

Thermo Scientific Forma High-Performance Laboratory Refrigerators and Freezers

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

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

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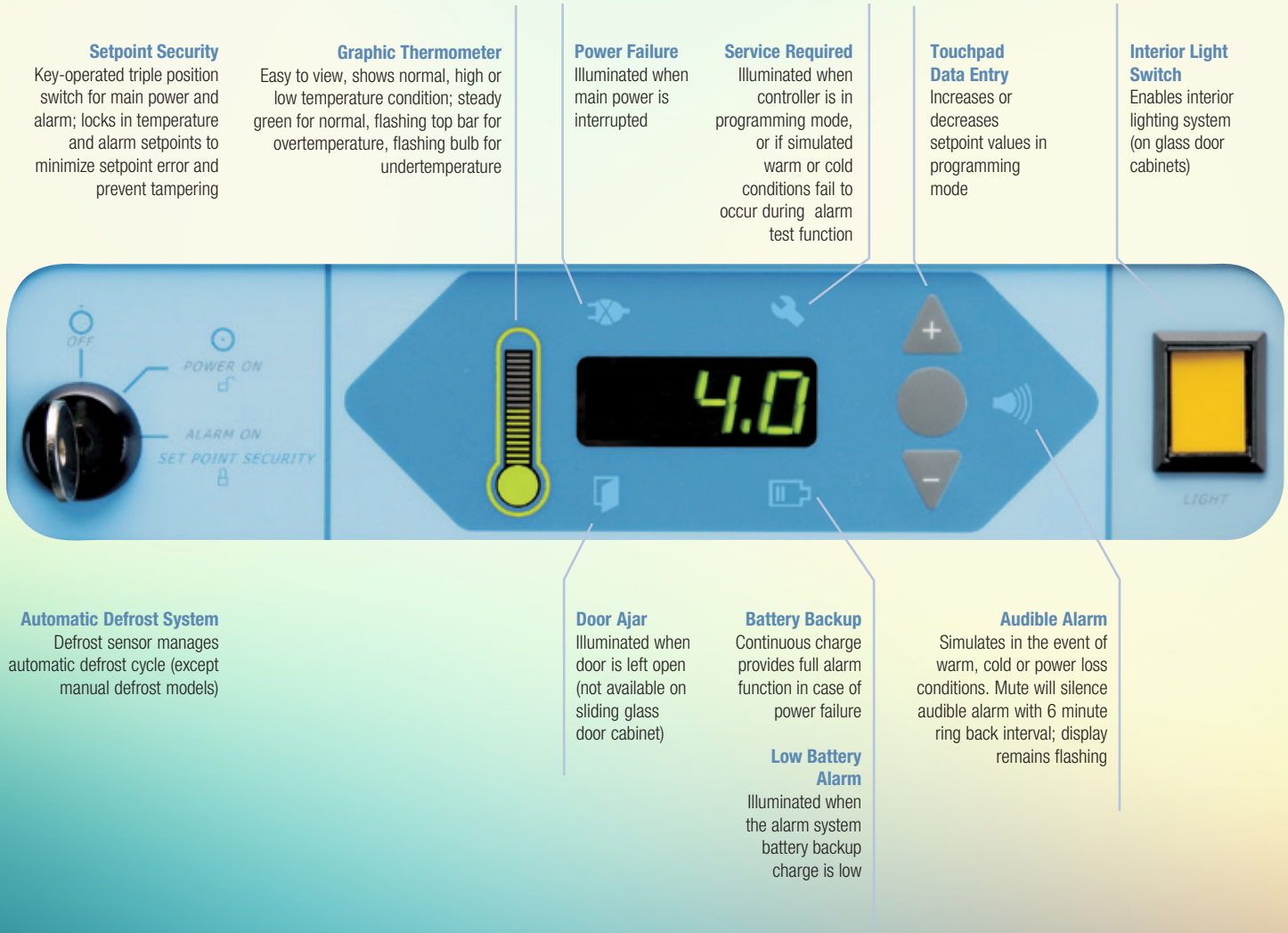
FLAMMABLE MATERIAL

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Microprocessor-Based Controller

simplifies operation, improves reliability



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.



Biologics

Diagnostic
Kits &
Reagents

Industrial
Testing

Molecular
Biology

Laboratory Freezers

Automatic -30°C and Manual Defrost -20°C Laboratory Freezers

Our **Forma high-performance, laboratory freezers** are designed for medical and scientific applications requiring storage of reagents, pharmaceuticals, biologicals, and other commonly used laboratory materials such as primers, siRNA molecules and FBS (fetal bovine serum).

Automatic Defrost -30°C Models:

- Forced air circulation for uniform temperature and fast door opening recovery
- Non-invasive defrost with time and temperature guided cycle

Manual Defrost -20°C Models:

- Cold wall convection cooling for temperature uniformity
- Manual defrost for optimum control

All Models:

- Four casters, front two are lockable
- 1" (2.5cm) insulated access port
- Adjustable, epoxy-coated wire shelves are standard (optional drawers)
- Keyed on/off switch with setpoint security
- Self-closing door with 90° stop
- Built-in remote alarm contacts
- Optional 4-20 milliamp output

Thermo Scientific Forma High-Performance -30°C Freezers with Automatic Defrost

Model No.	Cu.Ft. (L)	Voltage (Hz)	Certification	Plug	Cabinet	Door	Adjustable Shelves	Int. Dimensions* H x D x W inches (mm)	Ext. Dimensions* H x D x W inches (mm)	Ship Weight lb (kg)
FFGL430A	4.9	115 (60)	UL	NEMA 5-15	undercounter	single	3	20.0 x 20.5 x 20.0	33.4 x 26.0 x 24.0	220
FFGL430D	(133)	208/230 (60)	UL	NEMA 6-16				(508 x 521 x 508)	(850 x 660 x 610)	(100)
FFGL430V		230 (50)	CE	European				Exterior height before caster installation.		
FFGL430W‡		230 (50)	CE	U.K.						
FFGL1230A	11.5	115 (60)	UL	NEMA 5-15	space	single	4	52.4 x 21.0 x 20.0	73.6 x 30.0 x 24.0	280
FFGL1230V	(326)	230 (50)	UL	European	saver			(1331 x 553 x 508)	(1869 x 748 x 610)	(127)
FFGL1230W‡		230 (50)	CE	6.5/15 (P8)						
FFGL2330A	23.3	115 (60)	UL	NEMA 5-15	upright	single	4	58.0 x 29.0 x 24.0	79.2 x 37.2 x 28.0	425
FFGL2330D	(659)	208/230 (60)	UL	NEMA 6-16				(1473 x 737 x 610)	(2012 x 945 x 711)	(193)
FFGL2330V		230 (50)	CE	European						
FFGL2330W‡		230 (50)	CE	U.K.						
FFGL3030A	29.2	115 (60)	UL	NEMA 5-15	upright	single	4	58.0 x 29.0 x 30.0	79.2 x 37.2 x 34.0	445
FFGL3030D	(826)	208/230 (60)	UL	NEMA 6-16				(1473 x 737 x 762)	(2012 x 945 x 864)	(197)
FFGL3030V		230 (50)	CE	European						
FFGL3030W‡		230 (50)	CE	U.K.						
FFGL5030A	51.1	115 (60)	UL	NEMA 5-15	upright	double	8	58.0 x 29.0 x 52.5	79.2 x 37.2 x 56.5	600
FFGL5030D	(1447)	208/230 (60)	UL	NEMA 6-16				(1473 x 737 x 1334)	(2012 x 945 x 1435)	(272)
FFGL5030V		230 (50)	CE	European						
FFGL5030W‡		230 (50)	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. 4.7 cu. ft. exterior dimensions are without casters.

‡ Due to differences in building wiring regulations in Australia and New Zealand, the current draw for the W-voltage units rated less than 10A may utilize a 10A circuit breaker. This rating only applies to Australia and New Zealand. Confirm the amperage rating on the data plate. Contact your local sales representative for more information.



Cabinets shown: 23.3 cu. ft. single door (ULT2304) lab freezer and 51.1 cu. ft. double door (ULT5030) lab freezer

Thermo Scientific Forma High-Performance -20°C Freezers with Manual Defrost

Model No.	Cu.Ft. (L)	Voltage (Hz)	Certification	Plug	Cabinet	Door	Adjustable Shelves	Int. Dimensions* H x D x W inches (mm)	Ext. Dimensions* H x D x W inches (mm)	Ship Weight lb (kg)
FFGL2320A	23.3	115 (60)	UL	NEMA 5-15	upright	single,	4	58.0 x 29.0 x 24.0 (1473 x 737 x 610)	79.2 x 37.2 x 28.0 (2012 x 945 x 711)	425 (193)
FFGL2320D	(659)	208/230 (60)	UL	NEMA 6-16	solid					
FFGL2320V		230 (50)	CE	European						
FFGL2320W‡		230 (50)	CE	U.K.						
FFGL3020A	29.2	115 (60)	UL	NEMA 5-15	upright	single	4	58.0 x 29.0 x 30.0 (1473 x 737 x 762)	79.2 x 37.2 x 34.0 (2012 x 945 x 864)	445 (197)
FFGL3020D	(826)	208/230 (60)	UL	NEMA 6-16						
FFGL3020V		230 (50)	CE	European						

* 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.

‡ Due to differences in building wiring regulations in Australia and New Zealand, the current draw for the W-voltage units rated less than 10A may utilize a 10A circuit breaker. This rating only applies to Australia and New Zealand. Confirm the amperage rating on the data plate. Contact your local sales representative for more information.



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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.

