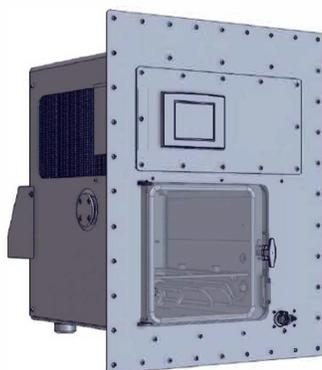


AdVantage Pro™ for Clean Rooms

Laboratory Benchtop Freeze Dryer



Clean room configuration C1 shown.

Key Features

- Experience the advantages of a tray dryer in a benchtop unit
- Operate the unit using Intellitronics' vivid, full-color touchscreen
- Receive alarm alerts via email
- Stopper vials automatically with the pneumatic stoppering
- Condense up to 4 liters of ice over 24 hours
- Select from one of two layout options-clean room configuration C1 or C2
- Order with up to three (3) usable shelves

Refrigerant Information

| | Gas 1 | Gas 2 |
|-------------------------|----------|----------|
| F Gas | R407C | R508B |
| GWP | 1774 | 13396 |
| EPA SNAP | IPR/VLTR | IPR/VLTR |
| Safety Class | A1 | A1 |
| Total CO ₂ E | 3.691 | |

Electrical Requirements

| | EL |
|-------------------------|-----------------------|
| Voltage | 208-230 VAC |
| Hertz | 50 / 60 Hz |
| Breaker Amperage | 15 A |
| Phase | Single |
| Receptacle ^s | 6-15R (Domestic Only) |

Specifications

| | |
|--------------------------------------------------------------|------------------------------------|
| Shelf temperature control Range* | -55°C to 60°C |
| Lowest shelf temperature [†] (50 Hz / 60 Hz) | -62°C / -65°C |
| Shelf pull-down from 20°C to -40°C [‡] | ≤ 30 minutes |
| Temperature uniformity [†] | ± 1.0 °C |
| Lowest condenser temperature [†] (50 Hz / 60 Hz) | ≤ -82°C / -85°C |
| Maximum condenser capacity | 6 L |
| Maximum ice condensing capacity in 24 hours [¶] | 4 L |
| Maximum deposition rate ^{¶¶} | 0.17 L/hour |
| Vacuum rate of rise | ≤ 60 mT/hour (≤ 0.08 mbar/hour) |
| Number of compressors | 2 |
| Compressor horsepower | 1/3, 3/4 |
| System refrigerant | R508B,R407C |

Performance specifications are based on SP test data from units operating at an ambient room temperature of approximately 20°C. SP recommends an operating range of 15-25°C (59-77°F).

Additional Information

| | |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Controller location | Located on front flange (C1 option) or located on the back panel (C2 option) |
| Inert Gas Port | 3/8" hose barb fitting located on front flange (C1 option) or located on the back panel (C2 option) |
| Drain port | Located on front flange (C1 option) or located on the side panel (C2 option) |
| Compressed air inlet [¶] | 1/4" BSPT fitting |
| Condenser type | Internal |
| Stoppering | Top-down pneumatic |
| Defrost type | Hot gas |
| Refrigerant | CFC- Free |
| Vacuum brake solenoid (VBS) valve ^{§§} | Located between the vacuum system and the condenser port |
| Vacuum pump (required, not included) | Two-stage rotary vane or suitable dry pump |

Utility Requirements

| | |
|---------------------------------------------------|--------------------------------|
| Compressed air | 60 – 90 psig (4.1– 6.2 bar) |
| Approx. peak heat generated (with vacuum pump) | 7,000 BTU/h (2 kW) |
| Approx. peak heat generated (without vacuum pump) | 6,000 BTU/h (1.8 kW) |



