

Model

i.Series® iUF118 Upright Ultra-Low Temperature Freezer

Specifications

Application, Rating and Electrical Data

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|--------------------------------|--|
| Application | Storage of biological samples |
| Storage Volume | 18cf (510L) |
| Storage Capacity | 352 standard 2" (51mm) boxes |
| Temperature Range | -50°C to -86°C @ 32°C (90°F) Ambient |
| Electrical Power | 208/230V 60Hz, 1 Phase |
| Maximum Current | 11 FLA |
| Auto-Voltage Safeguard | Optional boost system |
| Building Supply Rating | 15 amp dedicated ground circuit |
| Power Plug / Power Cord Length | NEMA 6-15 plug, 7.5ft (2286mm) |
| Certification / Agency Listing | QPS |
| Sound Pressure Level (dBA) | <70 dBA |
| Indoor/Outdoor Use | Indoor use only |
| Application Environment | Non-corrosive, non-flammable, non-explosive, 15°C to 32°C (59°F to 90°F) |
| Lifetime of Product | 10 years |

Refrigeration System

| | |
|-------------------------|---|
| Refrigeration System | Two Stage Cascade System |
| Compressor / Number | 1.5 HP hermetic / 2 |
| Condenser Type / Number | Air-cooled fin and tube / 1 |
| Expansion Device | TXV valve - high stage Cap tube - low stage |
| Evaporator Type | Split, cold wall |
| Defrost Method | Manual |
| Refrigerant Charge | R601 natural refrigerant - low stage R508B nonflammable CFC/HCFC-free - low stage R404A nonflammable CFC/HCFC-free - high stage |

Performance Data

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|--------------------|--------------------------|
| Energy Consumption | 18.5 kWhr/day at -80°C |
| Uniformity | +/-5°C at -80°C Setpoint |

Warranty

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|--------------------|---|
| Rel.i™ (US/Canada) | 5 years compressor, 2 years parts and labor |
| Outside US/Canada | Consult your local representative |

Controller

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|----------------------|---|
| Interface | i.C ³ ®, eye-level, color touchscreen |
| Power Switch | On/Off with circuit breaker |
| Controller Type | Microprocessor with touchscreen input and display. Includes USB hub for data retrieval. |
| Security | Lockable door, PIN access control, password setpoints, padlock hasp |
| Compressor Safeguard | High ambient temperature warning, compressor and condenser over-temperature alarms |
| Control Sensor | RTD (Platinum) (1 ea) |
| Communication Ports | (1) RS232 Port (rear) and (1) USB Port (side of door-mounted user interface) |
| Warm / Cold Alarms | Fully adjustable |
| Event Log | All alarms, door openings, download via USB |
| Temperature Log | 60 days, download via USB |
| Access Log | 60 days, download via USB |
| Battery Back-up | 20 hour display and alarm battery back-up for i.C ³ ® touchscreen (12V, lead acid battery) |

Dimensions and Construction

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|---|---|
| Interior (w x h x d) in (mm) | 23.1 x 54.1 x 23.3 (587 x 1374 x 592) |
| Exterior (w x h x d) in (mm) | 28.9 x 78.2 x 34.8 (734 x 1986 x 884) |
| Exterior (w x h x d) in (mm) (Inc. handle, casters, hinges) | 32.5 x 78.2 x 37.5 (826 x 1986 x 953) Fits through standard 36" (914mm) doorway |
| Insulation | Premium Vacuum Insulated Panels |
| Door | 1, solid |
| Access Ports | 2, external |
| Perimeter Heater | Hot gas loop |
| Compartments & Inner Doors Shelves / Capacity | 5 4 adjustable stainless steel / 160 lb (73 kg) max. cap. |
| Casters / Legs | Standard / swivel, locking plus leveling legs |
| Net Weight | 622 lb (282 kg) |
| Shipping Weight | 717 lb (325 kg) |
| Options / Accessories | Chart Recorder, LN2 and CO2 back-up systems, -70°C factory preset, voltage boost system |
| Clearance Requirements | Allow 4" (102mm) behind unit Allow 8" (203mm) above unit |

