

16 Cu. Ft. Pharmacy Refrigerator and Freezer Combo Unit



# PH-BSI-HC-RFC-16A

## Product Description

These Pharmacy refrigerator and freezer combination units are designed with a variable speed compressor to deliver unparalleled temperature control. Safeguard your samples with superior temperature uniformity and recovery, even after frequent door openings. Monitor your medical equipment though intuitive digital displays and protective alarms. Champion sustainability with natural hydrocarbon refrigerants—which not only contribute to energy savings, but also foster a greener footprint. Elevate your medical cooling experience with an integrated solution that brings together innovation, performance, and precision.

#### Image





### Certification

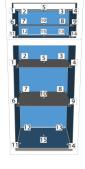


| eral Description and Application  |   |  |  |
|-----------------------------------|---|--|--|
| Storage capacity (cu. ft)         | 13 Cu. Ft. Refrigerator / 3 Cu. Ft. Freezer   |  |  |
| Door                              | Double Swing Solid Right Hinged Doors   |  |  |
| Shelves (Frg/Frz)                 | 3 adjustable, vented stainless steel shelves refrigerator / 1 fixed shelf freezer   |  |  |
| Drawers (Frg/Frz)                 | Non-applicable  |  |  |
| Mounting and Installation         | Leveling Legs   |  |  |
| Interior lighting                 | 12V LED light bar (Refrigerator)  |  |  |
| Airflow Management (Refrigerator) | Forced draft air circulation (Refrigerator)   |  |  |
| External probe access             | Probe access port (3/4") dia., 2 ea. (1 for Refrigerator/1 for Freezer)   |  |  |
| Insulation                        | Cabinet is foamed-in-place with EPA compliant high density urethane foam  |  |  |
| Exterior materials                | Bioscience Grey powder coated canopy, white textured chamber exterior   |  |  |
| Access control                    | Keyed door lock   |  |  |
| General warranty                  | Two (2) years parts and labor warranty  |  |  |
| Compressor warranty               | Seven (7) years compressor warranty   |  |  |
| Product Weight (lbs)              | 262   |  |  |
| Shipping Weight (lbs)             | 292   |  |  |
| Rated Amperage                    | 3 Amps  |  |  |
| Power Plug/Power Cord             | NEMA 5-15 Plug / Vaccine storage power cord warning label   |  |  |
| Facility Electrical Requirement   | 110-120V AC: 15 A (minimum)   |  |  |
| Agency Listing and Certification  | ETL, C-ETL listed and certified to UL 471 Standard for Commercial Refrigerators an Freezers and CSA C22.2#120 Refrigeration Equipment |  |  |

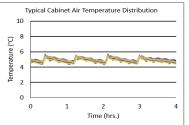
| formance   |                      |
|--|----------------------|
| Refrigerator Uniformity <sup>1</sup> (Cabinet air)       | +/-0.22°C            |
| Refrigerator Stability <sup>2</sup> (Cabinet air)        | ±0.48°C              |
| Refrigerator Maximum temperature variation (Cabinet air) | ±0.71°C              |
| Freezer Uniformity <sup>1</sup> (Cabinet air)            | ±0.69°C              |
| Freezer Stability <sup>2</sup> (Cabinet air)             | ±1.14°C              |
| Freezer Maximum temperature variation (Cabinet air)      | ±1.95°C              |
| Energy Consumption (KWh/day)                             | 3.73                 |
| Average Heat Rejection (BTU/hr)                          | 5.25                 |
| Average Heat Rejection (BTU/hr)                          | 746                  |
| Noise Pressure Level (dBA)                               | 48 or less installed |
| Pull down time to nominal operating temp (Frg/Frz)       | 40 min / 165 min     |

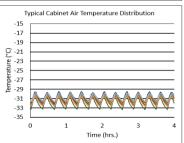
| Frg Temperature Probes 1,2 |     |     |     |  |  |
|----------------------------|-----|-----|-----|--|--|
| Probe                      | Ave | Min | Max |  |  |
| 1                          | 4.8 | 5.6 | 4.3 |  |  |
| 2                          | 4.8 | 5.5 | 4.4 |  |  |
| 3                          | 4.9 | 5.4 | 4.4 |  |  |
| 4                          | 4.9 | 5.5 | 4.5 |  |  |
| 5                          | 4.8 | 5.3 | 4.5 |  |  |
| 6                          | 4.7 | 5.4 | 4.4 |  |  |
| 7                          | 5.1 | 5.5 | 4.7 |  |  |
| 8                          | 5.0 | 5.5 | 4.7 |  |  |
| 9                          | 4.9 | 5.5 | 4.4 |  |  |
| 10                         | 4.9 | 5.4 | 4.5 |  |  |
| 11                         | 5.1 | 5.7 | 4.7 |  |  |
| 12                         | 4.9 | 5.6 | 4.6 |  |  |
| 13                         | 5.1 | 5.6 | 4.7 |  |  |
| 14                         | 5.1 | 5.6 | 4.7 |  |  |
| 15                         | 5.0 | 5.4 | 4.6 |  |  |
| Bal                        | N/A | N/A | N/A |  |  |
| Bag                        | N/A | N/A | N/A |  |  |

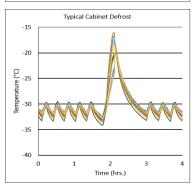
| Frz Temperature Probes 1,2 |       |       |       |  |  |
|----------------------------|-------|-------|-------|--|--|
| Probe                      | Ave   | Min   | Max   |  |  |
| 1                          | -30.7 | -29.5 | -32.1 |  |  |
| 2                          | -31.3 | -30.0 | -32.6 |  |  |
| 3                          | -31.6 | -30.5 | -32.7 |  |  |
| 4                          | -31.4 | -30.3 | -32.5 |  |  |
| 5                          | -31.5 | -30.3 | -32.6 |  |  |
| 6                          | -31.0 | -30.0 | -32.0 |  |  |
| 7                          | -31.3 | -30.2 | -32.3 |  |  |
| 8                          | -31.3 | -30.2 | -32.4 |  |  |
| 9                          | -31.0 | -30.0 | -32.0 |  |  |
| 10                         | -30.9 | -29.9 | -31.9 |  |  |
| 11                         | -30.7 | -29.9 | -31.9 |  |  |
| 12                         | -32.0 | -30.4 | -33.4 |  |  |
| 13                         | -31.5 | -30.3 | -32.7 |  |  |
| 14                         | -31.6 | -30.3 | -32.7 |  |  |
| 15                         | -30.8 | -29.9 | -31.7 |  |  |
| Bal                        | N/A   | N/A   | N/A   |  |  |
| Bag                        | N/A   | N/A   | N/A   |  |  |



### **Temperature Charts**







Notes on Performance Data: Performance data acquired at 22°C ambient, 5°C/-33°C nominal set points in an empty cabinet with shelves using air probes, during stabilized steady state operation and a DAQ sampling rate of one measurement every 10 seconds

- $1- Uniform it y is defined as the \ maximum \ variance \ in \ temperature \ across \ all \ probes \ at \ any \ point \ in \ time \ over \ the \ testing \ period$
- 2 Stability is defined as the maximum variance in temperature experienced by any single probe over the testing period
- 3 Data per Energy Star test results or equivalent testing and calculation. Heat rejection based on daily averages, not continuous operation. Performance exceeds Energy Star requirements.
- 4- Charts are representative of the product and actual performance may vary slightly

Refrigeration Syste Variable speed (VSC), Refrigerator. Rated speed range: 1300-4000 rpm Compressor Refrigerant R600a Anti-fouling tube and grid design Condenser Fin and tube design, high efficiency fan

Defrost (Refrigerator/Freezer) Cycle Optimized Zero-Energy / Auto Defrost Controller, Configuration, Alarms and Moni Individual XRI77CH microprocessor temperature controllers for both the refrigerator and freezer with digital temperature display. "C/"F switchable Controller technology Battery Backup 12V high-capacity battery, controller, all alarms active, temperature monitoring DAQ and event logging active on battery backup Display technology  $Bi-Colored\ LED\ display\ and\ alarm\ module\ with\ .1^\circ C\ resolution,\ touchpad\ controls,\ \ resettable\ 1-point\ min/max\ history$ RS-485 (MODBUS) Digital Communication Chart Recorder Non-applicable Adjustable Temperature Range (Refrigerator)
Adjustable Temperature Range (Freezer) 1°C to 10°C -35°C to -15°C External alarm connection State switching remote alarm contacts

Audible and visual high and low temperature alarms, refrigerator and freezer, 36 hour battery back-up on alarms, high/low temperature & loss of power, remote alarm contacts, door alarm Alarms Controller probe 2 probes for each chamber; 1 in air and 1 in sample bottle Notes on Performance Data: Performance data acquired at 22°C ambient, 5°C/-33°C nominal set points in an empty cabinet with shelves using air probes, during stabilized steady state operation and a DAQ sampling rate of one measurement every 10 seconds Disclaimer\*

1 - Uniformity is defined as the maximum variance in temperature across all probes at any point in time over the testing period
 2 - Stability is defined as the maximum variance in temperature experienced by any single probe over the testing period
 3 - Data per Energy Star test results or equivalent testing and calculation. Heat rejection based on daily averages, not continuous operation. Performance exceeds Energy Star requirements.
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