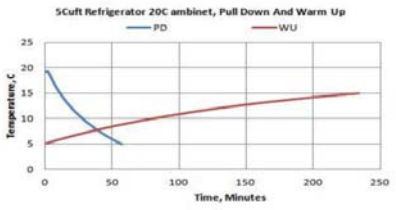
Technical Data Sheet

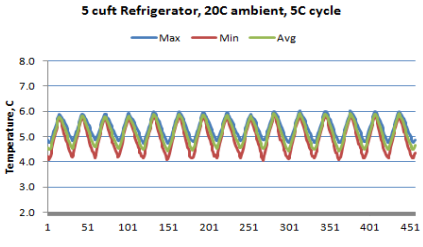
Thermo Scientific High Performance Refrigerator

Revision-1

Thermo Fisher Scientific, Asheville, North Carolina

Specifications	
	Catalog Number
	TSX505SA
	Production Model Number
	TSX505SA
	Application, Rating And Electrical Data
Application	5.5cf High Performance Laboratory Refrigerator
Storage Volume	5.5cf(156L)
Temperature Rating	+2°C to 8°C
Electrical Power	115V/60Hz
Instrument Rated Current	5 Amps
Building Supply Rating	Breaker 15 Amps/115v± 10%Volt While Operating
Power Plug/Power Cord Length	NEMA 5-15P, 1.828 Meters (6 Feet)
Agency Listings	UL
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	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
Power Switch	No
Controller Type	Programmable and Integraed Full Colour LCD Touchscreen Controller, 4.3", 480 X272
Control Sensor	(2) Air Thermisters
Remote Alarm Terminals	Yes, Audible & Visual
Power Failure Alarm	Yes
Data Logger / Chart Recorder	Yes, In-Built 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)
Insulation	VIP, Polyurethane Foam
Door Perimeter heater	No
Shelves	3 Adjustable Wire Shelves
Levelling Legs	4 Leveling legs with 1" Height adjustment
Ship Weight	155 lbs
Access Port	Yes, Rear wall, Accommodates 25mm Probe
	Typical Performance Characteristics





Test Unit Series Number or MSO Number	19627-BA-T2
Cabinet Load	Unloaded
Average Cabinet Temp at 5C cycle (C):	5.16
Peak Variation from Set point (C):	+1.03 / -0.94
Uniformity (C):	0.42
Stability (C):	1.58
1-min Door Opening Recovery to 5C (min):	8
Energy Consumption (kw-hr/day):	2.7
Heat Rejection Rate (btu/hr):	260.2
Pull Down Time (to 5C) (min):	55
Warm Up Time (5C to 15C) (min):	234

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 ommisions to this specification. Thermo Scientific cannot accept responsibility for damage, injury, loss or expenses resulting from misapplication of the information herein.

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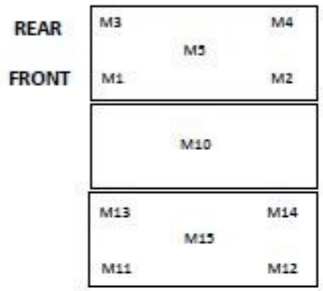
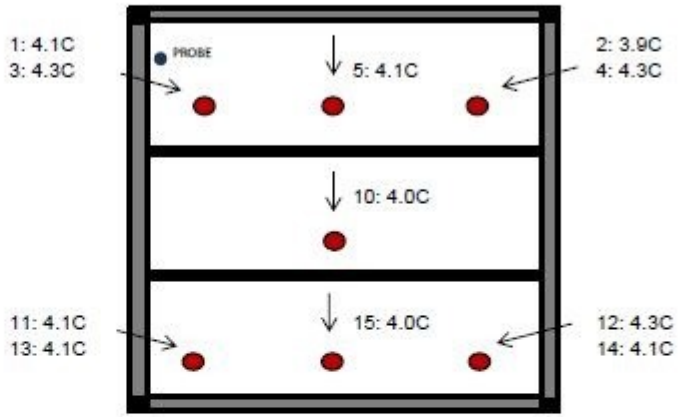
Typical Cabinet Temperature Map
5Cuft A-Volt Refrigerator, 3 Inner Shelves, Single Outer Door

Temperatures are averages during > 20 cycles after reaching a setpoint of 5C

Top View of Shelves

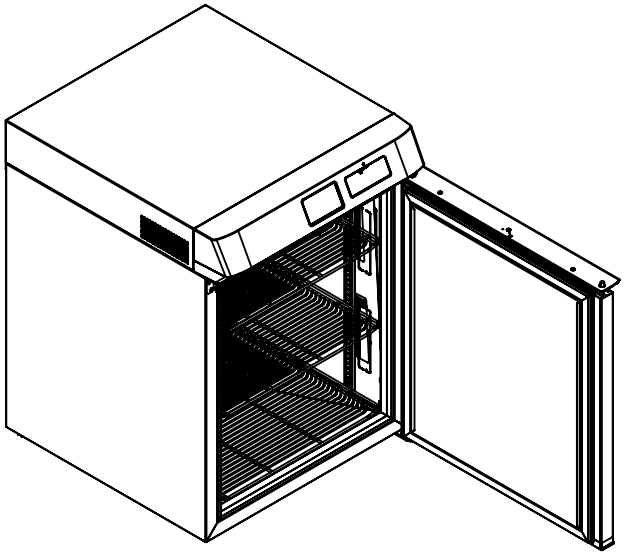




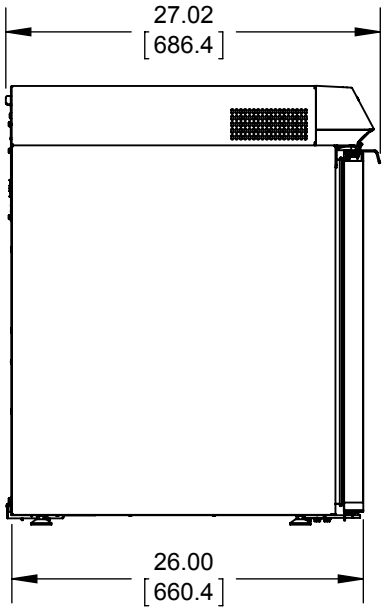
Cabinet Average: 4.1 C
Probe Average: 4.6 C
Peak Variation: +0.0 C / --2.1 C

	M1	M2	M3	M4	M5	M10
Avg	4.1	3.9	4.3	4.3	4.1	4
Max	5	5	5	5	4.9	4.9
Min	3.2	2.9	3.6	3.6	3.4	3.2

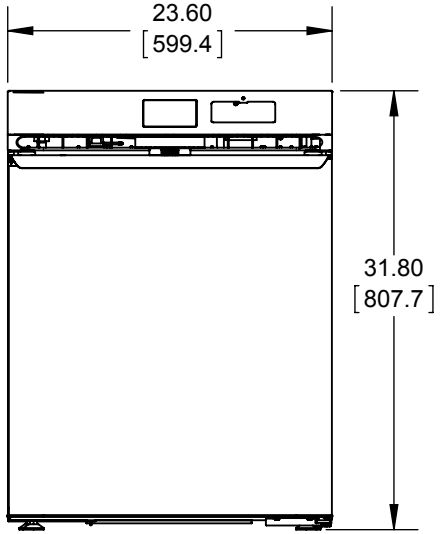
	M11	M12	M13	M14	M15
Avg	4.1	4.3	4.1	4.1	4
Max	5	5	5	4.9	4.9
Min	3.3	3.6	3.4	3.3	3.1



ISOMETRIC VIEW WITH DOOR OPEN



SIDE VIEW



FRONT VIEW

DO NOT USE FOR ENGINEERING PURPOSES
SUBJECT TO CHANGE WITHOUT NOTICE

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HIGH PERFORMANCE REFRIGERATOR