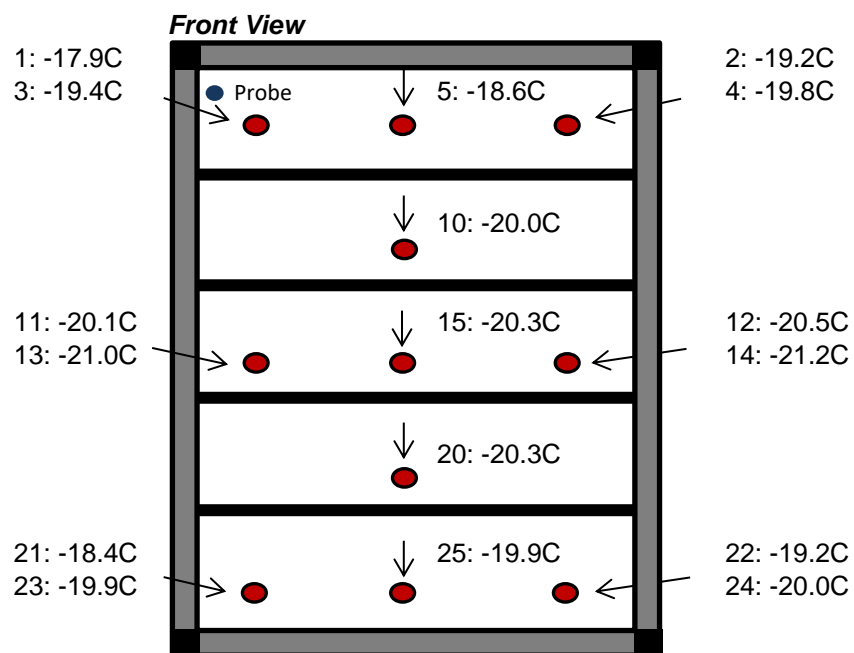
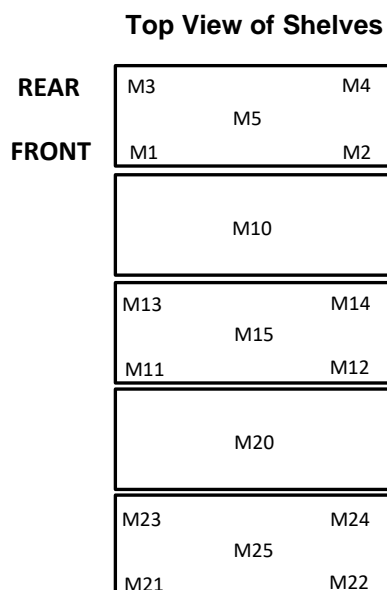


Specifications	Model Number																										
	TSG400FESBW																										
Application, Rating and Electrical Data																											
Application	Storage of General (non-flammable) Laboratory Materials																										
Storage Volume	347Liters /12.25 Cubic Feet																										
Factory Set Point	-20 °C																										
Set Point / Increment	-20 °C / 0.1 °C																										
Electrical Power / Rated Current	230V 50 Hz 1 Phase / 1.6A																										
Building Supply Rating	13A 250V																										
Power Plug/Power Cord Length	13 Amp 250V / 3 Meters (10 feet)																										
Agency Listings	CE																										
Standards and directives	2006/42/EC, 2014/30/EU, 2014/35/EU, 2011/65/UE, 2015/863/EU & 2012/19/EU																										
Electromagnetic Compatibility	Emissions (Class A), Immunity (Industrial Environment)																										
Indoor/Outdoor Usage	Indoor Use Only																										
Application Environment	Non-Corrosive, Non-Flammable, Non-Explosive, Good Air Ventilation																										
Ambient Operating Temperature	15° C to 32° C (59° F to 90° F)																										
Refrigeration Configuration																											
Refrigeration System	Vapor compression system																										
Compressor / Number / Capacity	Single speed / 1 / 626W																										
Condenser Type/Number	Forced-Air Cooled Finned-Tube Coil Heat Exchanger / 1																										
Expansion Device	Capillary Tube																										
Evaporator Type / Defrost Method	Forced Air Finned-Tube Coil Heat Exchanger / Automatic Defrost																										
Refrigerant Charge / Flammability	R290,120gms,GWP:3 ODP:0 / Flammable																										
Controller/Electrical System Configuration and Features																											
Controller Level	Eye Level																										
Power Switch	On the Controller Main Screen																										
Controller Type	Electronic Controller with LCD display																										
Setpoint Security / Programmable	Yes / Yes																										
Compressor Safe Guard	Overload Protection (OLP)																										
Control Sensor	NTC Probe																										
Connectivity / Remote Outputs Terminals	Dry Contact (NO and NC)																										
Adjustable Warm / Cold Alarms	Fully Adjustable																										
Power Failure Alarm	Acoustic and Visual																										
Electronic Chart Recorder	Not Provided																										
Dimensions and Construction																											
Interior Dimensions (H x D x W)	1405 mm x 493 mm x 500 mm (55.3" x 19.4" x 19.7")																										
Exterior Dimensions (H x D x W)	1955 mm x 650 mm x 600 mm (77" x 25.6" x 23.6")																										
Insulation	Polyurethane Foam 7cms (2.75") at Back & 5cms (2") in the Sides																										
Door Perimeter heater	Yes																										
Shelves / Load Limit	4 Shelves / 30kg (66 lbs) per Shelf																										
Casters	2 Lockable Castors at the front & 2 Fixed Castors at the rear																										
Non-Crated Shipping Weight	114kgs / 251.3 lbs																										
Typical Performance Characteristics																											
<p style="font-size: small;">Set Point -20°C @ 20°C Ambient</p> <p style="font-size: x-small;">Temperature (°C)</p> <p style="font-size: x-small;">Time (min)</p> <p style="font-size: x-small;">Pull Down and Warm Up</p>	<p style="font-size: small;">Set Point -20°C @ 20°C Ambient</p> <p style="font-size: x-small;">Temperature (°C)</p> <p style="font-size: x-small;">Time (min)</p> <p style="font-size: x-small;">At -20°C Cycle</p>																										
<p>Test Unit Series Number or MSO Number: 20297-A-4.2</p> <table style="width: 100%; border: none;"> <tr> <td>Cabinet Load:</td> <td style="text-align: right;">Unloaded</td> </tr> <tr> <td>Average Cabinet Temp (C):</td> <td style="text-align: right;">-19.66</td> </tr> <tr> <td>Peak Variation from Setpoint (C):</td> <td style="text-align: right;">-4.07 / 7.96</td> </tr> <tr> <td>Uniformity (C):</td> <td style="text-align: right;">3.45</td> </tr> <tr> <td>Stability (C):</td> <td style="text-align: right;">7.29</td> </tr> <tr> <td>1-min Door Opening Recovery(min):</td> <td style="text-align: right;">7.97</td> </tr> <tr> <td>Cycle on Time(%):</td> <td style="text-align: right;">42.65</td> </tr> <tr> <td>Cycle (on/off) Time (min):</td> <td style="text-align: right;">2.9/3.9</td> </tr> <tr> <td>Energy Consumption (kw-hr/day):</td> <td style="text-align: right;">6.99</td> </tr> <tr> <td>Heat Rejection Rate (btu/hr):</td> <td style="text-align: right;">993.85</td> </tr> <tr> <td>Pull Down Time to setpoint (Min):</td> <td style="text-align: right;">68</td> </tr> <tr> <td>Warm Up Time to 0°C (min):</td> <td style="text-align: right;">94</td> </tr> <tr> <td>Sound (dBA):</td> <td style="text-align: right;">55.6</td> </tr> </table>		Cabinet Load:	Unloaded	Average Cabinet Temp (C):	-19.66	Peak Variation from Setpoint (C):	-4.07 / 7.96	Uniformity (C):	3.45	Stability (C):	7.29	1-min Door Opening Recovery(min):	7.97	Cycle on Time(%):	42.65	Cycle (on/off) Time (min):	2.9/3.9	Energy Consumption (kw-hr/day):	6.99	Heat Rejection Rate (btu/hr):	993.85	Pull Down Time to setpoint (Min):	68	Warm Up Time to 0°C (min):	94	Sound (dBA):	55.6
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<p>1) Performance is nominal and individual units may vary.</p> <p>2) Product performance will differ due to product amount, product size and operating conditions.</p> <p>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.</p>																											
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Cabinet Average: -19.8 C
Probe Average: -17.6 C
Peak Variation: +4.1 C / -4.1 C

20297-A-4-2

	M1	M2	M3	M4	M5	M10	M11	M12	M13
Avg	-17.9	-19.2	-19.4	-19.8	-18.6	-20	-20.1	-20.5	-21
Max	-16	-16.3	-16.4	-16.3	-16.1	-18.4	-18.5	-18.8	-19.1
Min	-20.1	-22.6	-23	-24.1	-21.6	-21.9	-22.1	-22.9	-23.7

	M14	M15	M20	M21	M22	M23	M24	M25
Avg	-21.2	-20.3	-20.3	-18.4	-19.2	-19.9	-20	-19.9
Max	-19.2	-19.1	-19.1	-17	-17.7	-18.4	-18.7	-18.5
Min	-24	-22	-21.8	-19.8	-21.3	-21.8	-21.6	-21.7

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

thermo scientific

