# Thermo Scientific Forma High-Performance Laboratory Refrigerators and Freezers

**Designed for your clinical, diagnostic and research needs**

**Thermo Fisher**
**SCIENTIFIC**

**Thermo Scientific™ Forma™ High-Performance Laboratory Refrigerators and Freezers**
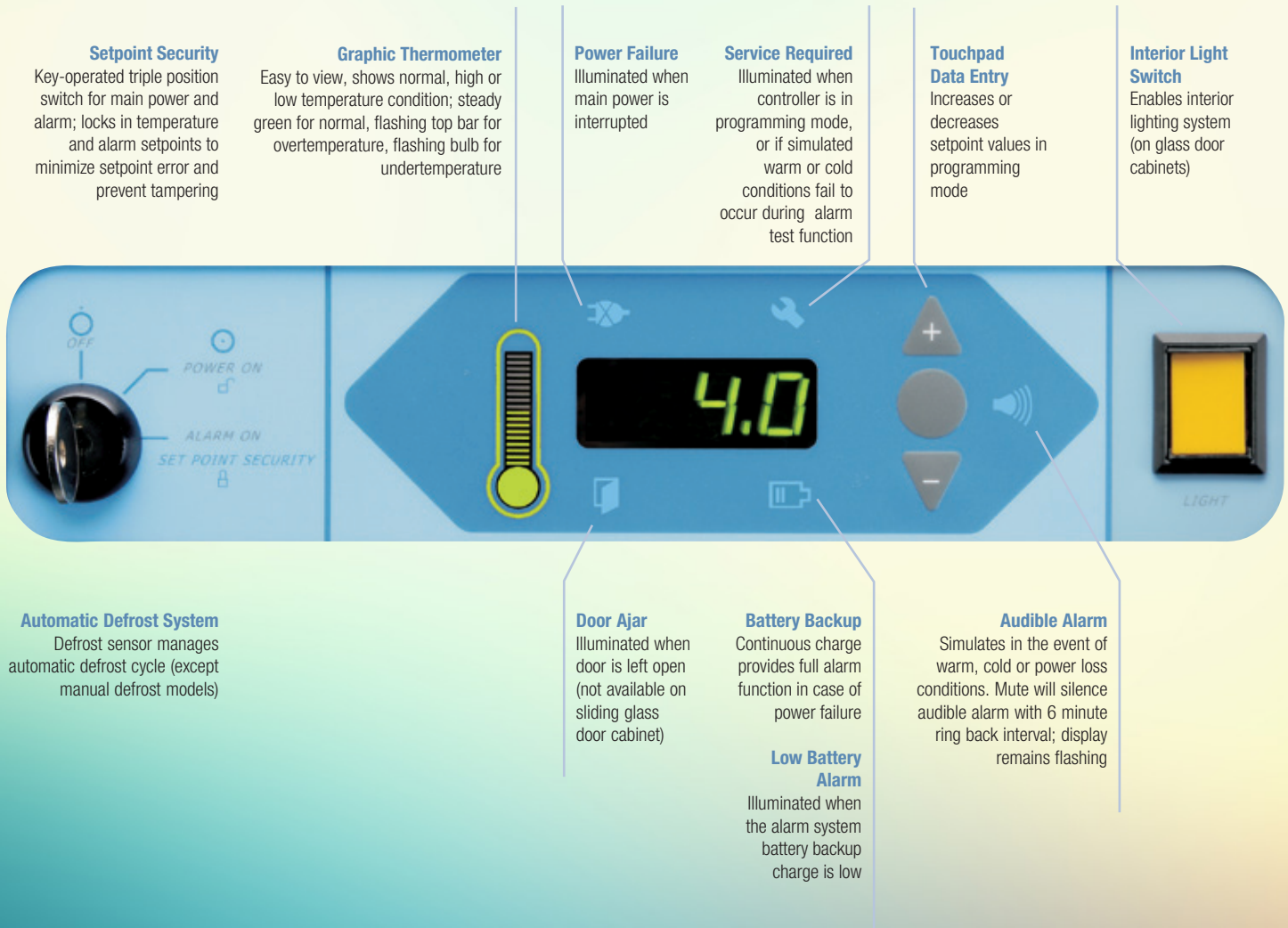
# It's a **cold hard fact:**

Temperature variation can have an impact on the viability of samples and the efficacy of reagents. These variations can shorten product shelf life, degrade enzymes and reduce vaccine effectiveness. Therefore, it's important to choose a high-performance refrigerator or freezer that has been designed for the demanding standards of the clinical and laboratory environment.

**We continually search for ways to enhance our products and processes responsibly:**

- Reduce the use of refrigerants in our cold storage equipment

- Use solvent-free, paint technology

- All of our high-performance refrigerators and freezers are manufactured in a zero waste to landfill facility

- Fluorescent lighting in our refrigerators replaced with mercury-free, LED lights

# Microprocessor-Based Controller

# simplifies operation,
## improves reliability

**Setpoint Security**
Key-operated triple position switch for main power and alarm; locks in temperature and alarm setpoints to minimize setpoint error and prevent tampering

**Graphic Thermometer**
Easy to view, shows normal, high or low temperature condition; steady green for normal, flashing top bar for overtemperature, flashing bulb for undertemperature

**Power Failure**
Illuminated when main power is interrupted

**Service Required**
Illuminated when controller is in programming mode, or if simulated warm or cold conditions fail to occur during alarm test function

**Touchpad Data Entry**
Increases or decreases setpoint values in programming mode

**Interior Light Switch**
Enables interior lighting system (on glass door cabinets)

**Automatic Defrost System**
Defrost sensor manages automatic defrost cycle (except manual defrost models)

**Door Ajar**
Illuminated when door is left open (not available on sliding glass door cabinet)

**Battery Backup**
Continuous charge provides full alarm function in case of power failure

**Low Battery Alarm**
Illuminated when the alarm system battery backup charge is low

**Audible Alarm**
Simulates in the event of warm, cold or power loss conditions. Mute will silence audible alarm with 6 minute ring back interval; display remains flashing

Our bright, easy to read display lets you know at-a-glance if your unit is running within range. Visual and audio alarms are designed to alert you in the event of a problem. Immediate access to high and low temperature parameters with the press of a button.

**Touchpad Scan**

Changes main display; also used to access various programming and service functions (alarm mute, recall 6 minutes).

**Digital Display**

Indicates cabinet temperature during normal operation, flashes during alarm condition or setpoint adjustment. Displays other values with touchpad sequence.

**Service Parameters**

Touchpad sequence allows override access to control function defaults for troubleshooting functions.

# Chromatography Refrigerators

Our **Forma high-performance chromatography refrigerators** are designed for a variety of applications requiring close temperature control, full access to chromatography instrumentation, and easy set-up of instrumentation and apparatus within the chamber.

- Forced air circulation for uniform temperature at all shelf levels
- Heat-free defrost for maximum uniformity
- Two 2" (5 cm) access ports with insulated hinged covers
- Interior plug outlet (duplex on A and D models; single on V and W models)
- Four casters for easy mobility, front two are lockable

- Bright, LED interior lighting
- Adjustable, epoxy-coated wire shelves are standard (optional drawers)
- Keyed on/off switch with setpoint security
- Self-closing door with 90° stop (except FRCR4504 sliding glass door model)
- Built-in remote alarm contacts
- Optional 4-20 milliamp output

## Thermo Scientific Forma High-Performance Chromatography Refrigerators

**TemperatureRange:** +1°C to +8°C, factory preset to +4°C (auto defrost)

| Model No. | Cu. Ft. (L) | Voltage (Hz) | Certification | Plug | Door | Full Adjustable Shelves | Half Adjustable Shelves | Int. Dimensions* H x D x W inches (mm) | Ext. Dimensions* H x D x W inches (mm) | Ship Weight lb (kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| FRCR2304A | 23.3 | 115 (60) | UL | NEMA 5-15 | single, glass | 0 | 2 | 58.0 x 29.0 x 24.0 | 79.2 x 36.4 x 28.0 | 425 |
| FRCR2304D | (659) | 208/230 (60) | UL | NEMA 6-15 | | | | (1473 x 737 x 610) | (2012 x 925 x 711) | (193) |
| FRCR2304V | | 230 (50) | CE | European | | | | | | |
| FRCR2304W‡ | | 230 (50) | CE | U.K. | | | | | | |
| FRCR3004A | 29.2 | 115 (60) | UL | NEMA 5-15 | single, glass | 0 | 2 | 58.0 x 29.0 x 30.0 | 79.2 x 36.4 x 34.0 | 435 |
| FRCR3004D | (826) | 208/230 (60) | UL | NEMA 6-15 | | | | (1473 x 737 x 762) | (2012 x 925 x 864) | (197) |
| FRCR3004V | | 230 (50) | CE | European | | | | | | |
| FRCR3004W‡ | | 230 (50) | CE | U.K. | | | | | | |
| FRCR4504A | 45.8 | 115 (60) | UL | NEMA 5-15 | double, sliding glass | 4 | 2 | 58.0 x 26.0 x 52.5 | 79.1 x 34.5 x 56.5 | 670 |
| FRCR4504D | (1297) | 208/230 (60) | UL | NEMA 6-15 | | | | (1473 x 660 x 1334 | (2010 x 838 x 1435) | (304) |
| FRCR4504V | | 230 (50) | CE | European | | | | | | |
| FRCR4504W‡ | | 230 (50) | CE | U.K. | | | | | | |
| FRCR5004A | 51.1 | 115 (60) | UL | NEMA 5-15 | double, glass | 4 | 2 | 58.0 x 29.0 x 52.5 | 79.2 x 36.4 x 56.5 | 580 |
| FRCR5004D | (1447) | 208/230 (60) | UL | NEMA 6-15 | | | | (1473 x 737 x 1334) | (2012 x 925 x 1435) | (263) |
| FRCR5004V | | 230 (50) | CE | European | | | | | | |
| FRCR5004W‡ | | 230 (W) | CE | U.K. | | | | | | |
| FRCR7504A | 78.8 | 115 (60) | UL | NEMA 5-15 | triple, glass | 8 | 2 | 58.0 x 29.0 x 81.0 | 79.2 x 36.4 x 85.0 | 965 |
| FRCR7504D | (2231) | 208/230 (60) | UL | NEMA 6-15 | | | | (1473 x 737 x 2057) | (2012 x 925 x 2159) | (438) |
| FRCR7504V | | 230 (50) | CE | European | | | | | | |
| FRCR7504W | | 230 (W) | CE | U.K. | | | | | | |

\* Published interior volumes are nominal; useable cu.ft. (L) capacities may be offset by shelves, drawers, blower coils, or cabinet protrusions. For specific cabinet dimensions and allowances, or for verification of clearance tolerances, contact our sales representative. Product performance may be affected by ambient temperature conditions, humidity conditions, sample loading preferences, and frequency of door openings. Contact our sales representative for specific inquiries regarding your application.

‡ Note for Australia and New Zealand: Due to the units having two power cords (one for unit, one for internal receptacle), units are supplied with 15A power cords.

## Options for High-Performance Refrigerators Ordering Guide

| For use with refrigerator size → | 4.9 cu. ft. (133 L) | 11.5 cu. ft (326 L) | 23.3 cu. ft. (659 L) | 29.2 cu. ft. (826 L) | 45.8 cu. ft. (1297 L) | 51.1 cu. ft. (1447 L) | 78.8 cu. ft. (2231 L) |
|---|---|---|---|---|---|---|---|
| **Door options (factory-installed)** | Model No. | Model No. | Model No. | Model No. | Model No. | Model No. | Model No. |
| Left hand swing, solid door | 7119 | 6995 | 6997 | 6999 | | | |
| Left hand swing, glass door | 7123 | 6996 | 6998 | 7000 | | | |
| Left hand swing, heated glass door | | 7073 | 7075 | 7087 | | | |
| Right hand swing, glass door | 7118 | 7066 | 7012 | 7013 | | | |
| Right hand swing, heated glass door | | 7074 | 7086 | 7088 | | | |
| Double left hand swinging doors, solid | | | | | | 7001 | |
| Double left hand swinging doors, glass | | | | | | 7067 | |
| Double left hand swinging doors, heated glass | | | | | | 7089 | |
| Double right hand swinging doors, solid | | | | | | 7068 | |
| Double right hand swinging doors, glass | | | | | | 7069 | |
| Double right hand swinging doors, heated glass | | | | | | 7090 | |
| Double left and right hand swinging doors, solid | | | | | | 7019 | |
| Double left and right hand swinging doors, glass | | | | | | 7014 | |
| Double left and right hand swinging doors, heated glass | | | | | | 7091 | |
| **6" 7-day inkless chart recorders, -40°C to +25°C** | | | Model no. (all sizes) | | | | |
| Free-standing, customer-installed, 115V, 60Hz models | | | 6383-7A | | | | |
| Free-standing, customer-installed, 208-230V, 60Hz models | | | 6383-7D | | | | |
| Free-standing, customer-installed, 230V, 50Hz models (EU) | | | 6383-7V | | | | |
| Free-standing, customer-installed, 230V, 50Hz models (UK) | | | 6383-7W | | | | |
| Factory-installed (all voltages) | | | 6183-7 | | | | |
| Replacement chart paper, box of 50 | | | 6184 | | | | |
| **Surge suppressor (factory-installed)** | | | | | | | |
| 115V, 60Hz models | | | 6402-1 | | | | |
| 208-230V, 60Hz models | | | 6402-2 | | | | |
| 230V, 50Hz models | | | 6402-3 | | | | |
| **Remote alarm modules (factory-installed)** | | | | | | | |
| 115V, 60Hz models | | | 5612-1A | | | | |
| 208-230V, 60Hz models | | | 5612-2D | | | | |
| 230V, 50Hz models | | | 5612-3V | | | | |
| **Alarm delay modules** | | | | | | | |
| Battery operated | | | 6903 | | | | |
| **Digital temperature monitors** | | | | | | | |
| Single input channel, temperature range -100° to +25°C, set point resolution of 1°C, high temperature alarm only, numeric LCD display, red visual alarm, 8 ft. Teflon® lead wire, Velcro® mounting strap, 5" L x 2"D x 4.5"W (mm, 130 x 50 x 110), 120v, 60hz, with a 15amp dual prong plug (fits NEMA 5-15R) | | | 6898 | | | | |
| **Deluxe electronic remote alarm** | | | | | | | |
| Requires a dedicated, analog phone line | | | 6224TA | | | | |
| **4-20 milliamp transmitters** | | | | | | | |
| Self-powered, factory-installed | | | 7204 | | | | |
| Non-powered, factory-installed | | | 6907-1 | | | | |
| Non-powered, customer-installed | | | 6907-2 | | | | |
| **e-Lock adapter kits (does not include locks; single door models only)** | | | | | | | |
| CompX adapter, factory-installed | | | CXELAF | | | | |
| CompX adapter, customer-installed | | | CXELAC | | | | |
| Pyxis glass door adapter, factory-installed | | | PXELAGF | | | | |
| Pyxis glass door adapter, customer-installed | | | PXELAGC | | | | |
| Pyxis solid door adapter, factory-installed | | | PXELASF | | | | |
| Pyxis solid door adapter, customer-installed | | | PXELASC | | | | |
| Omnicell glass door adapter, factory-installed | | | OMELAGF | | | | |
| Omnicell glass door adapter, customer-installed | | | OMELAGC | | | | |
| Omnicell solid door adapter, factory-installed | | | OMELASF | | | | |
| Omnicell solid door adapter, customer-installed | | | OMELASC | | | | |
| McKesson glass door adapter, factory-installed | | | MKELAGF | | | | |
| McKesson glass door adapter, customer-installed | | | MKELAGC | | | | |
| McKesson solid door adapter, factory-installed | | | MKELASF | | | | |
| McKesson solid door adapter, customer-installed | | | MKELASC | | | | |
| **Stainless steel interior (factory-installed)** | | | | | | | |
| Stainless steel interior finish | 7116 | 6199-3A | 6115 | 6709 | 6711 | 6116 | 6117 |
| **5°C setpoint (factory-installed)** | | | | | | | |
| Not available for blood bank or chromatography models | | 7508TA | | | | 7508TA | |

# Wolf Laboratories Limited

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**Use the above details to contact us if this literature doesn't answer all your questions.**

**Pricing on any accessories shown can be found by keying the part number into the search box on our website.**

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.