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Technical Data Sheet High Performance General Purpose Refrigerator

Revision- 2

Thermo Fisher Scientific, Asheville, North Carolina

	October America
	Catalog number
Charifications	TSX5005SV
Specifications	Model Number
	TSX5005SV Application, Rating and Electrical Data
Applianting	
Application	Storage of General (non-flammable) Laboratory Materials
Storage Volume	1447 Liters / 51.1 Cubic Feet
Factory Set Point	5℃
Set Point Range / Adjustable Increment	3℃ to 7℃ / 0.1℃
Electrical Power / Rated Current	208-230 V 50 Hz 1 Phase / 4.6 A
Building Supply Rating	15 A dedicated grounded non-GFCI circuit. Protected by circuit breaker rated for inductive loads
Power Plug / Power Cord Length	16 Amp (CEE 7/7) / 3.048 Meters (10 feet)
Agency Listings	CE, UL, cUL
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	Vapor Compression System
Compressor / Number / Capacity	Hermetic Variable Capacity Compressor / 1 / 398 W
Condenser Type / Number	Enhanced Finned-Tube and Forced-Air Cooled / 1
Expansion Device	Capillary Tube
Evaporator Type / Defrost Method	Forced Air Evaporator Coil / Automatic Defrost
Refrigerant Charge / Flammability	R290, 145 gms, GWP:3 ODP:0 / Flammable
January Company	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	Current protection
Control Sensor	Single RTD (1000 ohm shielded Platinum RTD)
Connectivity / Remote Outputs	Remote Alarm Contacts, RS485 Output and 4-20 mA Output (optional)
Adjustable Warm / Cold Alarms	Fully Adjustable
Power Failure Alarm	Standard
Electronic Chart Recorder	Optional
Electronic Chart Necorder	Dimensions and Construction
Interior Dimensions (D x W x H)	72.4 cm x 133.4 cm x 147.3 cm (28.5" x 52.5" x 58.0")
Exterior Dimensions (D x W x H)	96.2 cm x 143.5 cm x 199.4 cm (37.9" x 56.5" x 78.5")
Insulation	5.08 cm (2.0") High-Density Water-Blown Polyurethane Foam
Door Perimeter Heater	
	Yes (8) Adjustable Wire Shelves / 45 kg (100 lbs) per Shelf
Shelves / Load Limit	Standard With Locks
All-Direction Casters	
Shipping Weight	282 kg / 621 lb
	Typical Performance Characteristics
50 cuft Upright Refrigerator, Pull Down and Warm U ————————————————————————————————————	50 cuft Upright Refrigerator at 5C Cycle MAX — MIN — AVG Test Unit Series Number or MSO Number: 19585-B-26
19	Cabinet Load: Unloaded Average Cabinet Temp at 5C Cycle (C): 4,8
17	Peak Variation from Setpoint (C): +1.47-2.8
ĝ 15	
11 13 14 15 15 16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Stability (C): 1 Stability (C): 2 Duty Cycle at 5C (%): 2 Cycle (on/off) rate at 5C (min): 3 1 Cycle (on/off) rate at 5C (min): 3 2 Cycle (on/off) rate at 5C (min): 3 3 6 Cycle (on/off) rate at 5C (min): 3 3 6 Cycle (on/off) rate at 5C (min): 3 3 6 Cycle (on/off) rate at 5C (min): 3 4 Cycle (on/off) rate at 5C (min): 3 5 7 Cycle (on/off) rate at 5C (min): 3 6 7 Cycle (on/off) rate at 5C (min): 3 7 6 Cycle (on/off) rate at 5C (min): 3 8 7 Cycle (on/off) rate at 5C (min): 3 9 7 Cycle (on/off) rate at 5C (min): 3 1 Cycle (on/off) rate at 5C (min): 4 8 7 Cycle (on/off) rate at 5C (min): 5 9 7 Cycle (on/off) rate at 5C (min):
<u>a</u> 11	Duty Cycle at 5C (%): 32
و ق	Cycle (on/off) rate at 5C (min): 3 / 6 Energy Consumption (kw-hr/day): 6.2
7	Heat Rejection Rate (htulin): 993
	Pull Down Time (to 5C) (min): 17
0 50 100 150 200 250	0 Warm Up Time (5C to 15C) (min): 258 300 0 120 240 360 480 600 720 Sound (dBA): 52
Time, minutes	300 0 120 240 360 480 600 720 Sound (dBA): 52 Time, minutes
Performance is nominal and individual.	•

- 1) Performance is nominal and individual units may vary.
- 2) Product 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 Refrigerator 50cuft , 8 Inner-Shelves + Base, 2 Outer Doors Temperatures are averages during > 20 cycles after reaching a setpoint of 5C

Top View of Shelves

REAR

FRONT

М3	M5	M4	M53	M54 M55		
M1		M2	M51	M52		
	M10			M60		
M13		M14	M63	M64		
	M15			M65		
M11		M12	M61	M62		
	M20			M70		
M23		M24	M73	M74		
	M25			M75		
M21		M22	M71	M72		





19585-B-26

Cabinet Average: 4.8 C **Probe Average:** 5.4 C

Peak Variation: +1.4 C / -2.8 C

	M1	M2	M3	M4	M5	M10
Avg	5.4	4.7	4.6	4.6	4.7	4.7
Max	6.4	6.1	6	6	6	6
Min	4.2	3	2.8	2.6	3.1	2.9

	M11	M12	M13	M14	M15	M20
Avg	5	4.6	4.5	4.5	4.6	4.6
Max	6.2	6	6.1	6.1	6	6
Min	3.3	2.8	2.2	2.2	2.8	2.6

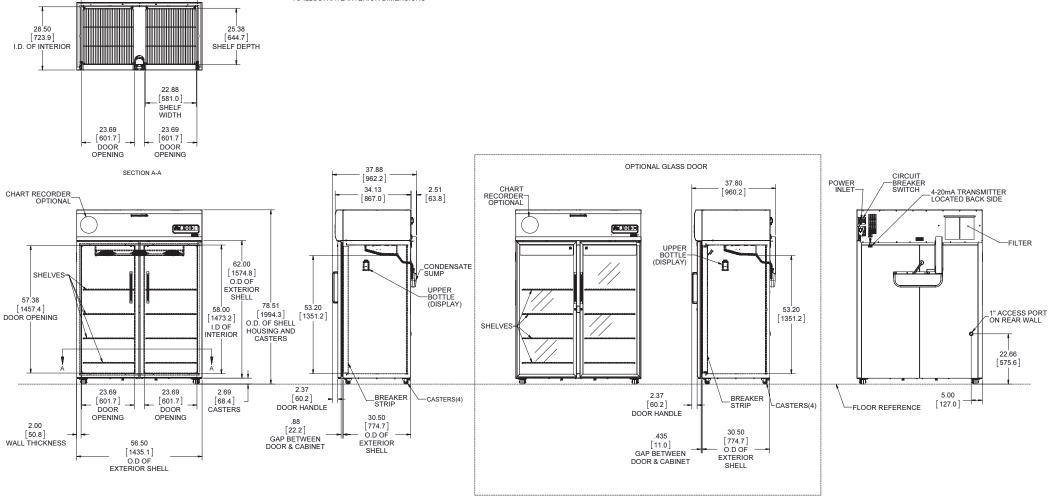
_		M21	M22	M23	M24	M25
	Avg	4.6	4.7	4.7	4.6	4.5
	Max	6.1	6.2	6	6.1	6.1
	Min	2.5	2.8	3.1	2.7	2.3

	M51	M52	M53	M54	M55	M60
Avg	5.2	5.4	4.9	4.8	5.1	4.9
Max	6.3	6.4	6.2	6.2	6.3	6.2
Min	3.8	4.1	3.1	3	3.6	3.3

	M61	M62	M63	M64	M65	M70
Avg	4.9	5.1	4.7	4.7	4.9	4.8
Max	6.2	6.3	6.2	6.2	6.2	6.1
Min	3.3	3.6	2.3	2.6	3.3	3

	M71	M72	M73	M74	M75
Avg	4.7	4.8	4.7	4.7	4.8
Max	6.2	6.2	6.2	6.1	6.2
Min	2.6	2.9	2.4	2.8	2.7

ONLY CABINET SHOWN FOR CLARITY IN TOP VIEW, TO ILLUSTRATE INTERIOR DIMENSIONS thermoscientific



52.50 [1333.5]

I.D. OF INTERIOR