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Performance Data Sheet -80°C Setpoint
Thermo Scientific Ultra-Low Temperature Freezer
Upright Model Release - 90
Thermo Fisher Scientific, Asheville, North Carolina

ENERGY STAR®
(Daily Energy Consumption)
0.31 kW-hr/day/cuft



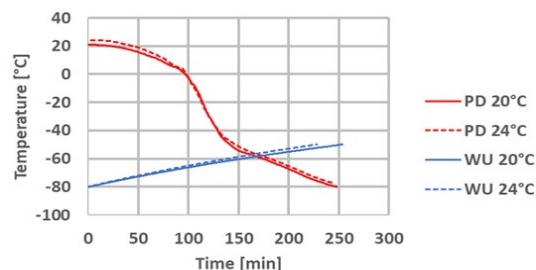
Model Number

Thermo Scientific TSX50086FA

Performance

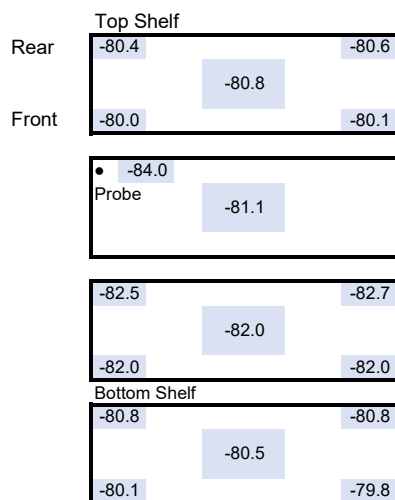
Ambient	°C	20	24
Energy Consumption	kWh/day	7.8	8.8
Heat Rejection Rate	Btu/h	1110	1252
Peak Variation from Setpoint	°C	-2.8/0.5	-2.9/1.3
Average Uniformity	°C	3.1	4.0
Average Stability	°C	0.2	0.2
Average Cabinet Temperature	°C	-81.1	-81.0
1-min Door Opening Recovery to -75°C	min	15.3	20.7
Pull Down Time to -80°C	min	250	261
Warm Up Time -80°C to -50°C	min	269	247

Pull Down and Warm Up at 20°C and 24°C Ambient



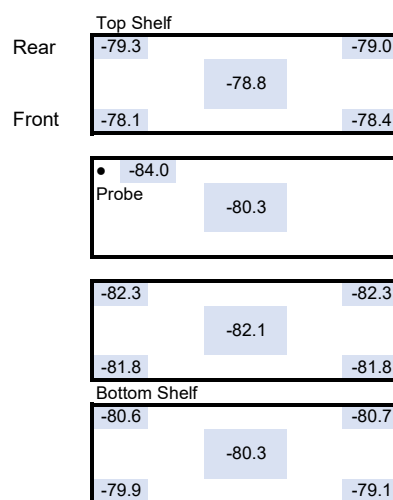
Cabinet Temperature Distribution [°C]

20°C Ambient

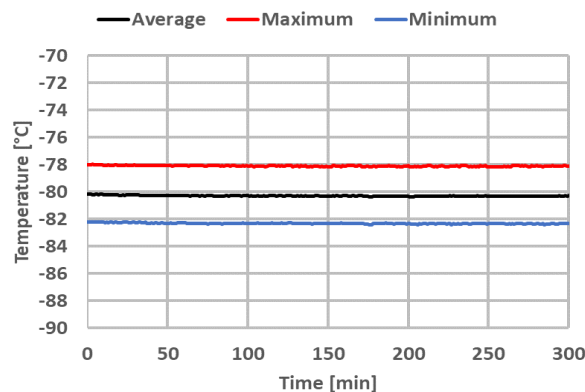
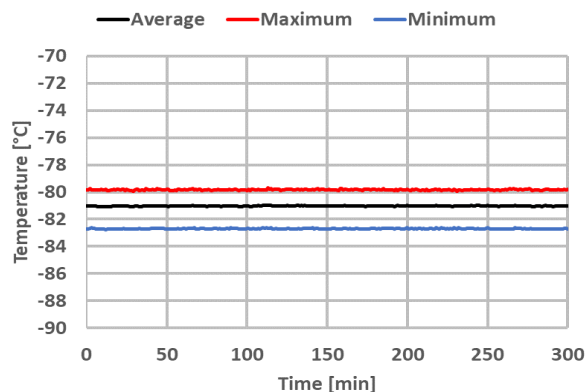


20360-B-32

24°C Ambient



20360-B-32



- 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, options selected, 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) Actual temperature measurement will vary based on type and location of the probe used.



Performance Data Sheet Warm Setpoints
Thermo Scientific Ultra-Low Temperature Freezer
Upright Model Release - 90
Thermo Fisher Scientific, Asheville, North Carolina

ENERGY STAR®
(Daily Energy Consumption)

0.31 kW-hr/day/cuft



Model Number

Thermo Scientific TSX50086FA

Performance

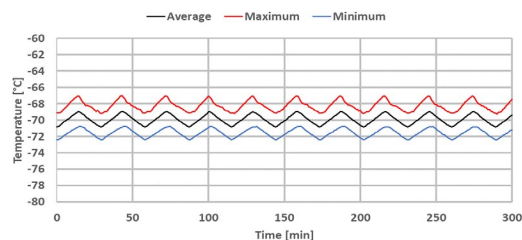
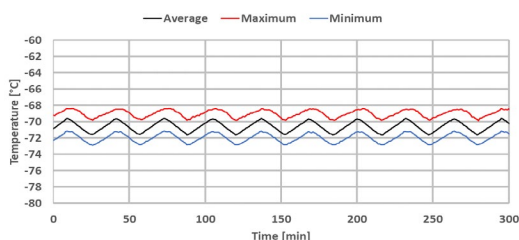
Ambient	°C	20				24			
Setpoint	°C	-70	-60	-50	-40	-70	-60	-50	-40
Energy Consumption	kWh/day	5.0	4.1	3.5	3.0	5.7	4.5	3.9	3.3
Heat Rejection Rate	Btu/h	710	577	498	426	816	643	551	472
Peak Variation from Setpoint	°C	-3/2	-3.7/1.9	-4.3/4.1	-6.4/8.3	-2.8/2.6	-3.3/2.4	-3.6/4.3	-6.2/9
Average Uniformity	°C	3.0	3.4	6.0	9.0	3.2	3.4	5.7	9.5
Average Stability	°C	1.7	2.1	1.7	3.5	1.4	1.7	1.4	2.9
Average Cabinet Temperature	°C	-70.7	-61.0	-50.3	-37.4	-70.5	-60.8	-50.2	-37.0

Setpoint

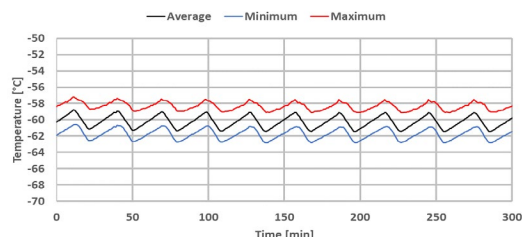
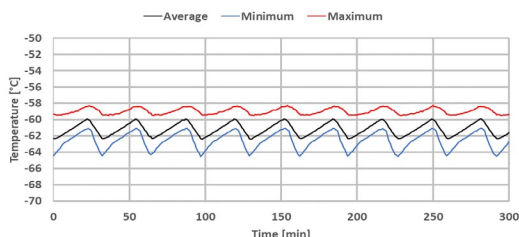
20°C ambient

24°C ambient

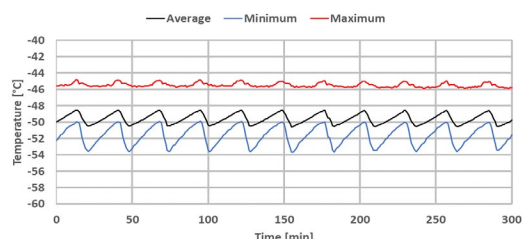
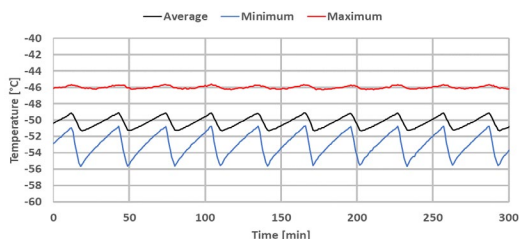
-70°C



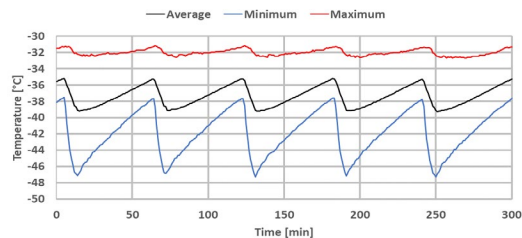
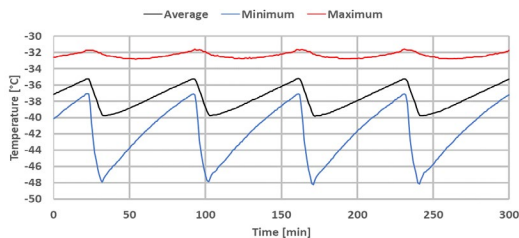
-60°C



-50°C



-40°C



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