

Technical Data Sheet

Controlled-Rate Freezer

Revision-A

Thermo Fisher Scientific, Asheville, North Carolina

	Model Number / Catalog Number	
Specifications	Model Number / Catalog Number TSCM17PV	
opecifications	Application, Rating and Electric	al Data
Product	Thermo Scientific CryoMed Controlled-Rate Freezer General Purpose	
Application	Controlled Sample preparation for multiple biological sample types	
Electrical Power / Full Load Current	220V 50-60Hz / 7FLA	
Building Supply Rating	15A dedicated grounded non-GFCI circuit. Protected by circuit breaker rated for inductive loads	
Power Cord / Plug Length	CEE (7/7) / 8Ft	
Minimum Air Clearance Required	Add 2.8in. (7.1cm) to F-B for utilities and door handle	
Ambient Operating Conditions	15°C - 35°C Temperature Range, 20% - 85% RH (non condensing)	
Agency Listings		
Application Environment	Indoor use only, Non-Corrosive, Non-Flammable, Non-Explosive, Good Air Ventilation	
	System Configuration	
Cooling Method	LN_2 injection using dual solenoid valve and LN_2 injection ring	
-	Tubular Heater 945W, 115V	
Heating Method	+50°C to -180°C	
Operation Temp Range	Minimum 0.1°C / minute; Maximum 99.9°C / minute (no load, T-couple in free air, center of chamber)	
	Minimum of 0.1°C / minute; Maximum 99.9 C / minute (no load, 1-couple in nee air, center of chamber) Minimum of 0.1°C / minute; Maximum of 10.0°C / minute (same conditions as above)	
Temperature Warming Rate	Product Attributes	
No. of doors / Tupo of door	(1) Front access door opening left to right.	
No. of doors / Type of door		
Access Type / Sample Loading	Front Loading Touch-Screen LCD	
Use Interface / Display Temperature Sensor	T-Type Thermocouple	
	PC Interface Software	
Companion Software	-	
Printer Capability	Built-in Thermal Printer	
Interior material	Stainless steel	
Exterior material	Stainless Steel powder-coat finish	
Freezing profiles	6 Presets, up to 14 Custom profiles with User Interface	
Door closure mechanism	T-handle high compression latch mechanism	
Insulation	Foamed in-place polyurethane insulation (HFC Free) and Teflon heat breaks Dimensions and Construction	
Internal Chambar Canacity		
Internal Chamber Capacity	17Liters / 0.6Cubic Feet	
Exterior Dimensions (W X H X D)	37.3 x 21.7 x 24.3in. (94.7 x 55.1 x 61cm)	
Interior Dimensions (W x H x D)	7 x 12 x 13in. (17.8 x 30.5 x 33cm)	
Unpacked Weight (lbs & kg)	154lbs / 70kg	
Packaged / Shipping Weight	213lbs / 97kg	
(lbs & kg)		
Typical Performance Characteristics		ristics
Chamber, Sample, Ambie	ent Bags	Graph Details:
24		TCO Number: 20035-B-2
		Test Number: 54485
-6 -12 -18		Ambient: 20C
-24 -30 -36		Profile run: Preset_3
-42 -48 -54		Cabinet Loaded: Yes
-60 -66 -72		Load: 25ml cryo bags filled with
-78 -84 -90		DMEM media, placed in
24 6 6 6 6 7 12 12 12 12 12 12 12 12 12 12		respective size canisters.
-114 -120 -126	-120 -126 -132	Temp Uniformity (C): 0.6
	0:00:00 0:14:24 0:28:48 0:43:12 0:57:36 1:12:00 1:26:24 1:40:48 1:55:	Energy consumption: ~0.33 kWh 12 LN ₂ Consumption: ~21 liters
0:00:00 0:14:24 0:28:48 0:43:12 0:57:36 1:12:00	1:26:24 1:40:48 1:55:12	
1) Performance is nominal and individual units may vary.		
2) Freezer performance will differ due to product amount, product size and operating conditions.		
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.		
4) Temperature uniformity is calculated based on the freezing of the first bag across a grid of bags instrumented with thermocouples.		
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5) Energy consumption information is an estimate based on test data from Preset Profile_3 and should be considered as reference only.

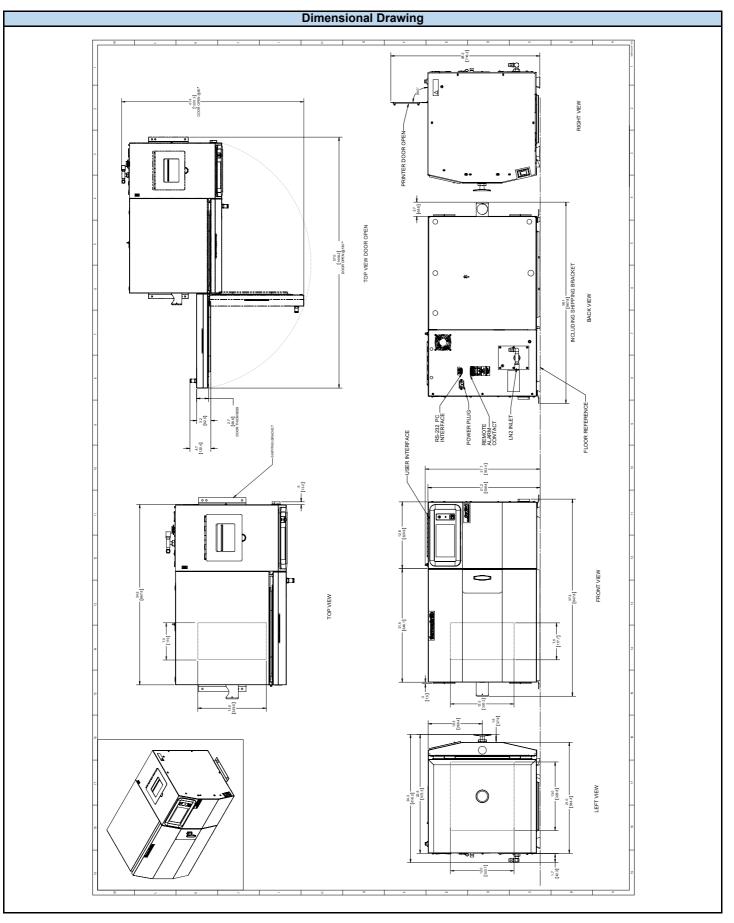


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