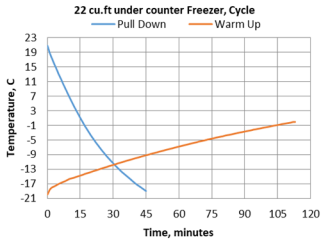
Technical Data Sheet

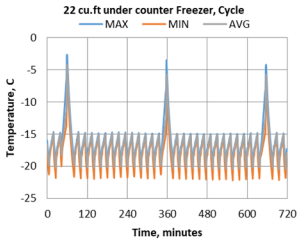
Thermo Scientific General Purpose Refrigerator

Revision-A

Thermo Fisher Scientific, Asheville, North Carolina

Specifications	Catalog number
	TSE2220FA
	Model Number
	TSE2220FA
	Application, Rating and Electrical Data
Application	General Purpose Laboratory Grade Freezer
Storage Volume / Gross Volume	19.9 cu.ft. (563.5 Liters) / 22.1 cu.ft (627 Liters)
Set Point Range/Adjustable in Increments of	-15˚C to -25˚C / 0.1 (5˚F to -13˚F)
Factory setpoint	-20˚C
Storage Temperature	-15˚C to -25˚C (5˚F to -13˚F)
Electrical Power	115 V / 60 Hz, 1ph
Instrument Rated Current	2.54 A
Building Supply Rating	115 VAC ± 10% of Normal Rated Line volt while operating
Agency Listings	cETLus
Power Plug/Power Cord Length	UL-60320-C19 American Plug Type / 3 Meters (9.84 Feet)
Indoor / Outdoor Usage	Indoor Use Only
Application Environment	Non-Corrosive, Non-Flammable, Non-Explosive, Good Air Ventilation
Ambient Operating Temperature	16° C - 32° C (60.8° F - 90° F)
	Refrigeration Configuration
Refrigeration System	Vapour Compression System
Compressor / Number	Hermetic Compressor / 1
Condenser Type / Number	Wire and Tube type
Expansion Device	Capillary Tube
Evaporator Type	Forced cooled Evaporator
Defrost Method	Electric Heater
Refrigerant Charge / Flammability	R290A, 78g / Flammable
	Controller / Electrical System Configuration And Features
Power Switch	Not Present
Controller Type	Copeland Controller
Setpoint Security / Programmable	NO/Adjustable
Control Sensor	(1) NTC Probe
LED lamp	Yes /LED / Horizontal top side / 2.0W
Alarms	Warm temp, Cold temp and Door Open (Audible and Visual)
Door Switch	Yes
Power Failure Alarm	Not Present
Data Logger / Chart Recorder	Not present
	Dimensions And Construction
Interior Dimensions (H x W x D)	1505 mm x 596 mm x 700 mm (59.25" x 23.46" x 27.55")
Exterior Dimensions (H x W x D)	2026 mm x 713 mm x 881 mm (79.76" x 28.07" x 34.68")
Insulation	HFC-free Polyurethane Foam
Door Perimeter heater	Not Present
Key Lock	Yes
Shelves / Capacity	(4) Adjustable Shelves / Max. 30kg (66 lbs) per shelf
Leveling Legs	(4) Lockable Castors with brakes
Ship Weight / Net Weight	152 kg (335 lbs) / 129 kg (284 lbs)
Access Port / Dia	Yes, Left Side wall/ 23.5mm
	Typical Performance Characteristics





Test Unit Series Number or MSO Number:	IEC-TCO-01588
Setpoint:	-20˚C
Cabinet Load:	Unloaded
Average Cabinet Temp at 20C ambient at default setting (C):	-21.2
Average Uniformity (C):	2.4
1-min Door Opening Recovery time (min):	19
Energy Consumption (kw-hr/day):	3.2*
Pull Down Time 20C to -20C (min):	45
Sound (dBA):	53

1) Data is representative of performance and not published product specifications. Technical data sheet test results should not be referenced in developing any regulatory parameters for specific customer usage.
2) Freezer performance will vary based on customer product volume, storage format, operating conditions, test methodology and performing recommended maintenance.
3) Continuous product enhancements may, without notice, result in amendments or omissions to this technical data sheet. Thermo Scientific cannot accept responsibility for damage, injury, loss or expenses resulting from misapplication of the information herein.
4)*Energy consumption is based on tests conducted internally at optimal conditions and this value does not reflect / is not representative of the Energy Star value reported on the EPA site.

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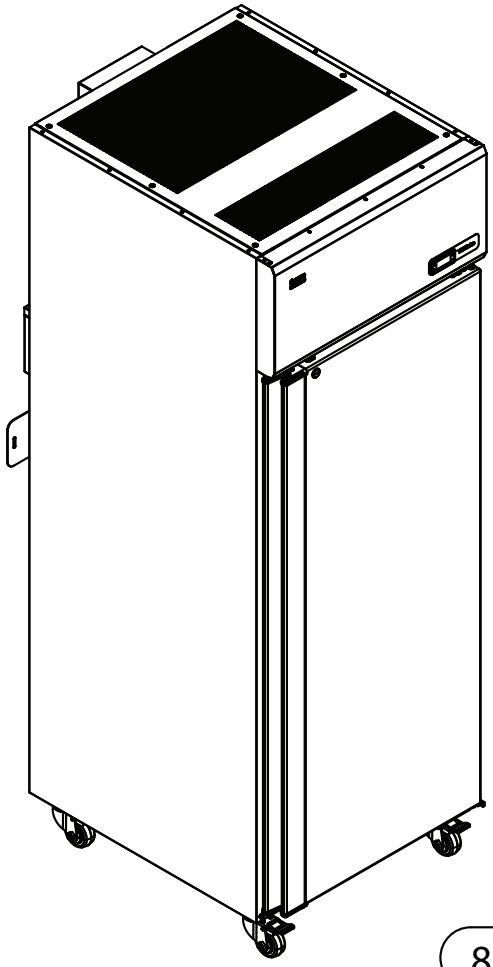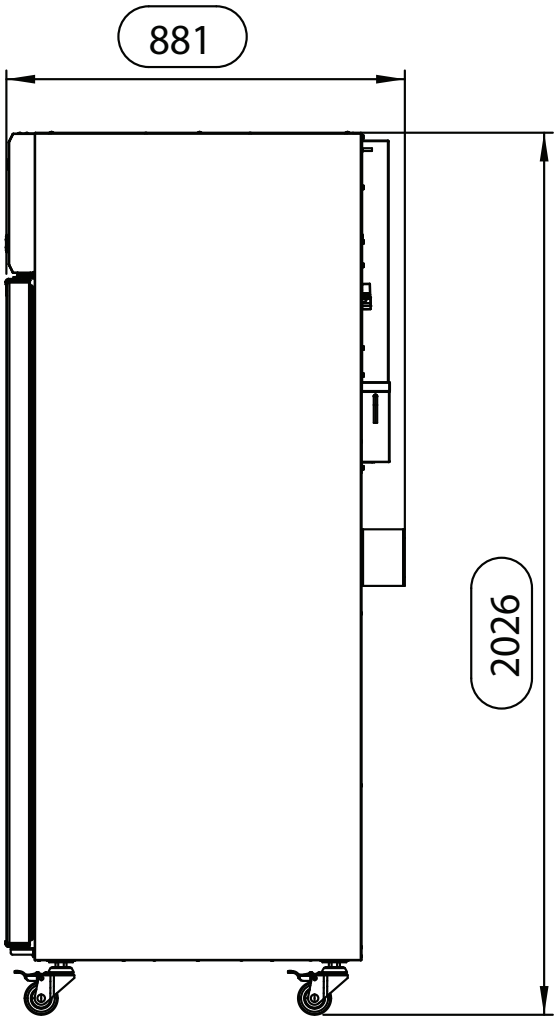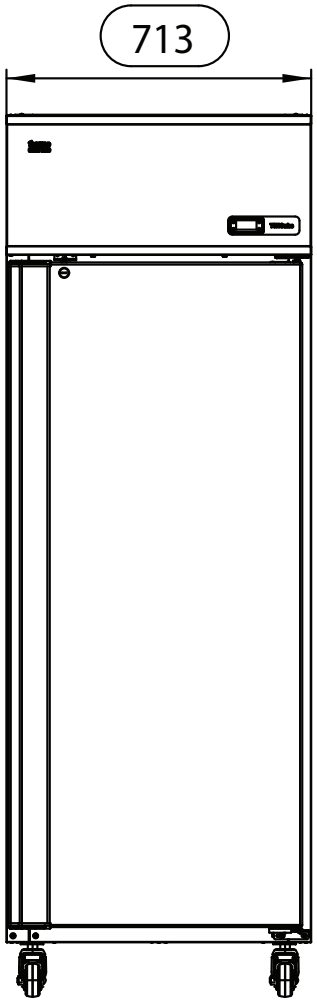
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