORATORY APPLICATIONS

Built for dependable sample preservation workflows.

Applications

-  Biological sample drying
-  Pharmaceutical R&D
-  Academic research
-  Process development
-  Material preservation
-  Pilot-scale laboratory use

Product Advantages

-  Stable freeze-drying performance
-  Clear chamber visibility
-  Intuitive touchscreen control
-  Multiple capacities
-  Clean modern design
-  Configurable vacuum package

INDUSTRIES SERVED

Research laboratories / Biotechnology / Pharmaceutical / Academic / Life-science facilities



SCAN PRODUCT PAGE

alcsscientific.com/brochure/freeze-dryer-lyophilizer

Request a model-specific quotation.

Share your sample type, batch size, preferred capacity, required accessories, installation city and any documentation requirements (e.g. datasheet, compliance details), and our team will provide a tailored quotation and technical support.

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