thermoscientific

Technical Data Sheet High Performance General Purpose Refrigerator



Revision-0
Thermo Fisher Scientific, Asheville, North Carolina

| Catalog number TSX4505GV | | | | |
|---|--|--|--|--|
| 15.44303GV | | | | |
| Specifications Model Number | | | | |
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| Application, Rating and Electrical Data | | | | |
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| t and the same of | | | | |
| Set Point Range/Adjustable Increment 3 °C to 7 °C / 0.1 °C | | | | |
| Electrical Power / Rated Current 208-230V 50/60 Hz 1 Phase / 4.2A | | | | |
| Building Supply Rating 15A dedicated grounded non-GFCI circuit. Protected by circuit breaker rated for inductive load | ds | | | |
| Power Plug/Power Cord Length 16 Amp (CEE 7/7) / 3.048 Meters (10 feet) | | | | |
| Agency Listings CE, UL, cUL | | | | |
| Indoor/Outdoor Usage Indoor Use Only | | | | |
| Application Environment Non-Corrosive, Non-Flammable, Non-Explosive, Good Air Ventilation | | | | |
| Ambient Operating Temperature 15°C - 32°C (60°F - 90°F) | | | | |
| Refrigeration Configuration | | | | |
| Refrigeration System Vapor compression system | | | | |
| Compressor / Number / Capacity Hermetic Variable Capacity Compressor / 1 / 398W | | | | |
| Condenser Type/Number Enhanced Finned-Tube and Forced-Air Cooled / 1 | | | | |
| Expansion Device Capillary Tube | | | | |
| Evaporator Type / Defrost Method Forced Air Evaporator Coil / Automatic Defrost | | | | |
| Refrigerant Charge / Flammability Environmentally Safe R290 / Flammable | | | | |
| Controller/Electrical System Configuration and Features | | | | |
| Controller Level Eye Level | | | | |
| Power Switch Keyed Off-On - Alarm | | | | |
| | IntrLogic Control System: Digital display, Graphic thermometer, Automatic defrost system | | | |
| Setpoint Security / Programmable Yes / Yes | | | | |
| Compressor Safe Guard Current protection | | | | |
| Control Sensor Single RTD (1000 ohm shielded Platinum RTD) | | | | |
| Remote Alarm Terminals Standard | | | | |
| Adjustable Warm / Cold Alarms Fully Adjustable | | | | |
| Power Failure Alarm Standard | | | | |
| Electronic Chart Recorder Optional | | | | |
| Dimensions and Construction | | | | |
| Interior Dimensions (H x D x W) 1473 mm x 660 mm x 1334 mm (58.0" x 26.0" x 52.5") | | | | |
| Exterior Dimensions (H x D x W) 1994 mm x 931 mm x 1435 mm (78.5" x 36.6" x 56.5") | | | | |
| Insulation 5.08 cm (2.0") High-Density Water-Blown Polyurethane Foam | | | | |
| Door Perimeter heater Yes | | | | |
| Shelves / Load Limit (8) Adjustable Wire Shelves / 45 kg (100 lbs) per Shelf | | | | |
| All-Direction Casters Locking Casters | | | | |
| Shipping Weight 277 kg / 611 lb | | | | |
| Typical Performance Characteristics | | | | |
| 45 cuft Upright Refrigerator, Pull Down and Warm Up 45 cuft Upright Refrigerator at 5C Cycle ——Pull Down ——Warm Up ——MAX ——MIN ——AVG Test Unit Series Number or MSO Number: 1958 | 35-B30 | | | |
| 9 Ochinat cadi | oaded | | | |
| 8 Average Cabinet Temp at 5C Cycle (C): | 5 | | | |
| Peak Variation from Setpoint (C): +1.8 | 37-2.2 | | | |
| | l.1 2.9 | | | |
| 1-min Door Opening Recovery to 5C (min): | 4 | | | |
| Duty Cycle at 5C (%): Cycle (on/off) rate at 5C (min): 3 | 33 | | | |
| | /6 1.5 | | | |
| Heat Rejection Rate (btu/hr): | 643 | | | |
| Puli Down Time (to 5C) (min): | 16 76 | | | |
| | 52 | | | |
| Time, minutes Time, minutes | | | | |

- 1) Performance is nominal and individual units may vary.
- 2) Product performance will differ due to product amount, product size and operating conditions.
- Continuous product enhancements may, without notice, result in amendments or ommisions to this specification. Thermo Scientific
 cannot accept responsibility for damage, injury, loss or expenses resulting from misapplication of the information herein.



Typical Cabinet Temperature Map Refrigerator 45cuft , 8 Inner-Shelves + Base, 2 Outer Doors Temperatures are averages during > 20 cycles after reaching a setpoint of 5C

Top View of Shelves

REAR

FRONT

| M3 | M5 | M4 | M53 | M54 M55 | | |
|-----|-----|-----|-----|------------|--|--|
| M1 | | M2 | M51 | M52 | | |
| | M10 | | | M60 | | |
| M13 | | M14 | M63 | M64 | | |
| | M15 | | | M65 | | |
| M11 | | M12 | M61 | M62 | | |
| | M20 | | | M70 | | |
| M23 | | M24 | M73 | M74 | | |
| M25 | | | | M75 | | |
| M21 | | M22 | M71 | M72 | | |

Front View



19585-B30

Cabinet Average: 5.0 C **Probe Average:** 5.6 C

Peak Variation: +1.8 C / -2.2 C

| | M1 | M2 | M3 | M4 | M5 | M10 |
|-----|-----|-----|-----|-----|-----|-----|
| Avg | 5.5 | 5.1 | 5.1 | 4.9 | 4.9 | 4.9 |
| Max | 6.6 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 |
| Min | 4.4 | 3.7 | 3.8 | 3.3 | 3.3 | 3.4 |

| _ | | M11 | M12 | M13 | M14 | M15 | M20 |
|---|-----|-----|-----|-----|-----|-----|-----|
| | Avg | 5 | 5 | 4.8 | 4.9 | 4.8 | 4.9 |
| | Max | 6.3 | 6.4 | 6.4 | 6.3 | 6.4 | 6.4 |
| | Min | 3.6 | 3.4 | 2.8 | 3.3 | 2.9 | 3.1 |

| _ | | M21 | M22 | M23 | M24 | M25 |
|---|-----|-----|-----|-----|-----|-----|
| | Avg | 5 | 4.9 | 4.9 | 4.9 | 4.8 |
| | Max | 6.5 | 6.5 | 6.4 | 6.5 | 6.4 |
| | Min | 3.3 | 3.2 | 3.2 | 3.2 | 2.8 |

| | M51 | M52 | M53 | M54 | M55 | M60 |
|-----|-----|-----|-----|-----|-----|-----|
| Avg | 5.7 | 5.8 | 5 | 5.2 | 5.3 | 5.2 |
| Max | 6.8 | 6.8 | 6.4 | 6.5 | 6.5 | 6.5 |
| Min | 4.5 | 4.8 | 3.5 | 3.8 | 4 | 3.9 |

| | M61 | M62 | M63 | M64 | M65 | M70 |
|-----|-----|-----|-----|-----|-----|-----|
| Avg | 5.1 | 5.4 | 4.9 | 5 | 5.1 | 5.1 |
| Max | 6.4 | 6.6 | 6.4 | 6.4 | 6.4 | 6.4 |
| Min | 3.7 | 4.2 | 3 | 3.2 | 3.8 | 3.6 |

| | M71 | M72 | M73 | M74 | M75 |
|-----|-----|-----|-----|-----|-----|
| Avg | 5 | 5.2 | 4.9 | 5.1 | 4.9 |
| Max | 6.4 | 6.5 | 6.4 | 6.5 | 6.4 |
| Min | 3.3 | 3.9 | 3.2 | 3.6 | 3.2 |

