

# FreeZone® 6, 12 & 18 Liter Console Freeze Dryers

## Specifications



### Application suitability:

- Moderate to large sample loads or numerous sample batches
- Compatible with the FreeZone Stoppering Tray Dryer or Bulk Tray Dryer (tray dryer sold separately)

### All models feature:

- Upright stainless steel collector coil capable of holding 6, 12 or 18 liters of ice before defrosting. Collector lid, 3/4" thick, has neoprene gasket
- \* Full color, 5" capacitive touch screen with Lyo-Works OS:
  - Real time display of collector temperature, vacuum level and optional End-Zone end point detection
  - Automatic and manual start-up modes for collector cool down and vacuum pull down
  - Vacuum set point, alerts, diagnostic tests, user manual, defrost control and optional drying accessory control
  - Data logging stores and displays data in table or graph format, and may be exported via USB
  - Settings include language (English, Spanish, French, German, or Italian), time, temperature (°C or °F) and vacuum (mBar, Torr or Pa)
  - Alerts can be emailed to user-entered addresses via Ethernet connection
  - Maintenance alert settings for vacuum pump and refrigeration
  - Security lock-out

\* Labconco exclusive feature

- \* USB port and Ethernet connection
- End-Zone compatible (End-Zone Starter Kit sold separately. See page 47)
- Vacuum control valve
- \* Vacuum break valve
- \* Patented\* moisture sensor
- Console cabinet with interior space for vacuum pump (sold separately) and two-piece, removable front panel with viewing window
- Stainless steel and powder-coated steel exterior
- Quick-disconnect drain hose fitting with hose connector. 18", 1/4" ID silicone tubing and clamp included
- Clear acrylic chamber lid, 3/4" thick, with neoprene gasket
- Interior electrical receptacle for vacuum pump connection
- 3/4" OD vacuum connection, 36" of 3/4" ID vacuum hose and two clamps

### Models conform to the following standards:

- UL Standard 61010-1 (115/230V, 60 Hz models)
- CAN/CSA C22.2 No. 61010-1 (115/230V, 60 Hz models)
- CE Conformity marking (230V, 50 Hz models)

### Options include:

- Single 3/4 hp, 1 hp or 1-1/2 hp HCFC/CFC-free refrigeration system to cool collector to -50° C (-58° F) or two 1/3 hp or 3/4 hp HCFC/CFC-free refrigeration systems to cool collector to -84° C (-119° F). Collectors reaching -50° C include acrylic lid. Collectors reaching -84° C include stainless steel lid
- Purge valve
- PTFE-coated collector coil and chamber for corrosive compounds
- Built-in shell freezer with stainless steel bath, 5.5" w x 12.5" d x 7.5" h (30.5 x 14.0 x 19.0 cm), that includes 1/2 hp HCFC/CFC-free refrigeration system to cool heat transfer solution to -40° C (-40° F), 3/4" thick high-density polyethylene lid, neoprene gasket and quick-disconnect drain hose fitting and 18", 1/4" ID silicone tubing with clamp
- Built-in stainless steel mini vacuum drying chamber, 5.1" w x 13.0" d x 2.5" h (12.9 x 33.0 x 6.4 cm), that includes 50-watt heater with microprocessor control to +60° C (+140° F), 3/4" thick clear acrylic lid and neoprene gasket. (Chamber is not cooled.)
- Region-specific electrical plug configurations

### All models require (not included):

- Vacuum pump with a displacement of at least 98 L/min, 0.002 mBar ultimate pressure and fitting for 3/4" ID vacuum hose. See pages 41-44
- Drying accessory. See pages 23, 26-27 & 31-39
- Freeze dry glassware if not bulk freeze drying. See pages 46, 48 & 50



\*U.S. Patent No. 6,968,631

# FreeZone® 6 & 12 Liter Console Freeze Dryers

## Ordering Information

### Catalog Number Configurator:

Use this key to configure the nine digit catalog number to order your FreeZone 6 or 12 Liter Console Freeze Dryer.



Select the **REFRIGERATION TEMPERATURE** of your freeze dryer's collector. This is the second digit of your catalog number.

**0** = -50° C (-58° F). For samples containing water. Not for use with samples containing acetonitrile, methanol or ethanol. FreeZone 6 Liter collector is capable of removing 4 liters of water and FreeZone 12 Liter collector is capable of removing 8 liters of water in 24 hours.\*

**1** = -84° C (-119° F). For low eutectic point samples containing water or acetonitrile. Not for use with samples containing methanol or ethanol. FreeZone 6 Liter or 12 Liter collector is capable of removing 4 liters of water in 24 hours.\*

Select the **CAPACITY** of your freeze dryer's collector. These are the third and fourth digits of your catalog number.

**06** = 6 L                      **12** = 12 L

Select the **COLLECTOR COIL** and **CHAMBER MATERIAL** of your freeze dryer. This is the sixth digit of your catalog number.

**1** = Stainless steel  
**2** = PTFE-coated stainless steel

Select the **BUILT-IN OPTION** of your freeze dryer. This is the seventh digit of your catalog number.

**0** = None  
**1** = Purge Valve  
**2** = Purge Valve and Mini Chamber. Add 20 lbs. (9 kg) to shipping weight shown below.  
**3** = Purge Valve and Shell Freezer (FreeZone 6 Liter -50° C Freeze Dryers only). Add 80 lbs. (36 kg) to shipping weight shown below.

Select the **ELECTRICAL CONFIGURATION** and **PLUG TYPE** of your freeze dryer. These are the eighth and ninth digits of your catalog number. **The 115V configuration is available only on FreeZone 6 Liter Freeze Dryers.**

**00** = 115V, 60 Hz, with 20A plug for North America  
**10** = 230V, 60 Hz, with plug for North America  
**15** = 230V, 60 Hz, with plug for Saudi Arabia  
**30** = 230V, 50 Hz, with Schuko plug  
**40** = 230V, 50 Hz, with plug for China/Australia  
**50** = 230V, 50 Hz, with plug for Great Britain (UK)  
**70** = 230V, 50 Hz, with plug for India

### Electrical Requirements

Collector Capacity	Refrigeration Temperature	Volts	Amps	Note
6 L	-50° C & -84° C	115	16**	Requires 20 amp dedicated circuit
6 L	-50° C	230	8†	
6 L	-84° C	230	10**	
12 L	-50° C & -84° C	230	9†	

### Plug Configurations



115V, 60 Hz, 20A  
for North America



230V, 60 Hz  
for North America



230V, 60 Hz  
for Saudi Arabia



230V, 50 Hz  
Schuko



230V, 50 Hz  
for China/Australia



230V, 50 Hz  
for Great Britain (UK)



230V, 50 Hz  
for India

### Actual Dimensions & Shipping Weights

Refrigeration Temperature	Overall Dimensions (w x d x h)	Shipping Weight (6 L)	Shipping Weight (12 L)
-50° C (-58° F)	31.8" x 29.6" x 36.6" (80.8 x 75.2 x 93.0 cm)	255 lbs. (116 kg)	275 lbs. (125 kg)
-84° C (-119° F)	31.8" x 29.6" x 36.6" (80.8 x 75.2 x 93.0 cm)	270 lbs. (122 kg)	320 lbs. (145 kg)

\*Freeze drying rate will be lower for samples other than shell-frozen plain water. For optimum performance, room temperature should be 21° C (70° F) or colder.

\*\*System amperage shown includes 8 amp maximum vacuum pump rating.

†System amperage shown includes 4.5 amp maximum vacuum pump rating.

# FreeZone® 18 Liter -50° C Console Freeze Dryers

## Ordering Information

### Catalog Number Configurator:

Use this key to configure the nine digit catalog number to order your FreeZone 18 Liter -50° C Console Freeze Dryer capable of removing 10 liters of water in 24 hours\*\*



7 0 1 8 1

Select the **COLLECTOR COIL** and **CHAMBER MATERIAL** of your freeze dryer. This is the sixth digit of your catalog number.

- 1 = Stainless steel
- 2 = PTFE-coated stainless steel

Select the **BUILT-IN OPTION** of your freeze dryer. This is the seventh digit of your catalog number.

- 0 = None
- 1 = Purge Valve
- 2 = Purge Valve and Mini Chamber. Add 15 lbs. (7 kg) to shipping weight shown below.

Select the **ELECTRICAL CONFIGURATION** and **PLUG TYPE** of your freeze dryer. These are the eighth and ninth digits of your catalog number.

- 10 = 230V, 60 Hz, with plug for North America
- 15 = 230V, 60 Hz, with plug for Saudi Arabia
- 30 = 230V, 50 Hz, with Schuko plug
- 40 = 230V, 50 Hz, with plug for China/Australia
- 50 = 230V, 50 Hz, with plug for Great Britain (UK)
- 70 = 230V, 50 Hz, with plug for India

### Electrical Requirements

Collector Capacity	Refrigeration Temperature	Volts	Amps
18 L	-50° C	230	9*

### Plug Configurations



230V, 60 Hz  
for North America



230V, 60 Hz  
for Saudi Arabia



230V, 50 Hz  
Schuko



230V, 50 Hz  
for China/Australia



230V, 50 Hz  
for Great Britain (UK)



230V, 50 Hz  
for India

### Actual Dimensions & Shipping Weights

Refrigeration Temperature	Overall Dimensions (w x d x h)	Shipping Weight
-50° C (-58° F)	31.8" x 29.6" x 36.6" (80.8 x 75.2 x 93.0 cm)	290 lbs. (132 kg)

\*System amperage shown includes 4.5 amp maximum vacuum pump rating.

\*\*Freeze drying rate will be lower for samples other than shell-frozen plain water. For optimum performance, room temperature should be 21° C (70° F) or colder.

## Authorised distributor

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**In Australia:**

For customer service, call 1300-735-292

To fax an order, use 1800-067-639

To email an order, [ordersau@thermofisher.com](mailto:ordersau@thermofisher.com)

**In New Zealand:**

For customer service, call 0800-933-966

To fax an order, use 0800-329-246

To email an order, [ordersnz@thermofisher.com](mailto:ordersnz@thermofisher.com)

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