



## Technical Data Sheet

### Thermo Scientific High Performance Refrigerator

Revision-2

Thermo Fisher Scientific, Asheville, North Carolina

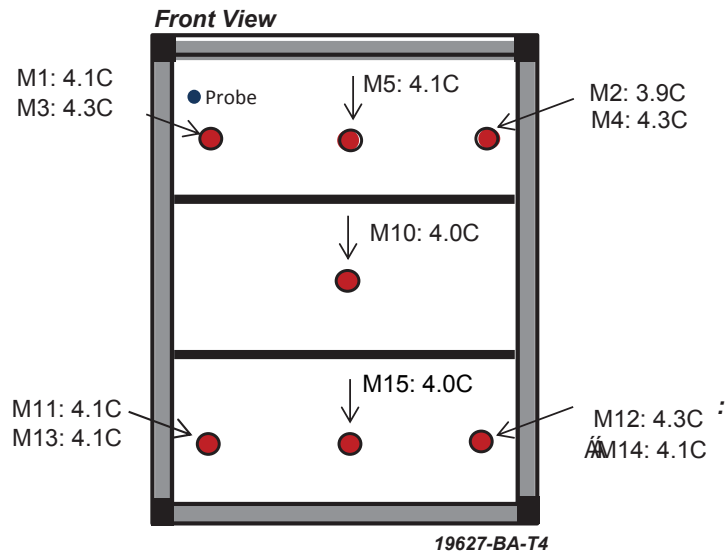
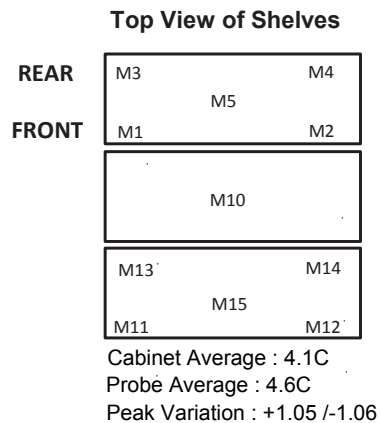
Specifications	Catalog Number																						
	TSX505GV																						
	Production Model Number																						
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	Application, Rating And Electrical Data																						
Application	5.5cf High Performance Laboratory Refrigerator																						
Storage Volume	5.5cf(156L)																						
Set Point Range/Adjustable in Increments of	+3°C to 7°C / 0.1°C																						
Electrical Power	230V/50Hz																						
Instrument Rated Current	5 Amps																						
Building Supply Rating	Breaker 15 Amps/230v± 10%Volt While Operating																						
Power Plug/Power Cord Length	EU SCHUKO,1.828 Meters (6 Feet)																						
Agency Listings	CE, RoHS, Reach																						
Indoor/Outdoor Usage	Indoor Use Only																						
Application Environment	Non-Corrosive, Non-Flammable, Non-Explosive, Good Air Ventilation																						
Ambient Operating Temperature	15° C - 32° C (60° F - 90° F)																						
	Refrigeration Configuration																						
Refrigeration System	Thermoelectric Based Refrigeration System																						
Cooling System	2 X 125W Thermoelectric Heat Pump Devices																						
Cold Side	Hybrid cold wall / forced air with CO2 as refrigerant																						
Hot Side	Forced Air Heat-pipe Fin Tube With Water As Refrigerant																						
Defrost Method	Automatic																						
	Controller/Electrical System Configuration And Features																						
Controller Level	Waist Level																						
Controller Type	Programmable and Integrated Full Colour LCD Touchscreen Controller, 4.3", 480 X272																						
Control Sensor	(2) Open Air Thermistors																						
Remote Alarm Terminal/Temp Alarms	Remote alarm contacts / Hi and Low audible and visual alarms																						
Power Failure Alarm	Yes																						
Data Logger	Yes, Built-In Data Logger. Data Accessible Through USB Device																						
	Dimensions And Construction																						
Interior Dimensions (H x W x D)	23" X 19.5" X 20.5" (58.4 X 49.5 X 52.07 cm)																						
Exterior Dimensions (H x W x D)	31.80" X 23.60" X 27.02" (80.8 X 59.9 X 68.6 cm)																						
Cabinet interior material	Aluminum																						
Cabinet exterior material	Cold Rolled Steel, Powder coated																						
Insulation	Vacuum Insulated Panels, Polyurethane Foam																						
Door Perimeter heater	No																						
Shelves	3 Adjustable Wire Shelves																						
Shelf load capacity	66 lbs (30 kg) / shelf																						
Levelling Legs	4 Leveling legs with 1" Height adjustment																						
Net weight / Ship Weight	119 / 155 lbs ( 54 / 70.3 KG)																						
Access Port	Yes, Rear wall, Accommodates 25mm Probe																						
	Typical Performance Characteristics @ 20C ambient																						
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>5cuft refrigerator 20C ambient, Warm up and Pulldown</b></p> </div> <div style="width: 30%;"> <p><b>5Cuft Refrigerator 20C ambient, 4C Cycle</b></p> </div> <div style="width: 35%;"> <p>Test Unit Series Number or MSO Number: 19627-BA-T4</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>Cabinet Load:</td> <td>Unloaded</td> </tr> <tr> <td>Average Cabinet Temp at 4C Cycle (C):</td> <td>4.1</td> </tr> <tr> <td>Peak Variation from Setpoint (C):</td> <td>+1.05 / -1.06</td> </tr> <tr> <td>Uniformity (C):</td> <td>0.45</td> </tr> <tr> <td>Stability (C):</td> <td>1.63</td> </tr> <tr> <td>1-min Door Opening Recovery to 4C (min):</td> <td>5</td> </tr> <tr> <td>Duty Cycle at 4C (%):</td> <td>50</td> </tr> <tr> <td>Energy Consumption (kw-hr/day):</td> <td>1.98</td> </tr> <tr> <td>Heat Rejection Rate (btu/hr):</td> <td>260.2</td> </tr> <tr> <td>Pull Down Time (to 4C) (min):</td> <td>48</td> </tr> <tr> <td>Warm Up Time (4C to 15C) (min):</td> <td>181</td> </tr> </table> </div> </div>		Cabinet Load:	Unloaded	Average Cabinet Temp at 4C Cycle (C):	4.1	Peak Variation from Setpoint (C):	+1.05 / -1.06	Uniformity (C):	0.45	Stability (C):	1.63	1-min Door Opening Recovery to 4C (min):	5	Duty Cycle at 4C (%):	50	Energy Consumption (kw-hr/day):	1.98	Heat Rejection Rate (btu/hr):	260.2	Pull Down Time (to 4C) (min):	48	Warm Up Time (4C to 15C) (min):	181
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<p>1) Performance is nominal and individual units may vary.</p> <p>2) Refrigerator performance will differ due to product amount, product size and operating conditions.</p> <p>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>																							

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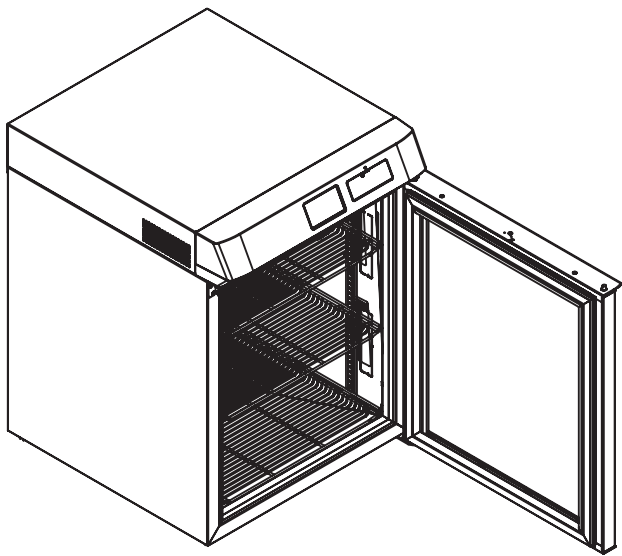
Typical Cabinet Temperature Map  
5.5cuft V-volt Refrigerator, 3 Inner-Shelves, Single Outer Door

Temperatures are averages during > 20 cycles after reaching a setpoint of 4C

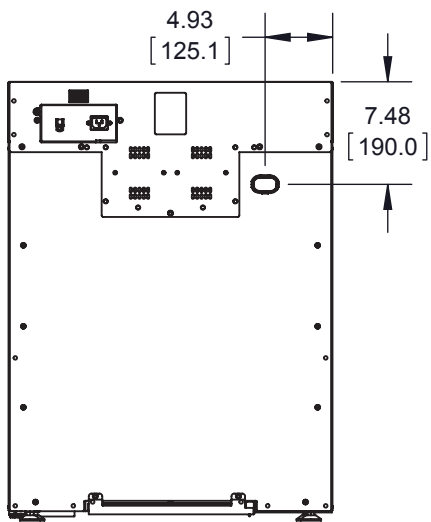


	M1	M2	M3	M4	M5	M10		
Avg	4.1	3.9	4.3	4.3	4.1	4.0		
Max	5.0	5.0	5.0	5.0	4.9	4.9		
Min	3.2	2.9	3.6	3.6	3.4	3.2		

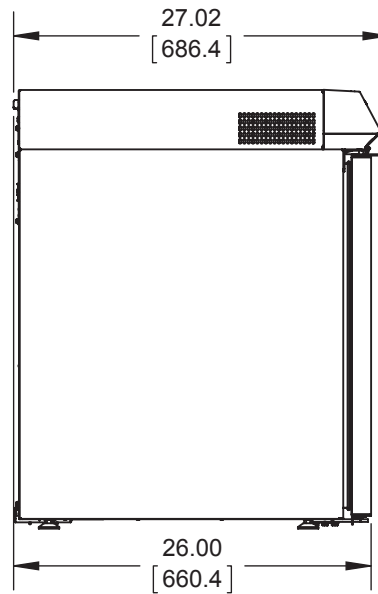
	M11	M12	M13	M14	M15			
Avg	4.1	4.3	4.1	4.1	4.0			
Max	5.0	5.0	5.0	4.9	4.9			
Min	3.3	3.6	3.4	3.3	3.1			



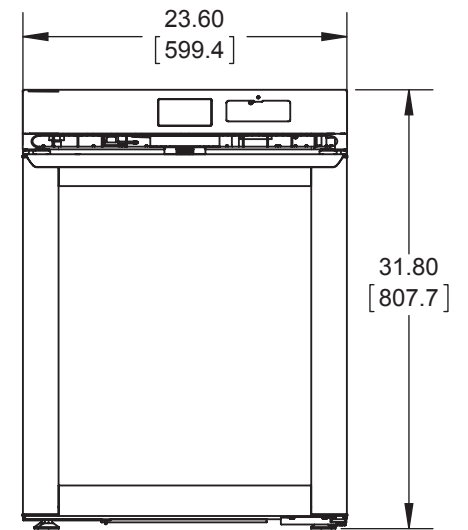
ISOMETRIC VIEW WITH DOOR OPEN



BACK VIEW



SIDE VIEW



FRONT VIEW

NOTE: DUAL DIMENSION IS INCH OVER METRIC  
DO NOT USE FOR ENGINEERING PURPOSES.  
SUBJECT TO CHANGE WITHOUT NOTICE

**thermo**scientific

HIGH PERFORMANCE REFRIGERATOR