Technical Data Sheet

Revco Ultra-Low Temperature Freezer

Upright Model Release - 81

Thermo Fisher Scientific, Asheville, North Carolina

ENERGY STAR® MDEC

(Maximum Daily Energy Consumption)

0.47 kW-hr/day/cuft

Model Number

Thermo Scientific Revco RLE60086D

Application, Rating and Electrical Data

Application	Storage of General (non-flammable) Laboratory Materials
Storage Volume	28.8 cu. ft. (816 liters), 600 Standard 2" Boxes
Temperature Rating	-50°C to -86°C
Electrical Power	208-230V, 60 Hz, 1 Phase
Instrument Rated Current	6.2 AMP
Building Supply Rating	15.0A (min) dedicated grounded circuit
Power Plug / Power Cord	NEMA 6-15P / IEC Cords, 10 ft (3.05 m)
Agency Listings	UL, cUL
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 34.4 in. (1300 x 719 x 874 mm)
Exterior Dimensions (H x D x W)	78 x 39.3 x 39.6 in. (1981 x 998 x 1006 mm)
Shipping Dimensions	83.12 x 42.75 x 47.48 in. (2111 x 1086 x 1206 mm)
Shipping Weight / Net Weight	820 lbs. (372 kg) / 709 lbs. (322 kg)
Insulation	Vacuum Insulation Panels with High-Density Water-Blown Polyurethane Foam
Door Seal	Silicone-Based Gasket Seal with Electrical Door Perimeter Heater
Shelves	4 Stainless Steel Adjustable Shelves in 1" (25mm) Increments
Shelf Capacity	Max. Capacity per Shelf: 245 lbs. (110 kg)
Interior / Exterior Material	Painted Steel (Stainless Steel Option) / Painted Steel
All-Direction Casters	Standard with Locks
Other Options	LN2 or CO2 Back Up System HID Controlled Access, Chart Recorder

Electrical System Configuration

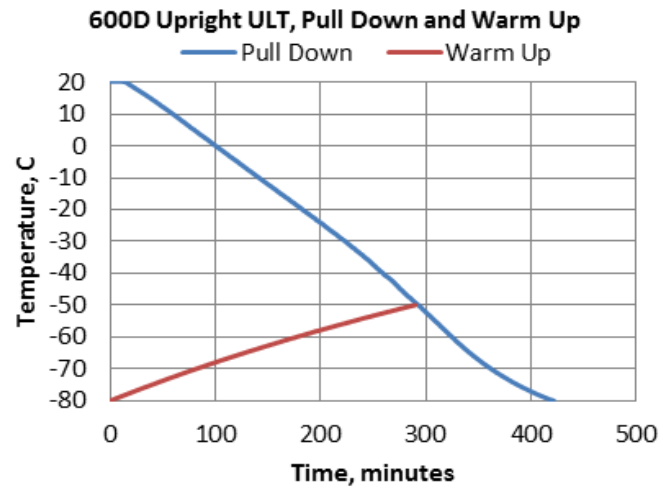
Controller Level	Top
Power Switch	(Front) Soft-touch / (Rear) Main Circuit Breaker
Controller Type	Capacitive Touch Screen Input and Display with USB Data Retrieval
Setpoint Security	Yes
Compressor Safe Guard	High Temp Cutout Switch, Current, Logic protection
Control Sensor	Single RTD (1000 ohm Platinum RTD)
Connectivity / Remote Outputs	Wi-Fi Enabled, RS485/4-20mA output
Thermo Fisher Cloud	InstrumentConnect™ Remote Monitoring
Adjustable Warm/Cold Alarms	Fully Adjustable
Auto-Voltage Safeguard	Buck/Boost System

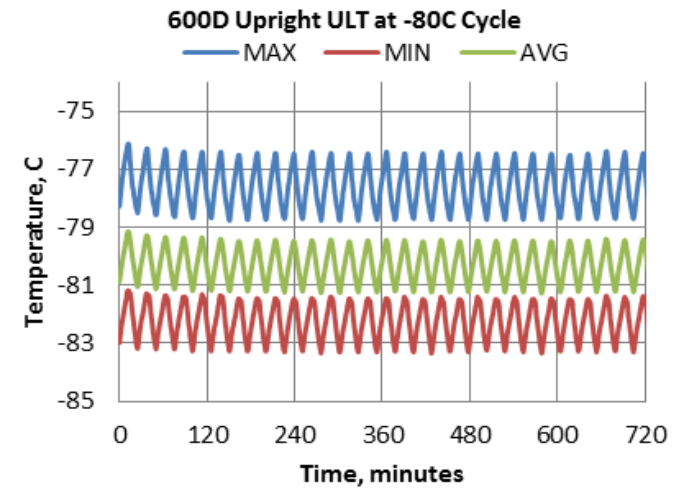
Refrigeration Configuration

Refrigeration System	Two Stage Cascade System
Compressor/Number	Industrial Rated, Hermetically Sealed / 2
Compressor Capacity*	506 W
Condenser Type	Enhanced Micro-Channel and Forced-Air Cooled
Expansion Device	Capillary Tube
Evaporator Type	Enhanced Cold Wall Design
Defrost Method	Manual Defrost
Refrigerant (1st/2nd Stage)	R290 / R170+R290 Mix
Environmental Effects	GWP: 3 (R290) / 6 (R170) ODP: 0 (R290); 0 (R170)
Flammable	Yes

Typical Performance Characteristics in 20 °C Ambient

Standard Performance Mode		
	Energy Consumption (kW-hr/day)	11.7
	Heat Rejection Rate (Btu/hr)	1668
	Peak Variation from Setpoint (°C)	+6.2 / -1.1
High Performance Mode		
	Energy Consumption (kW-hr/day)	13.8
	Heat Rejection Rate (Btu/hr)	1963
	Peak Variation from Setpoint (°C)	+3.9 / -3.3
	Sound (dBa)	50.5
	1-min Door Opening Recovery to -75°C (min)	23
	Average Uniformity at -80°C (°C)	4.7
	Average Stability at -80°C (°C)	2.2
	Pull Down Time (to -80°C) (hrs)	7
	Warm Up Time (-80°C to -50°C) (min)	290





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.

* Manufacturer measured compressor capacity taken at standard -35°C/45°C (Evap/Cond) condition.