



TDE Series ultra-low temperature chest freezers

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Thermo Scientific™ TDE Series –80°C ultra-low temperature (ULT) freezers, powered by the H-Drive system, are designed for efficiency. As a result, the series delivers a foundational ULT experience with the reliability and performance needed to protect your work—and the sustainability to meet global compliance.

Designed to keep your samples safe

- Worry-free storage; with low peak variation, samples are protected throughout the entire cabinet¹
- Fast door opening recovery; as little as 2 minutes for chest freezers
- Secure freezer settings with sample security
- General-purpose models for nondiagnostic general laboratory use, and Class II Medical Device models for storage and preservation of blood and blood products at freezing temperatures²
- Backed by our Global Service and Support team

Limit environmental impact and lower HVAC costs

- Energy use as low as 4.9 kWh/day, depending on size and temperature
- Less heat emission lowers HVAC costs
- SNAP and EU F-gas regulation compliant, natural hydrocarbon refrigerants
- Environmentally friendly, polyurethane foam with non-HFC blowing agent is compliant with SNAP and EU F-gas regulations



User-friendly and quiet

- H-Drive Information Center (HIC) touchscreen user interface
- Quiet enough to reside directly in the laboratory; at just 50 dBA, the sound is comparable to a home refrigerator³
- 5-year parts and labor standard warranty*

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

1. Typical freezer data based on internal testing with freezer setpoint at –80°C and ambient temperature at 20°C. Performance data vary across freezer size and electrical specification.

2. Verification of medical devices in the United States can be found on: <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfrl/rl.cfm>.

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

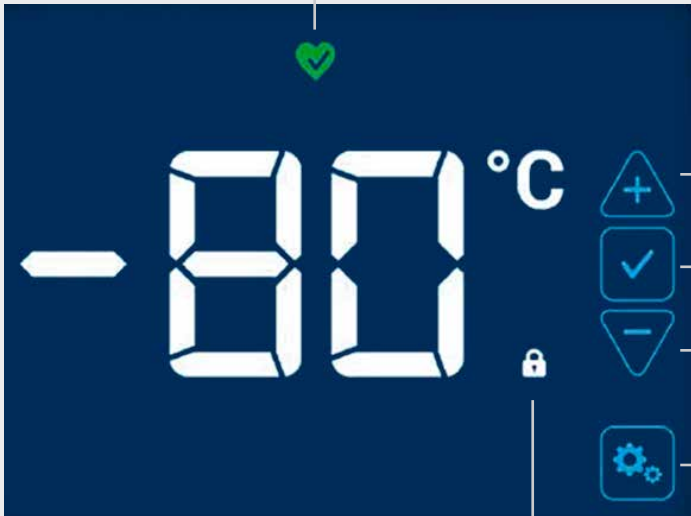
A rich heritage of innovation

From our first ULT freezer in 1940 to today, the combined experience of REVCO™, Forma Scientific™, Jewett™, Harris™, and other families of products continues to drive our ability to deliver industry-leading innovations that help accelerate science and health care.

Easy-to-access controls with setpoint security

- Easy to use: plug in and go, no setup required
- HIC combines easy-to-read temperature with simple capacitive touch buttons
- Advanced security features: alarm settings and setpoint security passcode

Heart—the heart is the health status for the freezer



The diagram shows a dark blue control panel with a digital display showing '-80 °C'. Above the display is a green heart icon. To the right of the display are four touch buttons: a plus sign (+), a check mark (✓), a minus sign (-), and a gear icon (⚙️). Below the minus sign is a lock icon. To the left of the display is a white arrow pointing right. Lines connect these elements to their respective descriptions.

Easy-to-read alerts

- Alarm bell**—indicates visual and audible alarms
- Door**—illuminates during a door ajar alarm
- Wrench**—generic service warning
- Thermometer**—indicates when the cabinet temperature exceeds either warm alarm or cold alarm setpoints

Easy-to-navigate controls

- Plus**—increases the value of the selected setting
- Check mark**—saves a change to the selected value
- Minus**—decreases the value of the selected setting
- Settings**—represents the various settings

Setpoint security—protect your settings with a 3-digit numeric code

TDE Series –80°C chest ULT freezers

Thermo Scientific™ TDE Series –80°C chest ULT freezers, powered by the H-Drive system, enable the same excellent experience as our upright ULT freezers, with an additional benefit of enhanced performance. The combination of our chest ULT freezers' rapid door open recovery and tight peak variation make them perfect for frequent entry or long-term storage applications.



Performance data

Model series	Energy consumption* (kWh/day)	Peak variation from –80°C setpoint (°C)**	60-second door opening recovery time (minutes)	Warm-up time (–80°C to –50°C) (minutes)†	Noise level (dBA)
TDEC06386	4.9	+4.5/-2.1	2	156	50.2
TDEC25286	8.5	6.7/-3.1	2	154	51.6
TDEC39686	10.8	5.9/-3.5	2	156	53.7

Specifications for chest freezers (–50°C to –86°C)

General-purpose model	Capacity		Electrical	Aps/breaker (plug type)	Interior dimensions H x W x D cm (in.)	Exterior dimensions H x W x D cm (in.)	Shipping weight kg (lbs.)
	Cu. ft. (L)	Cryoboxes (2 in.)					
TDEC06386FV	3 (85)	63	230V/50Hz	5.6/16 (European)	41.7 x 46.7 x 46.7 (16.4 x 18.4 x 18.4)	111.0 x 83.1 x 73.2 (43.7 x 32.7 x 28.8)	172 (380)
TDEC25286FD	13 (360)	252	208–230V/60Hz	12/15 (NEMA 6–15)	70.6 x 47.0 x 107.7 (27.8 x 18.5 x 42.4)	102.9 x 84.1 x 183.6 (40.5 x 33.1 x 72.3)	322 (710)
TDEC25286FV			230V/50Hz	5.2/16 (European)			
TDEC39686FD	20 (566)	396	208–230V/60Hz	12/15 (NEMA 6–15)	70.6 x 47.0 x 168.7 (27.8 x 18.5 x 66.4)	102.9 x 84.1 x 244.6 (40.5 x 33.1 x 96.3)	390 (860)
TDEC39686FV			230V/50Hz	5.5/16 (European)			

Specifications for medical chest freezers‡ (–50°C to –86°C)

Medical model	Capacity		Electrical	Aps/breaker (plug type)	Interior dimensions H x W x D cm (in.)	Exterior dimensions H x W x D cm (in.)	Shipping weight kg (lbs.)
	Cu. ft. (L)	Cryoboxes (2 in.)					
TDEC06386FV	3 (85)	63	230V/50Hz	5.6/16 (European)	41.7 x 46.7 x 46.7 (16.4 x 18.4 x 18.4)	111.0 x 83.1 x 73.2 (43.7 x 32.7 x 28.8)	172 (380)
TDEC25286FD	13 (360)	252	208–230V/60Hz	12/15 (NEMA 6–15)	70.6 x 47.0 x 107.7 (27.8 x 18.5 x 42.4)	102.9 x 84.1 x 183.6 (40.5 x 33.1 x 72.3)	322 (710)
TDEC25286FV			230V/50Hz	5.2/16 (European)			
TDEC39686FD	20 (566)	396	208–230V/60Hz	12/15 (NEMA 6–15)	70.6 x 47.0 x 168.7 (27.8 x 18.5 x 66.4)	102.9 x 84.1 x 244.6 (40.5 x 33.1 x 96.3)	390 (860)
TDEC39686FV			230V/50Hz	5.5/16 (European)			

* Energy consumption: Typical data based on internal testing with freezer setpoint at –80°C and 20°C ambient temperature.

** Peak variation from setpoint: Typical data based on internal testing with freezer setpoint at –80°C and 20°C ambient temperature.

† Warm-up time: Typical freezer data based on internal testing with empty freezer setpoint at –80°C and ambient temperature at 20°C.

‡ Available in the US only.

TDE Series chest ULT freezers— options and accessories

Description	Model series			
	Installation	TDEC06386	TDEC25286	TDEC39686
LN ₂ Backup System, maintains temperature down to -80°C with liquid nitrogen	Factory	332353G01	332353G05	332353G05
	Field	FLN743V*	FLN744V*/FLN744D**	FLN744V*/FLN744D**
CO ₂ Backup System, maintains temperature down to -70°C with CO ₂	Factory	332353G02	332353G06	332353G06
	Field	FCO743V*	FCO744V*/FCO744D**	FCO744V*/FCO744D**
Chart Recorder (Inkless), 7-day inkless recorder Range: -115°C to +50°C (+5°C resolution) Diameter: 6 in. (15.2 cm)	Factory	332791G01	332166G01	332166G01
	Field	FCR741	FCR742	FCR742
Chart Recorder (Ink), 7-day ink recorder Range: -115°C to +50°C (+5°C resolution) Diameter: 6 in. (15.2 cm)	Factory	332791G02	332166G02	332166G02
	Field	FCR741INK	FCR742INK	FCR742INK

* V = 230V/50Hz (European plug).

** D = 208-230V/60Hz (NEMA 6-15 plug).

Description	Cat. No.
Replacement Air Filter Chest Freezers (quantity of 5)	332297H02
Replacement Backup Battery	400159
Chart Paper, for Inkless Recorder, 50/pack	90520H07
Chart Paper, for Ink Recorder, 50/pack	17020
Cryo Gloves, medium	4425
Cryo Gloves, large	4426

	Description/dimensions H x W x D in. (cm)	Freezer capacity cu. ft. (liters)	Boxes/rack (plates)	Racks/freezer (plates)	Boxes/freezer (plates)	Cat. No.
	2 in. Box Rack - Side Access Rack (Tower), 15.2 x 5.5 x 5.5 (38.6 x 14.0 x 14.0)	3 (85)	7	9	63	398184
	3 in. Box Rack - Side Access Rack (Tower), 16.0 x 5.5 x 5.6 (40.6 x 14.0 x 14.2)	3 (85)	5	9	45	398185
	2 in. Box Rack - Side Access Rack (Tower), 26.5 x 5.5 x 5.5 (67.3 x 14.0 x 14.0)	13 (360)	12	21	252	398186
		20 (566)	12	33	396	
	3 in. Box Rack - Side Access Rack (Tower), 26.3 x 5.5 x 5.6 (66.8 x 14.0 x 14.2)	13 (360)	8	21	168	398187
		20 (566)	8	33	264	
	Microplate Rack, 26.5 x 5.5 x 5.5 (67.3 x 14.0 x 14.0)	13 (360)	27	21	567	398188
		20 (566)	27	33	891	
	Wire Basket with Rollers* 12.3 x 16.5 x 11.8 (31.2 x 41.9 x 29.9)	13 (360)	NA	5	NA	114048
		20 (566)	NA	9	NA	

* Basket rail set is required: Cat. No. 189001 for 360 L chest and Cat. No. 189000 for 566 L chest.

Services

Certificate of calibration

Control, alarm, and temperature recording systems are systematically calibrated at the factory for accurate performance. An optional certificate of calibration to a NIST (National Institute of Standards and Technology, formerly National Bureau of Standards)-traceable instrument includes a model number and serial number certificate (single-point calibration). Multiple-point calibration is also available. Calibration certificates must be requested when ordering. For details, contact your sales representative.

Validation testing program

Validation testing services ordered in advance of shipment may accelerate in-house installation qualification (IQ) and operation qualification (OQ) programs. Validation services include documentation and performance reports, compressor and subsystem component specifications, microprocessor flow diagrams, software specifications, and more. For more details, contact your sales representative.

Services description	Cat. No.
Calibration certificate	260029
Certificate of conformance	260043
Unit-specific calibration certificate	260049

Note: Selected models require calibration certificate for NSF 456 vaccine standard labeling.



Also available: Thermo Scientific™ TSX™ Universal Series ULT freezers

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

Find out more at thermofisher.com/chestULT

thermo scientific

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