



Technical Data Sheet
Revco Ultra-Low Temperature Upright Freezer
 MODEL RELEASE - 65
 Thermo Fisher Scientific, Asheville, North Carolina

| Specifications | Model Number |
|---|--|
| | Thermo Scientific Revco UxF40086A |
| | Application, Rating and Electrical Data |
| Application | Storage of General (non-flammable) Laboratory Materials |
| Storage Volume | 548 liters / 19.4 cu. ft., 400 Standard 2" Boxes |
| Temperature Rating | -50°C to -86°C |
| Electrical Power | 120V, 60 Hz, 1 Phase |
| Instrument Rated Current | 16.0 AMP |
| Building Supply Rating | 20.0A dedicated grounded circuit. Protected by circuit breaker rated for inductive loads |
| Power Plug/Power Cord Length | NEMA 5-20P / IEC Cords, 3.048 Meters (10 Feet) |
| Agency Listings | UL, cUL |
| Indoor/Outdoor Usage | Indoor Use Only |
| Application Environment | Non-Corrosive, Non-Flammable, Non-Explosive, Good Air Ventilation, 15° C - 32° C (59° F - 90° F) |
| Refrigeration Configuration | |
| Refrigeration System | Industrial-Rated Two Stage Cascade System |
| Compressor / Number | Hermetic Compressor for Low Temperature Application / 2 |
| Compressor Capacity* | 1200 W |
| Condenser Type/Number | Enhanced Finned-Tube and Forced-Air Cooled / 1 |
| Expansion Device | Capillary Tube |
| Evaporator Type | Cold Wall With Enhanced Heat Transfer Treatment |
| Defrost Method | Manual Defrost |
| Refrigerant Charge/Flammability | R404A in 1st Stage / R508B+R290 Mix in 2nd Stage / Non-Flammable |
| Controller/Electrical System Configuration and Features | |
| Controller Level | Top |
| Power Switch | On-Off with Circuit Breaker |
| Controller Type | Microprocessor Control with Touch Screen Input and Display. Includes USB System Data Retrieval |
| Setpoint Security | Yes |
| Compressor Safe Guard | High Pressure Cutout Switch/High Temp Cutout Switch/Current protection/Logic protection |
| Control Sensor | Single RTD (1000 ohm Platinum RTD) |
| Remote Alarm Terminals | RS485/4-20mA output |
| Adjustable Warm/Cold Alarms | Fully Adjustable |
| Auto-Voltage Safeguard | Buck/Boost System |
| Dimensions and Construction | |
| Interior Dimensions (H x D x W) | 1300 H x 686 D x 589 W mm (51.2 H x 27 D x 23.2 W in.) |
| Exterior Dimensions (H x D x W) | 1981 H x 955 D x 820 W mm (78 H x 37.6 D x 32.3 W in.) |
| Shipping Dimensions | 2111 H x 1086 D x 920 W mm (83.12 H x 42.75 D x 36.23 W in.) |
| Insulation | High R-value Vacuum Insulation Panels and High Density Water-Blown Polyurethane Foam |
| Door Seal | Silicone-Based High Performance Seal Gasket with Electrical Door Perimeter Heater |
| Shelves / Capacity | 4 Stainless Steel Shelves Adjustable In 25mm (1in) Increments. Max. Cap. per Shelf: 73.4 kg (165 lbs.) |
| All-Direction Casters | Standard with Locks |
| Shipping Weight | Approximately 332 kg / 730 lbs. |
| Other Options | LN2 or CO2 Back Up System, HID Controlled Access, SMS Text, Chart Recorder, 4 or 5 Inner Doors |

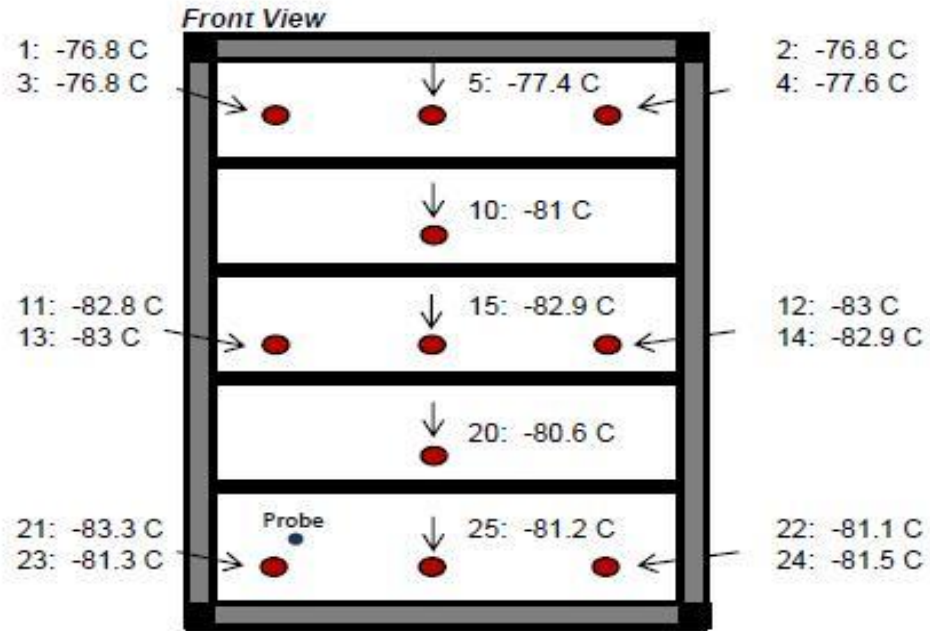
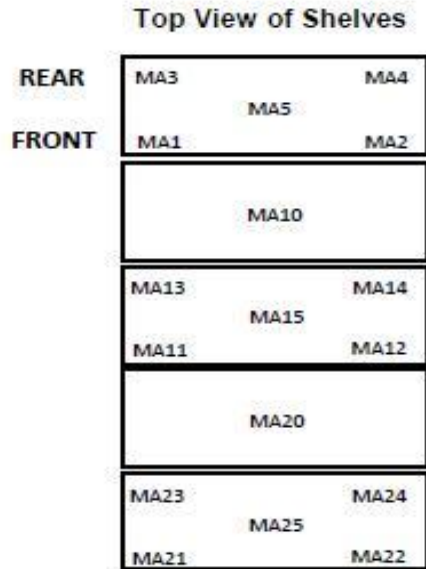
Typical Performance Characteristics in 25 ° C Ambient

Performance Data Summary (Typical Average Values)

| | |
|--|-------------|
| Avg. Cabinet Temp. at -80C Setpoint, High Performance (C): | -81.0 |
| Peak Variation From -80C Setpoint, High Performance (C): | +5.3 / -5.7 |
| Peak Variation From -80C Setpoint, Energy Saving (C): | +9.0 / -4.1 |
| Stability, -80C Setpoint, High Performance (C): | 4.6 |
| Uniformity, -80C Setpoint, High Performance (C): | 5.8 |
| 1 Min. Door Open Recovery to -75C Avg. Cabinet Temp. (min): | 20 |
| Cycle Rate, -80C Setpoint, High Performance (on/off, min/min): | 29/23 |
| Duty Cycle, -80C Setpoint, High Performance (%): | 57 |
| Energy Consumption, -80C Setpoint, High Performance (kWh/day): | 18.5 |
| Heat Rejection, -80C Setpoint, High Performance (BTU/hr): | 2630 |
| Energy Consumption, -80C Setpoint, Energy Saving (kWh/day): | 16.7 |
| Heat Rejection, -80C Setpoint, Energy Saving (BTU/hr): | 2374 |
| Pulldown Time to -80C Average Cabinet Temp. (hours) | 7.3 |
| Warmup Time, From Average Cabinet Temp. of -80C to -50C (min): | 229 |

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 -23°C/49°C (Evap/Cond) condition.
 © 2012 Thermo Scientific Inc. All trademarks are the property of Thermo Scientific Inc. and its subsidiaries. Specifications, terms and pricing are subject to change. Not all products are available in all countries. Please consult your local sales representative for details.

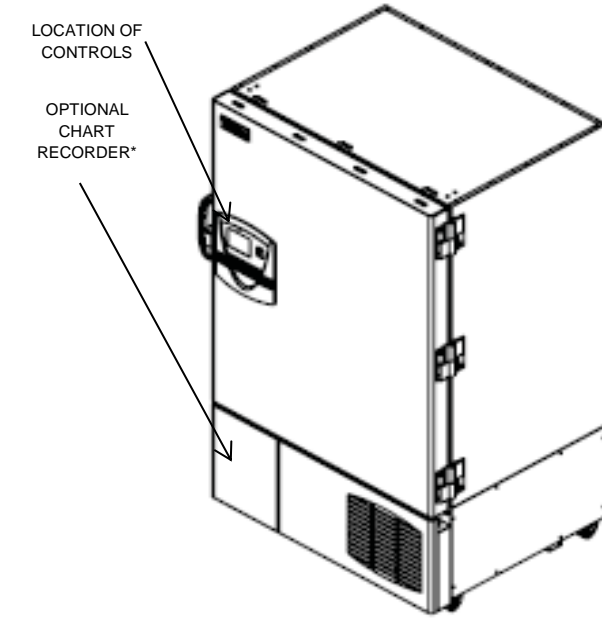
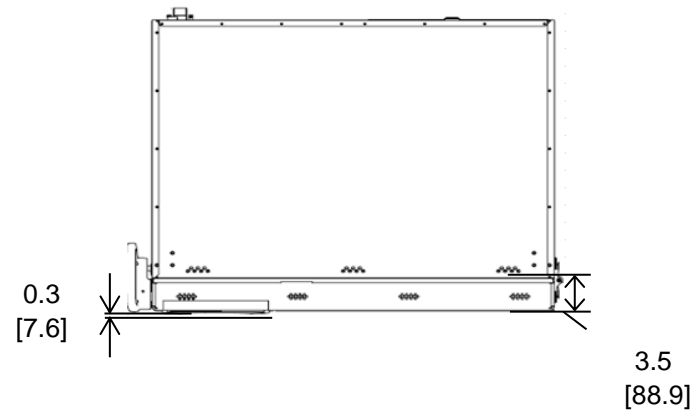
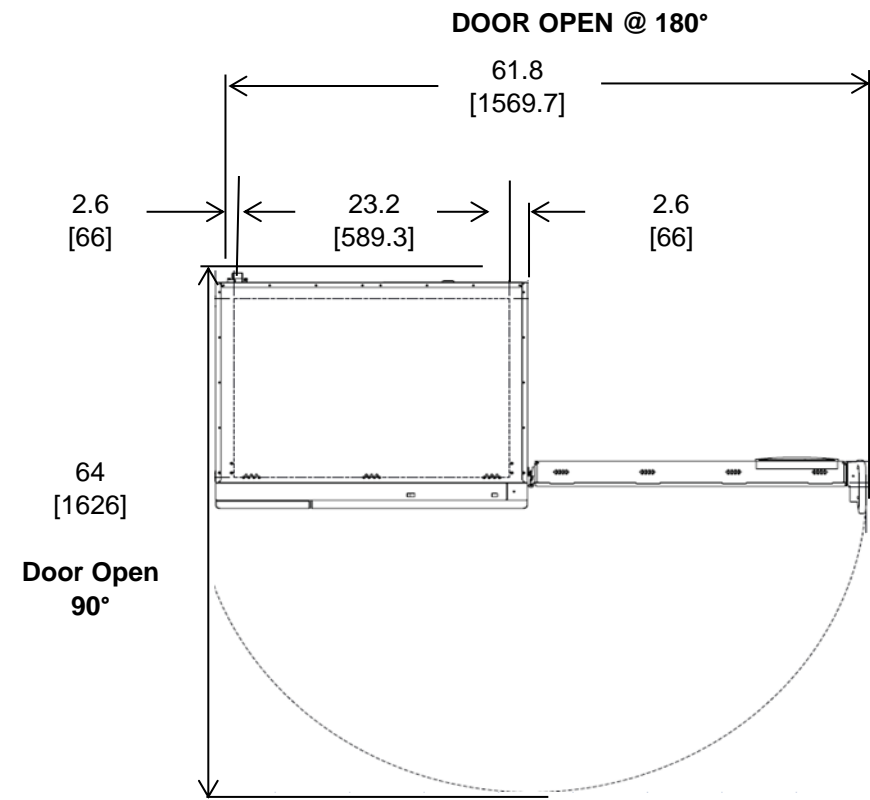


Cabinet Average: -80.6 C
Probe Average: -81.3 C
Peak Variation: +6.5 C / -5.4 C

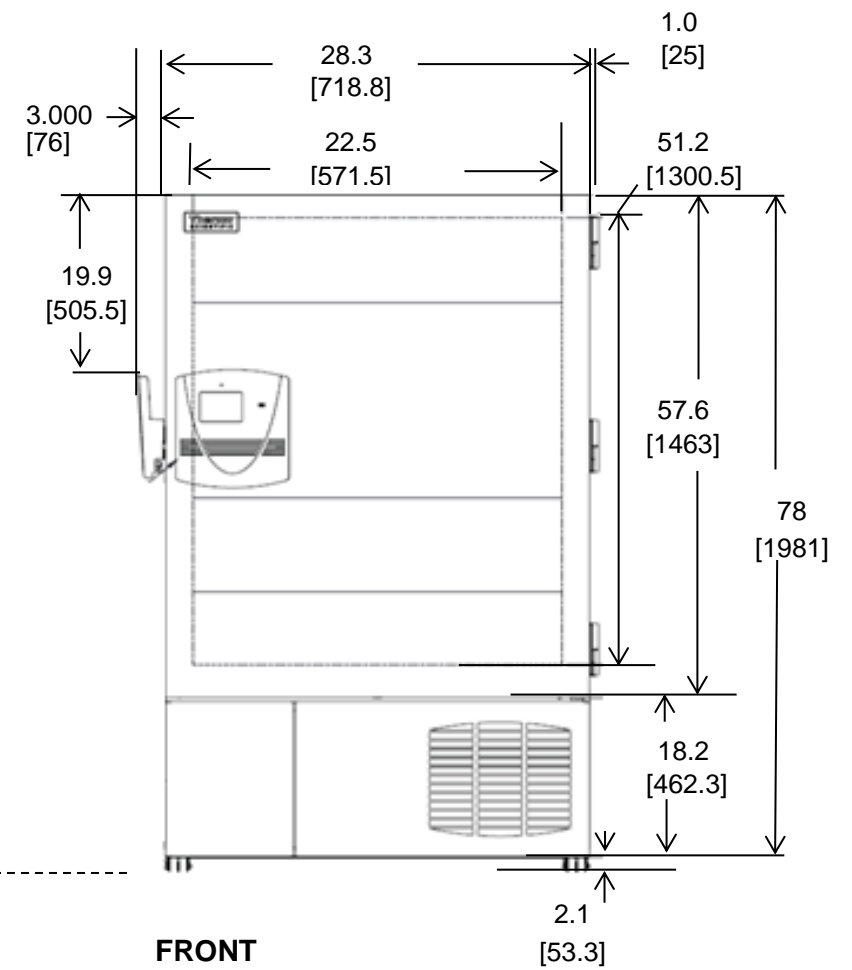
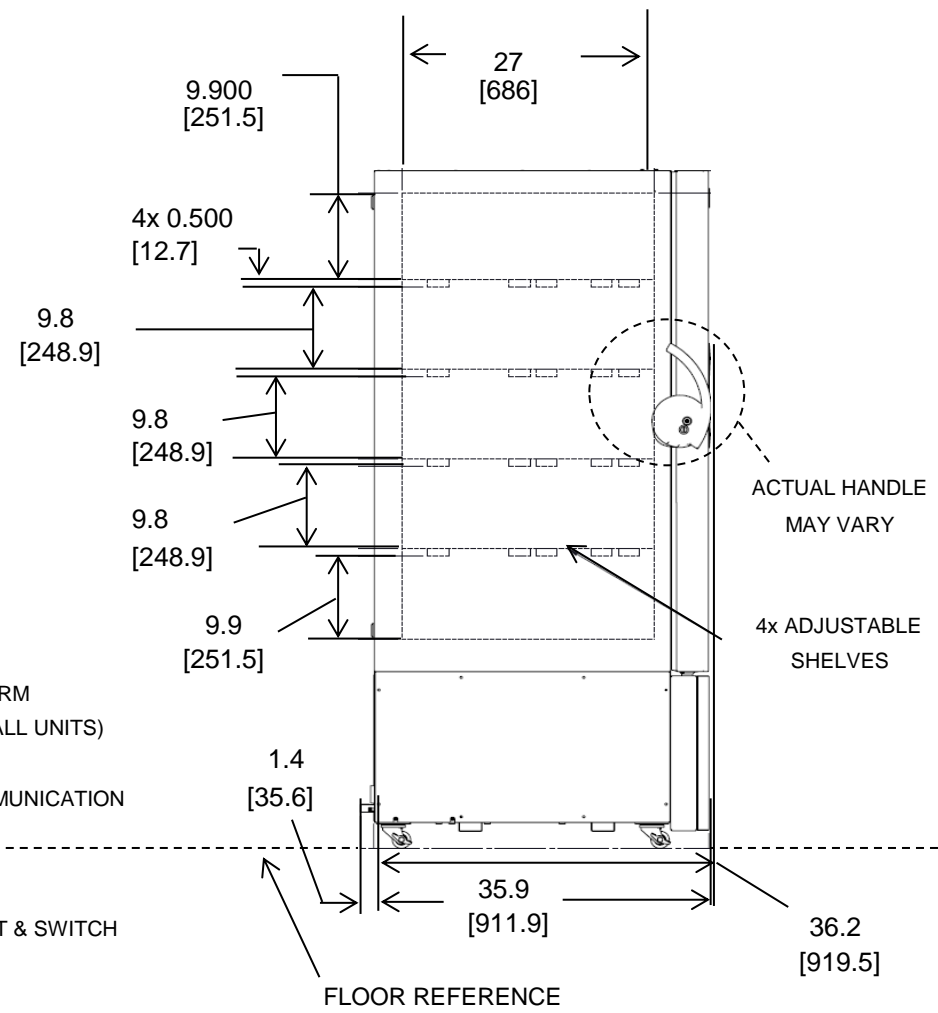
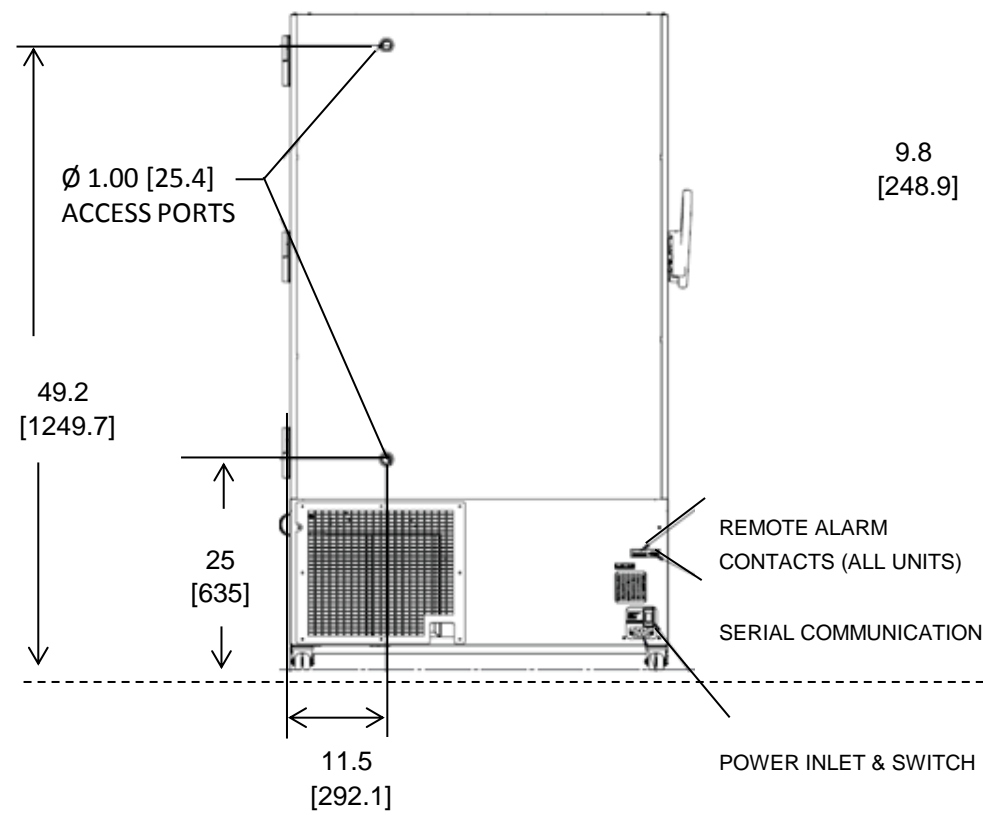
| | MA1 | MA2 | MA3 | MA4 | MA5 | MA10 | MA11 | MA12 | MA13 |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Avg | -76.8 | -76.8 | -76.8 | -77.6 | -77.4 | -81.0 | -82.8 | -83.0 | -83.0 |
| Max | -73.5 | -73.5 | -73.9 | -74.3 | -74.1 | -77.7 | -80.0 | -80.3 | -80.1 |
| Min | -79.0 | -79.1 | -78.9 | -79.6 | -79.6 | -83.2 | -85.0 | -85.2 | -85.4 |

| | MA14 | MA15 | MA20 | MA21 | MA22 | MA23 | MA24 | MA25 |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Avg | -82.9 | -82.9 | -80.6 | -83.3 | -81.1 | -81.3 | -81.5 | -81.2 |
| Max | -79.9 | -80.0 | -78.6 | -81.2 | -79.4 | -78.3 | -79.0 | -79.0 |
| Min | -85.1 | -85.0 | -82.6 | -85.4 | -83.5 | -84.5 | -84.7 | -84.0 |

18768-H-G



*Chart recorder/Back up systems are stand alone on 300 models.



BACK

NOTE: DUAL DIMENSION IS INCH OVER METRIC

DO NOT USE FOR ENGINEERING PURPOSES. SUBJECT TO CHANGE WITHOUT NOTICE.

Thermo
SCIENTIFIC

19 cuft Upright Freezer
5 Inner Doors
Single Outer Door
Top Mount Controls