

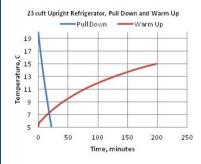
## **Technical Data Sheet**

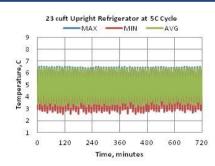
## Thermo High Performance General Purpose Refrigerator

MODEL RELEASE - 1

Thermo Fisher Scientific, Asheville, North Carolina

	Model Number					
Specifications	TSX2305GV					
	Application, Rating and Electrical Data					
Application	General Purpose (non-flammable) Refrigerator 650 Liters/23 Cubic Feet 5°C					
Storage Volume						
Factory Temperature Setpoint						
Temperature Setpoint Range	3°C to 7°C  208-230V 50/60 Hz 1 Phase / 2.3A  15.0A dedicated non-GFCI grounded circuit. Protected by circuit breaker rated for inductive loads					
Electrical Power / Rated Current						
Building Supply Rating						
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)					
	Refrigeration Configuration					
Refrigeration System	Vapor compression system					
Compressor / Quantity / Capacity*	Hermetic Variable Capacity Compressor / 1 / 286W  Microchannel and Forced-Air Cooled / 1  Capillary Tube  Forced Air Evaporator Coil / Automatic Defrost					
Condenser Type/ Quantity						
Expansion Device						
Evaporator Type / Defrost Method						
Refrigerant Charge/Flammability	Environmentally Safe R290 / Flammable					
	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  Yes / Yes  Current Protection  Single RTD (1000 ohm shielded Platinum RTD)					
Setpoint Security / Programmable						
Compressor Safe Guard						
Control Sensor						
Remote Alarm Terminals	Standard					
Adjustable Warm/Cold Alarms	Fully Adjustable					
Power Failure Alarm	Standard					
Electronic Chart Recorder	Optional					
	Dimensions and Construction					
Interior Dimensions (H x D x W)	1473 H x 725 D x 610 W mm (58 H x 28.6 D x 24 W in.)					
Exterior Dimensions (H x D x W)	1994 H x 932 D x 711 W mm (78.5 H x 36.7 D x 28 W in.)					
Insulation	5.08 cm (2.0") High Density HFC-blown Polyurethane Foam in cabinet					
Door Perimeter Heater	Yes					
Shelves / Capacity	(4) Adjustable Wire Shelves / Max. Cap. per Shelf: 45 kg (100 lbs.)					
All-Direction Casters	Yes					
Ship Weight	200 kg / 442 lb					





Test Unit Series Number or MSO Number: 19490-BA-T11
Cabinet Load: Unloaded
Average Cabinet Temp at 5C Cycle (C): 49
Peak Variation from Setpoint (C): +15/-2.4
Uniformity (C): 0.6
Stability (C): 3.3
1-min Door Opening Recovery to 5C (min): 5
Duty Cycle at 5C (%): 27
Cycle (not fift rate at 5C (min): 3.1 / 8
Energy Consumption (kw-hr/day): 4.0
Heat Rejection Rate (btu/hr): 563
Pull Down Time (b 5C) (min): 23
Warm Up Time (5C to 15C) (min): 198
Sound (dBA): 52

- 1) Performance is nominal and individual units may vary.
- 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.
- \* Manufacturer measured compressor capacity taken at -35C/40C(evap./cond.temp) at 4500 rpm condition.

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## Typical Cabinet Temperature Map Refrigerator 23 cuft Unit, 4 Inner-Shelves + Base, Single Outer Door

Temperatures are averages during > 12 hours of cycle after reaching setpoint of 5 C

## **Top View of Shelves**

 REAR
 MA3
 MA4

 FRONT
 MA1
 MA2

 MA10
 MA10

 MA13
 MA14

 MA15
 MA15

 MA11
 MA12

MA20

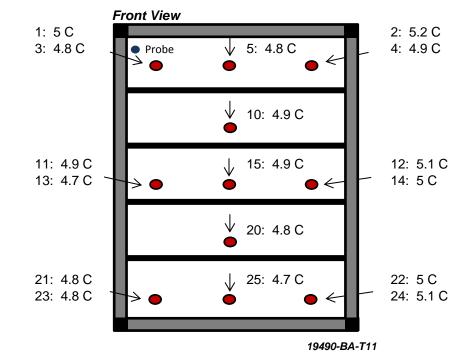
MA25

MA24

Cabinet Average: 4.9 C
Probe Average: 4.9 C

Peak Variation: +1.5 C / -2.4 C

MA23



MA3 MA4 MA10 MA11 MA13 MA1 MA2 MA5 MA12 Avg 5.0 5.2 4.8 4.9 4.8 4.9 4.9 5.1 4.7 Max 6.5 6.5 6.4 6.4 6.4 6.4 6.4 6.4 6.5 Min 3.5 3.9 2.9 3.3 3.0 3.2 3.3 3.7 2.6

		MA14	MA15	MA20	MA21	MA22	MA23	MA24	MA25
	Avg	5.0	4.9	4.8	4.8	5.0	4.8	5.1	4.7
	Max	6.4	6.3	6.4	6.5	6.5	6.5	6.4	6.5
	Min	3.4	3.3	3.0	2.8	3.3	2.9	3.6	2.6

