



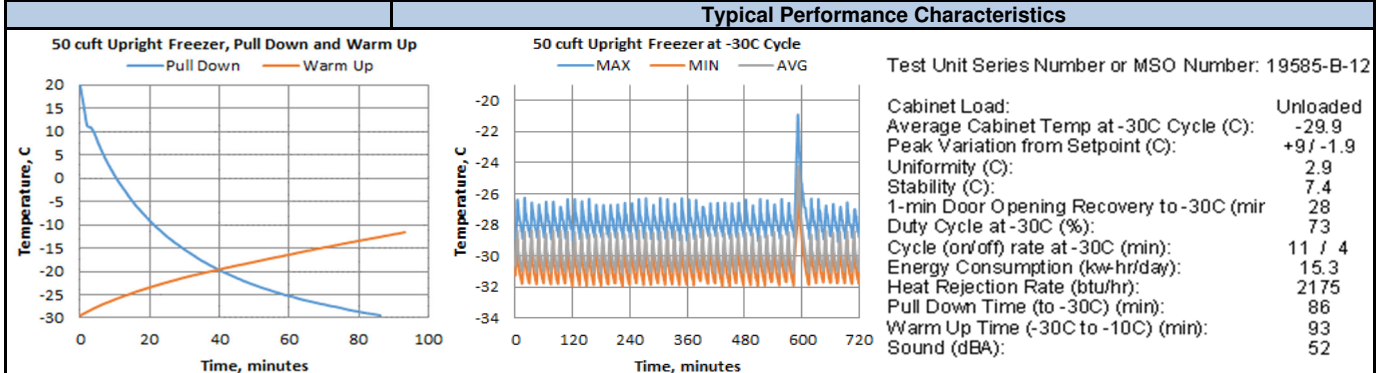
## Technical Data Sheet

### High Performance General Purpose Freezer

Revision-2

Thermo Fisher Scientific, Asheville, North Carolina

<b>Specifications</b>	<b>Catalog number</b>	TSX5030FV
	<b>Model Number</b>	TSX5030FV
	<b>Application, Rating and Electrical Data</b>	
	Application	Storage of General (non-flammable) Laboratory Materials
Storage Volume	1447 Liters / 51.1 Cubic Feet	
Factory Set Point	-30°C	
Set Point Range / Adjustable Increment	-35°C to -15°C / 0.1°C	
Electrical Power / Rated Current	208-230 V 50 Hz 1 Phase / 8.7 A	
Building Supply Rating	15A 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	UL, cUL, CE	
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)	
<b>Refrigeration Configuration</b>		
Refrigeration System	Vapor Compression System	
Compressor / Number / Capacity	Hermetic Variable Capacity Compressor / 1 / 672 W	
Condenser Type / Number	Enhanced Finned-Tube and Forced-Air Cooled / 1	
Expansion Device	Thermal Expansion Valve	
Evaporator Type / Defrost Method	Forced Air Evaporator Coil / Automatic Defrost	
Refrigerant Charge / Flammability	R290, 135 gms, GWP:3 ODP:0 / Flammable	
<b>Controller/Electrical System Configuration and Features</b>		
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	
<b>Dimensions and Construction</b>		
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	
Shelves / Load Limit	(8) Adjustable Wire Shelves / 45 kg (100 lbs) per Shelf	
All-Direction Casters	Standard With Locks	
Shipping Weight	282 kg / 621 lb	

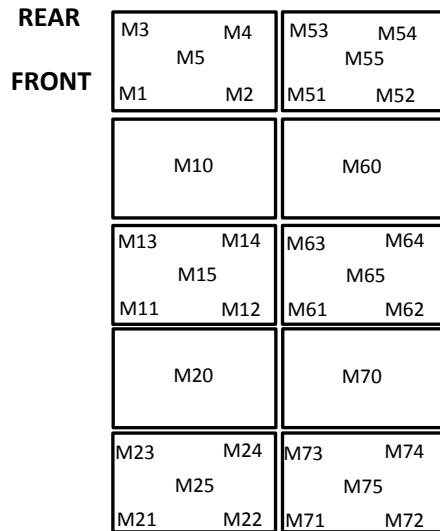


- 1) Performance is nominal and individual units may vary.
- 2) Product performance will differ due to product amount, product size and operating conditions.
- 3) Continuous product enhancements may, without notice, result in amendments or omissions to this specification. Thermo Scientific cannot accept responsibility for damage, injury, loss or expenses resulting from misapplication of the information herein.

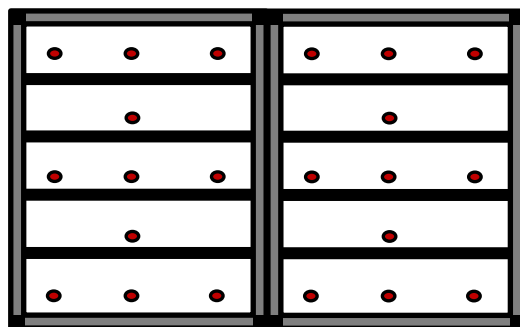
**Typical Cabinet Temperature Map**  
Freezer 50cuft , 8 Inner-Shelves + Base, 2 Outer Doors

Temperatures are averages during > 20 cycles after reaching a setpoint of -30C

**Top View of Shelves**



Front View



19585-B-12

**Cabinet Average:** -29.9 C  
**Probe Average:** -29.2 C  
**Peak Variation:** +9.0 C / -1.9 C

	M1	M2	M3	M4	M5	M10
Avg	-27.8	-29.3	-29.5	-29.8	-29.2	-30
Max	-21	-22.4	-22.1	-22.4	-23	-24.4
Min	-29.1	-30.7	-31	-31.2	-30.5	-31.2

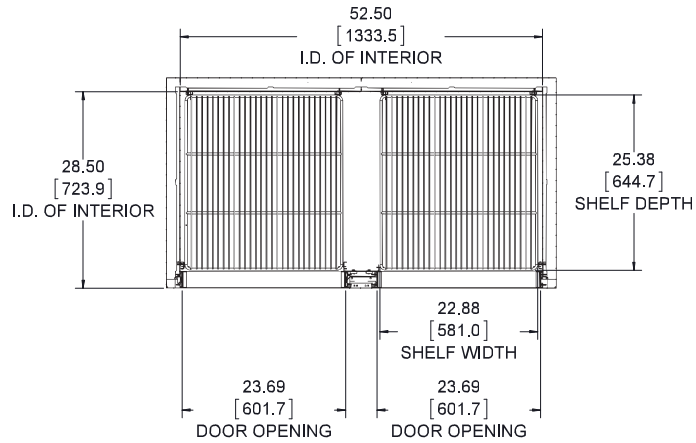
	M11	M12	M13	M14	M15	M20
Avg	-29.5	-30	-30.4	-30.6	-30.4	-30.5
Max	-24	-24.4	-24.2	-23.9	-24.5	-24.5
Min	-30.7	-31.1	-31.7	-31.9	-31.6	-31.6

	M21	M22	M23	M24	M25
Avg	-29.9	-29.8	-30.1	-30.3	-30.5
Max	-24.3	-24.3	-24.2	-24.5	-24.4
Min	-31.1	-31	-31.3	-31.4	-31.7

	M51	M52	M53	M54	M55	M60
Avg	-29.2	-29.9	-30	-30.2	-29.5	-29.7
Max	-22.5	-22.5	-22.3	-22.4	-22.1	-24.3
Min	-30.6	-31.3	-31.4	-31.7	-30.9	-30.9

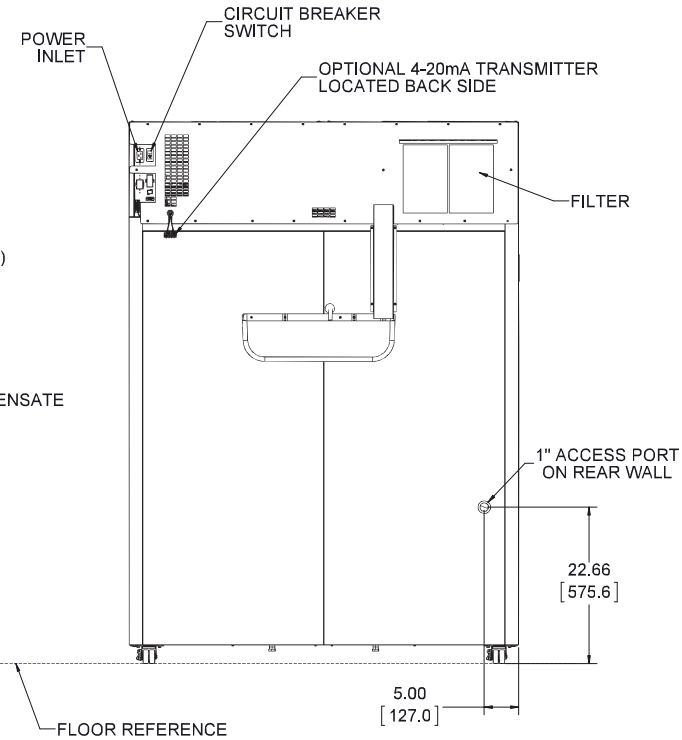
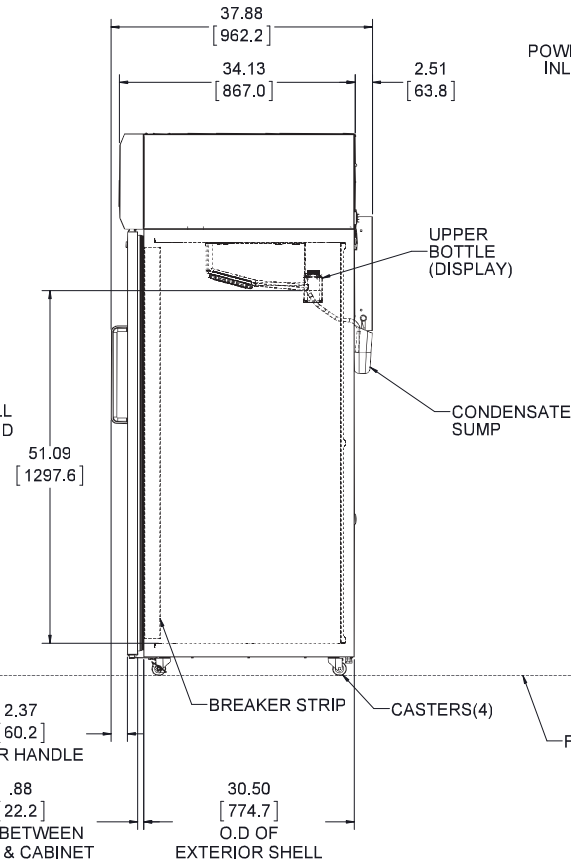
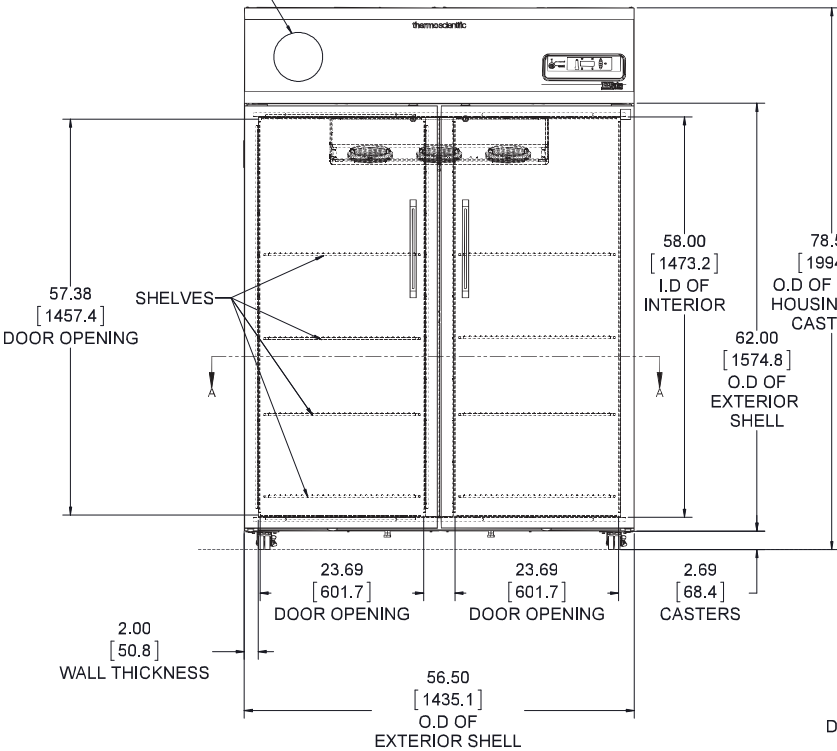
	M61	M62	M63	M64	M65	M70
Avg	-29.9	-29.5	-30.5	-30.4	-29.8	-30.1
Max	-24.5	-24.3	-24.4	-23.9	-24.2	-24.5
Min	-31	-30.5	-31.8	-31.6	-31	-31.2

	M71	M72	M73	M74	M75
Avg	-29.6	-29.4	-30.1	-29.7	-30.2
Max	-24.1	-24	-24.4	-24.4	-24.5
Min	-30.8	-30.6	-31.3	-30.8	-31.4



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

CHART RECORDER OPTIONAL



**50 cu.ft. General Purpose Freezer**  
 8 Shelves  
 Double Outer Door  
 Top Mount Controls

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