

Thermo Scientific™ TSX Series Ultra-Low Freezers

Now available in four sizes

Designed to meet the highest protection and sustainability standards for ultra-low storage

- Four capacities: 400, 500, 600 and 700 2-inch (5cm) box
- Re-designed, user interface with capacitive touch screen
- Best peak variation of energy-efficient ultra-low freezers: less than 5°C
- Fastest door opening recovery on the market: 17 minutes
- Best overall temperature uniformity: < 5.2°C with door openings, < 4.0°C with no door openings
- Long warm-up time from -80°C to -50°C at 5.05 hours
- Low energy usage: less than 8 kWh/day depending on size
- 5 year standard warranty: plus 7 additional years on V-drive compressors*

*Restrictions and exclusions apply. Warranty is void if the unit is not maintained as set forth in the operation and service manuals.



Designed to keep samples safe

- Low peak variation protects samples throughout the entire freezer cabinet¹
- V-Drive technology with adaptive control is designed to detect high and low usage patterns, adjust compressor speeds, and reduce energy without compromising protection
- Records temperature and events for the lifetime of the freezer

Designed to limit environmental impact and protect your budget

- Reduce energy usage up to 70% by replacing an older ultra-low freezer with a new TSX²
- Uses less than 8 kWh/day, depending on size
- Produces less environmental heat emissions and lowers HVAC costs
- Natural refrigerants compliant with EU F-Gas regulation: R170 and R290
- Environmentally-friendly, water-blown foam insulation
- Manufactured in an award-winning,³ zero-waste to landfill facility

User-friendly design and lab footprint

- All new freezer and user interface design
- Available in four sizes
- Quiet enough to reside directly in the laboratory. At just 45.5 dBA, the sound is comparable to a home refrigerator
- Advanced security features

All data based on internal data unless otherwise noted. Data on file.

1. Typical freezer data based on internal testing with freezer setpoint at -80°C and ambient temperature at 20°C. Performance data varies across freezer size and electrical configurations.
2. For energy savings (up to 70% at -80°C set point), reference info was: 8.7 kWh/day TS2000 compared +5 year large ULT 31.9 kWh/day energy calculator. At -70°C set point, reference info was: 7.9 kWh/day TS6000 compared +0 year large ULT 31.9 kWh/day energy calculator.
3. Industry Water Best Plant Award, 2013. <http://www.industryweek.com/quality2013> top best plants: winner thermo-fisher scientific growing quality culture lab

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- NEW! Easy-to-use** set-up wizard, event log, temperature mapping and data downloads
- NEW! Capacitive touch** – even when using latex gloves
- Eliminate the need for a separate chart recorder** with datalogging and temperature mapping features, **all** exportable via a built-in USB port
- Advanced security features:** alarm settings, password-protected controller, padlock-compatible doors and optional access card entry
- DeviceLink™ monitors system status** with 24-7 alarm, temperature, and system health notification capability via InstrumentConnect™ mobile and web platforms*
- Ergonomic design:** comfortable door handle, eye-level touch-screen and shelf-level placement that doesn't require floor-level loading of racks
- Four capacities** (400, 500, 600 and 700 2-inch/5cm box) to accommodate a variety of storage needs and lab footprint specifications

*DaisyLink™ Wi-Fi technology not available in all regions. Applicable Networks include: WPA2-PSK, WPA-PSK, WEP, WPA2-EAP-PEAP, WPA-EAP-PEAP.

Specifications & Ordering Information

Thermo Scientific TSX Series Upright Freezers (-50°C to -86°C)

Model Number	Capacity		Electrical	Amps / Breaker (Plug)	Max. Shelf Weight kg	Interior Dimensions H x W x D cm	Exterior Dimensions H x W" x D cm	Shipping Weight kg
	liters	60m (2") cryobox						
TSX40086V	549	400	220V / 50Hz	4.0/10 (European)	75	130.1 x 58.8 x 71.9	198.1 x 71.9 x 95.5	290
TSX40086D			208-230V / 60Hz	4.0/10 (NEMA 6-15)				290
TSX50086V	682	500	230V / 50Hz	5.2/10 (European)	93	130.1 x 73.0 x 71.9	198.1 x 86.4 x 95.5"	316
TSX50086D			208-230V / 60Hz	5.1/10 (NEMA 6-15)				316
TSX60086V	816	600	230V / 50Hz	4.0/10 (European)	111	130.1 x 87.3 x 71.9	198.1 x 100.5 x 95.5"	347
TSX60086D			208-230V / 60Hz	4.0/10 (NEMA 6-15)				347
TSX70086V	949	700	230V / 50Hz	6.1/10 (European)	129	130.1 x 101.8 x 71.9	198.1 x 114.8 x 95.5"	384
TSX70086D			208-230V / 60Hz	5.8/10 (NEMA 6-15)				384

* Allowance for handle and hinge, add 10,7 cm to cabinet width

²² Clearance width clearance is 87.6 cm for TS6000B6, TS6000B5, and TS6300B6.

Performance Data

Model Number	Energy Consumption (kW-hr/day) Standard Mode	Peak Variation from setpoint (°C)**	Door Opening Recovery (minutes)	Warm Up Time (-30°C to 30°C)***	Noise Level (dBA)
TSX40099	7.9	+6.0 / +1.1	17	267	47.5
TSX50099	8.3	+6.7 / +9.3	27	261	49.2
TSX60099	8.7	+7.9 / +1.3	24	303	45.5
TSX70099	9.5	+7.8 / +2.2	28	269	48.2

* Energy Calculation: Typical freezer data based on internal testing with freezer setpoint at -30°C and ambient temperatures at 20°C

* Purity: Vasoprin from Spectrum. Typical Vasoprin based on internal testing with freeze-sequest at -80°C and ambient temperature at 20°C.

*** Warm Up Time: Typical (based on internal testing with Inveny setpoint at -50°C and ambient temperature at 20°C)



Find out more at thermofisher.com/tsx

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