

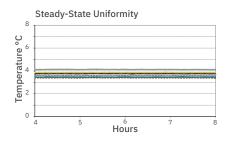


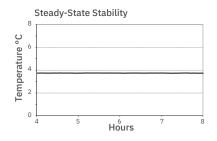
Technical Data Sheet Lab Grade Refrigerator Model: FLR245 / Upright

Application, Rating, and Electrical Data			
Application	Precision temperature storage for biopharmaceutical and life scient research applications		
Storage Volume	44.9 cu ft 1271 L		
Temperature Range	+2°C to +10°C		
Set Point	+4°C		
Electrical Power	115V 60Hz 220-240V 50/60Hz		
Maximum Current	4.3A 2.5A		
Facility Supply Rating	Branch circuit with earth ground, meeting plug/cord ratings as well as local electrical safety codes and requirements 110-120V AC: 15 A (minimum) 220-240V AC: 10 A (minimum)		
Power Plug/Power Cord Length	NEMA 5-15 hospital-grade 115V 60Hz, 8 to 10 ft (2.4-3.0m) Inquire about additional plug/cord options		
Certification/Agency Listing	QPS (Certified to UL and CSA Standards) IEC/UL61010-2-011: 2016 IEC 61010-1:2010, AMD1:2016		
Energy Star	Yes, ENERGY STAR® Certified High-Performance Refrigerator		
Indoor/Outdoor Use	Indoor use only, non-residential		
Application Environment	Non-corrosive, non-flammable, non-explosive		
Ambient Operating Temperature	+15°C to +32°C +59°F to +90°F		

Refrigeration		
Refrigeration System	VCC compressor-based, forced-air hydrocarbon	
Compressor	Hermetic, variable speed (VCC). Rated speed range: 1300-4000 rpm	
Condenser Type	Air-cooled fin and tube, sealed	
Expansion Device	Cap tube	
Evaporator Type	Direct expansion with forced-air fin and tube	
Defrost Method	Automatic	
Refrigerant	R600a, EPA SNAP and EU F-Gas compliant natural hydrocarbon refrigerant	

Controller / Configuration Settings		
User Interface	LED digital display, °C or °F	
Power Switch	On/Off	
Controller Type	Microprocessor with alarm/monitor	
Security	Lockable exterior door, locking interior drawers available as an accessory	
Control Sensor	RTD, stainless steel	
Communication Ports	Remote alarm contacts	
Power Failure Alarm	Yes	
High/Low Alarms	Yes, fully adjustable	
Door Ajar Alarm	Yes	
Min/Max Temperature	Yes, display and reset	
Temperature Monitoring Ballast	Yes, maintenance-free anodized aluminum solid ballast thermal buff	
Battery Back-up	Yes, 9V, non-rechargeable, lithium	

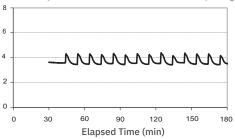




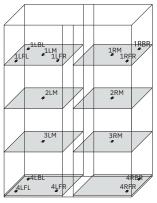
Performance Characteristics		
Uniformity °C	+/-1.0	
Recovery to 8°C after 3 min door opening min	2	
Stability °C	0.05	
Energy Consumption kWh/day	3.69	
Noise emission dB	52	
Heat Rejection / Emission BTU/hr	1199	
Pull-down time to 4°C min	47	

All performance data from 45 cu ft refrigerator, 25°C ambient, 4.0°C

Recovery After Consecutive 8 Second Door Openings



Typical Temperature Map



Location of Test Probes

45 cu ft. Temperature Map °C

45 си јг. тетрегаште мар				
	AVG	MAX	MIN	
1LBL	3.4	3.5	3.4	
1LFL	3.9	3.9	3.8	
1LFR	3.8	3.8	3.7	
1LM	3.5	3.6	3.5	
1RBR	3.8	3.8	3.8	
1RFR	4.1	4.2	4.1	
1RM	3.9	3.9	3.8	
2LM	3.4	3.4	3.4	
2RM	3.7	3.8	3.7	
3LM	3.4	3.4	3.4	
3RM	3.8	3.9	3.8	
4LBL	3.6	3.6	3.6	
4LFL	4.1	4.1	4.1	
4LFR	3.7	3.7	3.6	
4RBR	3.7	3.7	3.6	
4RFR	4.1	4.1	4.1	





Technical Data Sheet Lab Grade Refrigerator Model: FLR245 / Upright

Dimensions and Construction		
Interior (w x h x d)	54.7 x 58.1 x 24 in 1390 x 1476 x 609 mm	
Exterior (w x h x d)	59 x 78.9 x 28.1 in 1499 x 2003 x 712 mm	
Overall Exterior (w x h x d)	59 x 78.9 x 33.1 in 1499 x 2003 x 840 mm	
Insulation	EPA SNAP and EU F-Gas compliant insulation and foaming agents	
Exterior/Interior Finish	Bacteria-resistant powder-coating	
Door	Dual glass doors, right and left hinges	
Access Port	Top Access Port- for external monitoring probe(s) (0.75 in 19 mm diameter) Left Sidewall Port - with interior and exterior plugs (1.75 in 45 mm diameter)	
Interior Storage (w x d)	8 ventilated, powder-coated shelves, adjustable 22.5 x 21.9 in 572 x 557 mm, 100 lb 46 kg max capacity/shelf	
Mobility	Easily movable locking casters	
Net Weight	667 lb 303 kg	
Shipping Weight	788 lb 358 kg	
Clearance Requirements	Minimum of 8" (203mm) above and 3" (76mm) behind unit for proper ventilation, clearance, and feature access	
Available Accessories	Remote alarms, remote lock adapter kit, floor and wall seismic bracket kits, stacking kit, pedestal, storage trays, locking interior drawers, certificate of calibration, temperature validation, validation guide (IQ/OQ), extended warranty	
Certificate of Calibration	Yes, available as an option, generated with an ISO 17025 certified, NIST traceable thermometer	
Warranty	5 years compressor, 2 years parts, 1 year labor (Outside US/Canada: Please consult with your local representative for labor warranty information.)	

