Technical Data Sheet

VWR® Ultra-Low Temperature Freezer

Revision: A

VWR International, bv, Researchpark Haasrode 2020
Geldenaaksebaan 464 B-3001 Leuven

Model Number

VWR40086FV-ULTS (VWR Cat# 471-1362)

Application and Rating

Application	Storage of General (non-flammable) Laboratory Materials
Storage Volume	19.39 cu. ft. (549 liters), 400 Standard 2" Boxes
Temperature Rating	-50°C to -86°C
Electrical Power	230V 50Hz
Instrument Rated Current	6.5 AMP
Recommended Building Supply Rating	16A dedicated grounded circuit, Type C circuit protection or similar required, Ensure compliance with local electric code
Power Plug / Power Cord	Country Dependent Plug / IEC Cords, 10 ft (3.05 m)
Agency Listings	CE
Application Environment	Non-Corrosive, Non-Flammable, Non-Explosive
	Indoor Use Only, Ventilated 15 - 32°C (59 - 90°F)

Dimensions and Construction

Interior Dimensions (H x D x W)	51.2 x 28.3 x 23.1 in. (1300 x 719 x 587 mm)
Exterior Dimensions (H x D x W)	78 x 38.5 x 32.5 in. (1981 x 978 x 826 mm)
Shipping Dimensions	83.12 x 42.75 x 36.23 in. (2111 x 1086 x 920 mm)
Shipping Weight / Net Weight	687 lbs. (312 kg) / 595 lbs. (270 kg)
Insulation	Vacuum Insulation Panels with High-Density Zero-GWP Polyurethane Foam.
Door	Single Outer: Silicone-Based Gasket Seal
	Number of Inner: 2x Stainless Steel
Shelves	3x Stainless Steel Adjustable Shelves in 1" (25 mm) Increments
Shelf Capacity	Shelf: 165 lbs / 75 kg Cabinet Load not to Exceed: 1140 lbs (517 kg)
Casters	4x Standard All-Direction with Locks

Electrical System Configuration

Power Switch	(Rear) Main Circuit Breaker
Controller Type	7-segment Display with Capacitive Touch Screen Buttons
Control Security	Setpoint Setting, Passcode Access Control
Control Sensor	Single RTD (1000 ohm Platinum RTD)
Remote Outputs	RS485, 4-20 mA Output, Remote Warning Dry Contacts
Adjustable Warm/Cold Alarms	Adjustable in 1°C Increments

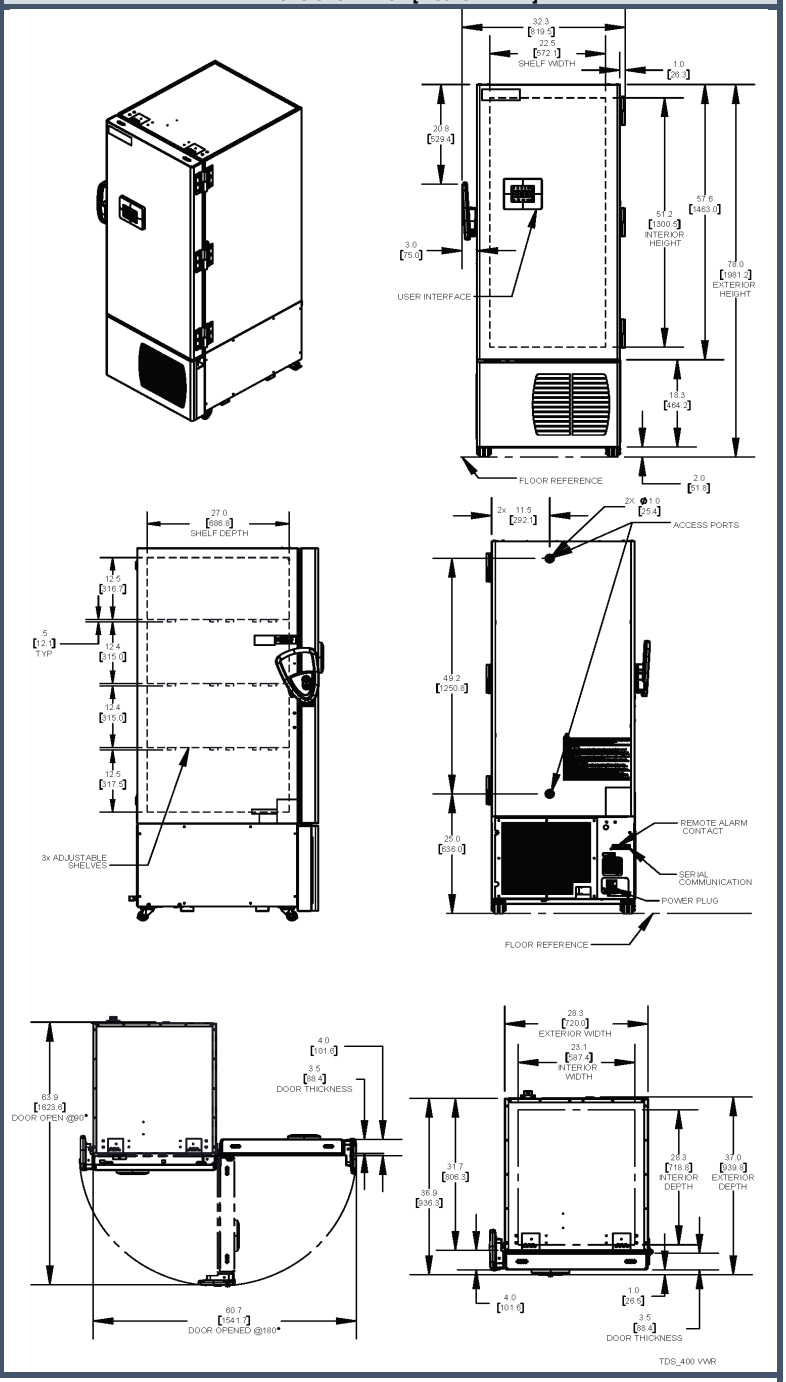
Refrigeration Configuration

Refrigeration System	Two Stage Cascade System
Compressor/Number	Industrial Rated, Hermetically Sealed / 2
Refrigerant (1st/2nd Stage)	R290 / R170 + R290 Mix
Flammable	Yes

Performance

Ambient	**°C**	**20**
Setpoint	°C	**-80**
Energy Consumption	kWh/day	10.4
Heat Rejection Rate	Btu/h (W)	1475 (433)
Peak Variation from Setpoint	°C	+5.7/-3.5
Average Uniformity	°C	5.1
Average Stability	°C	<4
Average Cabinet Temperature	°C	-79.9
1min Door Opening Recovery to -75°C	min	15
Pull Down Time to -80°C	min	324
Warm Up Time -80°C to -50°C	min	271
Sound Pressure Level	dBA	50.8

Dimensions in inch [metric in: mm]



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. VWR International, LLC 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.

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