#### **Ultra Low Temperature Freezers -86**













Power consumption ≥ 40%

Storage capacity **₹**38%

Usage cost ≥50%

#### **APPLICATION**



- The Ultra-low Temperature Freezer offers a wide variety of research and storage applications, such as low temperature scientific experiments, preservation of plasma, biomaterial, biological product, and testing low-temperature-resistant properties of military product.
- It is suitable for blood bank, hospitals, sanitation and antiepidemic, research institutes, electronic industries, university laboratories, military in dustries, agriculture & fishery companies.

### What We Offer



• DW-HL388 -CE

• DW-HL538-CE

DW-HL668-CE

DW-HL768-CE

## Control System



- Microprocessor-based temperature controller, -40°C~-86°C can be set freely, controlling precision is 1°C, Digital temperature display.
- LED touch screen controller with 7", clear display, easy to operate. Gorgeously design for excellent appearance.
- USB interface for users to download the temperature data
- Keyboard lock and password protected configuration page, Delayed start and safe stop interval between restart and being terminated.
- Audible and visual alarm: High or low temperature alarm, Power failure alarm, Low battery alarm, Door open alarm, Filter blocking alarm, system failure alarm.
- Power supply: 220V /50Hz Single phase

# **PRODUCTION**





#### **HUMANIZED DESIGN**



- Upright type, Stainless steel interior, Outer is painted steel panel, 4units Casters for easy handing
- Front opening lockable door with full height handle, with Vacuum release port
- Adjustable 3units stainless steel shelves with inner door, double silicon gasket seal.
- Two-times foaming technology. 155mm foaming insulation, with VIP+.
- With USB temperature printer, record 7days data. 72 hour battery back up for printer and controller display.
- Universal wheels with fixed support, easy to move and fix
- Optional: Chart recorder, CO2 back up system, storage racks/boxes, Remote alarm system.

#### **Humanized Design**





Improved handle design



LED touch screen controller with multi level alarms, USB interface to download stored temperature data





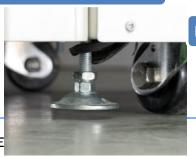
Test port, diameter 37mm



Improved filter screen, easy to clean



Improved inner door with foaming insulation inside



4 casters with extra fixed legs for better installation

### Safety System



- With keyboard lock and password protection system, prevent from un-authorized change of the parameters.
- Multiple failure alarm system: Sensor failure alarm, High and low temperature alarm, Low battery alarm and power failure alarm (optional), door open /ajar alarm, filter clogging alarm, system failure alarm. Make sure the safety of the articles stored inside the freezer
- Door with lock, prevent from the un-authorized opening.

Start delay and interval stop system to protect the safety operation.

#### **Optional Accessories**









Chart recorder



Remote alarm dry contact



RS485 interface; 72 hours back up battery

Inventory rackes with boxes

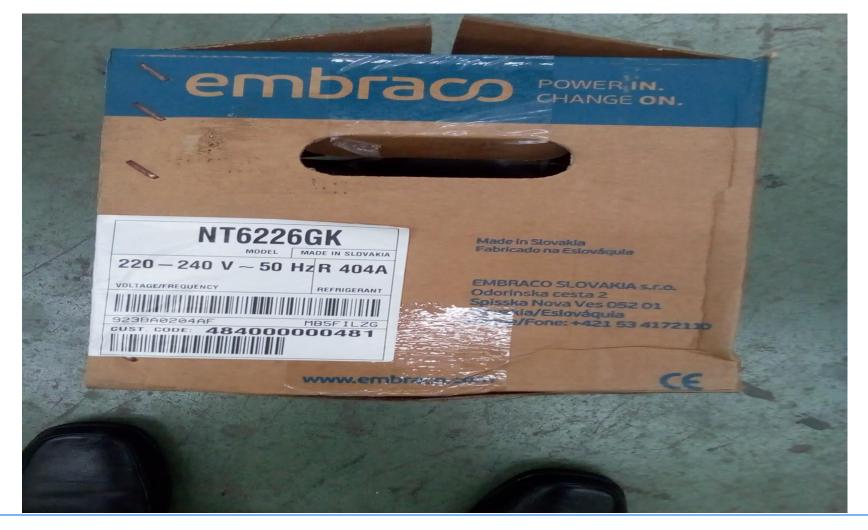
# **Inventroy System**





# **CE Compressor**





## CO2 Back-Up System



- **Description :-** Ensure optimal security for critical samples by using CO2 Back Up System and LN2 Backup Systems with ultra low-temperature freezers. Systems inject liquid CO2 or LN2 into cabinet when cabinet temperature warms to preset level.
- Features
- Temperature is adjustable in 1°C increments to -75°C (CO2), -150°C (LN2).
- Digital display constantly indicates actual cabinet temperature.
- Indicator lights come on when system is activated.
- Additional indicator lights when cylinder is empty.
- Liquid flow is shut off automatically when freezer door or lid is opened.
- System is powered by rechargeable battery.
- Low-battery light indicates when battery requires charging.



### CO2 Back-Up ----



- Is your CO2 back-up system correctly configured?
- ULT freezers typically have a CO2 back-up system, but this cannot be any CO2 system. The CO2 must be delivered to the freezer as a liquid, not as a gas. Liquid CO2 delivery requires a particular withdrawal
- mechanism and a particular gas cylinder. The withdrawal mechanism is known as a 'dip tube', or an 'eductor
- tube', and the cylinders are 'dip tube' cylinders, or merely 'liquid withdrawal' cylinders.
- CO2 cylinders for liquid withdrawal have a green grey body with a black eductor tube stripe.

# **Technical Specification**



Model Name	Units	DW-HL388	DW-HL538	DW-HL668	DW-HL768
Description					
Capacity	Ltr	388	538	668	768
Inner Temperature	° C	minus 40 to minus 86			
Voltage	V/Hz	220/50	220/50	220/50	220/50
Internal Dimension(Wx DxH)	mm	440*696*1266	585*696*1266	750*696*1268	865*696*1268
External Dimension(Wx DxH)	mm	785*1064*195 9	930*1064*1959	1090*998*196 8	1205*998*1968
Racks (5x5)	Nos	12	16	20	24
2" Box	Nos	300	400	500	600
Weight ( N/G )	Kg	320/345	360/390	390/425	420/455

## Competition



- Imported:-
- Thermo Fisher
- Haier
- NBS
- Sanyo-Panasonic
- Nuair
- Less Known :- Operon , TP
- Indian :- Select
  Refrigeration ; Remi ;
  Cryoscientific etc...



### Competition....



#### Target Points:-

- Touch Screen Panel not standard in every model
- Compressor failure rate is high
- Never achieved -86 at ambient of more than 27
- Poor service . Srvice is done through TV technicians
- •TAT is very high
- Door handle prone to frequesnt breaking down
- Temperature variation is more than what is claimed



Haier

### Thermo Fisher Scientific







**REVCO BRAND** 

Features:- UFX30086A-421L

Display -Touch Screen LCD

Insulation; - Vaccum Panle and water blown foam

•Shelves:-4

•Temperature Range:- -50 - - 86

Expensive

•Boxes:-300

Vial Capacity:-2ml-30000

### Competition....



•The Panasonic MDF-U500VX-PE-86°C Ultra Low Temperature Freezer satisfies an industry demand for safe, long-term storage for the most high-valued materials. Two, independent refrigeration systems, combined with optional liquid CO2 back-up systems, offer a circle of protection unmatched in the marketplace.

•With two independent refrigeration systems, the Panasonic MDF-U500VX-PE TwinGuard freezer maintains a reliable and uniform -86°C ultra low temperature environment. Should one cooling system suffer an unexpected failure, the other circuit will keep irreplaceable samples safely around -70°C until service can be arranged.





**Panasonic** 



#### ULT



• Video 1

• Video 2

## **Vote Of Thanks**

