

**Class II Medical Device Version**

# Fisherbrand Isotemp $-50^{\circ}\text{C}$ to $-86^{\circ}\text{C}$ Ultra-Low Temperature Freezers

Fisherbrand™ Isotemp™ Ultra-Low-Temperature Freezers combine reliability and performance with cost-effective operation and innovative features. They are built using an advanced technology platform, refrigeration, microprocessor controls, and high-quality construction.

- **Maximum temperature recovery:** Reduced/low peak temperature variation<sup>1</sup> and fast open-door recovery
- **More comfortable lab environment:** Low noise levels (like your refrigerator at home<sup>2</sup>)
- **Operational efficiency:** Lower energy consumption and HVAC costs
- **Environmentally friendly:** Water-blown foam insulation; compliant with EPA SNAP and EU F-Gas regulations

## Isotemp freezers offer the convenience you need for your ultra-low temperature storage:

- Single-handed door operation
- Five inner compartments (with doors)
- Large temperature display with touch control
- Centralized settings and controls with battery backup
- Alarms, security passcode, and padlock-compatible doors
- Easy access to the filter/grill assembly (cleaning and maintenance)

## Additional features:

- Standard RS-485, 4-20mA analog outputs and dry contacts included
- Battery backup for control panel (power interruptions)
- Four capacities; three voltages
- No setup required



1. Typical freezer data based on internal testing with freezer setpoint at  $-80^{\circ}\text{C}$  and ambient temperature at  $20^{\circ}\text{C}$ . Performance data varies across freezer size and electrical specifications.

2. All data based on internal data unless otherwise noted. Data on file.

Bold, easy-to-read temperature display shows real-time cabinet temperature

Audible and visual alarms (System, Door, Temperature Visual Alarm Icons)

Health Shield Indicator gives a quick visual indication of freezer status

Alarm Snooze Button to silence audible alarms



Optional factory-installed CO2 or LN2 backup system provides additional sample protection in the event of a power or mechanical failure

Setpoint Security allows you to set a 3-digit numeric code required for any settings changes

Settings Menu Button to access alarm and system settings (Warm Alarm, Cold Alarm, Offset, Setpoint Security, and Backup System), if installed

Capacitive touchscreen buttons to easily adjust and save freezer settings

1" access port (top) for use of independent probes

High-Density Water-Blown polyurethane foam with Vacuum Insulation Panel (VIP)

Painted galvenneel interior

Sturdy, stainless-steel shelving

1" access port (bottom) for use of independent probes

2" locking casters for easy roll installation and smooth mobility

Four-point, heated gaskets help to eliminate frost buildup while providing tight cabinet temperatures

Heavy gauge, high-strength steel with a corrosion-resistant coating for long-life durability

Heated vacuum relief port permits quick reentry after door openings

Single-hand operation with ergonomic, padlock-compatible door handle featuring an integrated keylock

Five insulated inner doors reduce cold air loss and improve temperature recovery after door opening

Easy-to-remove washable filter provides protection against dust on the condenser, increasing refrigeration performance



Factory Installed Options:

- CO<sup>2</sup> backup system
- LN<sup>2</sup> backup system
- Chart recorder (ink or inkless)

| You're Looking For   | You'll Find  |
|--|--|
| Temperature stability  | Better temperature recovery after door opening; maintains temperatures even with high-heat loads                                     |
| Flexible and precise temperature settings                          | Microprocessor with Touch Control  |
| Less downtime and sample risk                                      | Alarms with setpoint temperature controls; recessed power switch (to help avoid accidental shutoff)                                  |
| Prompt alerts about operational problems                           | Onboard diagnostics: error codes direct you to probable causes   |
| Storage for high-load and non-standard samples (microplate hotels) | Reinforced stainless-steel shelves   |
| Protection during power interruptions                              | Integrated LN <sup>2</sup> or CO <sup>2</sup> backup systems (optional)  |
| More comfortable lab environment                                   | Low noise levels, heat emissions   |
| Economical operation   | Lower power consumption, less HVAC support needed  |
| Longer equipment life  | Green, hydrocarbon systems improve operating conditions increasing product life  |
| Reduce ice buildup   | Heated gaskets   |
| Unit to store blood and blood products                             | FDA Class II Medical Device designed for storage of blood and blood products; see below for description of proper storage techniques |

| IUE Models | Capacity     |                  | Electrical    | Amps/Breaker (Plug) | Max. Shelf Weight lb. (kg) | Exterior Dimensions H x W* x D in (cm)     | Shipping Weight lb. (kg) |
|------------|--------------|------------------|---------------|---------------------|----------------------------|--|--------------------------|
|            | FDA Class II | cu. ft. (Liters) |               |                     |                            |  |                          |
| IUE30086LA | 14.9 (422)   | 300              | 115V/60Hz     | 12.6/20 (NEMA 5-20) | 125 (57)                   | 78.0 x 27.1 x 38.6 (198.1 x 68.9 x 98.1)   | 712 (323)                |
| IUE30086LD |              |                  | 208-230V/60Hz | 5.6/15 (NEMA 6-15)  |                            |  |                          |
| IUE30086LV |              |                  | 230V/50Hz     | 5.9/10 (European)   |                            |  |                          |
| IUE40086LA | 19.4 (549)   | 400              | 115V/60Hz     | 13.0/20 (NEMA 5-20) | 165 (75)                   | 78.0 x 32.5 x 38.6 (198.1 x 82.5 x 98.1)   | 687 (312)                |
| IUE40086LD |              |                  | 208-230V/60Hz | 5.9/15 (NEMA 6-15)  |                            |  |                          |
| IUE40086LV |              |                  | 230V/50Hz     | 5.3/10 (European)   |                            |  |                          |
| IUE50086LA | 24.1 (682)   | 500              | 115V/60Hz     | 12.5/20 (NEMA 5-20) | 205 (93)                   | 78.0 x 38.1 x 38.6* (198.1 x 96.8 x 98.1)  | 734 (333)                |
| IUE50086LD |              |                  | 208-230V/60Hz | 5.0/15 (NEMA 6-15)  |                            |  |                          |
| IUE50086LV |              |                  | 230V/50Hz     | 5.9/10 (European)   |                            |  |                          |
| IUE60086LA | 28.8 (816)   | 600              | 115V/60Hz     | 12.7/20 (NEMA 5-20) | 245 (111)                  | 78.0 x 43.7 x 38.6* (198.1 x 111.1 x 98.1) | 734 (333)                |
| IUE60086LD |              |                  | 208-230V/60Hz | 6.2/15 (NEMA 6-15)  |                            |  |                          |
| IUE60086FV |              |                  | 230V/50Hz     | 6.1/10 (European)   |                            |  |                          |

\*For IUE50086 and IUE60086, doorway width clearance is 34.5 in. (87.6cm)



| Description  | Installation | Catalog Numbers   |   |  |  |
|--|--------------|---|---|--|--|
|  |              | IUE30086  | IUE40086  | IUE50086                               | IUE60086                               |
| LN2 Backup System<br>• Maintains temperature down to -80oC<br>• Systems for IUE300 are stand-alone   | Factory      | N/A   | LN4567  | LN4567                                 | LN4567                                 |
|  | Field        | FLN300A*<br>FLN300D*<br>FLN300V*<br>FLN300W*            | FLN456LEA*<br>FLN456LED*<br>FLN456LEV*                  | FLN456LEA*<br>FLN456LED*<br>FLN456LEV* | FLN456LEA*<br>FLN456LED*<br>FLN456LEV* |
| CO2 Backup System<br>• Maintains temperature down to -67 C<br>• Systems for IUE300 models are stand alone  | Factory      | N/A   | CO4567  | CO4567                                 | CO4567                                 |
|  | Field        | FCO300A*<br>FCO300D*<br>FCO300V*<br>FCO300W*            | FCO456LEA*<br>FCO456LED*<br>FCO456LEV*                  | FCO456LEA*<br>FCO456LED*<br>FCO456LEV* | FCO456LEA*<br>FCO456LED*<br>FCO456LEV* |
| Chart Recorder (Inkless)<br>• Diameter: 6 in. (15.2cm)<br>• Seven day<br>• Inkless<br>• Range -100°C to +38°C (+2oC resolution)  | Factory      | N/A   | N/A   | CRP4567                                | CRP4567                                |
|  | Field        | N/A   | N/A   | FCR500LE                               | FCR600LE                               |
| Chart Recorder (Ink)<br>• Diameter: 6 in. (15.2cm)<br>• Seven day<br>• Ink<br>• Range: -115° to +50°C, +5°C resolution<br>• Recorders for IUE300 and IUE400 models are stand alone | Factory      | N/A   | N/A   | N/A                                    | N/A                                    |
|  | Field        | 6383-6A*<br>6393-6D*<br>6383-6V*<br>6383-6W*<br>6383-D* | 6383-6A*<br>6393-6D*<br>6383-6V*<br>6383-6W*<br>6383-D* | FCRP500LE                              | FCRP600LE                              |
| NEMA L5-20P Twist Lock Plug for 115V/60Hz  | Factory      | US125V20ATL   | US125V20ATL   | US125V20ATL                            | US125V20ATL                            |
|  | Field        | TL125V20A   | TL125V20A   | TL125V20A                              | TL125V20A                              |
| NEMA L6-15P Twist Lock Plug for 208-230V/60Hz  | Factory      | US230V15ATL   | US230V15ATL   | US230V15ATL                            | US230V15ATL                            |
|  | Field        | TL230V15A   | TL230V15A   | TL230V15A                              | TL230V15A                              |
| NEMA L6-20P Twist Lock Plug for 208-230V/60Hz  | Factory      | US230V20ATL   | US230V20ATL   | US230V20ATL                            | US230V20ATL                            |
|  | Field        | TL230V20A   | TL230V20A   | TL230V20A                              | TL230V20A                              |

\*A = 115V/60Hz (NEMA 5-20 plug), D = 208-230V/60Hz (NEMA 6-15 plug), V = 230V/50Hz (EU plug), W = 230V/50Hz (British plug)

**FDA Class II Models:**

The FDA Class II -86°C freezers described here are intended for the storage of blood and blood products. All materials stored in these products must be in sealed blood bags. Product must not be stored in open containers. These products are intended for storing samples or inventory at operating temperatures between -50°C and -80°C. These products should only be used by authorized and adequately trained personnel. They are considered to be medical devices and have therefore been registered with medical device regulatory body FDA and are considered a Class II medical device by the FDA. This product is classified as product code KSE, regulation number 864.9700 and is considered 510(K) exempt. These units are not intended for use in classified hazardous locations, nor to be used for the storage of flammable inventory.

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