NEW!
Thermo Scientific™ HERAfreeze™ HLE Series Ultra-Low Freezers

Dependable -80°C storage with energy-savings and sustainability features

- **Low peak variation** helps ensure sample protection throughout entire cabinet

- **Fast door opening recovery** in as little as 13 minutes

- **0.93°C steady-state temperature** variation over time

- **Long warm-up time** from -80°C to -50°C in 5 hours

- **Four capacities:** 300, 400, 500 and 600 2-inch (5cm) box

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Designed to keep your samples safe

- Worry-free storage. With low peak variation, samples are protected throughout the entire cabinet.[1]

- Records temperature and events

Limit environmental impact and lower HVAC costs

- Uses as low as 9.4 kWh/day, depending on size

- Less heat emission 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, zero-waste to landfill facility

User-friendly and quiet

- Completely new freezer and user interface.

- Quiet enough to reside directly in the laboratory. At just 50 dBA, the sound is comparable to a home refrigerator.[2]

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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 specifications.

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

User friendly touch-screen interface and cabinet

- **Easy-to-use** set-up wizard, event log, temperature mapping and data downloads
- **Capacitive touch** even when using latex gloves
- **Touch-screen datalogging and temperature mapping** eliminates the need for a separate chart recorder
- **Built-in USB port** for exporting data
- **Advanced security features:** alarm settings, password-protected controller, padlock-compatible doors and optional access card entry
- **Ergonomic design:** comfortable door handle, eye-level touch-screen and shelf-level placement that do not require floor-level loading of racks
- **Five inner doors** minimize ambient temperature during sample retrieval

Specifications & Ordering Information

Upright Freezers (-50°C to -86°C)

Model Number	Capacity liters	Capacity 5cm (2") cryobox	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
HLE30086V	422	300	230V / 50Hz	5.9/10 (European)	57	130.1 x 45.2 x 71.9	198.1 x 58.4 x 95.5	323
HLE30086D			208-230V / 60Hz	5.6/15 (NEMA 6-15)				
HLE40086V	549	400	230V / 50Hz	5.3/10 (European)	75	130.1 x 58.8 x 71.9	198.1 x 71.9 x 95.5	312
HLE40086D			208-230V / 60Hz	5.9/15 (NEMA 6-15)				
HLE50086V	682	500	230V / 50Hz	5.9/10 (European)	93	130.1 x 73.0 x 71.9	198.1 x 86.4 x 95.5**	333
HLE50086D			208-230V / 60Hz	5.0/15 (NEMA 6-15)				
HLE60086V	816	600	230V / 50Hz	6.1/10 (European)	111	130.1 x 87.3 x 71.9	198.1 x 100.6 x 95.5**	372
HLE60086D			208-230V / 60Hz	6.2/15 (NEMA 6-15)				

* Allowance for handle and hinge, add 10.7 cm to cabinet width
** Doorway width clearance is 87.6 cm for HLE50086 and HLE60086

Performance Data

Model Number	Energy Consumption (kW-hr/day)* Standard Mode	Peak Variation from -80°C setpoint (°C)**	Door Opening Recovery (minutes)	Warm Up Time (-80°C to -50°C) (minutes)***	Noise Level (dBA)
HLE30086	9.4	+8.5 / -2.4	13	254	52
HLE40086	9.8	+8.7 / -1.2	15	262	52
HLE50086	10.8	+6.6 / -1.0	21	258	50
HLE60086	11.5	+6.5 / -0.8	26	300	50

* Energy Calculation: Typical freezer data based on internal testing with freezer setpoint at -80°C and ambient temperature at 20°C
** Peak Variation From Setpoint: Typical freezer data based on internal testing with freezer setpoint at -80°C and ambient temperature at 20°C
*** Warm Up Time: Typical freezer data based on internal testing with freezer setpoint at -80°C and ambient temperature at 20°C

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Options and Accessories (Field Installed must be installed by a qualified professional)

Options	Installation	HLE30086	HLE40086	HLE50086	HLE60086
LN2 Backup System Maintains temperature down to -80°C with liquid nitrogen. Models for HLE300 are stand alone.	Factory Installed	N/A	LN4567	LN4567	LN4567
	Field Installed	FLN300V* FLN300W**	FLN4567LE	FLN4567LE	FLN4567LE
CO2 Backup System Maintains temperature down to -67°C with CO2. Models for HLE300 are stand alone.	Factory Installed	N/A	CO4567	CO4567	CO4567
	Field Installed	FCO300V* FCO300W**	FCO4567LE	FCO4567LE	FCO4567LE
Chart Recorder (Inkless) 6" (15.2 cm), seven day inkless recorder, -115° to +50°C, +5°C resolution	Factory Installed	N/A	CR4567	CR4567	CR4567
	Field Installed	N/A	FCR400LE	FCR500LE	FCR600LE
Chart Recorder (Ink) 6" (15.2 cm), seven day inkless recorder, -115° to +50°C, +5°C resolution	Factory Installed	N/A	CRP4567	CRP4567	CRP4567
	Field Installed	6383-6V* 6383-6W**	FCRP400LE	FCRP500LE	FCRP600LE
Access Key Option Card Access control. Includes five key cards. Supports ISO15693 and ISO14443 protocols.	Factory Installed	RAC34567	RAC34567	RAC34567	RAC34567
	Field Installed	FAC34567LE	FAC34567LE	FAC34567LE	FAC34567LE
Stainless Steel Freezer Interior	Factory Installed	SS34567	SS34567	SS34567	SS34567
Twist Lock Plug NEMA L6-15P for 208-230V / 60Hz	Factory Installed	US230V15ATL	US230V15ATL	US230V15ATL	US230V15ATL
	Field Installed	TL230V15A	TL230V15A	TL230V15A	TL230V15A
Twist Lock Plug NEMA L6-20P for 208-230V / 60Hz	Factory Installed	US230V20ATL	US230V20ATL	US230V20ATL	US230V20ATL
	Field Installed	TL230V20A	TL230V20A	TL230V20A	TL230V20A

Accessories	HLE30086	HLE40086	HLE50086	HLE60086
Access Key Pack: Includes five key cards.	ACE34567	ACE34567	ACE34567	ACE34567
Shelf Kit: Includes one shelf and shelf support clips	SK300	SK400	SK500	SK600
Chart Paper Ink (Pack of 50)	17020	17020	17020	17020
Chart Paper Inkless (Pack of 50)	N/A	6185	6185	6185
Replacement Air Filter	AF34567LE	AF34567LE	AF34567LE	AF34567LE
Replacement Back-Up Battery	400159	400159	400159	400159
Alarm Delay Module: Eliminates nuisance alarms due to intermittent or transitory conditions. Adjustable delay requires alarm condition to exist for user defined period before signal is released to monitoring system.	6903	6903	6903	6903
Cryo Gloves Medium	4425	4425	4425	4425
Cryo Gloves Large	4426	4426	4426	4426
Seismic Restraint Kit	TF-ULT300	TF-ULT400	TF-ULT500	TF-ULT600

*V = 230V/50Hz (European plug)
**W = 230V/50Hz (UK plug)

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Racks for Boxes and Microplates

Racks for 2" (5.08 cm) Boxes							
Model No.	Description	Dimensions H x W x D cm	Storage	HLE300	HLE400	HLE500	HLE600
398329	Sliding Drawer Rack	24 x 14 x 68.3	Boxes Per Rack	20	20	20	20
			Racks Per Shelf	3	4	5	6
			Racks Per Freezer	15	20	25	30
			Boxes Per Freezer	300	400	500	600
1950518	Adjustable Side Access Rack	23.9 x 13.7 x 67.9	Boxes Per Rack	20	20	20	20
			Racks Per Shelf	3	4	5	6
			Racks Per Freezer	15	20	25	30
			Boxes Per Freezer	300	400	500	600

Racks for 3" (7.62 cm) Boxes							
Model No.	Description	Dimensions H x W x D cm	Storage	HLE300	HLE400	HLE500	HLE600
398328	Sliding Drawer Rack	24 x 14 x 68.3	Boxes Per Rack	15	15	15	15
			Racks Per Shelf	3	4	5	6
			Racks Per Freezer	15	20	25	30
			Boxes Per Freezer	225	300	375	450

Racking Shelf Kits					
Description	Storage	HLE300	HLE400	HLE500	HLE600
Sliding Drawer Racks and 2" Boxes with 100 Count Cell Dividers (fits one shelf)	Model No.	RSK300SD5	RSK400SD5	RSK500SD5	RSK600SD5
	Racks Included	3	4	5	6
	Boxes Included	60	80	100	120

Racks for Microplates							
Model No.	Description	Dimensions H x W x D cm	Storage	HLE300	HLE400	HLE500	HLE600
398322	Side Access Rack with Locking Rod for Standard or Deepwell	23.9 x 14 x 65.3	Plates Per Rack	98	98	98	98
			Racks Per Shelf	3	4	5	6
			Racks Per Freezer	15	20	25	30
			Plates Per Freezer	1470	1960	2450	2940

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Boxes and Dividers

Model No.	Description	# of Dividers	Quantity	Color
5026-0909	Thermo Scientific™ Nalgene™ polycarbonate 2" (5.08 cm) box for 1.2-2.0 mL vials	81	24	white
5954	2" (5.08 cm) fiberboard box	0	12	white
820002	2" (5.08 cm) fiberboard box	81	1	white
820109	2" (5.08 cm) fiberboard box	100	1	white
5956	3" (7.62 cm) fiberboard box	0	12	white
820003	3" (7.62 cm) fiberboard box	81	1	white
1950878	2" (5.08 cm) fiberboard box	0	12	multiple
1950879	2" (5.08 cm) fiberboard box	0	12	pink
1950880	2" (5.08 cm) fiberboard box	0	12	red
1950881	2" (5.08 cm) fiberboard box	0	12	yellow
1950882	2" (5.08 cm) fiberboard box	0	12	green
1950883	2" (5.08 cm) fiberboard box	0	12	blue
1950884	2" (5.08 cm) fiberboard box	0	12	black

Fiberboard Dividers

Model No.	Description	Quantity/Case
5958	Grid dividers for 100 12mm vials	12
6212	Grid dividers for 81 13mm vials	12
5960	Grid dividers for 64 14mm vials	12
5959	Grid dividers for 49 16mm vials	12

Vials and Tubes

Model No.	Description	Quantity/Case
377267	Thermo Scientific™ Nunc™ 1.8mL screw-top round-bottom vials with internal threading	1,800

Visit thermofisher.com for additional vials, tubes and sample storage consumables

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Sliding Drawer Racks for Matrix and Cryobank Tubes

		Freezer Model	HLE300	HLE400	HLE500	HLE600
200 µL Capacity Tubes						
3747, 3748, 4988	Thermo Scientific™ Matrix™ 200 µL 2D Internally-threaded Universal Tubes Box Dimension: 8.5 x 12.8 x 2.75 cm	**Rack Model No**	**1950786**	**1950786**	**1950786**	**1950786**
		Freezer Rack Dimensions W x H x D	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm
		Tubes per Box	96	96	96	96
		Boxes Per Rack	42	42	42	42
		Racks Per Shelf	3	4	5	6
		Racks Per Freezer	15	20	25	30
		Tubes Per Freezer	60,480	80,640	100,800	120,960
500 µL Capacity Tubes						
3734, 3735, 4898	Thermo Scientific Matrix 500 µL 2D Open Top Tubes Box Dimension: 8.5 x 12.8 x 2.6 cm	**Rack Model No**	**1950786**	**1950786**	**1950786**	**1950786**
		Freezer Rack Dimensions W x H x D	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm
3736, 3737, 4899	Thermo Scientific™ Matrix™ 200 µL 2D with Duraseals Installed Internally-threaded Universal Tubes Box Dimension: 8.5 x 12.8 x 2.75 cm	Tubes per Box	96	96	96	96
		Boxes Per Rack	42	42	42	42
		Racks Per Shelf	3	4	5	6
		Racks Per Freezer	15	20	25	30
		Tubes Per Freezer	60,480	80,640	100,800	120,960
374086, 374087 (including color options)	Thermo Scientific Nunc™ Cryobank™ 500 µl Internally Threaded Tubes Box Dimension: 8.5 x 12.8 x 3.5 cm	**Rack Model No**	**1950786**	**1950786**	**1950786**	**1950786**
		Freezer Rack Dimensions W x H x D	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm
3743, 3744, 3745 (including color options)	Thermo Scientific Matrix 500 µL 2D Internally Threaded ScrewTop Tubes Box Dimension: 8.5 x 12.8 x 4.4 cm	Tubes per Box	96	96	96	96
		Boxes Per Rack	42	42	42	42
		Racks Per Shelf	3	4	5	6
		Racks Per Freezer	15	20	25	30
		Tubes Per Freezer	60,480	80,640	100,800	120,960

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Sliding Drawer Racks for Matrix and Cryobank Tubes

		Freezer Model	HLE300	HLE400	HLE500	HLE600
750 µL Capacity Tubes						
3731, 3732, 4896	Thermo Scientific Matrix 750 µL 2D Open Top Tubes Box Dimension: 8.5 x 12.8 x 3.9 cm	Rack Model No	1950639	1950639	1950639	1950639
		Freezer Rack Dimensions W x H x D	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm
3729, 4896	Thermo Scientific Matrix 750 µL 2D Tubes with Duraseals Installed Box Dimension: 8.5 x 12.8 x 3.9 cm	Tubes per Box	96	96	96	96
		Boxes Per Rack	28	28	28	28
		Racks Per Shelf	3	4	5	6
		Racks Per Freezer	15	20	25	30
		Tubes Per Freezer	40,320	53,760	67,200	80,640
1.0 mL Capacity Tubes						
374088, 374089 (including color options)	Thermo Scientific Nunc Cryobank 1.0 mL Internally Threaded Tubes Box Dimension: 8.5 x 12.8 x 4.9 cm	Rack Model No	1950639	1950639	1950639	1950639
		Freezer Rack Dimensions W x H x D	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm
		Tubes per Box	96	96	96	96
		Boxes Per Rack	28	28	28	28
		Racks Per Shelf	3	4	5	6
		Racks Per Freezer	15	20	25	30
		Tubes Per Freezer	40,320	53,760	67,200	80,640
3740, 3741, 3742 (including color options)	Thermo Scientific Matrix 1.0mL 2D Internally Threaded ScrewTop Tubes Box Dimension: 8.5 x 12.8 x 5.8 cm	Rack Model No	1950798	1950798	1950798	1950798
		Freezer Rack Dimensions W x H x D	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm
		Tubes per Box	96	96	96	96
		Boxes Per Rack	21	21	21	21
		Racks Per Shelf	3	4	5	6
		Racks Per Freezer	15	20	25	30
		Tubes Per Freezer	30,240	40,320	50,400	60,480

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Sliding Drawer Racks for Matrix and Cryobank Tubes

	Freezer Model	HLE300	HLE400	HLE500	HLE600
1.4 mL Capacity Tubes					
3791, 3792, 4890	Thermo Scientific Matrix 1.4ml 2D Open Top Tubes Box Dimension: 8.5 x 12.8 x 4.9 cm	**Rack Model No** 1950639	1950639	1950639	1950639
		Freezer Rack Dimensions W x H x D 14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm
3801, 4890	Thermo Scientific Matrix 1.4mL 2D Tubes with Duraseals Installed Box Dimension: 8.5 x 12.8 x 4.9 cm	Tubes per Box 96	96	96	96
		Boxes Per Rack 28	28	28	28
3711, 3112, 4890	Thermo Scientific Matrix 1.4ml Human Readable Open Top Tubes Installed Box Dimension: 8.5 x 12.8 x 4.9 cm	Racks Per Shelf 3	4	5	6
		Racks Per Freezer 15	20	25	30
		Tubes Per Freezer 40,320	53,760	67,200	80,640
1.8 to 2.0 mL Capacity Tubes					
374500, 374501	Thermo Scientific Nunc 1.8 mL Externally-threaded Universal Tubes Box Dimension: 8.5 x 12.8 x 5.5 cm	**Rack Model No** 1950639	1950639	1950639	1950639
		Freezer Rack Dimensions W x H x D 14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm
374221, 374223	Thermo Scientific Nunc Cryobank 2.0 ml Internally Threaded Tubes Box Dimension: 8.5 x 12.8 x 5.5 cm	Tubes per Box 48	48	48	48
		Boxes Per Rack 28	28	28	28
		Racks Per Shelf 3	4	5	6
		Racks Per Freezer 15	20	25	30
		Tubes Per Freezer 20,160	26,880	33,600	40,320
5.0 mL Capacity Tubes					
374220, 374222	Thermo Scientific Nunc Cryobank 5.0 ml Internally Threaded Tubes Box Dimension: 8.5 x 12.8 x 9.6 cm	**Rack Model No** 1950818	1950818	1950818	1950818
		Freezer Rack Dimensions W x H x D 14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm	14 x 24 x 68.5 cm
		Tubes per Box 48	48	48	48
		Boxes Per Rack 14	14	14	14
		Racks Per Shelf 3	4	5	6
		Racks Per Freezer 15	20	25	30
		Tubes Per Freezer 10,080	13,440	16,800	20,160

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