

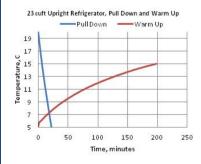
## **Technical Data Sheet**

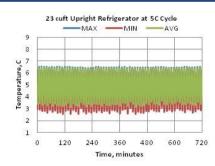
## Thermo High Performance General Purpose Refrigerator

MODEL RELEASE - 1

Thermo Fisher Scientific, Asheville, North Carolina

	Model Number				
Specifications	TSX2305GV				
	Application, Rating and Electrical Data				
Application	General Purpose (non-flammable) Refrigerator				
Storage Volume	650 Liters/23 Cubic Feet				
Factory Temperature Setpoint	5°C				
Temperature Setpoint Range	3°C to 7°C				
Electrical Power / Rated Current	208-230V 50/60 Hz 1 Phase / 2.3A				
Building Supply Rating	15.0A dedicated non-GFCI grounded 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)				
	Refrigeration Configuration				
Refrigeration System	Vapor compression system				
Compressor / Quantity / Capacity*	Hermetic Variable Capacity Compressor / 1 / 286W				
Condenser Type/ Quantity	Microchannel and Forced-Air Cooled / 1				
Expansion Device	Capillary Tube				
Evaporator Type / Defrost Method	Forced Air Evaporator Coil / Automatic Defrost				
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				
Setpoint Security / Programmable	Yes / Yes				
Compressor Safe Guard	Current Protection				
Control Sensor	Single RTD (1000 ohm shielded Platinum RTD)				
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
Reak 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): 3.7 /- 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

MA13 MA14 MA15 MA11 MA12

MA10

MA20

MA23

MA24

MA25

MA21

MA22

Cabinet Average: 4.9 C Probe Average: 4.9 C Peak Variation: +1.5 C/-2.4 C

Front View 1: 5 C 2: 5.2 C 3: 4.8 C 5: 4.8 C 4: 4.9 C Probe 10: 4.9 C 11: 4.9 C 15: 4.9 C 12: 5.1 C 13: 4.7 C 14: 5 C **○** ← 20: 4.8 C 21: 4.8 C 25: 4.7 C 22: 5 C 24: 5.1 C 23: 4.8 C

	MA1	MA2	MA3	MA4	MA5	MA10	MA11	MA12	MA13
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

19490-BA-T11

