



SPEC SHEET

-86 C Ultra-Low Temp Lab Medical Freezer with Dual Inverter Compressor, Lock and Touch Screen, 20 Cu. Ft.

Model: KM-PHF-20CUL

FEATURES

- **Ultra-Low Temperature Range (-40°C to -86°C):** Engineered for laboratory, pharmaceutical, and research environments requiring stable, long-term ultra-low temperature storage.
- **Dual Cooling System:** Two independent inverter compressors for efficiency, uniform cooling, faster pull-down, and redundancy.
- **20 Cu. Ft. Capacity with 304 Stainless-Steel Interior:** Durable, corrosion-resistant interior built for demanding lab environments.
- **Precision Microprocessor Control ($\pm 0.1^\circ\text{C}$):** Maintains accurate setpoints with minimal fluctuation.
- **10.1-Inch Touchscreen Display:** Real-time monitoring, alarm management, and system control in one interface.
- **Advanced Alarm & Safety System:** Alerts for temperature deviations, door ajar, sensor failure, power loss, and more.
- **Multi-Door Design to Reduce Temperature Fluctuation:** One outer door with four inner compartment doors limits cold air loss during access.
- **Integrated Data Logging with USB Export:** Automatic temperature recording for compliance and documentation.
- **Backup Battery for Alarms & Logging:** Supports alarms and data recording up to 17 hours during power outages.
- **UL & Energy Star Certified:** Certified for safety and energy efficiency; backed by a 1-year warranty.



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Technical Specs

Dimensions & Weight

Length	33.86 in.
Width	39.98 in.
Height	77.56 in.
Weight	635 lbs.
Interior Depth	28.35 in.
Interior Width	23.43 in.
Interior Height	51.57 in.
Shelf Depth	28.25 in.
Shelf Width	23.2 in.
Depth Excluding Handles	39.17 in.
Depth Including Handles	39.17 in.
Depth Less Door	34.54 in.
Depth With Door Open 90 Degrees	60.24 in.
Height to Top of Door Hinge	77.95 in.
Minimum Back Air Clearance	12 in.
Minimum Side Air Clearance	12 in.

Electric & Certifications

Voltage	100
Wattage	1250
Hertz	60
Amps	14
Phase	1
Plug Type	NEMA 5-20P
Power Cord Length	66.94 in.
Power Cord Included	Yes
Electrical Installation Type	Plug-in
Energy Consumption	2496.6 kWh/Year
Certification	UL Certified For Safety

Capacity

Net Cubic Feet	20
Number Of Shelves	3
Individual Shelf Capacity	108

Features & Materials

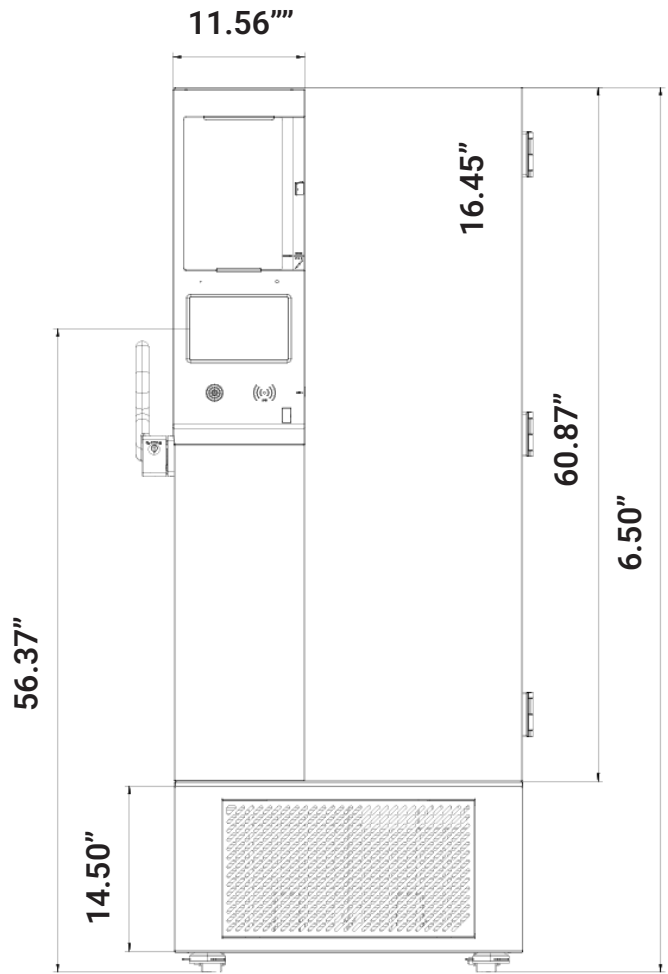
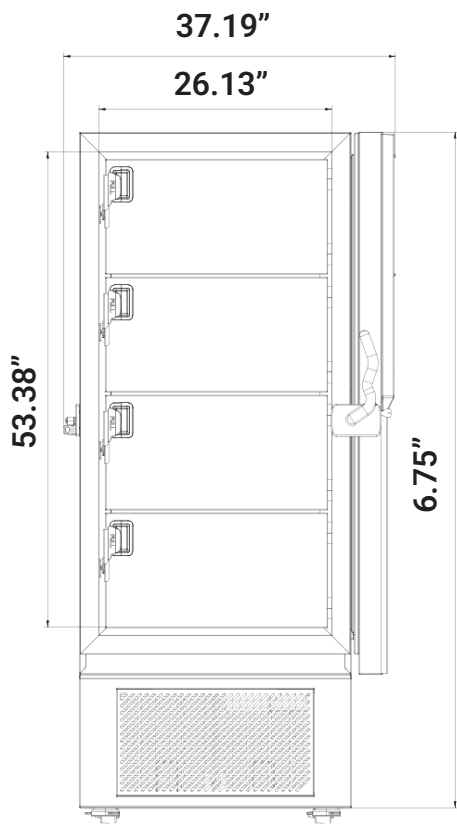
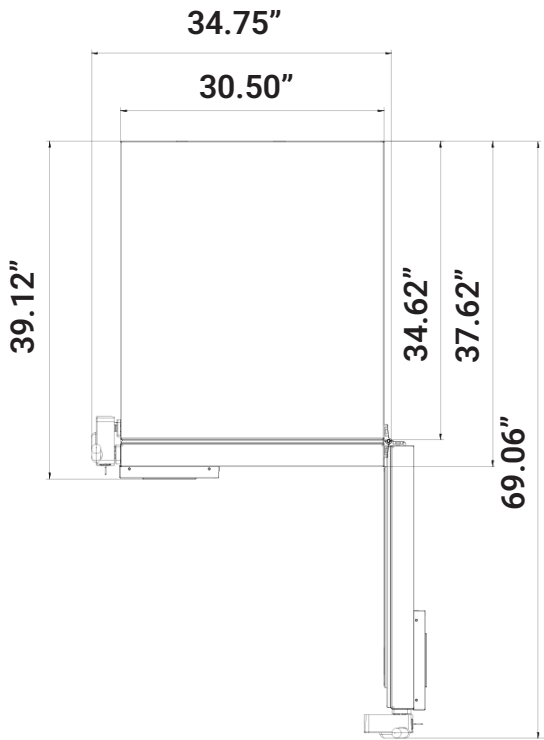
Temperature Range	-40°C to -86°C
Ambient Temperature Range	10–32°C
Temperature Control Type	Microprocessor
Defrost Type	Manual
Refrigerant Type	R600a/60g, R170/15g, R1150/20g
Cooling Unit Type	Direct Cooling
Horsepower	1/per Compressor
Number of Doors	1
Door Style	Swing
Number of Compartments	4
Shelf Material Type	Stainless Steel 304
Color	White and Black
Handle Color	Black
Interior Lighting	No
Backup Battery Hours	17
Backup Battery Type	Lithium
Backup Battery Replaceable	Yes
Backup Battery Rechargeable	Yes
Backup Battery Voltage	10.8V
Backup Battery Capacity	6.7 Ah
Safety Lock	Yes
Low Temp Alarm	Yes
High Temp Alarm	Yes
Ambient Temp Alarm	Yes
Power Failure Alarm	Yes
Sensor Failure Alarm	Yes
Door Ajar Alarm	Yes
Remote Alarm	Yes
Digital LED Display	Yes
Data Logging	Yes

Technical Specs

Features & Materials

USB Port	Yes
Sensor Count	7
Build In Air Duct	No
Casters	No
Noise	46 dB
Compressor Location	Bottom
Number of Compressors	2

Plan View



CERTIFICATIONS

