

TDE Series ultra-low temperature freezers

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 FDA Class II Medical Device models for storage of blood, plasma, tissue, skin, and bone²
- Backed by our Global Service and Support team

Limit environmental impact and lower HVAC costs

- –86°C 600 box models are ENERGY STAR™-certified and feature an ACT™ Environmental Impact Factor Label
- 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
- Manufactured in an award-winning, zero-waste-to-landfill facility

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
- Decrease storage footprint up to 25%
- 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.

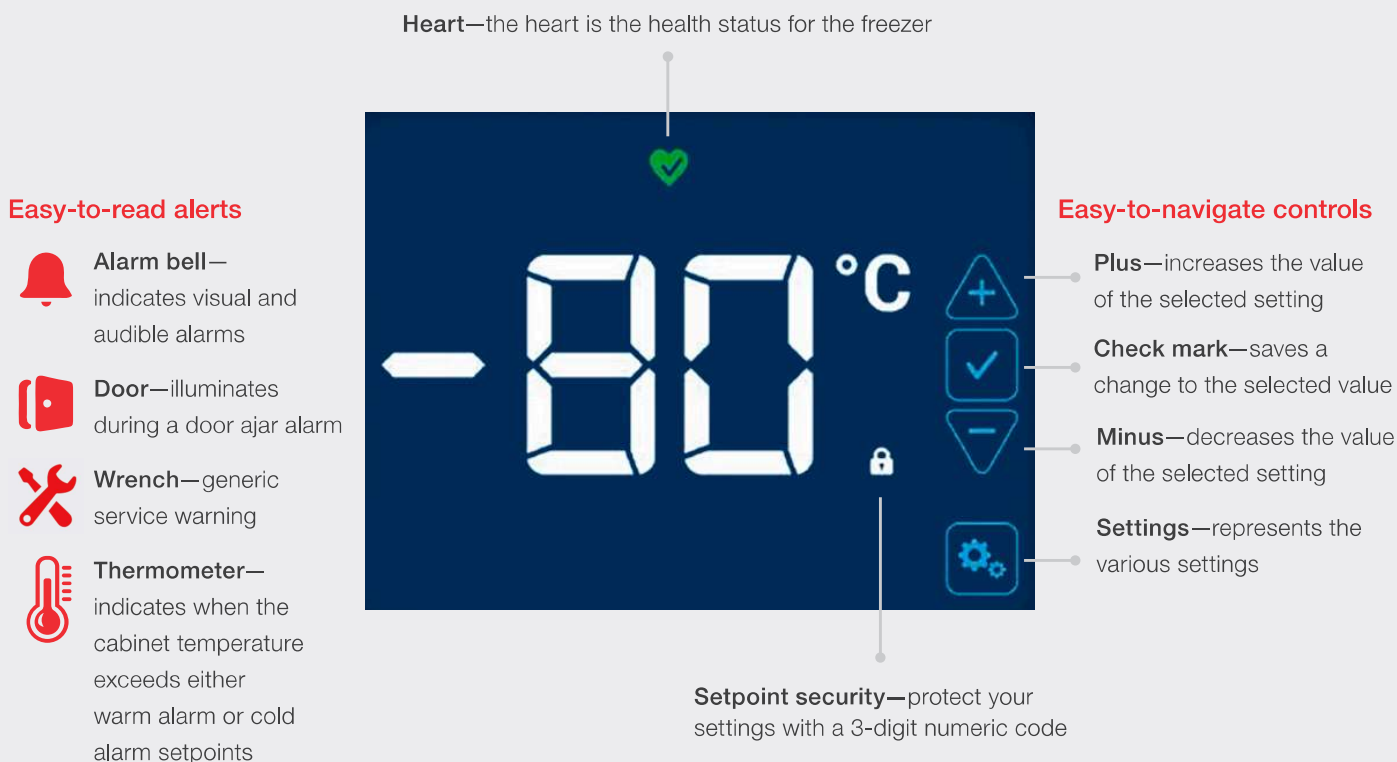


A rich heritage of innovation

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



Ready for connectivity

All TDE Series ULT freezers can be managed with optional Thermo Scientific™ Smart-Vue Pro™ remote monitoring. Smart-Vue Pro enables you to view the status of your equipment—and samples—24/7 through a cloud or premise-based portal. Smart-Vue Pro also provides 21 CFR Part 11 validated data logging, eliminating a need for additional resources to perform manual processes.

For more information on Smart-Vue Pro, please visit thermofisher.com/smartvuepro

Smart-Vue Pro Benefits

- Monitoring- Sensors collect temperature, relative humidity, differential pressure, door openings and more, giving you greater situational awareness of your equipment.
- Traceability- Auditable, secure system logs with complete, history of actions and events to eliminate manual logging.
- Sample security- Programmable parameters with alerts and notifications can let you know if freezer contents are at risk.
- Installation, IQ/OQ, calibration and maintenance plans available

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Verified sustainability

TDE Series ULT freezers have completed the ACT Environmental Impact Factor Label labeling process, which is designed to address the need of both scientists and procurement specialists for clear, third party-verified information about the environmental impact of laboratory products. The criteria for the ACT label were developed with input from industry experts and external stakeholders, and the label process entails third-party verification of the sustainable impacts of a product, its operations, and its end of life. For additional information on the ACT label, go to thermofisher.com/actlabel.

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



A sound environment

You know that the constant noise created by compressors can compromise communications and create a less-than-ideal working environment. TDE Series ULT freezers are up to 10x quieter than our previous generation of ULT freezers.*



Decibel scale of common sounds

Noise source	Decibel level
Freeway traffic, vacuum cleaner	70
Conversation in restaurant, office, background music	60
TDE Series ULT freezers	50
Library	40
Quiet rural area	30
Rustling leaves	22
Breathing	10

* Thermo Scientific™ TDE60086FA model compared to Thermo Scientific™ Revco™ UXF60086FA model.

TDE Series –80°C ULT upright freezers

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



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)
TDE30086	9.2	+6.3 / -3.6	11	268	51.5
TDE40086	10.4	+5.7 / -3.5	15	271	50.8
TDE50086	10.3	+4.2 / -3.8	15	312	50.0
TDE60086	11.9	5.8 / -3.3	21	352	50.5

* 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.

Upright freezers (–50°C to –86°C)

General-purpose model	Capacity		Electrical	Amps/breaker (plug type)	Max shelf weight lbs. (kg)	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.)						
TDE30086FA	14.9 (422)	300	115V/60Hz	12.6/20 (NEMA 50-20)	125 (57)	51.2 x 17.8 x 28.3 (130.1 x 45.2 x 71.9)	78.0 x 23.0 x 38.5 (198.1 x 58.4 x 97.7)	712 (323)
TDE30086FD			208-230V/60Hz	5.6/15 (NEMA 6-15)				
TDE30086FV			230V/50Hz	5.9/10 (European)				
TDE40086FA	19.4 (549)	400	115V/60Hz	13.0/20 (NEMA 5-20)	165 (75)	51.2 x 23.1 x 28.3 (130.1 x 58.8 x 71.9)	78.0 x 28.3 x 38.5 (198.1 x 71.9 x 97.7)	687 (312)
TDE40086FD			208-230V/60Hz	5.9/15 (NEMA 6-15)				
TDE40086FV			230V/50Hz	5.3/10 (European)				
TDE50086FA	24.1 (682)	500	115V/60Hz	12.5/20 (NEMA 5-20)	205 (93)	51.2 x 28.8 x 28.3 (130.1 x 73.0 x 71.9)	78.0 x 34.0 x 38.5** (198.1 x 86.4 x 97.7)	734 (333)
TDE50086FD			208-230V/60Hz	5.0/15 (NEMA 6-15)				
TDE50086FV			230V/50Hz	5.9/10 (European)				
TDE60086FA	28.8 (816)	600	115V/60Hz	12.7/20 (NEMA 5-20)	245 (111)	51.2 x 34.4 x 28.3 (130.1 x 87.3 x 71.9)	78.0 x 39.6 x 38.5** (198.1 x 100.6 x 97.7)	820 (372)
TDE60086FD			208-230V/60Hz	6.2/15 (NEMA 6-15)				
TDE60086FV			230V/50Hz	6.1/10 (European)				

A 5 inner door option is available, please contact your local representative for more information.

* Allowance for handle and hinge, add 4.2 in. (10.7 cm) to cabinet width.

** Doorway width clearance is 34.5 in. (87.6 cm) for TDE50086 and TDE60086 models.

Upright medical device freezers (–50°C to –86°C)

Medical device model	Capacity		Electrical	Amps/breaker (plug type)	Max shelf weight lbs. (kg)	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.)						
TDE30086LA	14.9 (422)	300	115V/60Hz	12.6/20 (NEMA 50-20)	125 (57)	51.2 x 17.8 x 28.3 (130.1 x 45.2 x 71.9)	78.0 x 23.0 x 38.5 (198.1 x 58.4 x 97.7)	712 (323)
TDE30086LD			208-230V/60Hz	5.6/15 (NEMA 6-15)				
TDE30086LV			230V/50Hz	5.9/10 (European)				
TDE40086LA	19.4 (549)	400	115V/60Hz	13.0/20 (NEMA 5-20)	165 (75)	51.2 x 23.1 x 28.3 (130.1 x 58.8 x 71.9)	78.0 x 28.3 x 38.5 (198.1 x 71.9 x 97.7)	687 (312)
TDE40086LD			208-230V/60Hz	5.9/15 (NEMA 6-15)				
TDE40086LV			230V/50Hz	5.3/10 (European)				
TDE50086LA	24.1 (682)	500	115V/60Hz	12.5/20 (NEMA 5-20)	205 (93)	51.2 x 28.8 x 28.3 (130.1 x 73.0 x 71.9)	78.0 x 34.0 x 38.5** (198.1 x 86.4 x 97.7)	734 (333)
TDE50086LD			208-230V/60Hz	5.0/15 (NEMA 6-15)				
TDE50086LV			230V/50Hz	5.9/10 (European)				
TDE60086LA	28.8 (816)	600	115V/60Hz	12.7/20 (NEMA 5-20)	245 (111)	51.2 x 34.4 x 28.3 (130.1 x 87.3 x 71.9)	78.0 x 39.6 x 38.5** (198.1 x 100.6 x 97.7)	820 (372)
TDE60086LD			208-230V/60Hz	6.2/15 (NEMA 6-15)				
TDE60086LV			230V/50Hz	6.1/10 (European)				

* Allowance for handle and hinge, add 4.2 in. (10.7 cm) to cabinet width.

** Doorway width clearance is 34.5 in. (87.6 cm) for TDE50086 and TDE60086 models.