

Technical Data Sheet Chromatography Refrigerator

Revision-0

Thermo Fisher Scientific, Asheville, North Carolina

Model Number																								
FRCR5004V																								
Application, Rating and Electrical Data																								
Application	Chromatography (non-flammable) Refrigerator																							
Storage Volume	1447 Liters/51.1 Cubic Feet																							
Temperature Rating	1°C to 8°C @ 15°C to 32°C Ambient																							
Electrical Power	220-240V 50 Hz 1 Phase																							
Instrument Rated Current	8.5 FLA																							
Building Supply Rating	Breaker 15 Amps/230v±10 Volt while operating																							
Power Plug/Power Cord Length	European plug for V / IEC Cords, 3.048 Meters (10 feet)																							
Agency Listings	CE, FDA																							
Sound Pressure Level	60 dB(A)																							
Indoor/Outdoor Usage	Indoor Use Only																							
Application Environment	Non-Corrosive, Non-Flammable, Non-Explosive, Good Air Ventilation, 15° C - 32° C (60° F - 90° F)																							
Refrigeration Configuration																								
Refrigeration System	Vapor compression system																							
Compressor / Number	1/2 HP Hermetic Compressor / 1																							
Condenser Type/Number	Enhanced Finned-Tube and Forced-Air Cooled / 1																							
Expansion Device	Capillary Tube																							
Evaporator Type	Forced-Air Evaporator																							
Defrost Method	Microprocessor controlled off cycle every 1 hr. Programmable interval, duration and temperature settings																							
Refrigerant Charge/Flammability	Environmentally Safe R134a																							
Controller/Electrical System Configuration and Features																								
Controller Level	Eye Level																							
Power Switch	Keyed Off-On - Alarm																							
Controller Type	IntrLogic Control System: Digital display, Graphic thermometer, Automatic defrost system																							
Setpoint Security / Programmable	Yes / Yes																							
Compressor Safe Guard	High Pressure Cutout Switch/High Temp Cutout Switch/Current protection																							
Control Sensor	Stainless Steel Shielded RTD weighted with 250ml ethylene glycol solution																							
Remote Alarm Terminals	Yes																							
Power Failure Alarm	Yes																							
Standard Electronic chart Recorder	Optional																							
Dimensions and Construction																								
Interior Dimensions (H x D x W)	147.3 H X 73.7 F-B X 133.4 W cm (58.0 H X 29.0 F-B X 52.5 W in.)																							
Exterior Dimensions (H x D x W)	201.2 H X 94.5 F-B X 143.0 W cm (79.2 H X 37.2 F-B X 56.5 W in.)																							
Insulation	5.08 cm (2.0") High Density HFC-blown Polyurethane Foam in cabinet																							
Door Perimeter heater	Yes																							
Shelves / Capacity	6 Shelves																							
All-Direction Casters	Yes																							
Ship Weight	263 kg / 580 lb.																							
2" Dia access port	Yes																							
Typical Performance Characteristics																								
<p>50 ft³ +4 Refrigerator, Pull Down and Warm Up at 25 C</p>	<p>50 ft³ +4 Refrigerator, 4C Cycle at 25 C Ambient</p>	<table border="1"> <tr> <td>Test Unit Series or MSO Number:</td> <td>18824-DP</td> </tr> <tr> <td>Avg Cabinet Temp at +4 C Cycle (C):</td> <td>3.7</td> </tr> <tr> <td>Peak Variation from Setpoint (C):</td> <td>+ 0.7 / - 1.1</td> </tr> <tr> <td>Average Uniformity (C):</td> <td>1.1</td> </tr> <tr> <td>Average Stability (C):</td> <td>0.5</td> </tr> <tr> <td>Duty Cycle at +4C Setpoint (%):</td> <td>43.0%</td> </tr> <tr> <td>Cycle (on/off) rate at +4C (min):</td> <td>9 / 12</td> </tr> <tr> <td>Avg. energy consumption (kW-hr/day):</td> <td>9.7</td> </tr> <tr> <td>Avg. heat rejection rate (Btu/hr):</td> <td>1382</td> </tr> <tr> <td>Overall Pulldown Time (to +4C) (Min):</td> <td>48.0</td> </tr> <tr> <td>Warmup Time (+4 to 15C) (minutes):</td> <td>87.2</td> </tr> </table>	Test Unit Series or MSO Number:	18824-DP	Avg Cabinet Temp at +4 C Cycle (C):	3.7	Peak Variation from Setpoint (C):	+ 0.7 / - 1.1	Average Uniformity (C):	1.1	Average Stability (C):	0.5	Duty Cycle at +4C Setpoint (%):	43.0%	Cycle (on/off) rate at +4C (min):	9 / 12	Avg. energy consumption (kW-hr/day):	9.7	Avg. heat rejection rate (Btu/hr):	1382	Overall Pulldown Time (to +4C) (Min):	48.0	Warmup Time (+4 to 15C) (minutes):	87.2
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<p>1) Performance is nominal and individual units may vary. 2) Freezer performance will differ due to product amount, product size and operating conditions. 3) Continuous product enhancements may, without notice, result in amendments or omissions to this specification. Thermo Scientific cannot accept responsibility for damage, injury, loss or expenses resulting from misapplication of the information herein.</p>																								