



**Tempin**<sup>TM</sup>  
*preserving life*

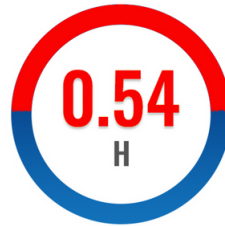
**Ultra Low Temperature Deep Freezer**

## Dual cooling system -86°C ULT freezer

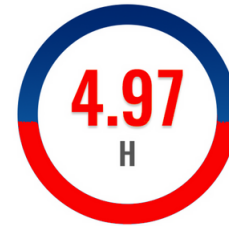


**TI-HL-780**

M-Twinline -86°C Ultra Low Temperature Freezer built up by two independent refrigeration systems and the Dual Cooling System offers the highest level of protection, if one system unexpectedly fails the other can maintain the freezer around the -75°C. Valuable and irreplaceable samples can always be securely stored with the highest confidence even if the compressor fails.



Recovery time after  
1 minute door open



Pulling down to -80°C



Daily consumption

\*Typical freezer data based on internal testing with freezer setpoint at -80°C and ambient temperature at 25°C.

### Features



**M-TwinDrive**  
Two high-efficiency  
refrigeration systems



**Touch screen**  
10"LCD touch screen



**Extreme labor-saving**  
Ergonomic handle



**Inverter technology**  
Two inverter compressors

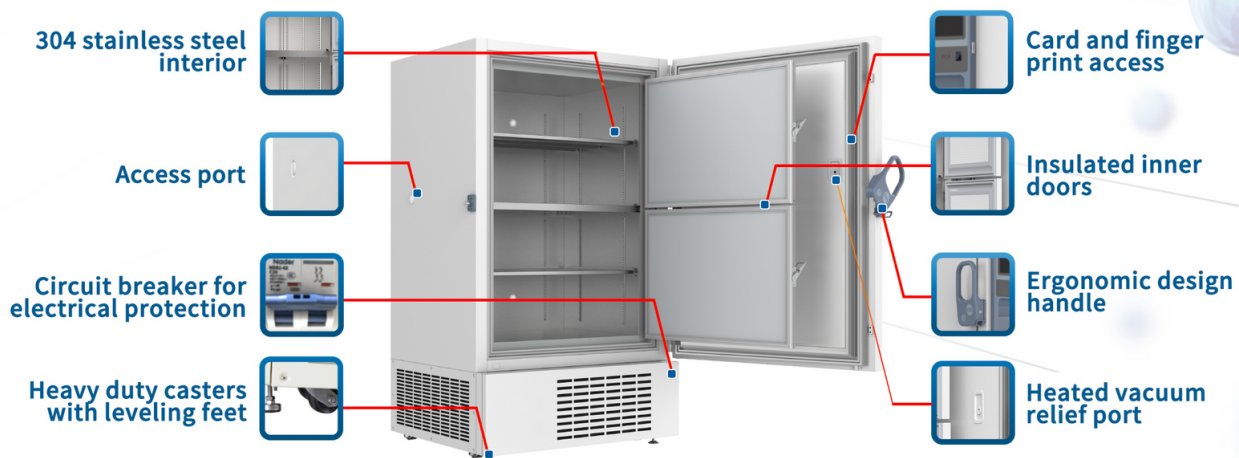


**Vacuum insulation**  
VIP insulation foaming

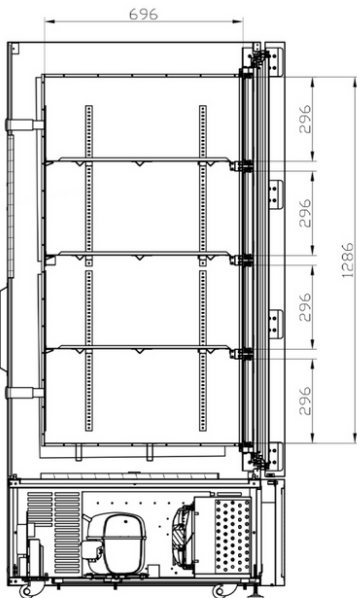
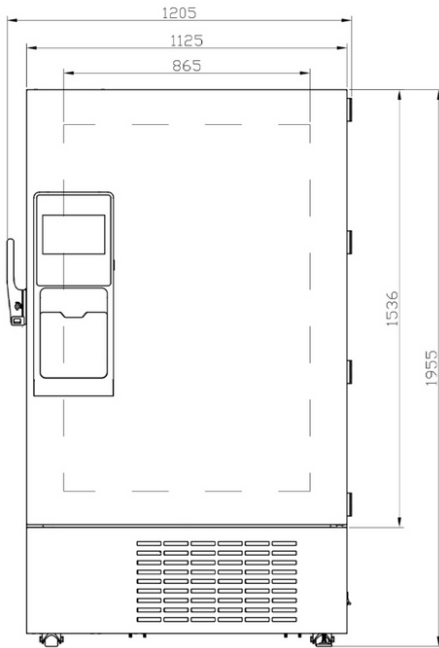


**Alarms system**  
10 kinds of alarm functions

### Structure



## Dimensions



## Specification

<b>-86°C Ultra-low Temperature Freezer</b>	
Model	TI-HL-780
Power supply(V/HZ)	110~230/50~60
Capacity	780L/27.6Cu.Ft.
Internal size (W*D*H) mm/Inch	865*696*1286/34.1*27.4*50.6
External size (W*D*H) mm/Inch	1205*1025*1955/47.4*40.4*77.0
Package size (W*D*H) mm/Inch	1320*1155*2171/52.0*45.5*85.5
NW/GW (kgs)	331/440 (wood packing)
<b>Performance</b>	
Temperature range	-40~-86°C
Ambient temperature	16~32°C
Cooling performance	-86°C
Climate class	N
Controller	Microprocessor
Display	10" HD Intelligent touch screen
<b>Refrigeration</b>	
Compressors	2pcs
Cooling method	Direct cooling
Defrost mode	Manual
Refrigerants	HC
Insulation thickness(mm)	L/R: 130, B: 130
<b>Construction</b>	
External material	Cold rolled steel
Inner material	Stainless steel
Shelves	3(stainless steel)
Access test Port	3pcs. Ø 25 mm
Casters	4+(2 leveling feet)
Data logging/ Interval /Memory capacity	USB/Record every 5 minutes/10 years
Interface	Remote alarm contact, RS485
Backup battery	Yes
<b>Alarms</b>	
Temperature	High/Low temperature, high ambient temperature
Electrical	Power failure, low battery, battery power detection failure
System	Sensor failure, communication error, condenser overheating, door ajar
<b>Accessories</b>	
Freezer rack model	ZKL304-552B-CT
Freezer rack/box (quantity)	24/600

## Options

**M-TwinDrive models support following optional features:**

- Modbus protocol for data transfer
- Card access or finger print access
- Conform to 21 CFR 11 regulation
- CO2 back up system
- Inkless temperature chart recorder
- Racks & Boxes & Tubes

**Tempin™**  
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