



# 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 cabinet<sup>1</sup>
- Fast door opening recovery; as little as 1 minute for chest freezers
- Secure freezer settings with sample security
- General-purpose models for nondiagnostic general laboratory use, and FDA Class II Medical Device models for storage of blood, plasma, tissue, skin, and bone<sup>2</sup>
- Backed by our Global Service and Support team

## Limit environmental impact and lower HVAC costs

- Energy use as low as 4.4 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 refrigerator<sup>3</sup>
- 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. FDA Class II Models are listed under product code KSE, regulation number 864.9700. This unit is not intended for use in classified hazardous locations, nor to be used for the storage of flammable inventory.

Reference: AABB - Technical Manual 17th Ed., page 273, 274. STANDARDS FOR TISSUE BANKING 14th Ed., Section E, E3.300, E3.310, Table E3.331. Note for clarity: The 'Bone' is the Osteoarticular Graft, a

weight-bearing allograft with intact articular surfaces, consisting of a joint with associated soft tissue and bone. STANDARDS FOR TISSUE BANKING 14th Ed., Section page 8.

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

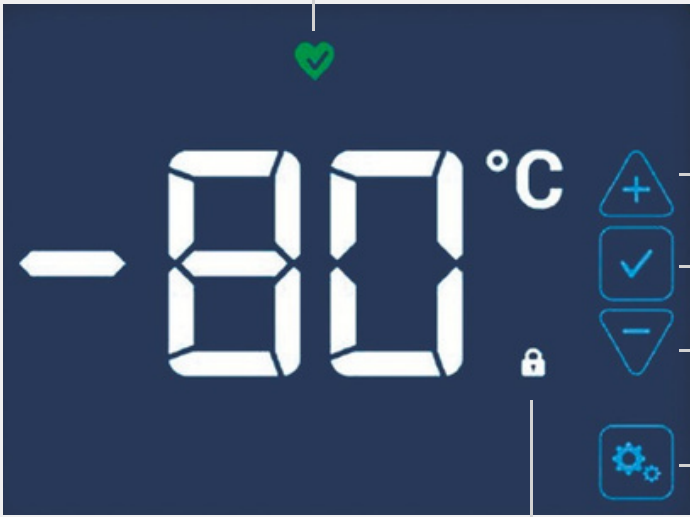
# A rich heritage of innovation

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, setpoint security passcode, and padlock-compatible doors

Heart—the heart is the health status for the freezer



The diagram shows a dark blue control panel with a green heart icon at the top center. Below it is a large digital display showing '-80 °C'. To the right of the display are four touch buttons: a plus sign (+), a checkmark (✓), a minus sign (-), and a gear icon (Settings). Below the minus sign is a small white padlock icon. 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

## Ready for connectivity

TDE Series ULT freezer models are compatible with the Thermo Scientific™ DeviceLink™ Connect monitoring system. This enables you to have a connected experience with your unit, so you always know the safety of your samples and the performance of your refrigerator or freezer—anytime, anywhere. The units are also compatible with Thermo Scientific™ Smart-Vue™ Pro wireless monitoring systems.

### Get your ULT freezers connected



### User-friendly cabinet design

- Ergonomic design: single-hand operation with lockable door handle for easy and secure access to samples
- Flat top workspace for quick access to hands-free operation
- Casters for easy mobility; all are lockable to safely secure unit into place
- Easy-to-access USB for simplified service
- Plugs into normal outlets for effortless logistical planning

### Help improve connectivity with automated data collection, storage, and mobile access

- The DeviceLink Connect monitoring solution allows 24/7 access to data and alarms from monitored lab equipment
- Data are securely stored in the cloud and sent to users via email and mobile phone notifications
- Streamlined dashboard-style reports reduce time spent interpreting data

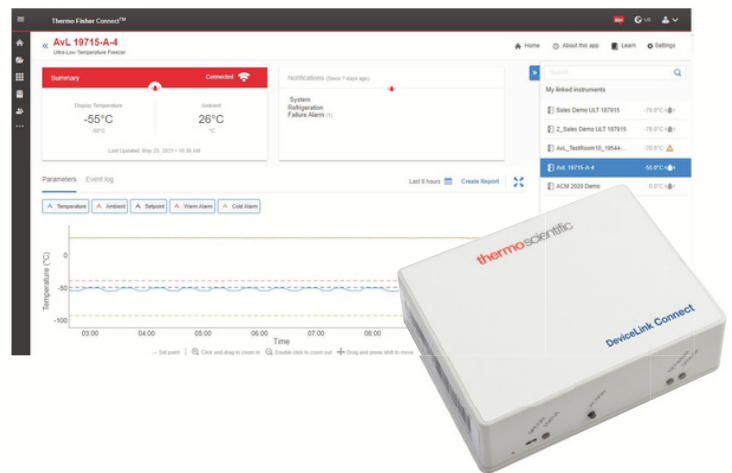
DeviceLink Connect kit ordering information:

Description	Cat. No.
DeviceLink Connect Remote Monitoring System (Kits*) for ULT freezers	DLCKTULTS101

\* Kit includes a DeviceLink Connect system, 1-year basic monitoring subscription, power cable, commissioner USB, monitoring hardware, and an applicable serial or USB cable.

For more information on DeviceLink kit, please visit [thermofisher.com/dlc](http://thermofisher.com/dlc).

For more information on Smart-Vue Pro systems, please visit [thermofisher.com/smartyuepro](http://thermofisher.com/smartyuepro)



# 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	6.6	+5.1/-3.6	1	141	50.9
TDEC25286	9.4	+5.2/-3.4	3	134	55.5
TDEC39686	11	+5.2/-2.8	1	162	52.9

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

General-purpose model	Capacity		Electrical	Amps/breaker (plug type)	Interior dimensions H x W x D in. (cm)	Exterior dimensions H x W x D in. (cm)	Shipping weight lbs. (kg)
	Cu. ft. (L)	Cryoboxes (2 in.)					
TDEC06386FA	3 (85)	63	115V/60Hz	10.5/20 (NEMA 5-20)	16.4 X 18.4 x 18.4 (41.7 x 46.7 x 46.7)"	43.7 x 28.8 x 32.7 (111.0 x 73.2 x 83.1)	380 (176)
TDEC06386FV			230V/50Hz	5.6/16 (European)			
TDEC25286FA	13 (360)	252	115V/60Hz	16/20 (NEMA 5-20)	27.8 x 42.4 x 18.5 (70.6 x 107.7 x 47.0)"	40.5 x 72.3 x 33.1 (102.9 x 183.6 x 84.1)	710 (322)
TDEC25286FD			208-230V/60Hz	12/15 (NEMA 6-15)			
TDEC25286FV			230V/50Hz	5.2/16 (European)			
TDEC39686FA	20 (566)	396	115V/60Hz	16/20 (NEMA 5-20)	27.8 x 66.4 x 18.5 (70.6 x 168.7 x 47.0)	40.5 x 96.3 x 33.1 (102.9 x 244.6 x 84.1)	860 (390)
TDEC39686FD			208-230V/60Hz	12/15 (NEMA 6-15)			
TDEC39686FV			230V/50Hz	5.5/16 (European)			

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

Medical device model‡	Capacity		Electrical	Amps/breaker (plug type)	Interior dimensions H x W x D in. (cm)	Exterior dimensions H x W x D in. (cm)	Shipping weight lbs. (kg)
	Cu. ft. (L)	Cryoboxes (2 in.)					
TDEC06386LA	3 (85)	63	115V/60Hz	10.5/20 (NEMA 5-20)	16.4 X 18.4 x 18.4 (41.7 x 46.7 x 46.7)	43.7 x 28.8 x 32.7 (111.0 x 73.2 x 83.1)	380 (176)
TDEC06386LV			230V/50Hz	5.8/16 (European)			
TDEC25286LA	13 (360)	252	115V/60Hz	16/20 (NEMA 5-20)	27.8 x 42.4 x 18.5 (70.6 x 107.7 x 47.0)	40.5 x 72.3 x 33.1 (102.9 x 183.6 x 84.1)	710 (322)
TDEC25286LD			208-230V/60Hz	12/15 (NEMA 6-15)			
TDEC25286LV			230V/50Hz	5.2/16 (European)			
TDEC39686LA	20 (566)	396	115V/60Hz	16/20 (NEMA 5-20)	27.8 x 66.4 x 18.5 (70.6 x 168.7 x 47.0)	40.5 x 96.3 x 33.1 (102.9 x 244.6 x 84.1)	860 (390)
TDEC39686LD			208-230V/60Hz	12/15 (NEMA 6-15)			
TDEC39686LV			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.







‡ Medical Device Models US only

# TDE Series chest ULT freezers— options and accessories

## Accessories

Description	Installation	Model series		
		TDEC06386	TDEC25286	TDEC39686
LN <sub>2</sub> Backup System, maintains temperature down to -80°C with liquid nitrogen	Factory	332353G01	332353G05	332353G05
CO <sub>2</sub> Backup System, maintains temperature down to -70°C with CO <sub>2</sub>	Factory	332353G02	332353G06	332353G06
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
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

Description	Model No.
Replacement Air Filter Chest Freezers (quantity of 5)	332297H02
Replacement Backup Battery	400159TF
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 Box Rack with locking rod, 5.5 x 15.2 x 5.5 (14 x 38.6 x 14)	3 (85)	7	9	63	398184
	3 Box Rack, 5.5 x 5.5 x 16 (14 x 14 x 40.6)	3 (85)	5	9	45	398185
	2 Box Rack with locking rod, 5.5 x 5.6 x 26.5 (14 x 14.2 x 67.3)	13 (360)	12	21	252	398186
		20 (566)	12	33	396	
	3 Box Rack, 9.4 x 5.5 x 26.5 (14 x 14 x 67.3)	13 (360)	8	21	168	398187
		20 (566)	8	33	264	
	27 Position Microplate Rack, 5.3 x 3.5 x 25.8 (13.5 x 8.9 x 65.5)	13 (360)	(27)	(33)	(891)	398188
		20 (566)	(27)	(51)	(1377)	
	Wire Basket with Rollers* 11.8 x 16.5 x 12.3 (29.9 x 41.9 x 31.2)	13 (360)	NA	5	NA	114048
		20 (566)	NA	9	NA	

\*Basket rail set 189000 is required.

# 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 an 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. Calibration Certificate 260029

Certificate of Conformance 260043

Unit Specific Calibration Certificate 260049



## Also available: TSX Series ULT freezers

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

Find out more at [thermofisher.com/cold](https://www.thermofisher.com/cold)

thermo scientific



Contact **Sep Sci** for more information.

**Separation Scientific**

Tel: 011 794 4117 | Email: [Info@sepsci.co.za](mailto:Info@sepsci.co.za) | Web: [www.sepsci.co.za](http://www.sepsci.co.za)